Johnson Controls

2021

NOTICE OF ANNUAL GENERAL MEETING & PROXY STATEMENT

Notice of Annual General Meeting of Shareholders

Date and Time
3:00 pm, local time,
March 10, 2021

Place
Arthur Cox,
Ten Earlsfort Terrace
Dublin 2, D02 T380 Ireland

Record Date
January 7, 2021

NOTICE IS HEREBY GIVEN that the 2021 Annual General Meeting of Shareholders of Johnson Controls International plc will be held on March 10, 2021 at the offices of Arthur Cox, Ten Earlsfort Terrace, Dublin 2, D02 T380, Ireland at 3:00 pm, local time for the following purposes:

Ordinary Business

1. By separate resolutions, to elect each of the following individuals as Directors for a period of one year, expiring at the end of the Company's Annual General Meeting of Shareholders in 2022:

   (a) Jean Blackwell
   (b) Pierre Cohade
   (c) Michael E. Daniels
   (d) Juan Pablo del Valle Perochena
   (e) W. Roy Dunbar
   (f) Gretchen R. Haggerty
   (g) Simone Menne
   (h) George R. Oliver
   (i) Jürgen Tinggren
   (j) Mark Vergnano
   (k) R. David Yost
   (l) John D. Young

2. To ratify the appointment of PricewaterhouseCoopers LLP as the independent auditors of the Company and to authorize the Audit Committee of the Board of Directors to set the auditors' remuneration.

Special Business

3. To authorize the Company and/or any subsidiary of the Company to make market purchases of Company shares.
4. To determine the price range at which the Company can re-allot shares that it holds as treasury shares (special resolution).
5. To approve, in a non-binding advisory vote, the compensation of the named executive officers.
6. To approve the Johnson Controls International plc 2021 Equity and Incentive Plan.
7. To approve the Directors' authority to allot shares up to approximately 33% of issued share capital.
8. To approve the waiver of statutory pre-emption rights with respect to up to 5% of issued share capital (special resolution).
9. To act on such other business as may properly come before the meeting or any adjournment thereof.

This notice of Annual General Meeting and proxy statement and the enclosed proxy card are first being sent on or about January 22, 2021 to each holder of record of the Company's ordinary shares at the close of business on January 7, 2021. The record date for the entitlement to vote at the Annual General Meeting is January 7, 2021 and only registered shareholders of record on such date are entitled to notice of, and to attend and vote at, the Annual General Meeting and any adjournment or postponement thereof. During the meeting, management will also present the Company's Irish Statutory Accounts for the fiscal year ended September 30, 2020. **Whether or not you plan to attend the meeting, please complete, sign, date and return the enclosed proxy card to ensure that your shares are represented at the meeting.** Shareholders of record who attend the meeting may vote their shares personally, even though they have sent in proxies. In addition to the above resolutions, the business of the Annual General Meeting shall include, prior to the proposal of the above resolutions, the consideration of the Company's statutory financial statements and the report of the Directors and of the statutory auditors and a review by the shareholders of the Company's affairs.

The well-being of all attendees and participants at the Annual General Meeting is a primary concern for the Company and in this context we are closely monitoring developments in relation to the coronavirus (COVID-19) pandemic. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be restrictions on travel and/or gatherings that affect or prohibit travel to and in-person attendance at the Annual General Meeting. In addition, we may deem it advisable to have the members of our Board and senior management not be physically present at our Annual Meeting in Ireland and instead participate remotely in order to mitigate the health risks posed by the pandemic. Furthermore, to promote the health and safety of attendees, we may impose additional procedures or limitations on meeting attendance based on applicable governmental requirements or recommendations or facility requirements. Such additional procedures or limitations may include, but are not limited to, thorough screenings of attendees (including temperature checks), limits on the number of attendees to promote social distancing and requiring the use of face masks.

We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting if attending in person is not feasible or not recommended. This can be done in advance of the Annual General Meeting by availing of one of the voting options detailed in the accompanying proxy statement. In addition, details of the business to be presented at the meeting can also be found in the accompanying proxy statement.

Your vote is important and we encourage you to submit your proxy as soon as possible so that your shares will be represented at the meeting. We will continue to monitor the impact of COVID-19 and any relevant updates regarding the Annual General Meeting will be available on the Investor Relations section of our website (http://investors.johnsoncontrols.com).

Shareholders are also encouraged to keep up-to-date with, and follow, the guidance from the Government of Ireland and the Department of Health (of Ireland) (as appropriate) as circumstances may change at short notice. Should we determine that alternative arrangements may be advisable or required, such as changing the date, time, location or format of the meeting, we will announce our decision by press release and/or filing with the Securities and Exchange Commission and also post additional information on the Investor Relations section of our website (http://investors.johnsoncontrols.com).

This proxy statement and our Annual Report on Form 10-K for the fiscal year ended September 30, 2020 and our Irish Statutory Accounts are available to shareholders at www.proxyvote.com and are also available in the Investor Relations section of our website at www.johnsoncontrols.com.

By Order of the Board of Directors,

John Donofrio
Executive Vice President and General Counsel

January 22, 2021

PLEASE PROMPTLY COMPLETE, SIGN, DATE AND RETURN THE ENCLOSED PROXY CARD. THE PROXY IS REVOCABLE AND IT WILL NOT BE USED IF YOU: GIVE WRITTEN NOTICE OF REVOCATION TO THE PROXY PRIOR TO THE VOTE TO BE TAKEN AT THE MEETING; SUBMIT A LATER-DATED PROXY; OR ATTEND AND VOTE PERSONALLY AT THE MEETING.

ANY SHAREHOLDER ENTITLED TO ATTEND AND VOTE AT THE MEETING MAY APPOINT ONE OR MORE PROXIES USING THE ENCLOSED PROXY CARD (OR THE FORM IN SECTION 184 OF THE COMPANIES ACT 2014) TO ATTEND, SPEAK AND VOTE ON THAT SHAREHOLDER'S BEHALF. THE PROXY NEED NOT BE A SHAREHOLDER. PROXIES MAY BE APPOINTED VIA THE INTERNET OR PHONE IN THE MANNER SET OUT IN THE ENCLOSED PROXY CARD. ALTERNATIVELY THEY MAY BE APPOINTED BY DEPOSITING THE ENCLOSED PROXY CARD (OR OTHER VALID

SIGNED INSTRUMENT OF PROXY) WITH JOHNSON CONTROLS INTERNATIONAL PLC C/O BROADRIDGE, 51 MERCEDES WAY, EDGEWOOD, NY 11717 BY 5:00 P.M., EASTERN STANDARD TIME, ON MARCH 9, 2021 (WHICH WILL THEN BE FORWARDED TO JOHNSON CONTROLS INTERNATIONAL PLC'S REGISTERED ADDRESS ELECTRONICALLY) OR WITH JOHNSON CONTROLS INTERNATIONAL PLC, ONE ALBERT QUAY, CORK, IRELAND BY 5:00 P.M. LOCAL TIME ON MARCH 9, 2021. IF YOU WISH TO APPOINT A PERSON OTHER THAN THE INDIVIDUAL SPECIFIED IN THE ENCLOSED PROXY CARD, PLEASE CONTACT OUR COMPANY SECRETARY AND ALSO NOTE THAT YOUR NOMINATED PROXY MUST ATTEND THE MEETING IN PERSON IN ORDER FOR YOUR VOTES TO BE CAST.

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Unless we have indicated otherwise in this proxy statement, references to the “Company,” “Johnson Controls,” “we,” “us,” “our” and similar terms refer to Johnson Controls International plc and its consolidated subsidiaries.

Proxy Summary

This proxy summary is intended to provide a broad overview of our 2020 performance, corporate governance and compensation highlights. As this is only a summary, we encourage you to read the entire Proxy Statement for more information prior to voting.

Annual General Meeting of Shareholders

Date and Time	Place	Record Date
3:00 pm, local time March 10, 2021	Arthur Cox Ten Earlsfort Terrace, Dublin 2, D02 T380 Ireland	January 7, 2021

Admission. All shareholders invited to attend, registration will occur on day of meeting. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be restrictions or prohibitions on travel and/or gatherings that affect in-person attendance at the Annual General Meeting. **We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting if attending in person is not feasible or not recommended**.

Meeting Agenda and Voting Matters

Proposal		Board's Voting Recommendation	Page Reference
No. 1	Election of Directors	✓ FOR (each nominee)	p. 10
No. 2	Ratify Appointment of Independent Auditors and Authorize Audit Committee to set auditors' remuneration	✓ FOR (both 2(a) and 2(b))	p. 16
No. 3	Authorize market purchases of Company shares by the Company and/or any subsidiary	✓ FOR	p. 19
No. 4	Determine the price range to re-allot treasury shares	✓ FOR	p. 20
No. 5	Advisory Vote to Approve Executive Compensation	✓ FOR	p. 21
No. 6	Approve the Johnson Controls International plc 2021 Equity and Incentive Plan	✓ FOR	p. 22
No. 7	Approve the allotment of up to 33% of issued share capital	✓ FOR	p. 34
No. 8	Approve the waiver of statutory pre-emption rights	✓ FOR	p. 35

Fiscal Year 2020 In Review

GAAP EPS of $0.84. Full year adjusted EPS of $2.24, up 14% versus prior year	**Full year cash provided by operating activities of $2.5 billion. Full year adjusted free cash flow $1.9 billion (115% conversion)**	**Returned nearly $3 billion in capital to shareholders through share buybacks and dividends**	**Strengthened our balance sheet and liquidity profile**	**Continued to invest, innovate and position for the recovery**

* See Annex I to this Proxy Statement for a reconciliation of adjusted EPS from continuing operations, adjusted free cash flow and free cash flow conversion to our results for the most directly comparable financial measures as reported under generally accepted accounting principles in the United States.

Fiscal year 2020 was a year of unprecedented challenges for the Company. The experiences of this past year have tested our resilience, agility, and resolve. We maintained an unwavering reliance on our core values and culture as we navigated these challenges. From the onset of the COVID-19 pandemic, our goal has been two-fold – first and foremost to protect the health and safety of our employees and their families, and second, to fulfill our customer promise by proactively developing and delivering solutions to ensure the continuous functionality of our customers critical infrastructure and essential facilities.

In spite of the enormous amount of volatility in the market this year, we continued to execute our strategy while mitigating the financial impact from COVID-19. During fiscal year 2020, we further strengthened our operating systems, continued to invest in our businesses, filled key leadership roles, strengthened our balance sheet and returned nearly $3 billion in capital to shareholders through share buybacks and dividends.

Throughout the course of this year, we remained focused on being competitively positioned for the recovery as market conditions normalize. In addition, we continued to invest in service and digitally connected systems, including the launch of OpenBlue, which will form the axis of our growth strategy going forward.

➜ Demonstrating Our Values During an Unprecedented Time — Working to Serve Our Communities and Safeguard Our Employees During a Global Pandemic

The global COVID-19 pandemic presented an unprecedented challenge for the Company, our employees and the communities we serve. In this challenge we saw an opportunity to put our values to work. We believe in doing well by doing good and hold ourselves accountable to make the world a better place through the solutions we provide, our engagement in society, the way we do business and our commitment to protect people and the environment. Throughout the pandemic, we have lived up to our values by coming together as One Team to provide needed support to communities impacted by the pandemic. We have worked diligently to maintain our global manufacturing capacity across our businesses, demonstrating the essential nature of our products, services and solutions across the world. We have applied our spirit of innovation and continuous improvement to deliver products and solutions that are being used on the front lines to combat COVID-19 and protect lives. Notable examples include:

- In February 2020, at the onset of the virus outbreak in Asia, the lack of adequate care facilities, scarcity of surgical masks and forced shutdowns presented major challenges. Our Guangzhou and Wuxi facilities were some of the first manufacturing facilities in China authorized to resume operations. Acting quickly, we helped build six emergency hospitals in China followed by a surgical mask factory in Hong Kong. Solutions included quick delivery of air-cooled chillers, fan coil units and air handling units.
- Supporting the US government with three separate projects at two different sites, we helped set up alternative care facilities for COVID-19 patients. Our team, working closely with the general contractor, provided a fire alarm retrofit and wireless nurse call system in a New Jersey campus followed by a wired nurse call system in the US Virgin Islands.
- A convention center in Rhode Island was converted into a field hospital to meet the rapid increase in COVID-19 cases. Our customer needed reliable, efficient HVAC equipment and fast turnaround for oxygen and negative air flow to prevent the escape of possible contamination. Within 48 hours we provided two 15T rooftop Air Handling Units. As a result of our quick turnaround time we were asked to provide an additional six 6T rooftop Air Handling Units to another facility making N95 masks that needed to expand its capacity.

- A University Medical Center in the Netherlands needed to retrofit non-medical areas in fifteen of their buildings in order to meet their increased patient capacity requirements. We provided the care communications and nurse call systems to enhance communication and provide remote medical monitoring.
- With the demand for COVID-19 equipment increasing around the world, our production facilities have been working at an increased capacity. Producing controllers, room pressure monitors (to transform existing patient rooms into ICU rooms) and other key components, we have been delivering life-saving equipment and services to customers worldwide.

In addition to serving the communities we live in, it has been our utmost priority to protect the health and well-being of our employees and their families. We abide by a Zero Harm principle — Zero Harm to people and the environment. We view this as a value that is embedded in our culture. We believe our employees deserve to have the right tools and training to return home just as they arrived to the worksite. In putting these values into action, we:

- Established an enterprise response team tasked with obsessively following and implementing guidance from the World Health Organization and Centers for Disease Controls and Prevention. Throughout the course of the pandemic, this team has provided swift policy and guidance to our global workforce regarding health and safety protocols that must be implemented to best protect our workforce;
- Adopted a multifaceted framework to guide our decision-making when evaluating the readiness of our facilities to safely reopen and operate, with regular monitoring and auditing of our facilities to ensure that they are in compliance with our COVID-19 safety requirements; and
- Implemented a wide variety of precautionary health and safety measures, including remote work protocols, enhanced sanitation and cleaning practices, temperature screening, requiring face coverings for all employees, restrictions on non-essential contractors or visitors, restrictions on non-essential travel, adding additional employee training on safety topics concerning personal hygiene, hand washing and social distancing and encouraging our employees to follow similar protocols when away from work.

➜ Responsible Capital Management and Deployment — Safeguarding Our Business During Global Economic Uncertainty and Leading the Way in Green Financing

- Following the onset of the COVID-19 pandemic we took immediate action to safeguard our business, including opportunistically raising capital via European financing arrangements and bank term loans. We also implemented temporary and permanent cost cutting measures, as well as suspending our share repurchase program.
- As a result of our quick and decisive actions to mitigate the impact of COVID-19, as well as our strong balance sheet position and strong cash generation in the second half of fiscal year 2020, we were able to repay all European financing and term loan obligations and resume our share repurchase program, delivering on our commitment to return a portion of the proceeds from the sale of the Power Solutions business to our shareholders.
- During fiscal year 2020, we repurchased approximately 55 million shares for approximately $2.2 billion, lowering our weighted average share count by more than 13%.
- In December 2019, we entered into two of the first sustainable credit agreements in the U.S. and the industrial sector with the execution of our new $2.5 billion Five-Year Senior Revolving Credit Facility and our $500 million 364 Day Senior Revolving Credit Facility (which was renewed in December 2020). These facilities include a sustainability-linked pricing mechanism that adjusts fees and interest rates applicable to the facilities in connection with our sustainability performance, including reductions in our greenhouse gas intensity and improvements in our safety record through a reduction in our total recordable incident rate.
- In September 2020, we priced our inaugural Green Bond offering of $625 million in 1.750% ten-year notes. The proceeds of the offering will be applied in accordance with our Green Financing Framework in support of projects that focus on sustainability and support our 2025 sustainability goals. We believe our Green Financing Framework aligns with the four components of both the ICMA Green Bond Principles 2018 and the Green Loan Principles 2020.
- In September 2020, we priced €500 million of 0.375% seven-year notes and €500 million of 1.000% twelve-year notes. Together with the proceeds from the Green Bond offering, we were able to support our operations, manage our long-term debt maturities and finance or refinance projects meeting the criteria set forth in our Green Financing Framework.

➜ Digital Transformation — Combining 135 Years of Experience with Cutting-Edge Technology Focused on the Future of Smart, Connected and Sustainable Buildings

- Our portfolio is aligned with strong secular trends including sustainability and energy efficiency, urbanization and smarter and safer buildings and infrastructure. During fiscal 2020, we rapidly innovated or re-deployed several new products for customized applications, including indoor air quality.

- In August 2020, we announced the launch of OpenBlue, a complete suite of connected solutions and services allowing for building systems to work together and communicate in order to enable new occupant experiences, respectful safety and security, and impactful sustainability—all driven by cutting-edge connected technology.
- In response to the COVID-19 pandemic, we were able to adapt our OpenBlue platform to launch a comprehensive suite of digital solutions to make shared spaces safer as people begin to return to offices. These solutions combine hardware and software such as smart equipment, digital sensors, security systems, cameras, monitors, powerful analytics and dashboards, and other connected devices to provide safe building solutions such as contact tracing, thermal cameras, social distancing monitoring, scenario planning and infection control.

➜ **Key Leadership Appointments — Leveraging Talent to Adapt to the Rapidly Changing Nature of our Business**

- In October 2019, Michael Ellis was named Executive Vice President and Chief Customer & Digital Officer. In this newly created role, Mr. Ellis oversees the Company's digital strategy, including the development and launch of the Company's OpenBlue digital platform, working closely with customers to drive new growth and value opportunities across the globe.
- In December 2019, Ganesh Ramaswamy was named Vice President and President, Global Services and Transformation. In this newly created role, Mr. Ramaswamy leads the Company's global services business of approximately $6.3 billion. He is driving the Company's transformation by improving consistency of fundamentals across the Company's global direct channels, leveraging infrastructure and working closely with regional leaders to execute strategic priorities. He has also played a key leadership role in merging digital and service capabilities, including the launch of tailored services powered by OpenBlue technology that provide customizable solutions to its customers around the globe.
- In August 2020, Olivier Leonetti joined us as the successor to Brian Stief, our Chief Financial Officer. Mr. Leonetti formally became our Chief Financial Officer on November 17, 2020. Mr. Leonetti brings to the Company over 25 years of extensive international financial management and leadership experience, with deep financial acumen and a strong background in digital technologies. Mr. Leonetti will provide key leadership as we intensify our focus on transforming the future of building technologies.

Sustainability Leadership

At Johnson Controls, sustainability is our business. We deliver innovation that improves lives and makes the world a better place. Our employees innovate to create efficient products and services that empower customers and contribute to a clean economy.

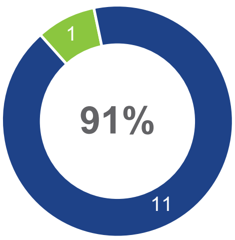
We create intelligent buildings and efficient energy solutions to enable smart cities and communities. We grow our business by providing sustainable, efficient products and services, improving productivity, empowering our people, and reducing the environmental footprint of our operations and supply chain.

We believe that through leadership in sustainability, we create long-term benefit for our customers, employees, shareholders, and society as a whole. Our employee purpose is to power our customers' success and protect the environment. In 2020, we delivered significant sustainability innovation in the governance of our company and continued to position our company for long-term resilience and global leadership in smart, sustainable buildings. Highlights include:

- In 2018 during the United Nations Climate Action Summit, we committed to setting 2030 Science-Based Targets within two years. We have fulfilled this commitment and submitted our proposed targets to the Science Based Targets initiative. Our proposed targets are consistent with the Paris Agreement goal to keep temperatures below a 2 degree Celsius increase and align with the more ambitious goal to limit the temperature increase even further to 1.5 degrees Celsius. In 2021, we will build on this goal and announce our plan to achieve net zero emissions, which we believe we will achieve well before 2050.
- In June 2020, we renamed our Governance Committee the Governance and Sustainability Committee and modified the charter of that committee to further enhance board oversight of sustainability. In addition to its prior general oversight of sustainability and employee health and safety, the Governance and Sustainability Committee reviews the Company's overall sustainability strategy, metrics, targets, goals and progress, as well as the development of new sustainability-based targets. The Governance and Sustainability Committee also monitors the Company's sustainability ratings and emerging sustainability trends to ensure that we remain a leader in creating a smart, safe and sustainable world.
- We named our first Chief Sustainability Officer and formed a Sustainability Leadership Committee of senior leaders across our business functions and regions. The Sustainability Leadership Committee provides regular updates to senior management and our Board of Directors.
- In January 2021, our CEO George Oliver was named the Chairman of the Business Roundtable Energy and Environment Committee. The Business Roundtable supports a goal of reducing net U.S. greenhouse gas emissions by at least 80 percent from 2005 levels by 2050.
- For fiscal year 2021, sustainability and diversity performance goals are required for the top leaders of our company including our CEO and our executive team.
- In fiscal 2020, our senior leaders completed a climate-related risk and opportunity scenario analysis, consistent with the Task Force on Climate-related Financial Disclosure's guidance. We used the analysis to identify the most critical climate-related risks and opportunities to develop management strategies for mitigating risks and capitalizing on opportunities.
- In fiscal 2020, we received significant third party recognition of our performance and achievements including:
    - #18 among the 100 Best Corporate Citizens for 2020 by 3BL Media
    - 2020 World's Most Ethical Companies—the 13th year recognized by the Ethisphere Institute
    - Carbon Clean200 by Corporate Knights
    - AAA rated by MSCI
    - We are part of the S&P 500 ESG Index and other top ESG indices around the world
    - Gold level, the highest level, in the Mexican Standard on Job Equality and Non Discrimination

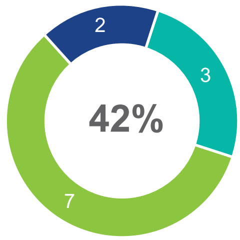
Our Director Nominees

Independence



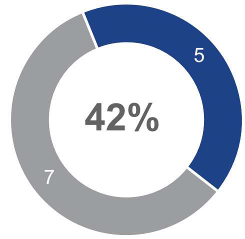
Independent
Non-independent

Diversity



Racial/Ethnic
Female

Geographic Diversity



Non-US Citizens

Tenure

6+ years
4-6 years
<4 years

Executive Leadership Experience — 12/12
Directors with significant leadership experience over an extended period, including as chief executive officer or chief financial officer, provide the Company with special insight into how large organizations operate, including strategy, productivity, regulatory concerns, talent development and risk management.

Experience Leading Global Teams — 12/12
Directors who have worked in global companies have experience in markets outside of the United States and bring valuable knowledge to the Company, including exposure to different cultural perspectives and practices, and provide critical insight in light of the Company's global operations.

Financial and Accounting Expertise — 10/12
Directors with an understanding of accounting and financial reporting processes, particularly in large, global businesses, provide an important oversight role.

Public Policy Experience — 6/12
Directors with public policy and government experience have key insight into the role of regulatory issues and government affairs affecting the Company.

Cybersecurity, Technology and Innovation — 6/12
Directors who have expertise in cybersecurity, IT, technology fields and/or driving technological innovation are important as we continue to transform and evolve our business through digital solutions and services.

Manufacturing and Industry Experience — 10/12
Directors who have experience in the industry and markets served by the Company offer valuable perspective for operations.

Corporate Governance Experience — 11/12
Directors with experience in corporate governance, such as service on boards and board committees, or as governance executives of other large, public companies, are familiar with the dynamics and operation of a board of directors and the impact that governance policies have on the Company.

Corporate Responsibility/Sustainability — 6/12
Directors with experience in corporate responsibility initiatives, including sustainability, help drive our mission to create smart and sustainable buildings for the communities in which we live, work, learn and play.

M&A Experience — 10/12
Directors with experience in M&A provide key insights relevant to our business portfolio and our long-term strategic planning.

We are asking you to vote ***FOR*** all the director nominees listed below. All current directors attended at least 75% of the Board and committee meetings on which he or she sits. Detailed information regarding these individuals, along with all other Board nominees, is set forth in this Proxy Summary and under Proposal Number One. The Governance and Sustainability Committee and the Board believe that the qualifications, skills, experience and attributes set forth in this Proxy Statement for all individuals nominated for election support the conclusion that these individuals are qualified to serve as directors and collectively possess a variety of skills, professional experience, and diversity of backgrounds that align with our needs and allows our Board to effectively oversee our business.

Summary information on our Directors is set forth below.

					Current Committee Membership			
Nominee	Age	Director Since	Principal Occupation	Independent	AC	CC	EC	GC
Jean Blackwell	66	2018	Retired Executive Vice President & Chief Financial Officer of Cummins Inc.	●		●		
Pierre Cohade	59	2018	Former Chief Executive Officer of Triangle Tyre Co. Ltd.	●	●			
Michael E. Daniels	66	2010	Retired Senior Vice President of Global Technology at IBM	●		Chair	●	
Juan Pablo del Valle Perochena	48	2016	Chairman of Orbia Advance Corporation, S.A.B. de C.V.	●			●	Chair
W. Roy Dunbar	59	2017	Retired CEO and Chairman Network Solutions	●		●		
Gretchen R. Haggerty	65	2018	Retired Executive Vice President & Chief Financial Officer of United States Steel Corporation	●	Chair		●	
Simone Menne	60	2018	Former Chief Financial Officer, Boehringer Ingelheim	●	●			
George R. Oliver	60	2012	Chairman and Chief Executive Officer of Johnson Controls				●	
Jürgen Tinggren*	62	2014	Retired Chief Executive Officer and Director of Schindler Group	●			●	●
Mark Vergnano	62	2016	President, Chief Executive Officer and Director, The Chemours Company	●		●		
R. David Yost	73	2009	Retired Chief Executive Officer of AmerisourceBergen	●	●			
John D. Young	56	2018	Chief Business Officer, Pfizer Inc.	●				●

AC = Audit Committee
CC = Compensation and Talent Development Committee
EC = Executive Committee
GC = Governance and Sustainability Committee

* Independent Lead Director

Corporate Governance

Corporate Governance Snapshot

- 11 of 12 directors are independent
- 3 fully independent Board committees
- Strong, independent lead director with significant governance duties, including chairing regular executive sessions of independent directors and hosting regular Board update calls
- Independent directors regularly meet in executive session
- Majority voting for directors in uncontested elections
- Balance of new and experienced Directors. More than 50% of Director nominees have tenures of less than 5 years and average tenure is > 6 yrs
- Annual Board and Committee self-assessments
- Lead Director and the Chair of the Governance and Sustainability Committee consult with each Director supplementing formal evaluations
- A comprehensive anti-hedging and anti-pledging policy is in place under our Insider Trading Policy
- Risk oversight by the Board and its Committees
- Board and Committee oversight of sustainability and other environmental, social and governance matters
- Robust executive share ownership requirements (6x of base salary for the CEO, 3x base salary for all other NEOs)
- Robust director stock ownership requirements (5x of annual retainer)
- Clawback policy permits the Company to recoup certain compensation payments in the event of a significant restatement of financial results for any reason or where an executive officer has engaged in misconduct that has resulted in, or has the potential to result in, material reputational or financial harm
- Directors may not stand for reelection after age 75

Non-Binding Advisory Vote on Executive Compensation

Proposal Number Five is our annual advisory vote on the Company’s executive compensation philosophy and program. Detailed information regarding these matters is included under the heading “Compensation Discussion & Analysis,” and we urge you to read it in its entirety. Our compensation philosophy and structure for executive officers remains dedicated to the concept of paying for performance and continues to be heavily weighted with performance-based awards.

Approval of the Johnson Controls International plc 2021 Equity and Incentive Plan

Proposal Number Six is a vote to approve the Johnson Controls International plc 2021 Equity and Incentive Plan (the "2021 Plan"). As described in more detail in this proxy statement, approving this plan will allow us to continue to compensate our executives, employees and directors with equity-based awards, such as performance share units, restricted share units and options, consistent with our "pay for performance" philosophy. Granting these awards also helps us to maintain competitive compensation levels and attract and retain employees and directors without depleting our cash reserves. A detailed description of the 2021 Plan is included under the heading "Approval of the Johnson Controls International plc 2021 Equity and Incentive Plan". A complete copy of the 2021 Plan is attached to this Proxy Statement as Annex B.

2021 Plan Proposal Summary

PLAN TERM

The 2021 Plan was adopted by the Board on December 10, 2020, subject to obtaining shareholder approval, and will, unless earlier terminated by the Board, terminate on the 10th anniversary of the 2021 Annual General Meeting of Shareholders.

SHARES AUTHORIZED

55,000,000 ordinary shares have been reserved for issuance under the 2021 Plan.

ELIGIBLE PARTICIPANTS

Any officer or other employee of our company or its affiliates (including any individual that our company or one of its affiliates has engaged to become an officer or employee), any consultant or advisor who provides services to our company and its affiliates, or any non-employee member of our Board of Directors.

AWARD TYPES

1. Options
2. Share Appreciation Rights
3. Restricted Shares
4. Restricted Share Units
5. Performance Share Units
6. Cash Incentive Awards
7. Other Share-Based Awards
8. Dividends and Dividend Equivalents

ADMINISTRATION

By the Compensation and Talent Development Committee, except that the Board acts as the administrator with respect to awards issued to non-employee directors.

Our Chief Executive Officer may act as the administrator with respect to awards granted to employees who are not Section 16 officers.

BEST PRACTICES

Prohibition on Repricing and Backdating. The 2021 Plan explicitly prohibits repricing and backdating of stock options and share appreciation rights.

Limitations on Payments of Dividends on Unvested Awards. The 2021 Plan prohibits the payment of dividends on unvested restricted shares and dividend equivalents on unvested restricted share units or performance share units unless and until the underlying awards vest.

Minimum Vesting Period. Awards granted under the 2021 Plan have a minimum vesting period of at least one year, except that up to 5% of the ordinary shares reserved under the 2021 Plan may be exempted from the minimum vesting period requirement.

Clawback. All awards granted under the 2021 Plan are subject to the Company's recoupment policy.

Reasonable Limit on Full-Value Awards. For purposes of calculating the shares that remain available for issuance under the 2021 Plan, grants of options and stock appreciation rights will be counted as the grant of one share for each one option or stock appreciation right actually granted. However, to protect shareholders from potentially greater dilutive effect of full value awards, all grants of full value awards will be deducted from the 2021 Plan's share reserve as 3.46 shares for every one share actually granted.

Prohibition on Liberal Share Recycling Practices. The 2021 Plan does not allow for the re-granting of shares that are withheld to pay the exercise price of options or that are delivered or withheld to satisfy the tax withholding obligations with respect to any award.

PROPOSAL NUMBER ONE

ELECTION OF DIRECTORS

Upon the recommendation of the Governance and Sustainability Committee, the Board has nominated for election at the Annual General Meeting a slate of 12 nominees, all of whom currently serve on our Board. Biographical information regarding each of the nominees is set forth below. We are not aware of any reason why any of the nominees will not be able to serve if elected. The term of office for members of the Board of Directors commences upon election and terminates upon completion of the first Annual General Meeting of Shareholders following election.

Jean Blackwell, Age 66

Director Since: June 2018
Independent: Yes
Committee: Compensation
Other Public Directorships:

- Celanese Corporation
- Ingevity Corporation

Ms. Blackwell served as Chief Executive Officer of Cummins Foundation and Executive Vice President, Corporate Responsibility, of Cummins Inc., a global power leader that designs, manufactures, distributes and services diesel and natural gas engines and engine-related component products, from March 2008 until her retirement in March 2013. She previously served as Executive Vice President and Chief Financial Officer from 2003 to 2008, Vice President, Cummins Business Services from 2001 to 2003, Vice President, Human Resources from 1998 to 2001, and Vice President and General Counsel from 1997 to 1998 of Cummins Inc. Prior thereto, Ms. Blackwell was a partner at the Indianapolis law firm of Bose McKinney & Evans LLP from 1984 to 1991. She has also served in state government, including as Executive Director of the Indiana State Lottery Commission and State of Indiana Budget Director. Ms. Blackwell serves as a Director of Celanese Corporation, a global technology and specialty materials company, and Ingevity Corporation, a leading global manufacturer of specialty chemicals and high performance carbon materials. Ms. Blackwell previously served as a Director of Essendant Inc., a leading national wholesale distributor of business products, from 2007 to 2018 and Phoenix Companies Inc., a life insurance company, from 2004 to 2009.

Skills and Qualifications

Extensive experience as a business leader, including serving as the Chief Financial Officer of Cummins Inc. Deep financial acumen as CFO and senior finance leader in engine-related industry. Experience serving on the board of directors of multiple international companies. Significant knowledge of the global marketplace gained from her business experience and background. Extensive experience with public policy and ESG topics through service as CEO of Cummins Foundation and Executive Vice President of Corporate Responsibility for Cummins Inc. Experience leading global teams.

Pierre Cohade, Age 59

Director Since: December 2018
Independent: Yes
Committee: Audit
Other Public Directorships:

- CEAT Ltd.
- Acorn International Inc.

Mr. Cohade served as the Chief Executive Officer of Triangle Tyre, China's largest private tire manufacturer from 2015 to 2016. From 2013 to 2015, Mr. Cohade was a Senior Advisor at ChinaVest, Wells Fargo's investment banking affiliate in China. During 2012, he served as an independent consultant for various private equity concerns. Prior thereto he served as the President, Asia Pacific, of The Goodyear Tire & Rubber Company from 2004 to 2011. From 2003 to 2004, Mr. Cohade served as the Division Executive Vice President of the Global Water and Beverage division of Danone SA. From 1985 to 2003, Mr. Cohade served in roles of increasing responsibility at Eastman Kodak Co., ultimately serving as the Chairman of Kodak's Europe, Africa, Middle East and Russia Region. Mr. Cohade serves as a Director of CEAT Ltd. (one of India's leading tire manufacturers), Acorn International Inc., (a leading marketing and branding company in China focused on content creation, distribution, and product sales through digital media), and Deutsche Bank China. Mr. Cohade is currently the Chairman of IMA in China, a leading peer group forum for CEOs and senior executives located in China, and is an independent advisor to companies on China, strategy and operations.

Skills and Qualifications

Extensive experience as a business leader in a number of industries. Experience leading large business units at The Goodyear Tire & Rubber Company, Danone SA, and Eastman Kodak Co. Significant experience in a number of senior global positions, with extensive experience and expertise in China. Deep experience in the consumer products industry. Experience in overseeing manufacturing and operations in China at The Goodyear Tire & Rubber Company and Triangle Tyre. Experience engaging with regulators and governments on public policy issues in Asia. Experience leading corporate responsibility initiatives at Goodyear Tire & Rubber Company and Triangle Tyre. Experience leading global teams.

Michael E. Daniels, Age 66

Director Since: March 2010
Independent: Yes
Committees: Compensation, Executive
Other Public Directorships:
- Thomson Reuters
- SS&C Technologies, Inc.

Prior to his retirement in March 2013, Mr. Daniels was the Senior Vice President and Group Executive of IBM Services, a business and IT services company with operations in more than 160 countries around the world. In this role, Mr. Daniels had worldwide responsibility for IBM's Global Services business operations in outsourcing services, integrated technology services, maintenance, and Global Business Services, the consulting and applications management arm of Global Services. Since he joined IBM in 1976, Mr. Daniels held a number of leadership positions in sales, marketing, and services, and was general manager of several sales and services businesses, including IBM's Sales and Distribution operations in the United States, Canada and Latin America; its Global Services team in the Asia Pacific region; Product Support Services; Availability Services; and Systems Solutions. Mr. Daniels serves as a Director of Thomson Reuters, a provider of intelligent information for businesses, and SS&C Technologies, a provider of specialized software, software enabled-services and software as a service solutions to the financial services industry.

Skills and Qualifications

Decades of senior leadership experience at IBM. Broad and extensive global business experience in a wide range of global roles as an executive at IBM, including decades of experience in the service space. Deep understanding of critical areas of enterprise service functions and information technology, including cybersecurity. Experience as a senior manager of a global organization as well as international experience living and working in a variety of cultures. Experience leading global teams at IBM and in service on the compensation committee of public companies.

Juan Pablo del Valle Perochena, Age 48

Director Since: September 2016
Independent: Yes
Committees: Governance, Executive
Other Public Directorships:
- Orbia Advance Corporation, S.A.B. de C.V.
- Elementia S.A.B.

Mr. Perochena has been the Chairman of Orbia Advance Corporation, S.A.B. de C.V., a provider of precision agriculture, data communications and building materials and a subsidiary of Kaluz, S.A. de C.V., since April 2011. He became a member of our Board in connection with the merger of Johnson Controls, Inc. and a subsidiary of Tyco International plc in September 2016. He has been a Director of Orbia Advance Corporation, S.A.B. de C.V. since 2001, and serves as a Director of Kaluz, S.A. de C.V., and Elementia S.A. de C.V., a manufacturer and marketer of building materials in the Americas. He is a former Director of Grupo Pochteca S.A.B., a manufacturer and marketer of specialty chemicals and Grupo Lala S.A.B., a dairy products company based in Mexico.

Skills and Qualifications

Significant experience as an executive officer and board member of several Mexican companies. Deep knowledge of the manufacturing industry from his experiences at Orbia Advance Corporation, S.A.B. de C.V. Experience in overseeing transformation utilizing technology and digital as Orbia evolved from a chemical and petrochemical producer into a provider of precision agriculture, data communications and building materials. Significant knowledge of the global marketplace gained from his business experience and background. Experience with public policy and sustainability through his engagement with governments on sustainability issues in his role as Co-Chairman of the Latin American Conservation Counsel and Chairman of the Mexico City Water Fund. Mr. del Valle Perochena's service with Kaluz, S.A. de C.V. gives him unique insight into the construction industry and real estate development. Experience leading global teams.

W. Roy Dunbar, Age 59

Director Since: June 2017
Independent: Yes
Committee: Compensation
Other Public Directorships:
- SiteOne Landscape Supplies

Mr. Dunbar was Chairman of the Board of Network Solutions, a technology company and web service provider, and was the Chief Executive Officer from January 2008 until October 2009. Mr. Dunbar also served as the President of Global Technology and Operations for MasterCard Incorporated from September 2004 until January 2008. Prior to MasterCard, Mr. Dunbar worked at Eli Lilly and Company for 14 years, serving as President of Intercontinental Operations, and earlier as Chief Information Officer. He currently serves as a Director of SiteOne Landscape Supply, Inc. and previously served as a Director of Humana, Inc. Lexmark International and iGate.

Skills and Qualifications

Extensive experience leading across functional disciplines. Significant experience as a leader and director across US and international markets. Experience in global leadership and service as a director on the compensation committees of multiple companies. Career-spanning depth of experience across numerous disciplines including healthcare, information technology, payments, insurance and renewable energy.

Gretchen R. Haggerty, Age 65

Director Since: March 2018
Independent: Yes
Committee: Audit, Executive
Other Public Directorships:
- Teleflex Corporation

Ms. Haggerty retired in August 2013 after a 37-year career with United States Steel Corporation, an integrated global steel producer, and its predecessor, USX Corporation, which, in addition to its steel production, also managed and supervised energy operations, principally through Marathon Oil Corporation. From March 2003 until her retirement, she served as Executive Vice President & Chief Financial Officer and also served as Chairman of the U. S. Steel & Carnegie Pension Fund and its Investment Committee. Earlier, she served in various financial executive positions at U. S. Steel and USX, beginning in November 1991 when she became Vice President & Treasurer. Ms. Haggerty is currently a Director Teleflex Incorporated, a global provider of medical technology products, and is a former Director of USG Corporation, a leading manufacturer of building materials.

Skills and Qualifications

Decades of senior leadership experience at United States Steel Corporation and USX Corporation. Deep financial acumen as CFO and senior finance leader in steel and energy industries. Experience serving on the board of directors of multiple international companies. Significant knowledge of the global marketplace gained from her business experience and background. Experience leading global teams.

Simone Menne, Age 60

Director Since: March 2018
Independent: Yes
Committee: Audit
Other Public Directorships:
- Bayerische Motoren Werke AG
- Deutsche Post DHL Group
- Henkel AG & Co. KGaA

Ms. Menne served as Chief Financial Officer at Boehringer Ingelheim GmbH, Germany's second largest pharmaceutical company, from September 2016 to December 2017. She previously served as the Chief Financial Officer at Deutsche Lufthansa AG ("Lufthansa") from January 2016 to August 2016 and as a member of its Executive Board from July 2012 to August 2016. She also served as Chief Officer of Finances and Aviation Services at Lufthansa from July 2012 to January 2016. Prior thereto she served in a number of roles of increasing responsibility at Lufthansa from 1989 to 2012. She currently serves on the Supervisory Boards of Bayerische Motoren Werke AG Deutsche Post DHL Group and Henkel AG &Co.KGaA. She also serves on the Börsensachverständigenkommission (Exchange Experts Commission, BSK) and on the Supervisory Board of Russell Reynolds Associates, a global search and leadership advisory firm.

Skills and Qualifications

Decades of senior leadership experience at Lufthansa and Boehringer Ingelheim. Experience serving on the supervisory boards of multiple international companies. Deep financial acumen as CFO and senior finance leader in transportation and pharmaceutical industries. Significant knowledge of the global marketplace gained from her business experience and background. Experience leading global teams in industries driven by technology and innovation.

George R. Oliver, Age 60

Director Since: September 2012
Independent: No
Committee: Executive
Other Public Directorships:
- Raytheon Technologies

Mr. Oliver became our Chairman and Chief Executive Officer in September 2017. He previously served as our President and Chief Operating Officer following the completion of the merger. Prior to that, Mr. Oliver was Tyco's Chief Executive Officer, a position he held since September 2012. He joined Tyco in July 2006, and served as President of a number of operating segments from 2007 through 2011. Before joining Tyco, he served in operational leadership roles of increasing responsibility at several General Electric divisions. Mr. Oliver also serves as a Director on the board of Raytheon Technologies, an aerospace and defense company, is a Trustee of Worcester Polytechnic Institute, his alma mater, and serves on the Pro Football Hall of Fame Board of Trustees.

Skills and Qualifications

Extensive leadership experience over several decades as an executive at Tyco (now the Company) and GE. Nearly a decade of experience with Tyco, first as president of several of its business units and then as CEO. Experience as a director, CEO and a senior manager of global organizations. Experience leading global teams at Johnson Controls, Tyco and GE. Experience driving Johnson Controls' sustainability initiatives. Public policy experience through participation in non-governmental organizations including the Business Roundtable and World Economic Forum, as well as engaging with state and national lawmakers on public policy issues. Mr. Oliver offers valuable insights and perspective on the day to day management of the Company's affairs.

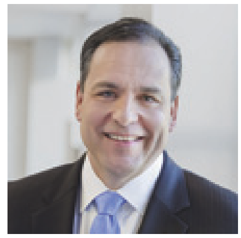
Jürgen Tinggren, Age 62

Director Since: March 2014
Independent: Yes
Committees: Governance, Executive
Other Public Directorships:
- N.V. Bekaert S.A.

Mr. Tinggren joined our Board in March 2014. He was the Chief Executive Officer of the Schindler Group, a global provider of elevators, escalators and related services, through December 2013 and was a member of the Board of Directors of Schindler from March 2014 to 2016. He joined the Group Executive Committee of Schindler in April 1997, initially with responsibility for Europe and thereafter for the Asia/Pacific region and the Technology and Strategic Procurement. In 2007, he was appointed Chief Executive Officer and President of the Group Executive Committee of the Schindler Group. Mr. Tinggren also serves on the Board of Directors of N.V. Bekaert S.A., a Belgian based supplier of steel cord products for tire reinforcement and other specialty steel wire products. From 2014 to 2018 he was a Director of the Sika AG Group and from 2017 to 2020 he was a director of OpenText Corporation.

Skills and Qualifications

Extensive global business experience as the CEO and a senior leader of Schindler. Experience as senior executive and director of European based organizations, deep understanding of international markets. Deep understanding of building services, industrial products and installation and service businesses. Deep financial understanding as CEO of Schindler. Significant experience with mergers and acquisitions. Experience leading global teams as CEO of Schindler.



Mark Vergnano, Age 62

Director Since: September 2016
Independent: Yes
Committee: Compensation
Other Public Directorships:
- The Chemours Company

Mr. Vergnano has been the President, Chief Executive Officer and a director of the Chemours Company, a titanium technologies, fluoroproducts, and chemical solutions producer, since July 2015. He joined our Board in September 2016 upon the completion of the merger with Johnson Controls, Inc. Previously, Mr. Vergnano served as Executive Vice President, E. I. du Pont de Nemours and Company from 2009 to June 2015. While at DuPont, he served as Group Vice President—Safety & Protection from 2006 to 2009, Vice President and General Manager—DuPont Surfaces and Building Innovations from 2005 to 2006, and Vice President and General Manager—DuPont Nonwovens from 2003 to 2005.

Mr. Vergnano joined DuPont in 1980 as a process engineer and held a variety of manufacturing, technical and management assignments in DuPont's global organization. Mr. Vergnano also serves on the Board of Directors for the National Safety Council, and serves on the American Chemistry Council, where he chairs the Sustainability Committee.

Skills and Qualifications

Extensive global business experience as an executive and CEO of Chemours and DuPont. Experience as senior executive of a multinational company. Deep understanding of the operations, global sales and marketing in the chemical manufacturing industry. Deep financial understanding as CEO of Chemours. Experience leading global teams as CEO of Chemours and in managing a variety of functions and business units at DuPont, including developing and driving Dupont's government affairs, public policy and corporate social responsibility strategies.

R. David Yost, Age 73

Director Since: March 2009
Independent: Yes
Committee: Audit
Other Public Directorships:
- Marsh & McLennan Companies, Inc.
- Bank of America

Mr. Yost served as Director and Chief Executive Officer of AmerisourceBergen, a comprehensive pharmaceutical services provider, from August 2001 to June 2011 when he retired. He was Chairman and Chief Executive Officer of AmeriSource Health Corporation from May 1997 to August 2001, and President and Chief Executive Officer of AmeriSource from May 1997 to December 2000. Mr. Yost also held a variety of other positions with AmeriSource Health Corporation and its predecessors from 1974 to 1997. Mr. Yost also serves as a Director of Marsh & McLennan Companies, Inc. and Bank of America, and is a member of the Board of the United States Air Force Academy Foundation, and serves on its Executive Committee.

Skills and Qualifications

Extensive leadership experience gained as the CEO and a director of AmerisourceBergen. Significant corporate governance experience serving as a director of multiple public companies. Exposure to complex risk management concepts gained as a director of Marsh & McLennan and Bank of America. Experience leading global teams as CEO of AmerisourceBergen.

John D. Young, Age 56

Director Since: December 2017
Independent: Yes
Committee: Governance
Other Public Directorships:
None

Mr. Young has served as Chief Business Officer of Pfizer Inc. since January 2019. From January 2018 to December 2018, he served as Group President of Pfizer Innovative Health, and from June 2016 to January 2018 he served as Group President, Pfizer Essential Health. He was Group President, Global Established Pharma Business for Pfizer from January 2014 until June 2016 and President and General Manager, Pfizer Primary Care from June 2012 until December 2013. He also served as Pfizer's Primary Care Business Unit's Regional President for Europe and Canada from 2009 until June 2012 and U.K. Country Manager from 2007 until 2009.

Skills and Qualifications

Extensive experience as a business leader with 30 years' experience with Pfizer. Experience leading large business units at Pfizer. Significant experience in a number of senior global positions at Pfizer. Specialized expertise in developing healthcare solutions in a variety of medical disciplines, including through technology and innovation. Experience in corporate social responsibility as a member of the Board of the Pfizer foundation and overseeing Pfizer's ESG strategy and commitments. Experience leading global teams.

Election of each Director requires the affirmative vote of a majority of the votes properly cast by the holders of ordinary shares represented at the Annual General Meeting in person or by proxy. Each Director's election is the subject of a separate resolution and shareholders are entitled to one vote per share for each separate Director election resolution.

The Board unanimously recommends that shareholders vote ***FOR*** the election of each nominee for Director to serve until the completion of the next Annual General Meeting.

PROPOSAL NUMBER TWO

Appointment of Auditors and Authority to Set Remuneration

PricewaterhouseCoopers LLP ("PwC") served as our independent auditors for the fiscal year ended September 30, 2020. The Audit Committee has selected and appointed PwC to audit our financial statements for the fiscal year ending September 30, 2021. The Board, upon the recommendation of the Audit Committee, is asking our shareholders to ratify the appointment of PwC as our independent auditors for the fiscal year ending September 30, 2021 and to authorize the Audit Committee of the Board of Directors to set the independent auditors' remuneration. Although approval is not required by our Memorandum and Articles of Association or otherwise, the Board is submitting the selection of PwC to our shareholders for ratification because we value our shareholders' views on the Company's independent auditors. If the appointment of PwC is not approved by shareholders, it will be considered as notice to the Board and the Audit Committee to consider the selection of a different firm. Even if the appointment is approved, the Audit Committee, in its discretion, may select a different independent auditor at any time during the year if it determines that such a change would be in the best interests of the Company and our shareholders.

Representatives of PwC will attend the Annual General Meeting and will have an opportunity to make a statement if they wish. They will also be available to answer questions at the meeting.

For independent auditor fee information, information on our pre-approval policy of audit and non-audit services, and the Audit Committee Report, please see below.

The ratification of the appointment of the independent auditors and the authorization for the Audit Committee to set the remuneration for the independent auditors requires the affirmative vote of a majority of the votes properly cast by the holders of ordinary shares represented at the Annual General Meeting in person or by proxy.

The Audit Committee and the Board unanimously recommend a vote ***FOR*** these proposals.

Audit and Non-Audit Fees

Aggregate fees for professional services rendered to the Company by its independent auditors as of and for the two most recent fiscal years are set forth below. The aggregate fees include fees billed or reasonably expected to be billed for the applicable fiscal year. Fees for fiscal year 2020 include fees billed or reasonably expected to be billed by PwC. All Audit, Audit-Related, Tax and All Other services described below were pre-approved by the Audit Committee.

	Fiscal Year 2020	Fiscal Year 2019
	(in millions)	(in millions)
Audit Fees	$ 21.5	$ 22.8
Audit-Related Fees	0.7	1.1
Tax Fees	3.4	4.8
All Other Fees	0.1	0.1
Total	$ 25.7	$ 28.8

Audit Fees for the fiscal year ended September 30, 2020 were for professional services rendered by PwC and include fees for services performed to comply with auditing standards of the PCAOB (United States), including the annual audit of our consolidated financial statements including reviews of the interim financial statements contained in Johnson Controls' Quarterly Reports on Form 10-Q, issuance of consents and the audit of our internal control over financial reporting. This category also includes fees for audits provided in connection with statutory filings or services that generally only the principal auditor reasonably can provide to a client, such as assistance with and review of documents filed with the SEC.

Audit-Related Fees for the fiscal year ended September 30, 2020 were for services rendered by PwC and include fees associated with assurance and related services that are reasonably related to the performance of the audit or review of our financial statements. This category includes fees related to assistance in financial due diligence related to mergers, acquisitions, and divestitures, carve-outs associated with divestitures and spin-off transactions, consultations concerning financial accounting and reporting standards, issuance of comfort letters associated with debt offerings, general assistance with implementation of SEC and Sarbanes-Oxley Act requirements, audits of pension and other employee benefit plans, and audit services not required by statute or regulation.

Tax Fees for the fiscal year ended September 30, 2020 were for services rendered by PwC and primarily include fees associated with tax audits, tax compliance, tax consulting, transfer pricing, and tax planning. This category also includes tax planning on mergers and acquisitions and restructurings, as well as other services related to tax disclosure and filing requirements.

All Other Fees for the fiscal years ended September 30, 2020 were for services rendered by PwC and primarily include fees associated with information technology consulting, training seminars related to accounting, finance and tax matters, and other advisory services.

Policy on Audit Committee Pre-Approval of Audit and Permissible Non-Audit Services of Independent Auditors

In March 2004, the Audit Committee adopted a pre-approval policy that provides guidelines for the audit, audit-related, tax and other permissible non-audit services that may be provided by the independent auditors. The policy identifies the guiding principles that must be considered by the Audit Committee in approving services to ensure that the auditors' independence is not impaired. The policy provides that the Corporate Controller will support the Audit Committee by providing a list of proposed services to the Committee, monitoring the services and fees pre-approved by the Committee, providing periodic reports to the Audit Committee with respect to pre-approved services, and ensuring compliance with the policy.

Under the policy, the Audit Committee annually pre-approves the audit fee and terms of the engagement, as set forth in the engagement letter. This approval includes approval of a specified list of audit, audit-related and tax services. Any service not included in the specified list of services must be submitted to the Audit Committee for pre-approval. No service may extend for more than 12 months, unless the Audit Committee specifically provides for a different period. The independent auditor may not begin work on any engagement without confirmation of Audit Committee pre-approval from the Corporate Controller or his or her delegate.

In accordance with the policy, the chair of the Audit Committee has been delegated the authority by the Committee to pre-approve the engagement of the independent auditors for a specific service when the entire Committee is unable to do so. All such pre-approvals must be reported to the Audit Committee at the next Committee meeting.

Audit Committee Report

The Audit Committee of the Board is composed of four Directors, each of whom the Board has determined meets the independence and experience requirements of the NYSE and the SEC. The Audit Committee operates under a charter approved by the Board, which is posted on our website. As more fully described in its charter, the Audit Committee oversees Johnson Controls' financial reporting process on behalf of the Board. Management has the primary responsibility for the financial statements and the reporting process. Management assures that the Company develops and maintains adequate financial controls and procedures, and monitors compliance with these processes. Johnson Controls' independent auditors are responsible for performing an audit in accordance with auditing standards generally accepted in the United States to obtain reasonable assurance that Johnson Controls' consolidated financial statements are free from material misstatement and expressing an opinion on the conformity of the financial statements with accounting principles generally accepted in the United States. The internal auditors are responsible to the Audit Committee and the Board for testing the integrity of the financial accounting and reporting control systems and such other matters as the Audit Committee and Board determine.

In this context, the Audit Committee has reviewed the U.S. GAAP consolidated financial statements for the fiscal year ended September 30, 2020, and has met and held discussions with management, the internal auditors and the independent auditors concerning these financial statements, as well as the report of management and the report of the independent registered public accounting firm regarding the Company's internal control over financial reporting required by Section 404 of the Sarbanes-Oxley Act. Management represented to the Committee that Johnson Controls' U.S. GAAP consolidated financial statements were prepared in accordance with U.S. GAAP. In addition, the Committee has discussed with the independent auditors the auditors' independence from Johnson Controls and its management as required under Public Company Accounting Oversight Board Rule 3526, Communication with Audit Committees Concerning Independence, and the matters required to be discussed by Public Company Accounting Oversight Board Auditing Standard AU Section 380 (Communication with Audit Committees) and Rule 2-07 of SEC Regulation S-X.

In addition, the Audit Committee has received the written disclosures and the letter from the independent auditor required by applicable requirements of the Public Company Accounting Oversight Board regarding the independent auditor's communications with the Audit Committee concerning independence. Based upon the Committee's review and discussions referred to above, the Committee recommended that the Board include Johnson Controls' audited consolidated financial statements in Johnson Controls' Annual Report on Form 10-K for the fiscal year ended September 30, 2020 filed with the Securities and Exchange Commission and that such report be included in Johnson Controls' annual report to shareholders for the fiscal year ended September 30, 2020.

Submitted by the Audit Committee,
Gretchen R. Haggerty, Chair
Pierre Cohade
Simone Menne
David Yost

PROPOSAL NUMBER THREE

Authorization to Make Market Purchases of Company Shares

We have historically used open-market share purchases as a means of returning cash to shareholders and managing the size of our base of outstanding shares. These are longstanding objectives that management believes are important to continue.

Under Irish law, neither the Company nor any subsidiary of the Company may make market purchases or overseas market purchases of the Company's shares without shareholder approval. Accordingly, shareholders are being asked to authorize the Company, or any of its subsidiaries, to make market purchases and overseas market purchases of up to 10% of the Company's issued shares. This authorization expires after eighteen months unless renewed; accordingly, we expect to propose renewal of this authorization at subsequent Annual General Meetings.

Such purchases would be made only at price levels which the Directors considered to be in the best interests of the shareholders generally, after taking into account the Company's overall financial position. The Company currently expects to effect repurchases under our existing share repurchase authorization as redemptions pursuant to Article 3(d) of our Articles of Association. Whether or not this proposed resolution is passed, the Company will retain its ability to effect repurchases as redemptions pursuant to its Articles of Association, although subsidiaries of the Company will not be able to make market purchases or overseas market purchases of the Company's shares unless the resolution is adopted.

In order for the Company or any of its subsidiaries to make overseas market purchases of the Company's ordinary shares, such shares must be purchased on a market recognized for the purposes of the Companies Act 2014. The New York Stock Exchange, on which the Company's ordinary shares are listed, is specified as a recognized stock exchange for this purpose by Irish law. The general authority, if approved by our shareholders, will become effective from the date of passing of the authorizing resolution.

Ordinary Resolution

The text of the resolution in respect of Proposal 3 is as follows:

> RESOLVED, that the Company and any subsidiary of the Company is hereby generally authorized to make market purchases and overseas market purchases of ordinary shares in the Company ("shares") on such terms and conditions and in such manner as the Board of Directors of the Company may determine from time to time but subject to the provisions of the Companies Act 2014 and to the following provisions:
>
> (a) The maximum number of shares authorized to be acquired by the Company and/or any subsidiary of the Company pursuant to this resolution shall not exceed, in the aggregate, 71,950,000 ordinary shares of US$0.01 each (which represents slightly less than 10% of the Company's issued ordinary shares).
>
> (b) The maximum price to be paid for any ordinary share shall be an amount equal to 110% of the closing price on the New York Stock Exchange for the ordinary shares on the trading day preceding the day on which the relevant share is purchased by the Company or the relevant subsidiary of the Company, and the minimum price to be paid for any ordinary share shall be the nominal value of such share.
>
> (c) This general authority will be effective from the date of passing of this resolution and will expire on the earlier of the date of the Annual General Meeting in 2022 or eighteen months from the date of the passing of this resolution, unless previously varied, revoked or renewed by ordinary resolution in accordance with the provisions of section 1074 of the Companies Act 2014. The Company or any such subsidiary may, before such expiry, enter into a contract for the purchase of shares which would or might be executed wholly or partly after such expiry and may complete any such contract as if the authority conferred hereby had not expired.

The authorization for the Company and/or any of its subsidiaries to make market purchases and overseas market purchases of Company shares requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

The Board unanimously recommends that shareholders vote ***FOR*** this proposal.

PROPOSAL NUMBER FOUR

Determine the Price Range at which the Company can Re-Allot Treasury Shares

Our historical open-market share repurchases and other share buyback activities result in ordinary shares being acquired and held by the Company as treasury shares. We may re-allot treasury shares that we acquire through our various share buyback activities in connection with our executive compensation program and our other compensation programs.

Under Irish law, our shareholders must authorize the price range at which we may re-allot any shares held in treasury (including by way of re-allotment off-market). In this proposal, that price range is expressed as a minimum and maximum percentage of the prevailing market price (as defined below). Under Irish law, this authorization expires after eighteen months unless renewed; accordingly, we expect to propose the renewal of this authorization at subsequent Annual General Meetings.

The authority being sought from shareholders provides that the minimum and maximum prices at which an ordinary share held in treasury may be re-allotted are 95% and 120%, respectively, of the average closing price per ordinary share of the Company, as reported by the New York Stock Exchange, for the thirty (30) trading days immediately preceding the proposed date of re-allotment, save that the minimum price for a re-allotment to satisfy an obligation under an employee share plan is the par value of a share. Any re-allotment of treasury shares will be at price levels that the Board considers in the best interests of our shareholders.

Special Resolution

The text of the resolution in respect of Proposal 4 (which is proposed as a special resolution) is as follows:

> RESOLVED, that the re-allotment price range at which any treasury shares held by the Company may be re-allotted shall be as follows:
>
> (a) the maximum price at which such treasury share may be re-allotted shall be an amount equal to 120% of the “market price,” and
>
> (b) the minimum price at which a treasury share may be re-allotted shall be the nominal value of the share where such a share is required to satisfy an obligation under an employee share plan operated by the Company or, in all other cases, an amount equal to 95% of the “market price,” and
>
> (c) for the purposes of this resolution, the “market price” shall mean the average closing price per ordinary share of the Company, as reported by the New York Stock Exchange, for the thirty (30) trading days immediately preceding the proposed date of re-allotment.
>
> FURTHER RESOLVED, that this authority to re-allot treasury shares shall expire on the earlier of the date of the Annual General Meeting of the Company held in 2022 or eighteen months after the date of the passing of this resolution unless previously varied or renewed in accordance with the provisions of section 109 and/or 1078 (as applicable) of the Companies Act 2014 (and/or any corresponding provision of any amended or replacement legislation) and is without prejudice or limitation to any other authority of the Company to re-allot treasury shares on-market.

The authorization of the price range at which the Company may re-allot any shares held in treasury requires the affirmative vote of at least 75% of the votes properly cast (in person or by proxy) at the Annual General Meeting.

The Board unanimously recommends that shareholders vote ***FOR*** this proposal.

PROPOSAL NUMBER FIVE

Advisory Vote on Executive Compensation

The Board recognizes that providing shareholders with an advisory vote on executive compensation can produce useful information on investor sentiment with regard to the Company's executive compensation programs. As a result, this proposal provides shareholders with the opportunity to cast an advisory vote on the compensation of our executive management team, as described in the section of this proxy statement entitled ***"Compensation Discussion & Analysis,"*** and endorse or not endorse our fiscal 2020 executive compensation philosophy, programs and policies and the compensation paid to the Named Executive Officers.

The advisory vote on executive compensation is non-binding, meaning that our Board will not be obligated to take any compensation actions or to adjust our executive compensation programs or policies, as a result of the vote. Notwithstanding the advisory nature of the vote, the resolution will be considered passed with the affirmative vote of a majority of the votes properly cast by the holders of ordinary shares represented at the Annual General Meeting in person or by proxy.

Although the vote is non-binding, our Board and the Compensation and Talent Development Committee will review the voting results. To the extent there is a significant negative vote, we would communicate directly with shareholders to better understand the concerns that influenced the vote. The Board and the Compensation and Talent Development Committee would consider constructive feedback obtained through this process in making future decisions about executive compensation programs.

Advisory Non-Binding Resolution

The text of the resolution, which if thought fit, will be passed as an advisory non-binding resolution at the Annual General Meeting, is as follows:

> RESOLVED, that shareholders approve, on an advisory basis, the compensation of the Company's Named Executive Officers, as disclosed in the Compensation Discussion & Analysis section of this proxy statement.

The Board unanimously recommends that shareholders vote ***FOR*** this proposal.

PROPOSAL NUMBER SIX

Approval of the Johnson Controls International plc 2021 Equity and Incentive Plan

Our Board is asking our shareholders to approve the Johnson Controls International plc 2021 Equity and Incentive Plan (the "2021 Plan"), including the authority to issue 55,000,000 of our ordinary shares under the 2021 Plan. As we describe in the Compensation Discussion and Analysis on page 56, performance-based pay elements, including equity-based awards, are important components of our overall compensation program.

We believe that awarding performance share units, options, and restricted shared units reflects our executive compensation philosophy and the principle of pay for performance. Each of these equity awards allows us to attract and retain highly-qualified employees and executives, motivate our employees and executives to achieve our overall business objectives, and align our directors' executives' and employees' interests with those of our shareholders. If our share price decreases, so does the value of the award holder's compensation. In addition, performance share units encourage our executives to focus on financial objectives that are tied to our overall long-term performance and shareholder value. Providing equity awards also help us maintain competitive compensation levels in the market and retain high-performing employees through multi-year vesting requirements without depleting our cash reserves.

All of these pay elements — performance share units, options, and restricted share units—are currently delivered under a shareholder-approved plan that governs the awards' terms and conditions. If shareholders approve the 2021 Plan, then we intend to deliver these or similar pay elements under the 2021 Plan.

Effect of Proposal on Existing Share and Incentive Compensation Plan

We currently grant equity awards under the Johnson Controls International plc 2012 Share and Incentive Plan (the "Prior Plan"). If our shareholders approve the 2021 Plan, then the Prior Plan will terminate on the date of approval, no new awards will be granted under the Prior Plan, and the authority to issue the remaining ordinary shares reserved for issuance under the Prior Plan will terminate. However, all awards that we granted under the Prior Plan that are outstanding as of the date that shareholders approve the 2021 Plan will remain outstanding and will continue to be governed by the Prior Plan.

If shareholders do not approve the 2021 Plan, then the Prior Plan will remain in effect in accordance with its terms. However, there will be insufficient shares available under the Prior Plan to continue to make annual equity awards to our employees, executives and directors and to provide grants to new hires in the coming years. In this event, the Compensation and Talent Development Committee of our Board (the "Compensation Committee") would be required to revise its compensation philosophy and devise other programs to attract, retain and compensate employees and executives, which would likely require significant use of our cash reserves. As of December 15, 2020, there were approximately 19,736,355 ordinary shares available for future equity grants under the Prior Plan. The Prior Plan would apply a 1-for-3.32 fungible share ratio to any of these shares made subject to full value awards.

As of December 15, 2020, there were 3,579,031 ordinary shares subject to outstanding restricted stock units and 1,262,319 ordinary shares subject to performance share units that had not been earned (at target performance) under the Prior Plan, and 10,179,980 ordinary shares subject to outstanding options. As of December 15, 2020, the options had a weighted average exercise or grant price of $37.80 and a weighted average term of 5.67 years.

Authorized Shares, Share Price, Dilution and Run Rate

We currently have authorized 2,000,000,000 ordinary shares with a nominal value of $0.01. There were 719,574,821 ordinary shares issued and outstanding as of January 7, 2021, and the closing price of one of our ordinary shares on the New York Stock Exchange as of that date was $51.18.

In order to determine the number of ordinary shares to be authorized under the 2021 Plan, we considered our need for shares, based on the current and expected future equity grant mix, and the potential dilution that awarding the requested shares may cause to existing shareholders. We examined a number of factors, including our run rate and an overhang analysis.

Based on our review of historical and projected grant practices, we have provided that 55,000,000 shares be authorized under the 2021 Plan. As described above, if the 2021 Plan is approved, no further grants will be made under the 2012 Plan, so any shares reserved under the 2012 Plan that are not subject to outstanding awards at the time the 2021 Plan is approved would no longer be available for future awards under that 2012 Plan. We are seeking shareholder approval for the 2021 Plan and the pool of shares available under the 2021 Plan, which we expect is sufficient for approximately five years of awards based upon the historic rates of awards by the Compensation Committee under the 2012 Plan.

We considered the run rate with respect to our equity awards relative to market levels. The run rate represents the total number of restricted stock units and stock options granted, and performance share units granted, in a fiscal year divided by the weighted-average total shares of our ordinary shares outstanding for the year.

A calculation of our run rate for the last three fiscal years is below (Shares in millions):

Fiscal Year	Restricted Stock / Units Granted	Performance shares Granted	Stock Options Granted	Total	Weighted Average Ordinary Shares Outstanding	Run Rate
2020	2,053,292	476,939	1,347,310	3,877,541	751,000,000	0.52%
2019	2,384,747	595,594	1,741,510	4,721,851	870,200,000	0.54%
2018	2,274,160	496,478	1,376,807	4,147,445	925,700,000	0.45%
3-year average						0.50%

We were satisfied that our run rate over the past three years was at an acceptable level.

Because this proposal to approve the 2021 Plan does not contemplate the amount or timing of specific equity awards in the future, other than as described under “New Plan Benefits” below, it is not possible to calculate with certainty the number of years of awards that will be available and the amount of subsequent dilution that may ultimately result from such awards. However, the current rationale and practices of the Compensation Committee with respect to equity awards and other incentives is set forth under “Compensation Discussion and Analysis” below.

Summary of the Terms of the 2021 Plan

The following sections provide a summary of the material provisions of the 2021 Plan, a copy of which is attached hereto as Annex B and is incorporated by reference herein. This summary and the highlights above are qualified in their entirety by reference to the full and complete text of the 2021 Plan. Any inconsistencies between this summary or the highlights above and the text of the 2021 Plan will be governed by the text of the 2021 Plan.

2021 Plan Proposal Summary

PLAN TERM

The 2021 Plan was adopted by the Board on December 10, 2020, subject to obtaining shareholder approval, and will, unless earlier terminated by the Board, terminate on the 10th anniversary of the 2021 Annual General Meeting of Shareholders.

SHARES AUTHORIZED

55,000,000 ordinary shares have been reserved for issuance under the 2021 Plan.

ELIGIBLE PARTICIPANTS

Any officer or other employee of our company or its affiliates (including any individual that our company or one of its affiliates has engaged to become an officer or employee), any consultant or advisor who provides services to our company and its affiliates, or any non-employee member of our Board of Directors.

AWARD TYPES

1. Options
2. Share Appreciation Rights
3. Restricted Shares
4. Restricted Share Units
5. Performance Share Units
6. Cash Incentive Awards
7. Other Share-Based Awards
8. Dividends and Dividend Equivalents

ADMINISTRATION

By the Compensation and Talent Development Committee, except that the Board acts as the administrator with respect to awards issued to non-employee directors.

Our Chief Executive Officer may act as the administrator with respect to awards granted to employees who are not Section 16 officers.

BEST PRACTICES

Prohibition on Repricing and Backdating. The 2021 Plan explicitly prohibits repricing and backdating of stock options and share appreciation rights.

Limitations on Payments of Dividends on Unvested Awards. The 2021 Plan prohibits the payment of dividends on unvested restricted shares and dividend equivalents on unvested restricted share units or performance share units unless and until the underlying awards vest.

Minimum Vesting Period. Awards granted under the 2021 Plan have a minimum vesting period of at least one year, except that up to 5% of the ordinary shares reserved under the 2021 Plan *may* be exempted from the minimum vesting period requirement.

Clawback. All awards granted under the 2021 Plan are subject to the Company's recoupment policy.

Reasonable Limit on Full-Value Awards. For purposes of calculating the shares that remain available for issuance under the 2021 Plan, grants of options and stock appreciation rights will be counted as the grant of one share for each one option or stock appreciation right actually granted. However, to protect shareholders from potentially greater dilutive effect of full value awards, all grants of full value awards will be deducted from the 2021 Plan's share reserve as 3.46 shares for every one share actually granted.

Prohibition on Liberal Share Recycling Practices. The 2021 Plan does not allow for the re-granting of shares that are withheld to pay the exercise price of options or that are delivered or withheld to satisfy the tax withholding obligations with respect to any award.

Purpose

The two complementary purposes of the 2021 Plan are (1) to attract and retain outstanding individuals to serve as officers, employees, consultants and directors, and (2) to increase shareholder value by aligning the interests of our employees and directors with those of our shareholders.

Administration

The Compensation Committee is the administrator for the 2021 Plan, except that the Board acts as the administrator with respect to awards issued to non-employee directors and, subject to any limitations imposed by law and any restrictions imposed by the Compensation Committee, our Chief Executive Officer may act as the administrator with respect to awards granted to employees who are not “officers” subject to Section 16 of the Securities Exchange Act of 1934 (the “Exchange Act”). The Board may delegate some or all of its authority under the 2021 Plan to a committee of the Board or to one or more of our officers, and the Compensation Committee may delegate some or all of its authority to a sub-committee or one or more of our officers. Delegation is not permitted, however, with respect to share-based awards made to individuals subject to Section 16 of the Exchange Act unless the delegation is to a committee of the Board that consists only of non-employee directors.

The administrator has the authority to select the eligible individuals who will receive awards under the 2021 Plan, determine the terms and conditions of each award, interpret the provisions of the 2021 Plan and any award, make, change and rescind rules and regulations relating to the 2021 Plan and change or reconcile any inconsistency in any award or agreement covering an award, all in accordance with the terms of the Plan.

Eligibility

Individuals become participants in the 2021 Plan only if they are selected by the administrator to receive an award. The administrator (to the extent of its authority) may designate any of the following as a participant under the 2021 Plan: any officer or other employee of our company or its affiliates (including any individual that our company or one of its affiliates has engaged to become an officer or employee), any consultant or advisor who provides services to our company and its affiliates, or any non-employee member of our Board of Directors. There are currently approximately 18,368 employees, 0 consultants and advisors, and 11 non-employee directors, each of whom currently meet the eligibility requirements to participate in the 2021 Plan if it is approved by our shareholders. Historically, we have made grants of cash or share awards to approximately 19,000 employees and all of our non-employee directors each year, but have not made grants to any consultants or advisors.

Non-employee directors may not receive awards during a fiscal year that are valued, as of their grant date, in excess of $750,000 less the value of all other compensation paid to such director during the fiscal year.

Shares Reserved under the 2021 Plan

The 2021 Plan provides that 55,000,000 ordinary shares are reserved for issuance under the 2021 Plan, all of which may be issued pursuant to “incentive stock options” (within the meaning of Section 422 of the Internal Revenue Code, referred to herein as the “Code”).

The number of ordinary shares reserved under the 2021 Plan is depleted when an award is granted by one share for each option or share appreciation right granted, and by 3.46 shares for every share that may be issued under an award other than an option or share appreciation right. An award that may only be settled in cash does not deplete the reserve.

In general: (a) if an award granted under the 2021 Plan expires, is canceled or terminates without the issuance of shares under the award or is settled in cash in lieu of shares; (b) if it is determined during or at the conclusion of the term of an award that all or some portion of the shares under the award will not be issuable on the basis that the conditions for such issuance will not be satisfied; or (c) if shares are forfeited under an award or if shares are issued under any award and we reacquire them pursuant to rights we reserved upon the issuance of the shares, then such shares will again be available for issuance under the 2021 Plan in the same number as they depleted the reserve, except that shares reacquired pursuant to reserved rights may not be issued pursuant to incentive stock options. Notwithstanding the foregoing, in no event will the following ordinary shares be recredited to the 2021 Plan’s reserve: shares tendered in payment of or withheld to satisfy the exercise price of an option or as a result of the net settlement of an outstanding share appreciation right (subject to compliance with applicable law); shares withheld to satisfy federal, state or local tax withholding obligations (including in connection with the exercise or net settlement of an outstanding share appreciation right); or shares purchased by us (subject to compliance with applicable law) using proceeds from option exercises.

Types of Awards

Awards under the 2021 Plan may consist of options, share appreciation rights, performance share units, restricted shares, restricted share units, cash incentive awards, and other share based awards. The administrator may grant any type of award to any participant it selects, but only our and our subsidiaries' employees may receive grants of incentive stock options. Awards may be granted alone or in addition to, in tandem with, or (subject to the 2021 Plan's prohibition on repricing) in substitution for any other award (or any other award granted under another plan of ours or of any of our affiliates).

Options

The administrator has the authority to grant options to purchase our ordinary shares and to determine all terms and conditions of each option, including:

- the number of options granted;
- whether an option is to be an incentive stock option or nonqualified share option, provided that if the aggregate fair market value of the shares subject to the portion of an incentive stock option that becomes exercisable during a calendar year exceeds $100,000, then the option is treated as a nonqualified share option to the extent the $100,000 limitation is exceeded;
- the date of grant, which may not be prior to the date of the administrator's approval of the grant;
- the exercise price per share, which may not be less than the fair market value of an ordinary share on the date of grant; and
- the terms and conditions of exercise, provided that the expiration date will not be later than 10 years after the grant date.

Fair market value is generally defined as the last sales price of one of our ordinary shares for the date in question or, if no sales of our ordinary shares occur on such date, on the last preceding date on which there was such a sale, unless the administrator selects a different method for determining fair market value, as provided under the 2021 Plan.

Notwithstanding the above, each incentive stock option that the administrator grants to an eligible employee who owns more than ten percent of the total combined voting power of all classes of shares then issued by our company or a subsidiary must have an exercise price at least equal to 110% of the fair market value of an ordinary share on the date of grant and must terminate no later than five years after the date of grant.

Share Appreciation Rights

The administrator has the authority to grant share appreciation rights, which is the right of a participant to receive cash and/or ordinary shares with a fair market value equal to the appreciation of the fair market value of a number of ordinary shares during a specified period of time. The 2021 Plan provides that the administrator determines all terms and conditions of each share appreciation right, including:

- the number of ordinary shares to which the share appreciation right relates;
- the date of grant, which may not be prior to the date of the administrator's approval of the grant;
- the grant price, which may not be less than the fair market value of the ordinary shares subject to the share appreciation right on the date of grant;
- the terms and conditions of exercise or maturity;
- the term of the share appreciation right, provided that the term must expire no later than 10 years after the date of grant; and
- whether the share appreciation right will settle in cash, ordinary shares or a combination of the two.

Share and Unit Awards

The administrator has the authority to grant awards of restricted shares, restricted share units, and performance share units. These types of awards are defined as follows:

- restricted shares means ordinary shares that are subject to a risk of forfeiture, restrictions on transfer or both a risk of forfeiture and restrictions on transfer;

- a restricted share unit means the right to receive a payment, in cash or shares, equal to the fair market value of one ordinary share; and
- a performance share unit means the right to receive a payment, in cash or shares, equal to the fair market value of an ordinary share to the extent performance goals are achieved.

The administrator determines all terms and conditions of each award of restricted shares, restricted share units and performance share units, including:

- the number of ordinary shares to which such award relates;
- whether performance goals need to be achieved for the participant to realize any portion of the benefit provided under the award;
- the period of restriction with respect to restricted shares or restricted share units and the performance period for performance share units; and
- with respect to restricted share units and performance share units, whether the awards will settle in cash, in ordinary shares, or in a combination of the two.

Cash Incentive Awards

The administrator has the authority to grant cash incentive awards under the 2021 Plan, which is the right to receive a cash payment to the extent performance goals or other requirements are met. The administrator will determine all of the terms and conditions of each cash incentive award, including the performance goals, the performance period, the potential amount payable and the timing of payment.

Other Share-Based Awards

The administrator has the authority to grant other types of shared-based awards, including, but not limited to, unrestricted ordinary shares (such as, for example, in lieu of cash compensation or as a bonus) or rights to acquire our ordinary shares from us. The administrator determines all terms and conditions of these share-based awards, including the time or times at which such award is made and the number of ordinary shares to be granted pursuant to such award, except that any award that provides for purchase rights must be priced at 100% of the fair market value of our ordinary shares on the date the award is approved.

Dividends and Dividend Equivalents

The administrator may provide that restricted shares will have a right to receive dividends and that restricted share units, performance share units, and other “full value” awards (which is an award the value of which is measured as the full value of a share, rather than the increase in the value of a share) have a right to “dividend equivalent units,” which is the right to receive a payment, in cash or ordinary shares, equal to the cash dividends or other distributions that we pay with respect to the ordinary shares underlying the award. As a result, no dividends or dividend equivalents may be granted with respect to awards of share options or share appreciation rights.

However, no dividends or dividend equivalents may be paid with respect to unvested awards, and instead will, at the administrator’s discretion, either be reinvested in additional restricted shares, restricted share units, or performance share units, as applicable, having the same vesting criteria as the original award, or accumulated and paid in cash or shares at the same time and to the same extent that the underlying award vests.

Performance Goals

The administrator may select any objective or subjective performance goals, including individual performance goals, for an award under the 2021 Plan. Performance goals may, but are not required to, relate to one or more of the following: basic or diluted earnings per share on a consolidated basis, total shareholder return, fair market value of our ordinary shares, net sales, cost of sales, gross profit, selling, general and administrative expenses, operating income, segment income, earnings before interest and the provision for income taxes (EBIT), earnings before interest, the provision for income taxes, depreciation, and amortization (EBITDA), net income, accounts receivable, inventories, trade working capital, return on equity, return on assets, return on invested capital, return on sales, economic value added, or other measure of profitability that considers the cost of capital employed, free cash flow, net cash provided by operating activities, net increase (decrease) in cash and cash equivalents, customer satisfaction, which may include customer backlog and/or relationships, market share, quality, safety, realization or creation of innovation projects or products, employee engagement, employee and/or supplier diversity improvement, sustainability measures, such as reduction in greenhouse gases, completion of integration of acquired businesses and/or strategic activities, and development, completion and implementation of succession planning.

Minimum Vesting Period

All awards granted under the 2021 Plan that can be settled in ordinary shares will have a vesting period of at least one year from the date of grant, except that such minimum vesting period will not apply with respect to up to five percent 5% of the ordinary shares reserved under the 2021 Plan. For awards granted to non-employee directors, “one year” may mean the period of time from one annual shareholders meeting to the next annual shareholders meeting as long as such period of time is at least 50 weeks.

Effect of Termination of Employment or Service on Awards; Waiver of Vesting

The administrator will have the discretion to determine, at the time an award is made to a participant or any time thereafter, the effect of the participant’s termination of employment or service with our company or our affiliates on the award. The administrator may waive any vesting period upon termination of employment or service or any other event in its sole and absolute discretion.

Transferability and Restrictions on Exercise

No award (other than unrestricted shares), and no right under any such award, is assignable, alienable, saleable, or transferable by a participant except by will or by the laws of descent and distribution, unless and to the extent the administrator allows a participant to designate in writing a beneficiary to exercise the award or receive payment under an award after the participant’s death, or approves the transfer of an award.

Each award, and each right under any award, will be exercisable during the lifetime of the participant only by the participant or, if permissible under applicable law, by such individual’s guardian or legal representative.

Adjustments

If any of the following occurs:

- we are involved in a merger or other transaction in which our ordinary shares are changed or exchanged;
- we subdivide or combine our ordinary shares or we declare a dividend payable in our ordinary shares, other securities or other property;
- we effect a cash dividend, the amount of which, on a per share basis, exceeds 10% of the fair market value of an ordinary share at the time the dividend is declared, or we effect any other dividend or other distribution on our ordinary shares in the form of cash, or a repurchase of ordinary shares, that the Board determines is special or extraordinary in nature or that is in connection with a transaction that we characterize publicly as a recapitalization or reorganization involving our ordinary shares; or
- any other event occurs, which, in the judgment of the Board or Compensation Committee necessitates an adjustment to prevent an increase or decrease in the benefits or potential benefits intended to be made available under the 2021 Plan,

then the administrator will, in a manner it deems equitable to prevent an increase or decrease in the benefits or potential benefits intended to be made available under the 2021 Plan and subject to certain provisions of the Code, adjust: (a) the number and type of shares subject to the 2021 Plan and which may, after the event, be made the subject of awards; (b) the number and type of shares subject to outstanding awards; (c) the grant, purchase or exercise price with respect to any award; and (d) performance goals of an award. If such event causes a change to or elimination of our ordinary shares, then such adjustment may include substitution of each ordinary share then subject to the 2021 Plan with other shares, securities, cash or other property which the holders of our ordinary shares will be entitled to as a result of the occurrence of such event.

In lieu of the foregoing, the administrator may also make a cash payment to the holder of an outstanding award in exchange for the cancellation of all or a portion of the award (without the consent of the holder) in an amount and at a time determined by the administrator.

None of the foregoing adjustments may be authorized in the case of incentive stock options, however, to the extent that such authority would cause the 2021 Plan to violate Code Section 422(b).

In the case of a share dividend (other than a share dividend declared in lieu of an ordinary cash dividend) or subdivision or combination of the shares (including a reverse share split), if no action is taken by the administrator, then the adjustments described above will automatically be made.

In connection with any merger, consolidation, acquisition of property or stock, or reorganization, the administrator may authorize the issuance or assumption of awards under the 2021 Plan, subject to the listing requirements of any principal securities exchange or market on which the shares are then traded.

Change of Control

Unless otherwise provided in an applicable award agreement, employment or retention agreement, or a change of control or severance agreement or plan or policy applicable to a participant, in the event of a change of control (as defined below) of our company, one of the following will occur:

- Survivor Assumes Awards. If the purchaser, successor or surviving corporation (or parent thereof) (which we refer to as the "Survivor") so agrees, the Survivor will either assume or issue replacement awards for some or all of the outstanding awards under the 2021 Plan. The assumed or replaced awards will have with similar terms and conditions, subject to appropriate adjustments. In this case, the terms of the 2021 Plan do not provide for automatic acceleration of vesting of awards, nor automatic payout, upon a change of control.

  However, if the Survivor terminates a participant's employment within 24 months after the change in control without cause (as defined below), then all outstanding replacement awards will automatically vest in full, assuming for performance awards for which the performance period has not been completed that the performance goals were met at target or, if higher, would continue to be met at the same level of achievement as in effect on the date of the participant's termination of employment or service. The foregoing treatment would also apply to a participant who is party to an agreement or a plan or policy that contemplates termination of employment for "good reason" if the participant terminates for good reason.

  "Cause" for purposes of this plan has the same definition as in an employment or severance plan or policy applicable to the participant or in the participant's award agreement, but if no such definition exists, then "cause" means the administrator's determination, made in good faith, that a Participant has committed any of the following: (i) a violation of the provisions of any award agreement, employment agreement, non-competition agreement, confidentiality agreement, or similar agreement with the company or an affiliate, or the company's or an affiliate's code of ethics or other policy governing the participant's conduct, as then in effect; (ii) conduct rising to the level of gross negligence or willful misconduct in the course of employment with the company or an affiliate, or a participant's refusal to perform the duties and responsibilities of the participant's job; (iii) any conduct that does, or is reasonably likely to, bring the company or an affiliate negative publicity or cause financial or reputational harm to the company or its affiliates; (iv) commission of an act of dishonesty or disloyalty involving the company or an affiliate, including but not limited to theft of company or affiliate property; (v) violation of any federal, state or local law in connection with the participant's employment or service; (vi) breach of any fiduciary duty to the company or an affiliate; (vii) embezzlement, misappropriation or fraud, whether or not related to the participant's employment or service; or (viii) the participant's conviction of or plea of guilty or nolo contendere to a crime that constitutes a felony (or state law equivalent) or a crime that constitutes a misdemeanor involving moral turpitude.

- Survivor Does Not Assume Awards. To the extent the Survivor in the change of control transaction does not agree to assume the awards or issue replacement awards, then immediately prior to the date of the change of control, all outstanding awards will vest in full (assuming, for performance awards for which the performance period has not been completed, that the performance goals were met at target or, if higher, would continue to be met at the same level of achievement as in effect on the date of the change in control) and the value will be paid as soon as practicable following the change in control. The "value" of an option or share appreciation right is the excess, if any, of the price paid per share in the change in control over the exercise or grant price of the award, times the number of shares subject to the award. The "value" of any award valued in relation to full value of a share will equal the price paid per share in the change in control times the number of shares subject to the award.

Except as otherwise expressly provided in any agreement between a participant and us or an affiliate, if the receipt of any payment by a participant in connection with a change in control would result in the payment by the participant of any excise tax provided for in Section 4999 of the Code, then the amount of such payment shall either be reduced to the extent required to prevent the imposition of such excise tax or paid in full (with the participant being required to pay any such excise tax), whichever would maximize the participant's after tax benefit.

A “change of control” is generally defined by the 2021 Plan as the first to occur of the following:

- The acquisition by a person of beneficial ownership of 35% or more of our then-outstanding ordinary shares or our then-outstanding voting securities (excluding acquisitions from or by us or by any of our employee benefit plans);
- A change in the majority of our Board members that is not approved by at least a majority of our incumbent Board (or their Board-approved successors);
- Consummation of a reorganization, merger, statutory share exchange or consolidation or similar corporate transaction involving us or any of our subsidiaries, a sale or other disposition of all or substantially all of our assets, or the acquisition of assets or stock of another entity by us or any of our subsidiaries, in each case unless, following such event, (a) all or substantially all of the individuals and entities that were the beneficial owners of our then-outstanding ordinary shares or our then-outstanding voting securities beneficially own, directly or indirectly, more than 50% of the then-outstanding ordinary shares and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such event in substantially the same proportions as their ownership immediately prior to such event of the outstanding ordinary shares and the outstanding company voting securities, as the case may be, (b) no person (excluding specified persons) beneficially owns, directly or indirectly, 35% or more of, respectively, the then-outstanding ordinary shares of the corporation resulting from such event or the combined voting power of the then-outstanding voting securities of such corporation, except to the extent that such ownership existed prior to the event, and (c) at least a majority of the members of the board of directors of the corporation resulting from such event were members of our incumbent Board at the time of the execution of the initial agreement or of the action of the Board providing for such event; or
- approval by our shareholders of a complete liquidation or dissolution of our company.

Repricing and Backdating Prohibited

Neither the administrator nor any other person may: (a) amend the terms of outstanding options or share appreciation rights to reduce the exercise price of such outstanding options or share appreciation rights; (b) cancel outstanding options or share appreciation rights in exchange for options or share appreciation rights with an exercise price that is less than the exercise price of the original options or share appreciation rights; or (c) cancel outstanding options or share appreciation rights with an exercise price above the current share price in exchange for cash or other securities.

The administrator may not grant an option or share appreciation right with a grant date that is effective prior to the date the administrator takes action to approve such award.

Term of 2021 Plan

Unless earlier terminated by our Board, the 2021 Plan will terminate on the 10th anniversary of the 2021 Annual General Meeting of Shareholders.

Termination and Amendment

The Board or the Compensation Committee may amend, alter, suspend, discontinue or terminate the 2021 Plan at any time, except:

- the Board must approve any amendment to the 2021 Plan if we determine such approval is required by prior action of the Board, applicable corporate law or any other applicable law;
- shareholders must approve any amendment to the 2021 Plan if we determine that such approval is required by Section 16 of the Exchange Act, the listing requirements of any principal securities exchange or market on which our ordinary shares are then traded, or any other applicable law; and
- shareholders must approve any amendment to the 2021 Plan that materially increases the number of ordinary shares reserved under the 2021 Plan, that materially expands the group of individuals that may become participants under the 2021 Plan or that diminishes the prohibitions described above under “Repricing and Backdating Prohibited.”

The administrator may modify, amend or cancel any award or waive any restrictions or conditions applicable to any award or the exercise of the award. Any modification or amendment that materially diminishes the rights of the participant or any other person that may have an interest in the award, or that cancels any award, however, will be effective only if agreed to by that participant or other person. The administrator does not need to obtain participant or other interested party consent, however, for the adjustment or cancellation of an award pursuant to the adjustment provisions of the 2021 Plan or the modification of an award to the extent deemed necessary to comply with any applicable law or the listing requirements of any principal securities exchange or market on which our ordinary shares are then traded, to the extent the administrator deems necessary to preserve favorable accounting or tax treatment of any award for us, to the extent the administrator determines that the action does not materially and adversely affect the value of an award or that such action is in the best interest of the affected participant or any other person(s) with an interest in the award, or to adjust or replace any performance goals applicable to an award at any time before the end of the relevant performance period.

The authority of the administrator to terminate or modify the 2021 Plan or awards will extend beyond the termination date of the 2021 Plan. In addition, termination of the 2021 Plan will not affect the rights of participants with respect to awards previously granted to them, and all unexpired awards will continue in force after termination of the 2021 Plan except as they may lapse or be terminated by their own terms and conditions.

Awards Subject to Recoupment; Compliance with Award Agreement and Plan Required

Awards and any shares issued or cash paid under an award are subject to any recoupment, clawback, equity holding, share ownership or similar policies that we adopt from time to time and any recoupment, clawback, equity holding, share ownership or similar requirements made applicable to us from time to time by law, regulation or listing standards. In addition, unless an award agreement specifies otherwise, the administrator may cancel any award at any time if the participant is not in compliance with all applicable provisions of the award agreement and the 2021 Plan.

Foreign Participation

To assure the viability of awards granted to participants employed or residing in foreign countries, the administrator may provide for such special terms as it may consider necessary or appropriate to accommodate differences in local law, tax policy or custom. Moreover, the administrator may approve such supplements to, or amendments, restatements or alternative versions of, the 2021 Plan as it determines is necessary or appropriate for such purposes. Any such amendment, restatement or alternative versions that the administrator approves for purposes of using the 2021 Plan in a foreign country will not affect the terms of the 2021 Plan for any other country.

Certain Federal Income Tax Consequences

The following summarizes certain United States federal income tax consequences relating to the 2021 Plan. The summary is based upon the laws and regulations in effect for the United States as of the date of this proxy statement and does not purport to be a complete statement of the law in this area. Furthermore, the discussion below does not address the tax consequences of the receipt or exercise of awards under non-U.S. laws, or U.S. state or local tax laws, and such tax laws may not correspond to the federal income tax treatment described herein. The exact U.S. federal income tax treatment of transactions under the 2021 Plan will vary depending upon the specific facts and circumstances involved and participants are advised to consult their personal tax advisors with regard to all consequences arising from the grant or exercise of awards and the disposition of any acquired shares.

Options

The grant of an option under the 2021 Plan will create no income tax consequences to us or to the participant.

A participant who is granted a nonqualified share option will generally recognize ordinary compensation income at the time of exercise in an amount equal to the excess of the fair market value of the ordinary shares received upon exercise over the exercise price. We will generally be entitled to a deduction in the same amount and at the same time as the participant recognizes ordinary income. Upon the participant's subsequent disposition of the ordinary shares received with respect to such option, the participant will recognize a capital gain or loss (long-term or short-term, depending on the holding period) to the extent the amount realized from the sale differs from the tax basis (i.e., the fair market value of the ordinary shares on the exercise date).

In general, a participant will recognize no income or gain as a result of the exercise of an incentive stock option, except that the alternative minimum tax may apply. Except as described below, the participant will recognize a long-term capital gain or loss on the disposition of the ordinary shares acquired pursuant to the exercise of an incentive stock option and we will not be allowed a deduction. If the participant fails to hold the ordinary shares acquired pursuant to the exercise of an incentive stock option for at least two years from the grant date of the incentive stock option and one year from the exercise date, then the participant will recognize ordinary compensation income at the time of the disposition equal to the lesser of the gain realized on the disposition and the excess of the fair market value of ordinary shares on the exercise date over the exercise price. We will generally be entitled to a deduction in the same amount and at the same time as the participant recognizes ordinary income. Any additional gain realized by the participant over the fair market value at the time of exercise will be treated as a capital gain.

Share Appreciation Rights

The grant of a share appreciation right under the 2021 Plan will create no income tax consequences to us or to the recipient. A participant who is granted a share appreciation right will generally recognize ordinary compensation income at the time of exercise in an amount equal to the excess of the fair market value of the ordinary shares at such time over the grant price. We will generally be entitled to a deduction in the same amount and at the same time as the participant recognizes ordinary income. If the share appreciation right is settled in our ordinary shares, upon the participant's subsequent disposition of such shares, the participant will recognize a capital gain or loss (long-term or short-term, depending on the holding period) to the extent the amount realized from the sale differs from the tax basis (i.e., the fair market value of the ordinary shares on the exercise date).

Restricted Shares

Generally, a participant will not recognize income and we will not be entitled to a deduction at the time an award of restricted shares is made under the 2021 Plan, unless the participant makes the election described below. A participant who has not made such an election will recognize ordinary income at the time the restrictions on the shares lapse in an amount equal to the fair market value of the restricted shares at such time. We will generally be entitled to a corresponding deduction in the same amount and at the same time as the participant recognizes income. Any otherwise taxable disposition of the restricted shares after the time the restrictions lapse will result in a capital gain or loss (long-term or short-term, depending on the holding period) to the extent the amount realized from the sale differs from the tax basis (i.e., the fair market value of the ordinary shares on the date the restrictions lapse). Any dividends paid in shares will be treated as an award of additional restricted shares subject to the tax treatment described herein.

A participant may, within 30 days after the date of the award of restricted shares, elect to recognize ordinary income as of the date of the award in an amount equal to the fair market value of such restricted shares on the date of the award (less the amount, if any, the participant paid for such restricted shares). If the participant makes such an election, then we will generally be entitled to a corresponding deduction in the same amount and at the same time as the participant recognizes income. If the participant makes the election, then any cash dividends the participant receives with respect to the restricted shares will be treated as dividend income to the participant in the year of payment and will not be deductible by us. Any otherwise taxable disposition of the restricted shares (other than by forfeiture) will result in a capital gain or loss. If the participant who has made an election subsequently forfeits the restricted shares, then the participant will not be entitled to claim a credit for the tax previously paid. In addition, we would then be required to include as ordinary income the amount of any deduction we originally claimed with respect to such shares.

Restricted Share Units and Performance Share Units

A participant will not recognize income and we will not be entitled to a deduction at the time an award of a restricted share unit or performance share unit is made under the 2021 Plan. Upon the participant's receipt of shares (or cash) at the end of the restriction period, the participant will recognize ordinary income equal to the amount of cash and/or the fair market value of the shares received, and we will be entitled to a corresponding deduction in the same amount and at the same time. If the units are settled in whole or in part in shares, upon the participant's subsequent disposition of the shares the participant will recognize a capital gain or loss (long-term or short-term, depending on the holding period) to the extent the amount realized upon disposition differs from the shares' tax basis (i.e., the fair market value of the shares on the date the participant received the shares).

Any dividend equivalent units that are paid in additional units will have the same tax treatment described in the paragraph above. Dividend equivalent units that are paid in cash will be taxed as ordinary income when paid, and we will be entitled to a corresponding deduction in the same amount at the same time.

Cash Incentive Awards

A participant who is paid a cash incentive award will recognize ordinary income equal to the amount of cash paid, and we will generally be entitled to a corresponding income tax deduction.

Section 162(m) Limit on Deductibility of Compensation

Section 162(m) of the Code limits the deduction we can take for compensation we pay (including under the 2021 Plan) to our covered employees (generally employees who have served as our Chief Executive Officer or Chief Financial Officer or who have been one of our three other highest paid officers since our 2018 fiscal year) to $1.0 million per year per individual.

Code Section 409A

Awards under the 2021 Plan may constitute, or provide for, a deferral of compensation within the meaning of Section 409A of the Code. If the requirements of Code Section 409A are not complied with, then holders of such awards may be taxed earlier than would otherwise be the case (e.g., at the time of vesting instead of the time of payment or settlement) and may be subject to an additional 20% penalty tax and, potentially, interest and other penalties. We have sought to structure the 2021 Plan, and we expect to seek to structure awards under the 2021 Plan, to exempt awards from the application of Code Section 409A or, if such an exemption is not available, to comply with Code Section 409A and the Department of Treasury regulations and other interpretive guidance issued pursuant to Code Section 409A. To the extent that we determine that any award granted under the 2021 Plan is subject to Code Section 409A, the award agreement evidencing such award will generally incorporate the terms and conditions required by Code Section 409A. The 2021 Plan and any applicable awards may be modified to exempt the awards from Code Section 409A or comply with the requirements of Code Section 409A.

Code Sections 280G and 4999

Section 280G of the Code limits our income tax deductions for compensation in the event we undergo a change of control. Accordingly, all or some of the amount which would otherwise be deductible may not be deductible with respect to those awards that become immediately exercisable, vested or payable in the event of a change of control. In addition, if Code Section 280G limits our deduction with respect to an award to a given participant, a 20% federal excise tax (*i.e.,* in addition to the federal income tax) will be withheld from that participant under Code Section 4999 on that portion of the cash or value of the ordinary shares received by that participant that is non-deductible under Code Section 280G. As discussed above, the 2021 Plan generally provides that we will either “cut back” a participant’s benefits to the level where the excise tax will not apply, or pay the benefits in full (with the participant being required to cover all taxes, including the excise tax, on such benefits), whichever results in the higher after-tax benefit to the participant.

New Plan Benefits

We cannot currently determine the awards that may be granted under the 2021 Plan in the future to the executive officers named in this proxy statement, to our non-employee directors or to other individuals. The Administrator will make such determinations from time to time.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information about our equity compensation plans as of September 30, 2020:

Plan Category	(a) Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column[a])
Equity compensation plans approved by shareholders	10,114,905	$37.14	26,553,821
Equity compensation plans not approved by shareholders	—	—	—
Total	10,114,905	$37.14	26,553,821

(c) Reflects the number of shares that remain available under the Prior Plan.

The Board unanimously recommends that shareholders vote ***FOR*** this proposal.

PROPOSAL NUMBER SEVEN

Authorization for Directors to Allot Company Shares

Under Irish law, directors of an Irish public limited company must have authority from its shareholders to issue any shares, including shares which are part of the company's authorized but unissued share capital. The Company's current authorization, approved by shareholders at our 2020 Annual General Meeting, is to issue up to 33% of the authorized but unissued share capital of the Company, which authorization will expire on March 10, 2021 — the date of the 2021 Annual General Meeting. We are presenting this proposal to renew the Board's authority to issue authorized but unissued shares on the terms set forth below. If this proposal is not passed, the Company will have a limited ability to issue new ordinary shares.

It is customary practice in Ireland to seek shareholder authority to issue shares up to an aggregate nominal value of up to 33% of the aggregate nominal value of the company's issued share capital and for such authority to be renewed each year. Therefore, in accordance with customary practice in Ireland, we are seeking approval to issue up to a maximum of 33% of our issued ordinary capital for a period expiring on the earlier of the date of the Company's Annual General Meeting in 2022 or September 10, 2022, unless otherwise varied, revoked or renewed. The Directors of the Company expect to propose renewal of this authorization at subsequent Annual General Meetings.

Granting the Board this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish market practice. This authority is fundamental to our business and enables us to issue shares, including, if applicable, in connection with funding acquisitions and raising capital. We are not asking you to approve an increase in our authorized share capital or to approve a specific issuance of shares. Instead, approval of this proposal will only grant the Board the authority to issue shares that are already authorized under our Articles of Association upon the terms below. In addition, because we are a NYSE-listed company, our shareholders continue to benefit from the protections afforded to them under the rules and regulations of the NYSE and SEC, including those rules that limit our ability to issue shares in specified circumstances. This authorization is required as a matter of Irish law and is not otherwise required for other companies listed on the NYSE with whom we compete. Accordingly, approval of this resolution would merely place us on par with other NYSE-listed companies.

Ordinary Resolution

The text of the resolution in respect of Proposal 7 (which is proposed as an ordinary resolution) is as follows:

> "**RESOLVED** that the directors be and are hereby generally and unconditionally authorized to exercise all powers to allot and issue relevant securities (within the meaning of section 1021 of the Companies Act 2014) up to an aggregate nominal value of US $2,398,000 (being equivalent to approximately 33% of the aggregate nominal value of the issued share capital of the Company as at the last practicable date prior to the issue of the notice of this meeting) and the authority conferred by this resolution shall expire on the earlier of the date of the Company's Annual General Meeting in 2022 or September 10, 2022, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot relevant securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired."
>
> As required under Irish law, the resolution in respect of this proposal is an ordinary resolution that requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

The Board unanimously recommends that shareholders vote ***FOR*** this proposal.

PROPOSAL NUMBER EIGHT

Waiver of Statutory Pre-Emption Rights

Under Irish law, unless otherwise authorized, when an Irish public limited company issues shares for cash to new shareholders, it is required first to offer those shares on the same or more favorable terms to existing shareholders of the company on a pro-rata basis (commonly referred to as the pre-emption right). Our current authorization, approved by shareholders at our 2020 Annual General Meeting, will expire on March 10, 2021, the date of the 2021 Annual General Meeting. We are therefore proposing to renew the Board's authority to opt-out of the pre-emption right on the terms set forth below.

It is customary practice in Ireland to seek shareholder authority to opt-out of the pre-emption rights provision in the event of the issuance of shares for cash, if the issuance is limited to up to 5% of a company's issued ordinary share capital. It is also customary practice for such authority to be renewed on an annual basis.

Therefore, in accordance with customary practice in Ireland, we are seeking this authority, pursuant to a special resolution, to authorize the directors to issue shares for cash up to a maximum of approximately 5% of the Company's authorized share capital without applying statutory pre-emption rights for a period expiring on the earlier of the Annual General Meeting in 2022 or September 10, 2022, unless otherwise varied, renewed or revoked. We expect to propose renewal of this authorization at subsequent Annual General Meetings.

Granting the Board this authority is a routine matter for public companies incorporated in Ireland and is consistent with Irish customary practice. Similar to the authorization sought for Proposal 7, this authority is fundamental to our business and, if applicable, will facilitate our ability to fund acquisitions and otherwise raise capital. We are not asking you to approve an increase in our authorized share capital. Instead, approval of this proposal will only grant the Board the authority to issue shares in the manner already permitted under our Articles of Association upon the terms below. Without this authorization, in each case where we issue shares for cash, we would first have to offer those shares on the same or more favorable terms to all of our existing shareholders. This requirement could cause delays in the completion of acquisitions and capital raising for our business. This authorization is required as a matter of Irish law and is not otherwise required for other companies listed on the NYSE with whom we compete. Accordingly, approval of this resolution would merely place us on par with other NYSE-listed companies.

Special Resolution

The text of the resolution in respect of Proposal 8 (which is proposed as a special resolution) is as follows:

> "RESOLVED that the directors be and are hereby empowered pursuant to section 1023 of the Companies Act 2014 to allot equity securities (as defined in section 1023 of that Act) for cash, pursuant to the authority conferred by proposal 7 of the notice of this meeting as if sub-section (1) of section 1022 of that Act did not apply to any such allotment, provided that this power shall be limited to the allotment of equity securities up to an aggregate nominal value of US $359,000 (being equivalent to approximately 5% of the aggregate nominal value of the issued share capital of the Company as at the last practicable date prior to the issue of the notice of this meeting) and the authority conferred by this resolution shall expire on the earlier of the Company's Annual General Meeting in 2022 or September 10, 2022, unless previously renewed, varied or revoked; provided that the Company may make an offer or agreement before the expiry of this authority, which would or might require any such securities to be allotted after this authority has expired, and in that case, the directors may allot equity securities in pursuance of any such offer or agreement as if the authority conferred hereby had not expired."

As required under Irish law, the resolution in respect of Proposal 8 is a special resolution that requires the affirmative vote of at least 75% of the votes cast. In addition, under Irish law, the Board may only be authorized to opt-out of pre-emption rights if it is authorized to issue shares, which authority is being sought in Proposal 7.

The Board unanimously recommends that shareholders vote ***FOR*** this proposal.

Governance of the Company

Vision and Values of Our Board

Our vision is a safe, comfortable and sustainable world. In addition to achieving financial performance objectives, our Board and management believe that we must assume a leadership position in the area of corporate governance to fulfill our vision. Our Board believes that good governance requires not only an effective set of specific practices but also a culture of responsibility throughout the company, and governance at Johnson Controls is intended to optimize both. Johnson Controls also believes that good governance ultimately depends on the quality of its leadership, and it is committed to recruiting and retaining Directors and officers of proven leadership ability and personal integrity. Our Board has adopted *Corporate Governance Guidelines* which provide a framework for the effective governance of Johnson Controls.

Johnson Controls' Values: How We Seek to Conduct Ourselves

Integrity First

We promise honesty and transparency. We uphold the highest standards of integrity and honor the commitments we make.

Purpose Led

We believe in doing well by doing good and hold ourselves accountable to make the world a better place through the solutions we provide, our engagement in society, the way we do business, and our commitment to protect people and the environment.

Customer Driven

We win when our customers win. Our long-term strategic relationships provide unique insights and the ability to deliver exceptional customer experiences and solutions.

Future Focused

Our culture of innovation and continuous improvement drives us to solve today's challenges while constantly asking 'what's next.'

One Team

We are one team, dedicated to working collaboratively together to create the purposeful solutions that propel the world forward.

Purpose Led Board Engagement

The Board recognizes the increased importance placed by investors on sustainability and corporate responsibility. During fiscal year 2021, the Board enhanced its oversight function in this area by delegating to the Governance Committee a heightened set of responsibilities related to the oversight of the Company's sustainability and corporate responsibility initiatives, renaming the committee the Governance and Sustainability Committee. In addition to its prior oversight of sustainability-related activities, the Governance and Sustainability Committee reviews the Company's' overall sustainability strategy, metrics, targets, goals and progress, as well as the development of new sustainability-based targets. The Governance and Sustainability Committee also monitors the Company's sustainability ratings and emerging sustainability trends to help ensure that the Company remains a leader in creating a smart, safe and sustainable world. The Governance and Sustainability Committee continues to monitor the Company's efforts to protect people and the environment, including the Company's efforts ensure the health and safety of its employees during the COVID-19 pandemic, the status of environmental compliance efforts, key safety metrics and the implementation of new corporate policies.

Future Focused Board Engagement

In 2020, the Board frequently engaged with management on the Company's digital transformation toward delivering capabilities focused on the future of smart, connected and sustainable buildings. Throughout the year, the Board regularly received updates from management, including the Company's Executive Vice President and Chief Customer & Digital Officer and its Vice President and President, Global Services, regarding the development of digitally driven products and services to support of its customers' missions, including the launch of the Company's OpenBlue platform. The Board gained insight into the development and release of the Company's digital offerings, including how the Company manages and mitigates cybersecurity risks across the product lifecycle. The Board also learned how the Company is adapting its digital capabilities to provide solutions to complex problems, including the provision of safe building solutions as people return to work.

Board Mission/Responsibilities

The mission of the Board is to promote the long-term value and health of Johnson Controls in the interests of shareholders and set an ethical “tone at the top.” All corporate authority is exercised by the Board except for those matters reserved to the shareholders. The Board has retained oversight authority — defining and overseeing the implementation of and compliance with standards of accountability and monitoring the effectiveness of management policies and decisions in an effort to ensure that the Company is managed in such a way to achieve its objectives. The Board delegates its authority to management for managing the everyday affairs of the Company. The Board requires that senior management review major actions and initiatives with the Board prior to implementation. Management, not the Board, is responsible for managing the Company.

BOARD EFFECTIVENESS

WORKING DYNAMICS
- Candid discussions
- Open access to management and information
- Focus on reputation and performance
- Regular engagement between formal meetings

BOARD COMPOSITION
- Broad range of skills and experiences
- Independence
- Diversity

BOARD STRUCTURE
- Strong Lead Director role
- Three standing committees
- All independent directors on each standing committee

GOVERNANCE PRACTICES
- Candid self-evaluation
- Oversight of CEO/management performance
- Board/management succession planning

Board Leadership

The Board’s leadership structure generally includes a combined Chairman and CEO role with a strong, independent non-executive lead director. The Board believes our overall corporate governance measures help ensure that strong, independent directors continue to effectively oversee our management and key issues related to strategy, risk and integrity; executive compensation; CEO evaluation; and succession planning. In choosing generally to combine the roles of Chairman and CEO, the Board takes into consideration the importance of in-depth, industry-specific knowledge and a thorough understanding of our business environment and risk management practices in setting agendas and leading the Board’s discussions. Combining the roles also provides a clear leadership structure for the management team and serves as a vital link between management and the Board. This allows the Board to perform its oversight role with the benefit of management’s perspective on our business strategy and all other aspects of the business. Our Board periodically reviews its determination to have a single individual act both as Chairman and CEO.

Currently, the Board operates with a designated Lead Director with a well-defined role. The Lead Director, currently Mr. Jürgen Tinggren, acts as an intermediary between the Board and senior management. Among other things, the Lead Director’s duties include:

- Working with Mr. Oliver to develop and approve Board agendas and meeting schedules
- Developing agendas for and chairing executive sessions of independent Directors
- Serving as principal liaison between the independent Directors and Mr. Oliver on sensitive issues
- Advising Mr. Oliver on the content of the information sent to the Board
- Being reasonably available for direct communication with the Company’s major stockholders

Mr. Tinggren is highly engaged and is routinely in direct contact with members of senior management, including the Chief Financial Officer, the General Counsel, the Corporate Controller, the Corporate Secretary, the Chief Compliance Officer, the head of Corporate Development and the head of Internal Audit, among others. He also has routine discussions with the Company’s independent auditors. Mr. Tinggren’s level of engagement allows him to have a continuous impact on the Company’s strategic and operational initiatives.

Along with the CEO, the Lead Director also hosts Board update calls on a monthly basis in the periods between Board meetings to keep the Directors current on important developments in the business as well as the status of key strategic and operational initiatives. These update calls provide Directors with the opportunity to stay current on matters impacting the Company, which facilitates more efficient and robust discussions at the regularly scheduled Board meetings.

Areas of Focus for the Board

Strategy and Operations

Ensuring that processes are in place designed to maintain the integrity and ethical conduct of the Company; reviewing and approving strategic plans and profit plans; reviewing corporate performance and staying apprised of relations with shareholders

Governance and Risk Management

Overseeing and evaluating management's systems and processes for the identification, assessment, management, mitigation, and reporting of major risks; establishing corporate governance standards

Talent and Succession Planning

Overseeing and evaluating management's systems and senior management performance and compensation; and providing advice and counsel to senior management and plan for effective succession

Board Composition and Effectiveness

Recommending candidates to the shareholders for election to the Board; setting standards for Director qualification, orientation and continuing education; reviewing and assessing the Board's leadership structure; and undertaking an annual performance evaluation regarding the effectiveness of the Board

Board Oversight of Strategy

One of the Board's primary responsibilities is overseeing management's establishment and execution of the Company's strategy and the associated risks. The full Board oversees strategy and strategic risk through robust and constructive engagement with management, taking into consideration our key priorities, global trends impacting our business, regulatory developments, and disruptors in our businesses. The Board's oversight of our strategy primarily occurs through deep-dive annual reviews of the long-term strategic plans of each of our businesses. During these reviews, management provides the Board with its view of the key commercial and strategic risks faced by each business or region, and the Board provides management with feedback on whether management has identified the key risks and is taking appropriate actions to mitigate risk. In addition to the annual deep-dive strategic review, because the Company's strategic initiatives are subject to rapidly evolving business dynamics, the Board regularly reviews key strategic initiatives throughout the year to ensure progress is being made against goals, understand where adjustments or refinements to strategy may be appropriate and stay current on issues impacting the business.

The Board's oversight of strategy was prominent following the onset of the COVID-19 pandemic. The Board worked diligently to assess the impact of pandemic on all facets of the Company, examining macroeconomic and financial impacts, the effect of regulatory actions to combat the pandemic on the Company's operations, measures taken to protect health and safety of the Company's employees, the health of the Company's manufacturing base and supply chain, investor perspectives and the Company's business continuity strategy. The Board applied this knowledge to provide advice and oversight to management as it worked toward the development of a strategy to mitigate the immediate and potential long-term impacts of the pandemic, protect the health of the Company and its employees and continue to execute on its strategic objectives and deliver value to shareholders. The Board and each of its Committees remained engaged on each of these initiatives throughout the year, regularly receiving updates from management and providing input and oversight as we executed our strategy.

Johnson Controls has a clear vision and growth agenda. The visions and values described above are designed to achieve our mission of ***helping our customers win everywhere, every day*** through a relentless focus on customer needs, developing and deploying leading products and technology, distributing our products and services through accessible channels, and attracting and retaining top talent. Johnson Controls plans to achieve these objectives through:

- ***Creating Growth Platforms*** by developing sales excellence through building intimate customer relationships to understand customer needs and how to solve them; driving innovation to translate customer problems into business opportunities; developing advantaged solutions and enhanced business models; making it easy for customers to do business with Johnson Controls; and building an acquisition pipeline.

- ***Driving Operational Improvements*** by standardizing processes and improving cost and service; being best-in-class in G&A effectiveness and efficiency; leveraging IT to increase efficiency and effectiveness; enhancing manufacturing efficiency at all levels; and improving service and installation productivity and optimizing field infrastructure.
- ***Building a Performance Culture*** by establishing a transparent, data-driven performance culture; aligning strategy, structure, people and processes to create One Team; investing in all talent, focusing on skill building and professional development, and diversity and inclusion; and driving a global commitment to wellness and sustainability.

Through these efforts we plan to achieve top quartile organizational health while creating greater shareholder value and generating long-term free cash flow conversion. For additional information on our strategy, see “Business Strategy” in Item 1 of our Annual Report on Form 10-K filed with the SEC on November 16, 2020.

Board Oversight of Talent and Succession Planning

Our Board oversees management succession planning and talent development. The Compensation and Talent Development Committee regularly reviews and discusses with management the CEO succession plan and the succession plans for key positions at the senior officer level across the Company. The Compensation and Talent Development Committee reviews potential internal senior management candidates with our CEO and the Executive Vice President of Human Resources, including the qualifications, experience, and development priorities for these individuals. The full Board generally discusses succession and/or talent management at each one of its regularly scheduled meetings. These discussions are led by the CEO and the Executive Vice President of Human Resources, with periodic assistance from firms with talent assessment expertise. These discussions include critical leadership competencies, talent assessment, short and long-term development potential of executives, the pool of external talent, and diversity. The Board also evaluates succession and development plans in the context of our overall business strategy and culture. Potential leaders are visible to Board members through formal presentations and informal events to allow Directors to personally assess candidates. In 2020, we followed this process when executing our search for a successor to Brian Stief as the Company’s Chief Financial Officer. The Board was actively involved in a wide-ranging search for a successor to Mr. Stief, with directors interviewing and evaluating internal and external candidates prior to approving management’s recommendation to appoint Mr. Leonetti as Mr. Stief’s successor.

In late 2020, the Compensation Committee amended its charter to change its name to the Compensation and Talent Development Committee and enhance its oversight over our talent development and human capital management efforts. Under its revised charter, the Compensation and Talent Development Committee is charged with reviewing: the talent development and succession plans for the CEO and other senior leadership positions, our human capital management practices, policies, strategies and goals, our senior leadership pipeline development, including the recruitment, development and retention of senior leadership talent, and our diversity and inclusion initiatives and progress. In carrying out these responsibilities, the Compensation and Talent Development Committee will annually review with our Executive Vice President of Human Resources: our diversity and inclusion plans and goals, reports on our organizational health, our succession planning and talent development strategy and progress, and the Company’s human capital policies and practices.

We have implemented several measures that focus on ensuring accountabilities exist for attracting and developing diverse talent in our workforce. For fiscal year 2021, our CEO and other senior leaders have diversity and inclusion objectives embedded in their annual performance goals. We have also committed to having a diverse talent pipeline by partnering with our business units in their workforce planning forecasts to develop initiatives and goals to recruit diverse talent across all leadership and skill areas. We train our recruiting workforce in diversity sourcing strategies and partners with external organizations that develop and supply diverse talent.

Our Board also establishes steps to address emergency CEO succession planning in extraordinary circumstances. Our emergency CEO succession planning is intended to enable our Company to respond to unexpected emergencies and minimize potential disruption or loss of continuity to our Company’s business and operations.

Board Oversight of Risk

Board of Directors

- The Board exercises its oversight responsibility for risk both directly and through its standing committees.
- Throughout the year, the Board and each committee spend a portion of their time reviewing and discussing specific risk topics.
- On an annual basis, the Chief Compliance Officer and other members of senior management report on our top enterprise risks, and the steps management has taken or will take to mitigate these risks.
- On an annual basis, our Chief Information Officer provides the Board with an in-depth review on information technology and cybersecurity.
- The General Counsel and Chief Sustainability, Government and Regulatory Affairs Officer update the Board regularly on material legal and regulatory matters.
- Board meetings regularly include strategic overviews by the CEO that describe the most significant issues, including risks, affecting the Company.
- The Board is regularly provided with business updates from the leaders of Johnson Controls' business units.

Audit Committee

Oversees risks related to:
- financial statements and financial reporting
- accounting and internal controls
- tax
- regulatory compliance
- internal ethics and compliance programs

Compensation and Talent Development Committee

Oversees risks related to:
- compensation policies and practices
- talent development and retention
- management succession planning
- human capital management

Governance and Sustainability Committee

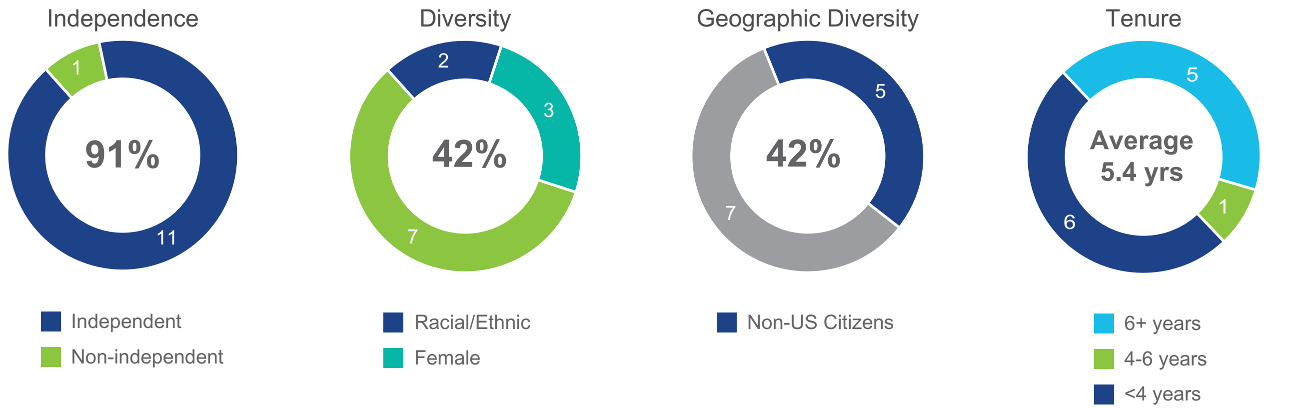
Oversees risks related to:
- Company's corporate governance policies and EHS programs
- the Company's ERM process
- information technology and cybersecurity
- public policy, corporate responsibility and sustainability

Senior Management

Johnson Control's senior management is responsible for assessing and managing the Company's various exposures to risk on a day-to-day basis, including the identification and management of risks through Johnson Controls' robust enterprise risk management ("ERM") process. The Company's ERM process provides the enterprise with a common framework and terminology to ensure consistency in identification, reporting and management of key risks. It also informs the strategic planning process and includes a formal process to identify and document the key risks to Johnson Controls perceived by a variety of stakeholders in the enterprise.

Board Composition and Effectiveness

The Johnson Controls Board as a whole is strong in its diversity, vision, strategy and business judgment. It possesses a robust collective knowledge of management and leadership, business operations, crisis management, risk assessment, industry knowledge, accounting and finance, corporate governance and global markets:



Executive Leadership Experience — 12/12
Directors with significant leadership experience over an extended period, including as chief executive officer or chief financial officer, provide the Company with special insight into how large organizations operate, including strategy, productivity, regulatory concerns, talent development and risk management.

Experience Leading Global Teams — 12/12
Directors who have worked in global companies have experience in markets outside of the United States and bring valuable knowledge to the Company, including exposure to different cultural perspectives and practices, and provide critical insight in light of the Company's global operations.

Financial and Accounting Expertise — 10/12
Directors with an understanding of accounting and financial reporting processes, particularly in large, global businesses, provide an important oversight role.

Public Policy Experience — 6/12
Directors with public policy and government experience have key insight into the role of regulatory issues and government affairs affecting the Company.

Cybersecurity, Technology and Innovation — 6/12
Directors who have expertise in cybersecurity, IT, technology fields and/or driving technological innovation are important as we continue to transform and evolve our business through digital solutions and services.

Manufacturing and Industry Experience — 10/12
Directors who have experience in the industry and markets served by the Company offer valuable perspective for operations.

Corporate Governance Experience — 11/12
Directors with experience in corporate governance, such as service on boards and board committees, or as governance executives of other large, public companies, are familiar with the dynamics and operation of a board of directors and the impact that governance policies have on the Company.

Corporate Responsibility/Sustainability — 6/12
Directors with experience in corporate responsibility initiatives, including sustainability, help drive our mission to create smart and sustainable buildings for the communities in which we live, work, learn and play.

M&A Experience — 10/12
Directors with experience in M&A provide key insights relevant to our business portfolio and our long-term strategic planning.

Director Orientation

All new Directors participate in our director orientation program during the first few months on our Board. New Directors receive an extensive suite of onboarding materials covering director responsibilities, corporate governance practices and policies, business strategies, leadership structure, and long-term plans. They then participate in a series of meetings with management representatives from our business and functional areas to review and discuss information about the Company's strategic plans, financial statements, and key issues, policies, and practices. Based on feedback from our Directors, we believe this onboarding approach provides new directors with a strong foundation for understanding our businesses, connects Directors with members of management with whom they will interact, and accelerates their effectiveness to engage fully in Board deliberations.

Director Education

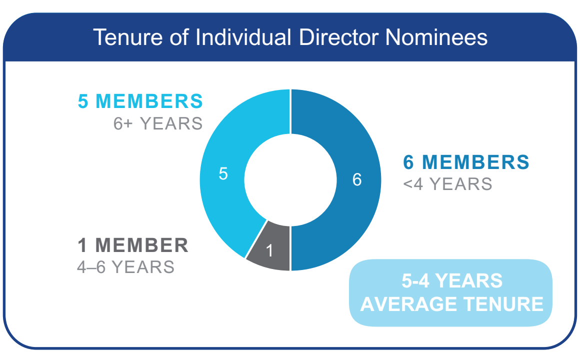
Our Board believes that director education is key to the ability of directors to fulfill their roles and supports Board members in their continuous learning. Directors may enroll in continuing education programs at our expense on corporate governance and critical issues associated with a Director's service. Our Board also hears regularly from management on numerous subjects, including investor relations, cash management, regulatory developments, data privacy, and cybersecurity. In addition, the Board periodically participates in site visits to our facilities. For example, in 2020, our Board participated in a Global Products "virtual visit" where the Board engaged in a deep dive review of the Company's wide-ranging portfolio of HVAC, fire, security and controls products, gaining valuable insight into the Company's product development process and strategy.

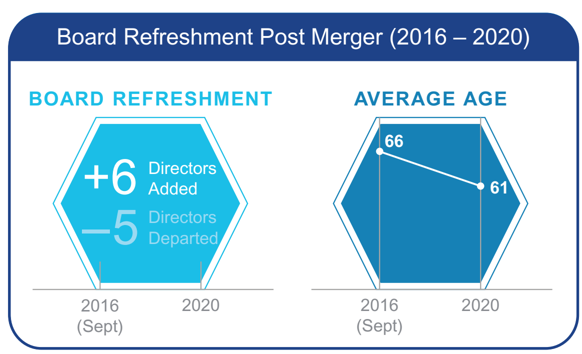
Shareholder Engagement

In 2020, we continued our focus on regularly engaging with our shareholders. The Company reached out to holders of over 61% of our shares outstanding, and engaged with governance professionals and/or portfolio managers at investors holding 11% of our outstanding shares. During these meetings, we discussed many topics, including our executive compensation program, corporate governance structure, risk oversight and our corporate responsibility and sustainability efforts. Investors were generally supportive of the Company's compensation practices and pleased with the Company's corporate responsibility and sustainability efforts. Further, investors highlighted the importance of engaging with them in the future on long-term corporate strategy and sustainability initiatives.

These discussions provide our Board with valuable insights into our shareholders' views. We plan to continue to actively engage with our shareholders on a regular basis to better understand and consider their views.

Board Tenure and Refreshment





Board Committees

To conduct its business the Board maintains three standing committees: Audit, Compensation and Talent Development and Governance and Sustainability, and each of these NYSE required committees are entirely composed of independent Directors. The Board also maintains an Executive Committee comprised of the Chairman, Lead Director and each committee chair that meets to review matters as delegated to it by the Board. All committees report on their activities to the Board.

The Lead Director may also convene "special committees" to review discrete matters that require the consideration of a Board committee, but do not fit within the mandate of any of the standing committees. Special committees report their activities to the Board.

To ensure effective discussion and decision making while at the same time having a sufficient number of independent Directors for its three standing committees, the Board is normally constituted of between ten and thirteen Directors. The minimum and maximum number of Directors is set forth in Johnson Controls' Articles of Association.

The Governance and Sustainability Committee reviews the Board's governance guidelines annually and recommends appropriate changes to the Board.

Board Meetings

The Board meets at least four times annually, and additional meetings may be called in accordance with our Articles of Association. Frequent board meetings are critical not only for timely decisions but also for Directors to be well informed about Johnson Controls' operations and issues. One of these meetings will be scheduled in conjunction with the Annual General Meeting of shareholders and Board members are required to be in attendance at such meeting either in person or by telephone. The Lead Director and the Chair of the Board are responsible for setting meeting agendas with input from the other Directors.

Committee meetings are normally held in conjunction with Board meetings. Major committee decisions are reviewed and approved by the Board. The Board Chair and committee chairs are responsible for conducting meetings and informal consultations in a fashion that encourages informed, meaningful and probing deliberations. Presentations at Board meetings are concise and focused, and they include adequate time for discussion and decision-making. An executive session of independent Directors, chaired by the Lead Director, is held at least annually, and in practice at least once during most Board meetings. Mr. Tinggren ensures that the executive sessions are highly interactive and include robust discussions on the Company's strategic and operational initiatives and related risks. They also include in-depth discussions on matters such as executive performance and succession planning. These discussions are key to informing the Board's oversight role and appropriately challenging management.

Directors receive the agenda and materials for regularly scheduled meetings in advance. Best efforts are made to make materials available as soon as one week in advance, but no later than three days in advance. When practical, the same applies to special meetings of the Board. Directors may ask for additional information from, or meetings with, senior managers at any time.

Strategic planning and succession planning sessions are held at least annually at a regular Board meeting, but such sessions often occur more frequently. Succession planning meetings focus on the development and succession of not only the CEO but also the Company's other senior executives.

The Board's intent is for Directors to attend all regularly scheduled Board and committee meetings. Directors are expected to use their best efforts to attend regularly scheduled Board and committee meetings in person. All independent Board members are welcome to attend any committee meeting.

The Board also participates in monthly update calls in the periods between Board meetings to keep the Directors current on important developments impacting the Company as well as the status of key strategic and operational initiatives.

The Board also makes periodic visits to our facilities to learn more about our products and customers. For example, 2020, our Board participated in a Global Products "virtual visit" where the Board engaged in a deep dive review of the Company's wide ranging portfolio of products and gained valuable insight into the Company's product development process and priorities, including how the Company is incorporating digital technology into all of its products to drive growth.

Board and Committee Calendars

A calendar of agenda items for the regularly scheduled Board meetings and all regularly scheduled committee meetings is prepared annually by the Chair of the Board in consultation with the Lead Director, committee chairs, and all interested Directors.

Board Communication

Management speaks on behalf of Johnson Controls, and the Board normally communicates through management with outside parties, including shareholders, business journalists, analysts, rating agencies and government regulators. In certain circumstances Directors may also meet with shareholders to discuss specific governance topics. The Board has established a process for interested parties to communicate with members of the Board, including the Lead Director. If you have any concern, question or complaint regarding our compliance with any policy or law, or would otherwise like to contact the Board, you can reach the Johnson Controls Board of Directors via email at *jciboard@jci.com*. Depending upon the nature of the communication and to whom it is directed, the Secretary will: (a) forward the communication to the appropriate director or directors; (b) forward the communication to the relevant department within the Company; or (c) attempt to handle the matter directly (for example, a communication dealing with a share ownership matter). Shareholders, customers, vendors, suppliers and employees can also raise concerns at *www.johnsoncontrolsintegrityhelpline.com*. Inquiries can be submitted anonymously and confidentially.

All inquiries are received and reviewed by the Integrity Helpline manager, who is part of the Compliance function. A report summarizing all items received resulting in cases is prepared for the Audit Committee of the Board. The Integrity Helpline manager directs cases to the applicable department (such as customer service, human resources, or in the case of accounting or control issues, forensic audit) and follows up with the assigned case owner to ensure that the cases are responded to in a timely manner. The Board also reviews non-trivial shareholder communications received by management through the Corporate Secretary's Office or Investor Relations.

Board and Committee Evaluation Process

Board and Committee Evaluation Process

The Governance and Sustainability Committee leads an annual performance evaluation of the Board and each Board committee as described below.

SEPTEMBER-OCTOBER

Each Director completes a Board self-evaluation questionnaire and a separate questionnaire for each committee on which the director serves. The Board-specific questionnaire requests ratings and solicits detailed suggestions for improving Board and committee governance processes and effectiveness. The committee-specific questionnaires are tailored to the respective committees' roles and responsibilities.

OCTOBER-NOVEMBER

Self-evaluation questionnaire results are compiled and summarized by the Office of the Corporate Secretary. The summaries include all specific Director comments, without attribution. Each Director receives the Board self-evaluation summary and the self-evaluation summary for each committee on which the Director serves. The Lead Director and the Chair of the Governance and Sustainability Committee receive all of the self-evaluation summaries and informally consult with each of the Directors.

DECEMBER

Committee self-evaluation results are discussed by each committee, and Board self-evaluation results are discussed by the full Board. Each committee and the Board identify areas for further consideration and opportunities for improvement and implement plans to address those matters. The qualifications and performance of all Board members are reviewed in connection with their re-nomination to the Board.

ONGOING

Directors may discuss concerns, including those related to individual performance separately with the Lead Director.

The Board views self-evaluation of Board and committee performance as an integral part of its commitment to continuous improvement. The Governance and Sustainability Committee annually reviews the evaluation process and considers ways to augment it.

Board Advisors

The Board and its committees (consistent with the provisions of their respective charters) may retain their own advisors, at the expense of Johnson Controls, as they deem necessary in order to carry out their responsibilities.

Board Compensation and Share Ownership

The Governance and Sustainability Committee periodically reviews the Directors' compensation and recommends changes in the level and mix of compensation to the full Board. See the Compensation Discussion and Analysis for a detailed discussion of the Compensation and Talent Development Committee's role in determining executive compensation.

To help align Board and shareholder interests, Directors are encouraged to own Johnson Controls ordinary shares or their equivalent, with the guideline set at five times the annual cash retainer. Directors are expected to attain this minimum stock ownership guideline within five years of joining the Board. Once a Director satisfies the minimum stock ownership recommendation, the Director will remain qualified, regardless of market fluctuations, under the guideline as long as the Director does not sell any stock. Mr. Oliver receives no additional compensation for service as a Director.

Director Independence

To maintain its objective oversight of management, the Board consists of a substantial majority of independent Directors. Our Board annually determines the independence of each Director and nominee for election as a Director based on a review of the information provided by the Directors and the executive officers, and a survey by our legal and finance departments. The Board makes these determinations under the *NYSE Listed Company Manual's* independence standards and our *Corporate Governance Guidelines*, which are more restrictive than the NYSE independence standards. Independent Directors:

- are not former officers or employees of Johnson Controls or its subsidiaries or affiliates, nor have they served in that capacity within the last five years;
- have no current or prior material relationships with Johnson Controls aside from their directorship that could affect their judgment;
- have not worked for, nor have any immediate family members that have worked for, been retained by, or received anything of substantial value from Johnson Controls aside from his or her compensation as a Director;
- have no immediate family member who is an officer of Johnson Controls or its subsidiaries or has any current or past material relationship with Johnson Controls;
- do not work for, nor does any immediate family member work for, consult with, or otherwise provide services to, another publicly traded company on whose board of directors Johnson Controls' CEO or other senior executive serves;
- do not serve as, nor does any immediate family member serve as, an executive officer of any entity with respect to which Johnson Controls' annual sales to, or purchases from, exceed the greater of two percent of either entity's annual revenues for the prior fiscal year or $1,000,000;
- do not serve, nor does any immediate family member serve, on either the board of directors or the compensation committee of any corporation that employs either a nominee for director or a member of the immediate family of any nominee for director; and
- do not serve, nor does any immediate family member serve, as a director, trustee, executive officer or similar position of a charitable or non-profit organization with respect to which the company or its subsidiaries made charitable contributions or payments in excess of the greater of $1,000,000 or two percent of such organization's charitable receipts in the last fiscal year.

Directors meet stringent definitions of independence and for those Directors that meet this definition, the Board will make an affirmative determination that a Director is independent. The Board has determined that all of the Director nominees, with the exception of Mr. Oliver, meet these standards and are therefore independent of the Company.

Director Service

Directors are elected by an affirmative vote of a majority of the votes cast (in person or by proxy) by shareholders at the Annual General Meeting. They are elected to serve for one-year terms (except in instances where a director is elected during a special meeting), ending after completion of the next succeeding Annual General Meeting. If a Director resigns or otherwise terminates his or her directorship prior to the next Annual General Meeting, the Board may appoint an interim Director until the next Annual General Meeting. Any nominee for Director who does not receive an affirmative vote of a majority of votes cast (in person or by proxy) by shareholders at the Annual General Meeting is not elected to the Board.

Each Director is required to tender their resignation from the Board at the Annual General Meeting following his or her 75th birthday. The Board may, in its discretion, waive this limit in special circumstances. The rotation of committee chairs and members is considered on an annual basis to ensure diversity of Board member experience and variety of perspectives across the committees, but there is no strict committee chair rotation policy. Any changes in committee chair or member assignments are made based on committee needs, Director interests, experience and availability, and applicable regulatory and legal considerations. Moreover, the value of rotation is weighed carefully against the benefit of committee continuity and experience.

Directors are also expected to inform the Governance and Sustainability Committee of any significant change in their employment or professional responsibilities and are required to offer their resignation to the Board in the event of such a change. This allows for discussion with the Governance and Sustainability Committee to determine if it is in the mutual interest of both parties for the Director to continue on the Board.

The Governance and Sustainability Committee is responsible for the review of all Directors, and where necessary will take action to recommend to shareholders the removal of a Director for performance, which requires the affirmative vote of a majority of the votes represented (in person or by proxy) at a duly called shareholder meeting.

Nomination of Directors and Board Diversity

The Governance and Sustainability Committee, in accordance with the Board's governance principles, seeks to create a Board that as a whole is strong in its collective knowledge and has a diversity of skills and experience with respect to vision and strategy, management and leadership, business operations, business judgment, crisis management, risk assessment, industry knowledge, accounting and finance, corporate governance and global markets. Although the Johnson Controls Board does not have a specific policy regarding diversity, the Board takes into account the current composition and diversity of the Board (including diversity with respect to race, gender and ethnicity) and the extent to which a candidate's particular expertise and experience will complement the expertise and experience of other Directors. The Governance and Sustainability Committee also considers the Board's overall composition when considering a potential new candidate, including whether the Board has an appropriate combination of professional experience, skills, exposure to international markets, knowledge and variety of viewpoints and backgrounds in light of Johnson Controls' current and expected future needs. In addition, the Governance and Sustainability Committee believes that it is desirable for new candidates to contribute to a variety of viewpoints on the Board, which may be enhanced by a mix of different professional and personal backgrounds and experiences. The Governance and Sustainability Committee periodically reviews these criteria and qualifications to determine any need to revise such criteria and qualifications based upon corporate governance best practices and Johnson Controls' needs at the time of the review.

General criteria for the nomination of Director candidates include:

- The highest ethical standards and integrity
- A willingness to act on and be accountable for Board decisions
- An ability to provide wise, informed and thoughtful counsel to top management on a range of issues
- Diversity of expertise and experience as well as diversity with respect to race, gender and ethnicity
- A history of achievement that reflects superior standards for themselves and others
- Loyalty and commitment to driving the success of the Company
- An ability to take tough positions while at the same time working as a team player
- Individual backgrounds that provide a portfolio of experience and knowledge commensurate with the Company's needs

The Company also strives to have all non-employee Directors be independent. In addition to having such Directors meet the NYSE definition of independence, the Board has set its own more rigorous standard of independence. The Governance and Sustainability Committee must also ensure that the members of the Board as a group maintain the requisite qualifications under NYSE listing standards for populating the Audit, Compensation and Talent Development and Governance and Sustainability Committees. In addition, the Governance and Sustainability Committee ensures that each member of the Compensation and Talent Development Committee is a "Non-Employee" Director as defined in the Securities Exchange Act of 1934 and is an "outside director" as defined in section 162(m) of the U.S. Code.

As provided in its charter, the Governance and Sustainability Committee will consider Director candidates recommended by shareholders. To recommend a Director candidate, a shareholder should write to Johnson Controls' Secretary at Johnson Controls' current registered address: One Albert Quay, Cork, Ireland. Such recommendation must include:

Shareholder-recommended Director candidate nominations must include:

- The name and address of the candidate
- A brief biographical description, including his or her occupation for at least the last five years, and a statement of the qualifications of the candidate, taking into account the qualification requirements set forth above
- The candidate's signed consent to serve as a Director if elected and to be named in the proxy statement
- Evidence of share ownership of the person making the recommendation
- All information required by Article 62 of our Memorandum and Articles of Association to be included in notices for any nomination by a shareholder of an individual for election to the Board

The recommendation must also follow the procedures set forth in Articles 54 — 68 of our Memorandum and Articles of Association to be considered timely and complete in order to be considered for nomination to the Board.

To be considered by the Governance and Sustainability Committee for nomination and inclusion in the Company's proxy statement for the 2022 Annual General Meeting, shareholder recommendations for Director must be received by Johnson Controls' Corporate Secretary no later than September 24, 2021. Once the Company receives the recommendation, the Company may deliver a questionnaire to the candidate that requests additional information about the candidate's independence, qualifications and other information that would assist the Governance and Sustainability Committee in evaluating the candidate, as well as certain information that must be disclosed about the candidate in the Company's proxy statement, if nominated. Candidates must complete and return the questionnaire within the time frame provided to be considered for nomination by the Governance and Sustainability Committee. No candidates were recommended by shareholders in connection with the 2021 Annual General Meeting.

The Governance and Sustainability Committee employs an unrelated search firm to assist the Committee in identifying candidates for Director when a vacancy occurs. The Governance and Sustainability Committee also receives suggestions for Director candidates from Board members. All of our nominees for Director are current members of the Board. In evaluating candidates for Director, the Governance and Sustainability Committee uses the qualifications described above, and evaluates shareholder candidates in the same manner as candidates from all other sources. Based on the Governance and Sustainability Committee's evaluation of the current Directors, each nominee was recommended for election.

Other Directorships, Conflicts and Related Party Transactions

We recognize the importance of having Directors with significant experience in other businesses and activities; however, Directors are expected to ensure that other commitments, including outside board memberships, do not interfere with their duties and responsibilities as members of the Johnson Controls' Board. In order to provide sufficient time for informed participation in their Board responsibilities, non-executive Directors are required to limit their external directorships of other public companies to three and Audit Committee members are required to limit their audit committee membership in other public companies to two. The Board may, in its discretion, waive these limits in special circumstances. When a Director or the CEO intends to serve on another board, the Governance and Sustainability Committee is required to be notified. The Governance and Sustainability Committee reviews the possibility of conflicts of interest or time constraints and must approve the officer's or Director's appointment to the outside board. Each Director is required to notify the Corporate Secretary of any potential conflicts. The CEO may serve on no more than one other public company board. The CEO shall resign or retire from the Board upon resigning or retiring from his role as CEO, following a transition period mutually agreed upon between the CEO and the Compensation and Talent Development Committee.

The Company has a formal, written procedure intended to ensure compliance with the related party provisions in our Code of Ethics and with our corporate governance guidelines. For the purpose of the policy, a "related party transaction" is a transaction in which we participate and in which any related party has a direct or indirect material interest, other than ordinary course, arms-length transactions of less than 1% of the revenue of the counterparty. Transactions exceeding the 1% threshold, and any transaction involving consulting, financial advisory, legal or accounting services that could impair a Director's independence, must be approved by our Governance and Sustainability Committee. Any related party transaction in which an executive officer or a Director has a personal interest, or which could present a possible conflict under the Code of Ethics, must be approved by a majority of disinterested Directors, following appropriate disclosure of all material aspects of the transaction.

Under the rules of the Securities and Exchange Commission, public issuers such as Johnson Controls must disclose certain "related person transactions." These are transactions in which Johnson Controls is a participant where the amount involved exceeds $120,000, and a Director, executive officer or holder of more than 5% of our ordinary shares has a direct or indirect material interest. Although Johnson Controls engaged in commercial transactions in the normal course of business with companies where Johnson Controls' Directors were employed and served as officers, none of these transactions exceeded 1% of Johnson Controls' gross revenues and these transactions are not considered to be related party transactions.

Code of Ethics

We have adopted the Code of Ethics, which applies to all employees, officers, and Directors of Johnson Controls. The Code of Ethics meets the requirements of a "code of ethics" as defined by Item 406 of Regulation S-K and applies to our CEO, Chief Financial Officer and Chief Accounting Officer, as well as all other employees. The Code of Ethics also meets the requirements of a code of business conduct and ethics under the listing standards of the NYSE. The Code of Ethics is posted on our website at *www.johnsoncontrols.com* under the heading "Our Company — Ethics and Compliance." We will also provide a copy of the Code of Ethics to shareholders upon request. We disclose any amendments to the Code of Ethics, as well as any waivers for executive officers or Directors on our website at *www.johnsoncontrols.com* under the heading "Our Company — Ethics and Compliance." The Board of Directors annually certifies their compliance with the Code of Ethics. The Company maintains established procedures by which employees may anonymously report a possible violation of the Code of Ethics. The Audit Committee maintains procedures for the receipt, retention, and treatment of complaints received by the Company regarding accounting, internal accounting controls, or auditing matters. The Audit Committee also maintains procedures for employees to report concerns regarding questionable accounting or auditing policies or practices on a confidential, anonymous basis.

Sustainability

At Johnson Controls, sustainability is our business. We deliver innovation that improves lives and makes the world a better place. Our employees innovate to create efficient products and services that empower customers and contribute to a clean economy.

We create intelligent buildings and efficient energy solutions to enable smart cities and communities. We grow our business by providing sustainable, efficient products and services, improving productivity, empowering our people and reducing the environmental footprint of our operations and supply chain.

We believe that, through leadership in sustainability, we create long-term benefit for our customers, employees, shareholders and society. Our employee purpose is to power our customers' success and protect the environment.

Sustainability Governance and Strategy

Our commitment to sustainability starts at the top and is integrated throughout our Company:

Board of Directors and Board Governance and Sustainability Committee

The Board of Directors approves and oversees the implementation of the Company's mission, vision and values. The Board is briefed each quarter on our sustainability progress. The Governance and Sustainability Committee provides oversight of our sustainability program, goals, management, trends and environmental health and safety.

Chairman and CEO and Executive Committee

Authority for day-to-day management of economic, environmental and social topics is delegated to the Executive Committee which comprises the senior executives responsible for all our major corporate functions. Our CEO and Executive Committee members have sustainability and diversity embedded into their performance goals.

Chief Sustainability Officer and Sustainability Leadership Committee

The Sustainability Leadership Committee provides regular updates to the Executive Committee and our Board. It is chaired by our Chief Sustainability Officer. Its members are senior leaders across our business, functions and regions. It is charged with ensuring we are leaders across all measures of sustainability, embedding sustainability into our culture and operations across the enterprise, building sustainability metrics into employee performance goals and launching working groups under the Global Sustainability Council.

Global Sustainability Council and Working Groups

The Global Sustainability Council (GSC) and Global Sustainability Team play the role of connector and coordinator, ensuring streamlined engagement across diverse business functions to deliver on the enterprise Sustainability Strategy. The GSC was established in 2009 to provide a structure for enterprise-wide sustainability management. The working groups are composed of small teams and are designed to address specific sustainability-related topics.

2025 Sustainability Strategy

Products, Services and Solutions

Provide increasingly sustainable products and services

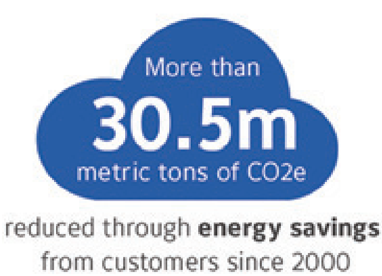
In 2020, we submitted our proposed Science-Based Targets to the Science-Based Targets Initiative which align with the more ambitious, updated Paris Agreement aim to limit global temperature increase to below 1.5 degrees Celsius. Our commitment includes further reducing our internal carbon emissions and providing increasingly sustainable product and service offerings.

Since January 2000, performance contracting projects have helped our customers save more than 30.6 million metric tons CO_2e and $6.6 billion USD through energy and operational savings.

We and Lawrence Berkeley National Laboratory won the prestigious R&D 100 Award in the Software/Services category from R&D World for the Building Efficiency Targeting Tool for Energy Retrofits (BETTER). The open-source BETTER tool allows building owners and managers to convert readily available monthly building energy consumption data into specific recommendations to improve building energy efficiency at scale worldwide. It allows data-driven, low-cost building energy analysis to be performed safely — without the need for initial on-site audits or inspections.

In September 2020 we announced the official opening of our $50 million OpenBlue Innovation Center to create a future-ready built environment for Singapore and surrounding the region. The new facility is a living laboratory for next generation applications built on our unifying digital technology suite, OpenBlue, that meets new demands for health, safety and sustainability in connected buildings.

We are committed to the worldwide transition to low-global warming potential (GWP) refrigerants and offer alternative refrigerants across all chiller platforms, with GWP reductions ranging from 56% to over 99% compared to conventional refrigerants. We believe that we offer the most comprehensive range of industrial refrigeration and cooling equipment in the market, enabling solutions with the lowest total lifecycle greenhouse gas emissions for any application.



People

Foster a culture of sustainability that engages and attracts people who want to make a difference

At Johnson Controls, every employee is encouraged to engage in our culture of inclusion. We work to create an environment where the voices of our colleagues are heard, contribution to our business success is recognized and rewarded, and differences are valued. Our Business Resource Groups provide employees the opportunities to engage, advocate and develop, both personally and professionally. In 2020, our company re-launched the Business Resource Group structure with support and ongoing engagement from our executive team.

In 2020, we launched a new volunteer engagement program, WeGive, to allow employees to share their passion and expertise, strengthening the communities where we live and work across the globe. For each hour employees volunteer, we provide funds to eligible nonprofit organizations to support their work. Since 2003, our employees have volunteered 1.79 million hours in local communities. In fiscal year 2020, our corporate philanthropy efforts resulted in contributions of more than $8.2 million. In addition, our employees gave in excess of $2.6 million.

The global COVID-19 crisis challenged us to lean even further into our commitment to keeping communities safe. In 2020, employees globally stepped forward to donate time and funds to COVID-19 relief, with the Johnson Controls Foundation matching employee donations in the U.S., and the company matching the donations outside the U.S. We and our foundation also provided significant donations to nonprofits around the world for COVID-19 relief work. Our global volunteer platform immediately shifted to opportunities that employees could participate in virtually. From writing letters to the elderly who aren't able to get out, to working on an open-source ventilator, to making masks, employees found ways to contribute their time while keeping a safe social distance.

Johnson Controls Mexico achieved gold level, the highest level, in the Mexican Standard on Job Equality and Non-Discrimination. We are one of only two multi-national corporations to be awarded the gold level in multiple sites. This certification was issued by Factual Services with the endorsement of the Mexican Federal Secretary of Labor.

Partnerships

Lead in global partnerships that significantly increase our sustainability impact

We continue our commitments with key partners and to do what we say we will do. At the UN Climate Action Summit in September 2019, we made three additional global commitments including the Three Percent Club for Energy Efficiency, the Cool Coalition and the EP100 Cooling Challenge. These commitments expand on our existing partnership with the World Resources Institute and Sustainable Energy for All focused on building efficiency and decarbonization.

Performance

Improve our sustainability performance and track progress

We are on track to meet our Zero Landfill goals and achieved 21 Zero Landfill certified facilities.

Our global renewable energy amounted to 230,000 MWh through purchase of Renewable Energy Certificates. Through this initiative we offset 100% of our greenhouse gas emissions from our manufacturing plants in the United States.

We exceeded our fiscal 2020 goal for greenhouse gas intensity with a 7.7% reduction. In addition, we reduced our energy intensity by 3.2%.

In September of 2020, we announced the pricing of our first Green Bond offering of $625 million in ten-year notes. The net proceeds will support projects that focus on sustainability and support our 2025 sustainability goals. This initiative builds on our commitment to sustainable finance and is our second sustainability driven financing project. In 2019, we became one of the first industrial companies to tie its senior revolving credit facilities to specific sustainability metrics in the U.S. syndicated loan market.

230,000 MWh
RECS offset 100% of our emissions from US manufacturing

Green Bond supports 2025 Sustainability Goals

21
Zero landfill facilities

Governance Demonstrate our commitment to sustainability from the top

We are honored to be listed on more than 40 leading sustainability indices and to be named one of the World's Most Ethical Companies and one of the 100 Best Corporate Citizens.

Our leaders proudly serve on social, environmental and governance leadership board positions around the world, furthering sustainability leadership globally. For example, the Executive Chairman of our GSC, Grady Crosby, serves as the Secretary of the Board of Directors and Chairman of the Nomination and Governance Committee of the United Nations Global Compact Network USA. Mr. Crosby is listed in the Top 50 Chief Diversity Officers for 2020, as compiled by the National Diversity Council.

2020 World's Most Ethical Company
Ethisphere Magazine

MSCI
AAA Rating

3BL Media 100 Best Corporate Citizens 2020

Corporate ESG Performance Prime
Rated by ISS ESG

FTSE4Good Index Series
FTSE Russell Environment Opportunities 100 Index
FTSE4Good

2020 R&D 100 Winner

We have been publicly reporting sustainability results since 2002 and are proud of our history of transparency. We report at the GRI Standards-Comprehensive level, United Nations Global Compact Advanced level and respond to the CDP and fulfill additional requests by investors, customers and others for our sustainability data. We align our reporting to the Sustainability Accounting Standards Board (the "SASB"), the UN Sustainable Development Goals and the recommendations of the Task Force on Climate-Related Financial Disclosures. Our public sustainability reports, policies and commitments can be found at: https://www.johnsoncontrols.com/corporate-sustainability/reporting-and-policies.

For More Information

We believe that it is important that Johnson Controls' stakeholders and others are able to review its corporate governance practices and procedures. Our corporate governance guidelines are embodied in a formal document that has been approved by Johnson Controls' Board of Directors. It is available on our website at *www.johnsoncontrols.com* under the heading "Investors-Corporate Governance." We will also provide a copy of the corporate governance principles to shareholders upon request. Our corporate governance guidelines and general approach to corporate governance as reflected in our Memorandum and Articles of Association and our internal policies and procedures are guided by U.S. practice and applicable federal securities laws and regulations and NYSE requirements. Although we are an Irish public limited company, we are not subject to, nor have we adopted, the U.K. Corporate Governance Code or any other non-statutory Irish or U.K. governance standards or guidelines. While there are many similarities and overlaps between the U.S. corporate governance standards applied by us and the U.K. Corporate Governance Code and other Irish/U.K. governance standards or guidelines, there are differences, in particular relating to the extent of the authorization to issue share capital and effect share repurchases that may be granted to the Board and the criteria for determining the independence of Directors.

Compensation of Non-employee Directors

Non-employee director compensation for fiscal 2020 consisted of an annual cash retainer of $140,000 and restricted stock units (“RSUs”) with a grant date value of approximately $175,000 and a one-year vesting term. The Lead Director received an additional $30,000 and the chairs of each standing committee received an additional fee of $25,000. A Director who is also an employee receives no additional remuneration for services as a Director. In fiscal year 2020, the Governance and Sustainability Committee recommended no changes to non-employee director compensation in connection with its annual review of Director compensation, which included a review of industry and peer Director compensation practices. The Board believes that the compensation of its non-employee directors is reasonable, appropriate and consistent with market practice.

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($)[1]	Total ($)
Current Directors			
Ms. Jean Blackwell	$140,000	$175,000	$315,000
Mr. Pierre Cohade	$140,000	$175,000	$315,000
Mr. Michael E. Daniels (CC)	$165,000	$175,000	$340,000
Mr. Juan Pablo del Vale Perochena (GC)	$165,000	$175,000	$340,000
Mr. W. Roy Dunbar	$140,000	$175,000	$315,000
Ms. Gretchen R. Haggerty[2]	$140,000	$175,000	$315,000
Ms. Simone Menne	$140,000	$175,000	$315,000
Mr. Jürgen Tinggren(L) (AC)[2]	$195,000	$175,000	$370,000
Mr. Mark Vergnano	$140,000	$175,000	$315,000
Mr. R. David Yost	$140,000	$175,000	$315,000
Mr. John D. Young	$140,000	$175,000	$315,000

(L)= Lead Director

(AC)= Audit Committee Chair

(CC)= Compensation and Talent Development Committee Chair

(GC)= Governance and Sustainability Committee Chair

(1) This column reflects the fair value of the entire amount of awards granted to Directors calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification (ASC) Topic 718, excluding estimated forfeitures. The fair value of RSUs is computed by multiplying the total number of shares subject to the award by the closing market price of the Company’s ordinary shares on the date of grant. RSUs granted to Board members generally vest and the underlying units are converted to shares and delivered to Board members on the anniversary of the grant date.

(2) In December 2020, Ms. Haggerty became the Chair of the Audit Committee and Mr. Tinggren became a member of the Governance and Sustainability Committee.

Charitable Contributions

The Board understands that its members, or their immediate family members, serve as directors, trustees, executives, advisors and in other capacities with a host of other organizations. If Johnson Controls directs a charitable donation to an organization in which a Johnson Controls Director, or their immediate family member, serves as a director, trustee, executive, advisor, or in other capacities with the organization, the Board must approve the donation. Any such donation approved by the Board will be limited to an amount that is less than 2% of that organization’s annual charitable receipts, and less than 2% of Johnson Controls’ total annual charitable contributions. In line with its matching gift policy for employees, going forward Johnson Controls will make an annual matching gift of up to $3,000 for each Director to qualifying charities.

COMMITTEES OF THE BOARD

The table below sets forth committee membership as of the end of fiscal year 2020 and meeting information for each of the Board Committees.

Name	Audit	Governance and Sustainability	Compensation	Executive	Date Elected/ Appointed to Board
Ms. Jean Blackwell			X		06/13/2018
Mr. Pierre Cohade	X				12/05/2018
Mr. Michael E. Daniels			X(C)	X	03/10/2010
Mr. Juan Pablo del Valle Perochena		X(C)		X	09/02/2016
Mr. W. Roy Dunbar			X		06/14/2017
Ms. Gretchen R. Haggerty	X				03/07/2018
Ms. Simone Menne	X				03/07/2018
Mr. George R. Oliver				X(C)	09/28/2012
Mr. Jürgen Tinggren (L)	X(C)			X	03/05/2014
Mr. Mark Vergnano			X		09/02/2016
Mr. R. David Yost		X			03/12/2009
Mr. John D. Young		X			12/07/2017
Number of Meetings During Fiscal Year 2020	***9***	***4***	***6***	***0***	

(L) = Lead Director

(C) = Committee Chair

During fiscal 2020, the full Board met 4 times. All Directors attended at least 75% of the Board and committee meetings on which they sit. The Board's governance principles provide that Board members are expected to attend each Annual General Meeting in person or by phone. At the 2020 Annual General Meeting, all of our current Board members who were Board members at such time were in attendance.

Audit Committee. The Audit Committee monitors the integrity of Johnson Controls' financial statements, the independence and qualifications of the independent auditors, the performance of Johnson Controls' internal auditors and independent auditors, Johnson Controls' compliance with legal and regulatory requirements and the effectiveness of Johnson Controls' internal controls. The Audit Committee is also responsible for retaining, subject to shareholder approval, evaluating, setting the remuneration of, and, if appropriate, recommending the termination of Johnson Controls' auditors. The Audit Committee has been established in accordance with Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended. The Audit Committee operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at *www.johnsoncontrols.com* and we will provide a copy of the charter to shareholders upon request. The current members of the Audit Committee are Messrs. Cohade and Yost and Mses. Haggerty and Menne, each of whom is independent under NYSE listing standards and SEC rules for audit committee members. Ms. Haggerty is the chair of the Audit Committee. Mr. Tinggren served as Chairman of the Audit Committee until December 2020, at which time he became a member of the Governance and Sustainability Committee and Ms. Haggerty assumed the role of Audit Committee Chairman. Mr. Yost joined the Audit Committee in December 2020. The Board has determined that each of Mr. Yost and Mses. Haggerty and Menne are audit committee financial experts. Mr. Tinggren was independent under NYSE listing standards and SEC rules for audit committee members and determined to be an audit committee financial expert during his time as a member of the Audit Committee.

Governance and Sustainability Committee. The Governance and Sustainability Committee is responsible for identifying individuals qualified to become Board members, recommending to the Board the Director nominees for the Annual General Meeting, developing and recommending to the Board a set of corporate governance principles, and playing a general leadership role in Johnson Controls' corporate governance. In addition, the Governance and Sustainability Committee oversees our environmental, health and safety management system and enterprise risk assessment activities, including the oversight of cybersecurity risk. The Governance and Sustainability Committee receives quarterly updates from management on cybersecurity, health and safety and sustainability matters. The Governance and Sustainability Committee reviews the Company's' overall sustainability strategy, metrics, targets, goals and progress, as well as the development of new sustainability-based targets. The Governance and Sustainability Committee also oversees and makes recommendations to the Board regarding the compensation of our independent Directors. The Governance and Sustainability Committee operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at *www.johnsoncontrols.com* and we will provide a copy of the charter to shareholders upon request. The current members of the Governance and Sustainability Committee are Messrs. del Valle Perochena, Tinggren and Young, each of whom is independent under NYSE listing standards. Mr. del Valle Perochena chairs the Governance and Sustainability Committee. Mr. Yost served as a member of the Governance and Sustainability Committee until December 2020, at which time he became a member of the Audit Committee. Mr. Tinggren joined the Governance and Sustainability Committee in December 2020.

Compensation and Talent Development Committee. The Compensation and Talent Development Committee reviews and approves compensation and benefits policies and objectives, determines whether Johnson Controls' officers, Directors and employees are compensated according to these objectives, and assists the Board in carrying out certain of its responsibilities relating to the compensation of Johnson Controls' executives. The Compensation and Talent Development Committee also reviews: the talent development and succession plans for the CEO and other senior leadership positions, our human capital management practices, policies, strategies and goals, our senior leadership pipeline development, including the recruitment, development and retention of senior leadership talent, and our diversity and inclusion initiatives and progress. The Compensation and Talent Development Committee operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at *www.johnsoncontrols.com* and we will provide a copy of the charter to shareholders upon request. The current members of the Compensation and Talent Development Committee are Ms. Blackwell and Messrs. Daniels, Dunbar and Vergnano. Mr. Daniels is the chair of the Compensation and Talent Development Committee. The Board of Directors has determined that each of the members of the Compensation and Talent Development Committee is independent under NYSE listing standards. In addition, each member is a "Non-Employee" Director as defined in the Securities Exchange Act of 1934 and is an "outside director" as defined in section 162(m) of the U.S. Code. For more information regarding the Compensation and Talent Development Committee's roles and responsibilities, see the Compensation Discussion and Analysis.

Executive Committee. The Executive Committee assists the Board in fulfilling its oversight responsibility with its review and monitoring of major corporate actions including external corporate development activities, business portfolio optimization, capital appropriations and capital expenditures. The Executive Committee was established in September of 2016 and operates under a charter approved by the Board. The charter is posted on Johnson Controls' website at *www.johnsoncontrols.com* and we will provide a copy of the charter to shareholders upon request. The current members of the Executive Committee are Ms. Haggerty and Messrs. Daniels, del Valle Perochena, Oliver and Tinggren. Mr. Oliver is the chair of the Executive Committee.

Compensation Committee Interlocks and Insider Participation

During fiscal 2020, Ms. Blackwell and Messrs. Daniels, Dunbar and Vergnano served on the Compensation and Talent Development Committee. None of the members of the Compensation and Talent Development Committee during fiscal 2020, or as of the date of this proxy statement, is or has been an officer or employee of the Company and no executive officer of the Company served on the compensation committee or board of any company that employed any member of the Company's Compensation and Talent Development Committee or Board of Directors.

COMPENSATION DISCUSSION & ANALYSIS

At Johnson Controls our promise is to advance the safety, comfort and intelligence of spaces and places to power our customers' mission. This requires us to work with integrity and purpose, focus on our customers and the future, together as one team. To ensure we are successful, our compensation programs are designed to reward our employees, including our executive officers, accordingly.

This Compensation Discussion & Analysis (the "CD&A") section of our Proxy Statement sets out the mechanics of our executive compensation program, in particular its application and outcomes in respect of fiscal 2020, ending September 30, 2020.

2020 NAMED EXECUTIVE OFFICERS (NEOs)

Named Executive Officer	Title
George R. Oliver	Chairman & Chief Executive Officer
Brian J. Stief	Vice Chairman & Chief Financial Officer[1]
Jeffrey M. Williams	VP & President — Global Products, Building Technologies and Solutions
Ganesh Ramaswamy	Vice President & President — Global Services
Olivier Leonetti	Executive Vice President & Chief Financial Officer Elect[1]

1. Following the end of fiscal year 2020, Mr. Leonetti succeeded Mr. Stief as our Chief Financial Officer. Mr. Stief subsequently retired as an officer of the Company on December 31, 2020.

EXECUTIVE SUMMARY

FISCAL 2020 PRIORITIES AND PERFORMANCE

The coronavirus (COVID-19) pandemic had a significant global impact on our business in fiscal 2020. As the continuously developing events unfolded, we implemented a set of immediate actions to reflect the evolving conditions and unprecedented uncertainty the pandemic presented. Several top priorities were identified: first, to protect the health and wellbeing of our employees and their families; second, the continuous functionality of our customers' and partners' critical infrastructure and essential facilities around the world and third, preserve our long-term viability and performance amid an uncertain environment. We executed successfully against all priorities, securing our facilities, implementing new policies, ensuring the wellbeing of our employees, our customers, and their building occupants and taking decisive and balanced action to control costs and enhance the strength of our liquidity position. We were a leader in our response which began early in February. At the request of the Chinese Government, we worked to build infrastructure for new medical facilities in Wuhan over eight days. While this was an example of our early response, our involvement and attention to our employees and customers continues.

Notable examples of our products and solutions delivered on the frontlines

- Increasing capacity and production safely to meet demand for life-saving COVID-19 equipment globally.
- Providing a fire alarm retrofit, a wireless nurse call system and a wired nurse call system at newly set up alternative care facilities for COVID-19 patients.
- Providing rooftop Air Handling Units to a field hospital and N95 mask manufacturing facility.
- Providing care communication and nurse call systems to enhance communication and provide remote medical monitoring at a medical center retrofitting to meet increased patient capacity.

Demonstrating our Zero Harm principle to protect the health and wellbeing of our employees and their families

- Establishing an enterprise-wide response team to lead on policies regarding the implementation of health and safety protocols to best protect our workforce in accordance with WHO and CDC guidance.
- Adopting a framework to guide decision-making when evaluating facilities reopening, with regular monitoring and auditing of facilities to ensure compliance with our COVID-19 safety requirements.
- Implementing precautionary health and safety measures in the workplace and encouraging our employees to follow similar protocols when away from work.

Read more about these actions in response to COVID-19 in our Proxy Statement Summary on page 2.

Prior to the onset of COVID-19, we were on course to meet or exceed our financial and operational goals for fiscal 2020, which was evident in our performance through the first five months of the fiscal year. In the latter seven months of fiscal 2020, we continued to execute our strategy while meeting or exceeding internal and external expectations on our financial performance. Although we had to pivot to mitigate the impact from COVID-19, we further strengthened our operating systems, continued to invest in our businesses, filled key leadership roles, and delivered value to our shareholders. In fiscal 2020 we:

- Delivered GAAP EPS of $0.84 and full-year adjusted EPS of $2.24, up 14% versus prior year;
- Generated full year cash provided by operating activities of $2.5 billion and full year adjusted free cash flow of $1.9 billion (115% conversion);
- Returned nearly $3 billion in capital to shareholders through share buybacks and dividends;
- Ended fiscal year 2020 with what we believe to be the healthiest balance sheet and strongest liquidity profile we have had since before the Tyco merger.

To address the impact of COVID-19, our management team took immediate and decisive risk mitigation actions to partially offset the significant financial impact of COVID-19. Our management team also focused on controlling operating costs and enhancing the strength in our liquidity position. Along with these risk mitigation efforts, management prepared an aggressive fiscal 2020 revised plan, recognizing and communicating to the organization that the pandemic required different priorities for our business in the second half of the fiscal year. In combination with executing against our top priorities, we believe these actions will help to ensure that we emerge stronger after the pandemic.

Other notable activities in fiscal 2020 included the following:

In Q3 the Company launched OpenBlue, a digital platform that enables customers to manage their operations more systemically and seamlessly, delivering buildings that have memory, intelligence and a unique identity.

As the economy reopens in the wake of the pandemic, this innovative artificial intelligence driven platform enhances our solutions, delivering the safest and most secure buildings as our customers seek to provide an efficient and healthy workplace for their employees. OpenBlue allows us to leverage our differentiated and tiered service offerings, combined with our large installed base, to accelerate services growth.

Throughout the year we remained focused on cost control through actions including:

- a reduction in discretionary spending;
- reduced capital expenditure and operating expenses; and
- reduced indirect spending.

The combination of the pay and benefit actions described on the right were critical to ensuring we emerge from the pandemic in a strong financial position.

As noted above, we embraced our Zero Harm principle through swift actions to help ensure the health and wellbeing of our employees and their families.

In order to preserve our long-term viability and performance we also needed to make a range of difficult decisions regarding pay and benefits that impacted our employees around the world, including our NEOs, to effectively manage costs and retain resource levels as demand fell. These actions included a 10 day furlough (unpaid leave) for all U.S. salaried employees, including NEOs; reducing or suspending the 401(k) company match in the US and Canada (including for management); suspending off-cycle pay increases and promotions; freezing hiring; decreasing contractor and contingent worker spend; and eliminating overtime pay.

In non-US locations, local market equivalents to the unpaid time were made based on local laws and regulations. In lieu of participating in the ten-day unpaid furlough, the CEO voluntarily took at 20% salary reduction from April through the balance of the fiscal year. **These actions contributed to our ability to control costs and reduce the impact of the pandemic on our liquidity and operating margins.**

Against a backdrop of a continuing pandemic and overall economic uncertainty, limited visibility and continuing challenges, we are optimistic about our position entering fiscal 2021. We believe that our balance sheet and cash flows are strong, our operating fundamentals have improved, and we are well placed as a market leader to partner strategically with our customers as the world emerges from the pandemic. Furthermore, the second half of 2020 enabled the Company to demonstrate its ability to be agile, responsive and proactive. These skills will continue to serve us well as we look forward. Our stock price at the end of 2020 had already recovered to pre-pandemic levels, nearly reaching our five-year high.

* See Annex I to this Proxy Statement for a reconciliation of adjusted EPS from continuing operations, adjusted free cash flow and free cash flow conversion to our results for the most directly comparable financial measures as reported under generally accepted accounting principles in the United States.

FISCAL 2020 COMPENSATION

Our compensation program is designed to effectively and transparently align compensation with performance. Accordingly, the achievements described above are reflected in the outcomes under our compensation program.

Given the timing of our fiscal year, annual and long-term performance metrics and goals were established prior to the COVID-19 pandemic. As noted above, given continued uncertainty the Compensation and Talent Development Committee (the “Committee”) resolved to leave the incentive plans unchanged during the year. In addition, the Committee approved a revised mid-year strategic plan, and communicated updated areas of focus. Throughout the remainder of the year, the Committee continued to monitor the impact of COVID-19 on our incentive plans. The Committee recognized that while metrics such as free cash flow and gross margin could, to some extent, self-adjust for significant declines in volume with prudent management, others such as revenue growth and EBIT growth could not. Therefore, the Committee indicated to management that it would consider making a discretionary adjustment to our annual incentive plan, capped at threshold, if management was successfully able to execute on its revised plan and deliver value to the Company’s shareholders. The Committee and management believed that the potential application of a discretionary adjustment capped at threshold would motivate and reward management for successful execution in challenging conditions and inure to the benefit of shareholders.

At the end of the year, the Committee considered management’s performance in light of COVID-19, taking into account performance against our original and revised strategic plans, performance against our peers, and our overall organizational health. Given the decisive actions taken by management, and successful execution against our strategic priorities in the second half of the fiscal year, including the Company achieving EBIT and revenue above its revised fiscal year 2020 plan, the Committee decided to apply a discretionary adjustment and recognize threshold performance with respect to the EBIT growth metric in the fiscal 2020 annual incentive plan in recognition of the work the management team did to manage costs, minimize the EBIT impact of the pandemic and safeguard our organizational health. The Committee viewed the proposed discretionary adjustment as modest and reasonable, with the adjustment increasing the performance level under the annual incentive plan by 17%, which remained below both target performance and management’s projected above-target performance based on our performance during the period prior to the pandemic. As a result of management’s actions taken during the pandemic, we were able to deliver adjusted EPS in excess of our revised plan and analyst expectations, achieve over 115% adjusted free cash flow conversion, return nearly $3 billion in capital to shareholders through share buybacks and dividends while strengthening our balance sheet and liquidity position and hold our EBIT decremental margins to levels we believe were viewed as best in class among our peers.

In making its decision to apply discretion, the Committee recognized that management had prioritized the health and wellbeing of its employees throughout the pandemic. Importantly, management implemented health and safety protocols designed to best protect employees and proactively engaged with employees working remotely to help support their health and wellbeing. The Committee believed that management’s cost-control efforts were generally equitable and balanced to reduce the level of permanent resource reductions while preserving our long-term viability and performance. Measures such as furloughs for all salaried employees the reduction or elimination of the 401(k) match for most salaried employees in the US and Canada were applied consistently, including with respect to management. In addition, management did not take action to reduce employee salaries during the pandemic (other than the voluntary base salary reduction by the CEO), including maintaining our performance-based merit increase program for fiscal year 2021. Management also elected to make discretionary adjustments to our non-executive incentive plans to account for the impact of COVID-19 on our performance. The Committee believed these factors aligned management and our employees, further supporting the application of discretion.

Despite the negative impact of COVID-19 and the efforts of all of our employees including the NEOs, no changes were made with respect to any of the other annual incentive metrics, nor to the long-term incentive plan performance period ending in fiscal year 2020. This discretionary adjustment limited to the EBIT metric threshold performance resulted in an overall annual incentive payout that remained below target and below pre-COVID-19 expectations based on our performance prior to the pandemic.

Fiscal 2020 annual incentive awards paid out at 88% of target for the NEOs
See **page 73** for details

2018-2020 PSU awards subject to a three-year performance period concluding September 30, 2020, paid out at 128% of target
See **page 75** for details

To assess the alignment between performance and compensation, the Committee relies on advice from its independent compensation consultant, Farient Advisors LLC. Farient evaluates the relationship between performance and compensation, and considers this relationship in making pay decisions pertaining to the CEO. On the Committee's behalf, Farient used a number of methods in assessing our pay for performance alignment, including:

- Farient's proprietary alignment methodology, which assesses the extent to which 3-year TSR and 3-year average Performance-Adjusted Compensation (which includes actual salary, actual annual incentives paid, and the value of equity at the end of the 3-year period using actual PSU awards, if known, and target PSU awards for incomplete performance cycles, and the Black-Scholes value of options granted during the 3-year period, all valued at the stock price at the end of the 3-year period) are aligned;
- A simulation of pay-for-performance tests used by proxy advisory firms; and
- An analysis of realizable pay relative to target pay compared to peers.

Given the results of these assessments, the Committee concluded that Johnson Controls' executive compensation, including that for the CEO, is aligned with our performance. In addition, Farient was involved in the discussions evaluating the appropriateness of the use of discretion in our fiscal 2020 incentive plans and, based on the criteria the company set forth in making its decisions, their knowledge of the market, and input from the investment community in general, were supportive of the approach taken by the Committee.

FISCAL 2020 KEY COMMITTEE ACTIVITIES

During fiscal 2020, the Committee addressed several items in addition to the standing annual agenda items which are highlighted below.

Executive Pay Actions In Response to COVID-19

The Committee remained apprised of actions management was taking across the organization as it related to Johnson Controls' employees. In their capacity overseeing executive pay, the Committee:

- Engaged with management on cost savings measures and endorsed management's decision that such measures be applied consistently, including with respect to our executive officers
- Supported the request from the CEO for a voluntary 20% base salary reduction for six months from April until the end of the fiscal year
- Determined that a discretionary adjustment to the annual incentive plan results to permit threshold vesting in respect of the EBIT Growth metric only was warranted, while making no further adjustments to the plan which modified financial performance results from 67% of target to 84% of target
- Approved the CEO's recommendation that no individual modifiers be applied in respect of fiscal 2020 to recognize the actions of the NEOs to focus and work as one team to lead and manage through the unprecedented impact of the pandemic
- Made no adjustments to PSUs or any other form of LTI previously granted

Shareholder Engagement

The Company continued its twice-yearly shareholder outreach efforts, offering meetings to our top 25 shareholders, representing approximately 61% of the Company's outstanding shares. Meetings were requested by five shareholders, representing 11% of the company's outstanding shares, during fiscal year 2020 and provided the Company with valuable feedback.

Feedback indicated that investors continue to be comfortable with the general structure and operation of our executive compensation program. Discussions focused on COVID-19 related issues, with investors generally receptive to the use of discretion with feedback that the Company should be consistent and transparent if discretion was applied. Free cash flow and ROIC continue to be cited as important metrics for both performance and compensation, and we continue to use these metrics in our variable compensation programs.

Investors also raised topics related to ESG, including the Company's compliance with SASB and TCFD and were pleased with Johnson Controls' progress in these areas. These topics are discussed in detail on page 49 of our Proxy Statement.

FY21 Compensation Committee Actions

The Committee has made the following changes for FY21:

- Revised the Compensation Committee Charter to rename the Committee the Compensation and Talent Development Committee and enhance the Committee's oversight of talent development and human capital management.
- The Committee continues to monitor trends and developments with respect to incentive compensation recoupment policies. As part of this monitoring, in December 2020 the Committee revised our recoupment policy to allow us to recoup incentive based and equity compensation for misconduct that has the potential to cause material reputational harm.

Executive New Hires

Two new executive appointments were made in connection with the focus on driving growth through services and solutions and the planned retirement of Brian Stief, Chief Financial Officer: Ganesh Ramaswamy, and Olivier Leonetti were hired in fiscal year 2020 further enhance the company's growth and market offerings. The need for critical capabilities as the company continues to transform, required us to bring in external talent.

- In December 2019, Ganesh Ramaswamy was named Vice President and President Global Services and Transformation. In this role, also newly created for the Company, Mr. Ramaswamy leads our global services business of approximately $6.3 billion. He is driving the services transformation by improving consistency of fundamentals across the Company's global direct channels, leveraging infrastructure and working closely with regional leaders to execute strategic priorities. Since joining, he has played a key leadership role in merging digital and service capabilities, including the launch of tailored services powered by OpenBlue technology that provide customizable solutions to customers around the globe.
- In August 2020, Olivier Leonetti joined the company as the successor to Brian Stief. He formally became our Chief Financial officer on November 17, 2020. Mr. Leonetti's extensive international experience and background in industrial and digital technologies will enable him to provide key leadership as the Company intensifies its focus on transforming the future of building technologies. Mr. Leonetti's appointment marks the conclusion of the planned succession from Mr. Stief.

In association with the appointments of Messrs. Ramaswamy and Leonetti, the Committee reviewed and approved their annual compensation packages as well as cash and equity awards intended to compensate them for at-risk compensation that they were each forfeiting at their prior employers. While both will participate in the customary JCI executive pay plans in the future, the Committee approved one-time awards in association with each of their appointments. The awards comprised a combination of cash and restricted stock units, with vesting schedules over a three-year period, reflecting the compensation being forfeited. Clawback and termination provisions have been attached to these awards.

NEO	One-time cash payment	One-time RSU award
Ganesh Ramaswamy	$775,000	$2,400,000
Olivier Leonetti	$800,000	$5,500,000

NAVIGATING THE CD&A

In the balance of this CD&A we provide additional details on the items described on the previous pages, along with information on our executive compensation design, management and outcomes.

Executive Compensation Framework

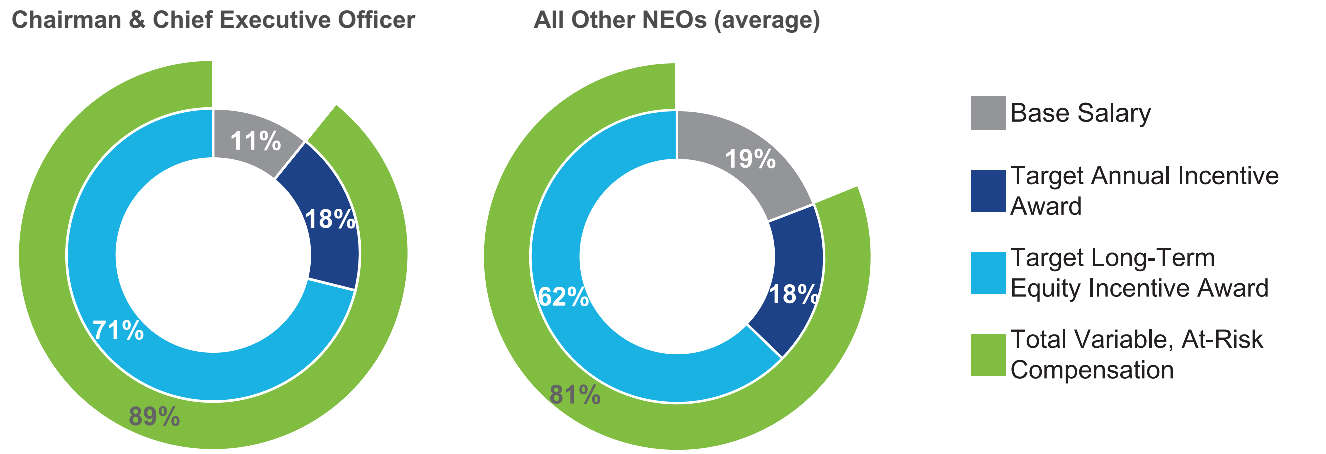
EXECUTIVE COMPENSATION PHILOSOPHY AND PRINCIPLES

Our executive compensation program is designed to attract and retain highly-qualified executives, motivate our executives to achieve our overall business objectives, and align our executives' interests with those of our shareholders. We achieve this through a set of underlying principles that inform the design and operation of our executive compensation program. We believe that our fiscal year 2020 compensation practices demonstrated our commitment to these principles in the face of a challenging environment.

Pay-for-performance	✓	Set majority of compensation as variable and at-risk
	✓	Tie incentives to performance against financial, operational and strategic goals
	✓	Use quantifiable and measurable performance metrics and goals that are clearly disclosed
	✓	Provide significant upside and downside potential for superior and low performance
Target pay appropriately	✓	Benchmark compensation against practices in similarly-sized general industry companies
	✓	In general, target compensation at market median for comparable positions (+/- 15%)
Align interests with our stakeholders	✓	Design programs that discourage unnecessary or excessive risk-taking
	✓	Cap payout opportunities under the incentive plans
	✓	Reward long-term financial results that drive financial creation through a balanced equity mix
	✓	Operate meaningful share ownership guidelines
	✓	Provide a pay recoupment (i.e. clawback) policy
	✓	Prohibit insider trading, hedging and pledging of Company stock
	✓	Engage with shareholders on executive compensation matters
	✓	Engage an independent compensation consultant to provide analysis and advice
	✓	Conduct an annual say-on-pay vote
Avoid poor governance practices	✗	No tax gross-ups on any change-in-control benefits
	✗	No single-trigger accelerated vesting on a change-in-control (double-trigger provisions)
	✗	No discounting, reloading or re-pricing of share options without shareholder approval
	✗	No guaranteed compensation or guaranteed increases
	✗	No excessive perquisites
	✗	No employment agreements with executive officers, except where legally required in which case they follow market norms
	✗	No dividends paid on unvested restricted share units or performance share units until such awards vest

ELEMENTS OF EXECUTIVE COMPENSATION

Consistent with our compensation philosophy, the majority of our NEOs' target total direct compensation in fiscal 2020 was variable and at-risk.



Element	Purpose	Performance Alignment	Recent Changes
Base Salary	Recognize role scope, skills required, performance, contribution, leadership and potential	Individual performance taken into account when considering changes	No increases for fiscal 2020 The CEO and other NEOs participated in the temporary COVID-19 cost saving measures described under "Fiscal 2020 Compensation Decisions and Outcomes — Base Salary" on Pg. 70.
Annual Incentive Award	Tie compensation to the successful execution of our operating plan and strategic goals	Opportunity of 0% — 200% of target based on performance Based on performance against three equally weighted financial metrics: EBIT Growth, revenue growth, and adjusted free cash flow conversion; a strategic modifier (+/- 25%) based on performance against pre-established shared strategic priorities; and an individual modifier (-25% / +10%)	All NEOs now participate in the same enterprise wide AIPP (no business unit plans) Individual modifier of -25% / +10% introduced in fiscal 2020 and is used to modify the payout based on contribution to business results

Element	Purpose	Performance Alignment	Recent Changes
Long-Term Incentive Equity Awards	Attract, retain and motivate executive talent; align interests with our shareholders and value realization with stock price; drive accountability for long-term performance	PSUs (50%), share options (25%) and RSUs (25%) PSUs based on performance against three equally weighted measures assessed over three years: cumulative pre-tax earnings, average pre-tax ROIC and relative TSR versus the S&P 500 Industrials Share option and RSU value realization tied to Johnson Controls' stock price performance. Options vest 50% after two years and 50% after three years; RSUs vest equally over three years	No changes

Executive Compensation Management

The Committee comprises independent directors who develop, amend and approve our executive compensation program. To ensure the executive compensation program is effective and reasonable, the Committee uses a variety of inputs including the results of our annual say-on-pay vote, feedback from shareholders, the advice of the Committee's independent compensation consultant informed by market practices, and input from the Chairman & Chief Executive Officer.

ROLES IN DETERMINING EXECUTIVE COMPENSATION

Compensation Committee

- Develop, amend and approve executive compensation programs to remain consistent with our values and philosophy, support the recruitment and retention of executive talent, and help achieve business objectives
- Determine and approve the appropriate level of compensation for all executive officers, other than the CEO
- Determine and approve short- and long-term incentive plan targets for all executive officers, other than the CEO
- Evaluate CEO individual performance and recommend CEO compensation to the independent Board of Directors
- Review talent development and succession plans for the CEO and other executive officer roles, and make recommendations to the independent Board of Directors regarding the appointment of the executive officers
- Approve the independent compensation consultant's fees and terms of the engagement

Independent Directors of the Board

- Review and approve CEO compensation, and annual and long-term corporate goals relevant to CEO compensation
- Review and approve talent development and succession planning recommendations for all executive officer roles

CEO

- Evaluate performance for the executive officers, other than himself, and make compensation recommendations to the Committee

Independent Compensation Consultant

- Inform the Committee of market trends, developments in executive compensation, and provide recommendations for appropriate adjustments to the Company's compensation program, policies, and practices in-line with our business and talent strategies, and investor expectations
- Analyze the prevailing executive compensation structure and plan designs, and asses the competitiveness of our compensation program in the context of aligning executive officer interests with those of our shareholders
- Test the incentive plan performance goals to ensure appropriate rigor and alignment with shareholder interests

USE OF AN INDEPENDENT COMPENSATION CONSULTANT

The Committee has the sole authority to engage the services of outside advisors, experts, and others to assist in performing its duties. Since December 2017, the Committee has engaged Farient Advisors. Other than the services it provided to the Committee, Farient Advisors did not provide any services to the Company. The Committee has considered and assessed all relevant factors that could give rise to a potential conflict of interest with respect to the work performed. Based on this review, the Committee has determined that Farient Advisers is independent of the Company and its management, and did not identify any conflict of interest.

ANNUAL SAY-ON-PAY VOTE

In designing our executive compensation program, the Committee annually presents a 'say-on-pay' vote to our shareholders. In March 2020 we received 85% support, indicating the majority of our shareholders supported our executive compensation program. Based on our engagement with shareholders, the Committee understands that the primary driver of our slightly below market "say-on-pay" vote was continuing concerns regarding legacy severance payments rather than any of our ongoing compensation practices. With Mr. Stief's retirement, all of our NEOs are now covered by market-aligned severance provisions (summarized later in this report), which the Committee feels addresses this shareholder concern.

SHAREHOLDER ENGAGEMENT

Johnson Controls is committed to maintaining ongoing dialogue with our shareholders to enable us to solicit and respond to feedback about our executive compensation programs in a timely manner. The feedback that we receive through our engagement efforts twice a year is an important input into discussions and decisions regarding executive compensation, in addition to market practices, the advice of our independent compensation consultant and business strategy.

During fiscal 2020, we reached out to our top 25 shareholders, representing approximately 61% of our outstanding shares. Five investors, representing approximately 11% of our outstanding shares, requested meetings. Consistent with prior years, we heard that our shareholders are pleased with our approach to executive compensation, following changes made over the past few years. The program today is well received and aligned with shareholders' interests.

What We Heard	Our Response
A general interest in any response to COVID-19, with receptiveness to the use of discretion provided it's consistent and transparent	Like many companies, the Company and Committee closely monitored the impact of COVID-19. Our top priorities were to protect the health and wellbeing of our employees and their families, the continuous functionality of our customers' and partners' critical infrastructure and essential facilities around the world and preserve our long-term viability and performance. As the year progressed and business plans were updated, the question of whether any adjustments to our executive compensation programs were appropriate was a point of discussion. In June, the Committee determined that given continuing uncertainty, we would wait until year end and use judgement to assess performance in the context of our original plans, our revised expectations, our peers, and the Company's general organizational health. Our shareholders were comfortable with this approach, and generally receptive to the idea that discretion may be applied, asking for consistency in application and transparency in our disclosure regarding any eventual decisions.
Questions as to whether there would be any changes to our executive programs, and continued support for free cash flow and ROIC as incentive metrics	The Committee continues to believe that the existing executive compensation framework, including the use of adjusted free cash flow conversion in the AIPP and pre-tax ROIC for PSU awards, is fit for purpose. We reinforced that we did not expect many, if any, changes to our program for fiscal 2021.

Investors also raised topics related to ESG, including the Company's compliance with SASB and TCFD and the Company's governance structure and oversight initiatives. These topics are discussed in detail on pages 49, 54 and 38 of our Proxy Statement.

JCI is committed to ongoing engagement as it provides helpful insight into the real-time perspectives of our shareholders.

USE OF MARKET DATA

The Committee engages the independent compensation consultant to undertake an annual review of the compensation peers that are used to provide insight into market competitive pay levels and practices. In partnership with the independent consultant, a robust process has been established to appropriately assess the relevance of different companies in the context of making compensation comparisons. As with prior years, an established process was used to assess the peer group composition and to establish the fiscal 2020 peers.

U.S. Traded Companies	Companies with U.S. operations that will disclose compensation levels and design practices for NEOs
Similar Business Models	Companies that operate in similar arenas, requiring similar skills and experiences from their executive talent, and being subject to similar market forces
Size (Revenue Within 1/2x-2x Range)	Companies of a broadly relevant size as an indicator of complexity and scope for executive roles; companies that are of a reasonable size for making market comparisons
S&P 500 Industrials Company	Companies that operate in the broad industrials arena, again indicating executive talent with relevant skills and companies that are subject to similar market forces
Geographic Footprint	Companies with international revenue of at least 35% of their total revenue, indicating multi-national operations, the complexity that results in and the associated skills required by executives
Other Factors	Other factors that are relevant as it pertains to global business operations and executive talent, such as operations that emphasize technology

The fiscal 2020 peer group, established in 2018 and reaffirmed in 2019, was used to inform pay decisions in respect of fiscal 2020.

Fiscal 2020 Compensation Peers	
■ 3M Company	■ General Dynamics Corporation
■ Caterpillar Inc.	■ Honeywell International, Inc.*
■ Cummins Inc.	■ Ingersoll-Rand
■ Deere & Company	■ Parker Hannifin Corporation
■ Eaton Corporation*	■ Raytheon Company
■ Emerson Electric Co.*	■ Stanley Black & Decker Inc.
■ Fluor Corporation	■ United Technologies Corporation*

(*) The Committee also referenced a subset of the compensation peers (the 'select peer group') marked above with the addition of Lennox International, to provide additional context when setting performance goals under Johnson Controls' performance-based incentive plans for fiscal 2020. Lennox International is not included as a compensation peer because it is significantly smaller than Johnson Controls and falls outside of the size criteria. Additional information on the goal setting process is summarized in the following section.

In June 2020, the Committee approved several modifications to the compensation peer group. These changes were made to ensure continued business relevance following transaction activity within the industry. This compensation peer group will be used to inform pay decisions in respect of fiscal 2021.

Fiscal 2021 Compensation Peers		Changes
■ 3M Company ■ Carrier Global Corporation ■ Caterpillar Inc. ■ Cummins Inc. ■ Deere & Company ■ Eaton Corporation ■ Emerson Electric Co.	■ General Dynamics Corporation ■ Honeywell International, Inc. ■ Otis Worldwide Corporation ■ Parker Hannifin Corporation ■ Stanley Black & Decker Inc. ■ Trane Technologies	**Removed**: Fluor Inc., Ingersoll-Rand plc, Raytheon Company **Added**: Carrier Global Corporation, Trane Technologies, Otis Worldwide Corporation

In using the market data, the Committee generally sets an initial guideline of positioning target total direct compensation (base salary, annual incentive target, and long-term incentive target) for each of our executive officers within a range (+/-15%) of the 50th percentile of the compensation peer group. At the time of approval of the fiscal 2020 compensation peers, Johnson Controls ranked at approximately the 50th percentile with respect to revenue. Following the removal of some larger companies, and addition of some smaller companies, Johnson Controls ranked at approximately the 50th percentile with respect to revenue relative to the fiscal 2021 compensation peers. The Committee remains comfortable that the combination of this market positioning and compensation peer group is appropriate.

Given reliable proxy data is only available for the CEO and CFO, general industry survey data is referenced using the same approach for these as well as all other roles. The variation of actual pay relative to the market data is dependent on the executive officer's performance, experience, knowledge, skills, level of responsibility, potential to impact our performance and future success, and the need to retain and motivate strategic talent.

METRIC SELECTION AND GOAL SETTING

Central to our pay-for-performance philosophy is maintaining a rigorous goal setting process that is used to determine both our annual and long-term incentive plan performance targets. Each year, management, the Committee, and our independent consultant spend meaningful time determining metrics, goal ranges and testing the appropriateness of our incentive plan thresholds, targets, and maximums.

Given that the timing of the goal-setting process spans the September and December Committee meetings, the fiscal 2020 goal-setting process was completed on a "business as usual" basis. However, with COVID-19 being classified as a pandemic and having a material impact on Johnson Controls' operations, the process for the balance of the year took a different course.

<table>
<tr><th></th><th>September</th><th>December</th><th>June</th><th>September</th></tr>
<tr><td>Typical Year</td><td rowspan="2">■ Discuss role of incentives in supporting business, talent, and compensation strategies
■ Review potential structural changes in the context of shareholder feedback</td><td rowspan="2">■ Review external feedback on targets (metrics and goals)
■ Review business and operational changes
■ Review performance expectations (see below)
■ Review and approved proposed metrics and goals</td><td colspan="2">■ Monitor interim performance updates from management team</td></tr>
<tr><td>Fiscal 2020</td><td>■ Review impact of COVID-19 on the Company's results of operations and projected plan performance
■ Review and discuss potential adjustments and/or structural changes to plans to account for COVID-19 impact
■ Plan for the use of structured discretion</td><td>■ Review updated impact of COVID-19 on the Company's results of operations and projected plan performance
■ Review and discuss updated modeling of potential plan adjustment frameworks against actual performance, peer group and market perspectives on plan adjustment
■ Review proposed framework for the use of structured discretion in assessing performance</td></tr>
</table>

In September 2019, the Committee reaffirmed its support of fundamental aspects of plan design, in particular the change in fiscal 2018 to adopt a three-year cumulative performance measurement approach to PSU awards. Two updates were made to the AIPP.

- Remove the EBIT margin improvement metric from the composite strategic modifier assessment, given its strong representation in other areas of our incentive programs
- Add an individual modifier to AIPP outcomes to enable the assessment of an individual's contribution to overall business performance
- Operate a single enterprise-wide AIPP, rather than having an additional and separate Building Technologies & Solutions plan, given changes in the business portfolio

Both management and the Committee believe these changes further align our compensation strategy with our business strategy and will focus our executives on delivering long-term, sustainable value creation for our stakeholders.

Following the agreement of metrics, each December we establish the performance goals and ranges associated with each of them. The objective is to set ranges that contain adequate stretch, but also fit within our risk framework so as not to encourage excessive risk taking. We take account of the Company's historical and projected performance, historical and expected performance of the S&P Industrials, and historical and projected performance of our select peer group in conjunction with our annual plan and external macro-economic factors impacting our business.

Based on the data, management proposes goal ranges for each performance metric to the Committee, which are also assessed by the independent compensation consultant. In its analysis, our independent consultant assesses the probability of achievement of our threshold, target, and maximum goals given historical performance realized among peers and the S&P 500 Industrials and provides the Committee with an independent perspective on the robustness of our goals. The Committee tests the stretch and potential payouts to ensure they are challenging and the level of performance will be reflected appropriately in the payout levels.

Management	Independent Consultant	Compensation Committee
Proposes goal ranges based on analysis of: ■ Johnson Controls' financial forecasts ■ Historical S&P 500 Industrials performance ■ Projected S&P 500 Industrials performance ■ Projected compensation and select peers' performance ■ Analyst expectations ■ Shareholder feedback ■ Macro-economic trends	Evaluate management-proposed ranges by: ■ Assessing likelihood of achievement based on historical performance ■ Validating against analyst expectations of performance ■ Reviewing absolute value and spread of threshold, target and maximum goals	Approves the proposed ranges following a review of materials prepared by management and the independent compensation consultant, and the resolution of any questions raised which may result in revisions to the proposed ranges

Our metric selection and goal setting processes allow for the continual assessment of how our incentives support our strategy and drive shareholder returns.

In a typical year, the Committee receives interim performance updates at subsequent meetings to understand how the Company is progressing in the context of the performance goals set at the outset of the year. In 2020, the Committee received detailed updates in June and September with respect to the Company's actual and projected performance, assessing the impact of the pandemic on results. These discussions enabled the Committee to determine that rather than making changes during the performance period for either the AIPP or PSU awards, it would adopt a framework to inform the potential use of structured discretion. As noted previously, this resulted in no changes being made for the 2018 – 2020 PSU awards, and the application of discretion in respect of EBIT growth performance under the AIPP to permit a payout at threshold in respect to that element.

Fiscal 2020 Compensation Decisions And Outcomes

BASE SALARY

Following a review of compensation in September 2019, Messrs. Oliver and Stief's base salaries were left unchanged for fiscal 2020, effective October 1, 2019. In connection with his transition to VP & President — Global Products, Building Technologies and Solutions, Mr. Williams received a fiscal year 2020 base salary increase of 8% effective October 1, 2019.

NEO	Fiscal 2019 Target Base Salary	Fiscal 2020 Target Base Salary	Target Percent Change	Fiscal 2020 Earned Base Salary**
George R. Oliver	$1,500,000	$1,500,000	0%	$1,348,846
Brian J. Stief	$ 742,000	$ 742,000	0%	$ 713,462
Jeffrey M. Williams	$ 742,000	$ 800,000	8%	$ 753,846
Ganesh Ramaswamy	*	$ 725,000	*	$ 580,000
Olivier Leonetti	*	$ 740,000	*	$ 65,463

* *New NEO for fiscal year 2020*

** *Represents actual base salary earned as a result of the COVID-19 cost mitigation measures described below.*

In response to COVID-19 management implemented cost mitigation measures impacting all U.S. salaried employees, including the NEOs.

- All officers were subject to our U.S. salaried-employee furlough, which meant that they took ten days of leave without pay.
- Mr. Williams was also subject to an additional week of our Global Products U.S. salaried-employee furlough.
- Mr. Oliver voluntary took a 20% reduction in base salary in April for the balance of the fiscal year in lieu of a ten-day furlough, which was supported by the Board.

ANNUAL INCENTIVE PERFORMANCE PROGRAM (AIPP)

Our AIPP rewards executives for their execution of our operating plan and other strategic initiatives, as well as for financial performance that drives long-term shareholder value creation. Award opportunities are generally targeted at market 50th percentile. This plan places a significant portion of total cash compensation at risk, thereby aligning executive rewards with financial results. It also offers an opportunity for meaningful pay differentiation tied to the performance of the enterprise and individual contributions. Payment is capped at 200% regardless of the achievement of the strategic and individual modifiers.

Financial Performance	x	Strategic Performance Modifier +/- 25%	=	AIPP Result and Funding Pool	x	Individual Performance Modifier +10% /-25%	=	Final Payout Subject to 200% of Target Cap

In December 2019, prior to COVID-19 being declared a pandemic, the Committee approved the fiscal 2020 AIPP performance measures, which remain unchanged from fiscal 2019, and their associated goals. Financial measures were earnings before interest and taxes (EBIT) growth, revenue growth, and adjusted enterprise free cash flow conversion; strategic measures were our year-over-year growth in gross margin and secured orders. These measures, defined below, were selected as they focus our executive officers on the Company's performance and the business's profitability, operating strength and efficiency.

Metric and Definition	Weight	Why It Matters
EBIT growth | Net income adjusted for income tax expense, financing costs, non-controlling interests, foreign exchange and certain significant special items, such as transaction/integration/separation costs, impairment charges, acquisitions/divestitures, restructuring costs and the adoption of new accounting pronouncements, all as reflected in our audited financial statements that appear in our Annual Report on Form 10-K.	1/3	Aligns annual organic EBIT growth resulting from effective and efficient execution of our operating plan to broadly comparable companies subject to similar external market and economic factors.
Revenue growth | Revenue adjusted for the impact of foreign exchange and acquisitions/divestitures.	1/3	Aligns annual organic revenue growth resulting from strong sales execution, product and innovation investments, and market share gains to broadly comparable companies subject to similar external market and economic factors.
Adjusted free cash flow conversion | Free cash flow divided by net income attributable to JCI, both adjusted for certain significant special items such as transaction/integration/separation costs, impairment charges, acquisitions/divestitures, restructuring costs, mark-to-market adjustments related to restricted asbestos investments and pension and post retirement plans, and the adoption of new accounting pronouncements, all as reflected in our audited financial statements that appear in our Annual Report on Form 10-K. Free Cash Flow is defined as cash provided by operating activities less capital expenditures.	1/3	Establishes annual adjusted free cash flow conversion improvement targets resulting from trade working capital and other operating cash flow initiatives accompanied with disciplined capital expenditure management. Our ability to generate cash is critical to our growth and funding of operating activities.
Strategic modifier | Two metrics are utilized: ■ Organic gross margin improvement ■ Organic secured orders growth The same metrics and overall modifier apply to all NEOs.	Modifier +/- 25%	Establishes specific financial and operating improvement metrics each year which are critical to support delivery of our operating plan.
Individual modifier | Factors considered vary by individual, reflecting their areas of personal responsibility and their goals for the year. While goals were set at the start of the year, the individual modifier was ultimately not used in fiscal 2020, reflecting the fact the team was united in working together to manage the challenges created by the pandemic.	Modifier +10% / - 25%	Enables the Committee to adjust awards informed by a judgement-based assessment of how performance was delivered versus our culture and values, business unit contributions to enterprise-wide performance as appropriate, and any exceptional circumstances during the year.

Despite the negative impact of COVID-19, in June the Committee determined that there should be no changes to the underlying metrics, performance targets, and modifiers in the annual incentive plan. In discussing whether or not any changes should be made during fiscal 2020, the Committee agreed that metrics like free cash flow conversion and gross margin could, to some extent, adjust for significant declines in volume due to COVID-19 with prudent management, while others such as revenue growth, EBIT growth and orders secured would not adjust easily to changes in volume. The Committee determined that given continuing uncertainty, it would instead adopt a structured discretion framework assessing performance against the original goals, revised strategic plan, our peers and general organizational health at the end of the year. This would take account of the actions management had taken to reduce the overall impact of the revenue decline on EBIT through responsible and appropriate cost mitigation actions and other successful contributions in managing through the crisis.

Fiscal 2020 AIPP Performance

Fiscal 2020 was a challenging year for the Company given the challenges posed by COVID-19. Global demand for the Company's products and services fell markedly as the global economy contracted. Shutdown orders prevented us from accessing customer's facilities and managing projects were being delayed as our customers worked to control their capital spending. In response, management had to identify appropriate actions that could be taken to manage the crisis while continuing to advance strategic initiatives such as the launch of OpenBlue as summarized on page 4. This was all done against a fundamental backdrop of protecting the health and wellbeing of our employees and their families; and ensuring the continuous functionality of our customers' and partners' critical infrastructure and the operation of essential facilities.

Against the performance goals set at the start of fiscal 2020, prior to COVID-19, these efforts resulted in an unweighted and unadjusted financial payout factor of 67% of target.

		Fiscal 2020 Performance Goals				Payout Factor	
Financial Performance Metric	Weight	Threshold	Target	Maximum	Actual	Unweighted	Weighted
EBIT Growth	1/3	6.0%	9.0%	13.0%	-4.3%	0%	
Revenue Growth	1/3	2.6%	4.0%	5.3%	-6.4%	0%	67%
Adjusted Enterprise Free Cash Flow Conversion	1/3	90%	95%	105%	115%	67%	

After careful consideration the Committee deemed it appropriate to apply discretion to permit threshold vesting in respect of the EBIT growth performance. No other adjustments were made. The Committee believed this to be a modest and reasonable adjustment to appropriately reflect the actions taken by management and the Company to control costs and contribute to EBIT performance against our revised plan in order to deliver value to shareholders while safeguarding our organizational health. As a result of management's actions taken during the pandemic, we were able to deliver adjusted EPS in excess of our revised plan and analyst expectations, achieve over 115% adjusted free cash flow conversion, return nearly $3 billion in capital to shareholders through share buybacks and dividends while strengthening our balance sheet and liquidity position and hold our EBIT decremental margins to a level we believe to be viewed as best in class among our peers. The adjustment, resulted in the payout factor increasing from 67% to 84%, which remained below both target performance under the annual incentive plan and management's projected above-target performance based on our performance during the period prior to the pandemic.

In making its decision to apply discretion, the Committee recognized that management had prioritized the health and wellbeing of its employees throughout the pandemic. Importantly, management implemented health and safety protocols designed to best protect employees and proactively engaged with employees working remotely to help support their health and wellbeing. The Committee believed that management's cost-control efforts were generally equitable and balanced to reduce the level of permanent resource reductions while preserving our long-term viability and performance. Measures such as furloughs for all salaried employees and the reduction or elimination of the 401(k) match for most salaried employees in the US were applied consistently, including with respect to management. In addition, management did not take action to reduce employee salaries during the pandemic (other than the voluntary base salary reduction by the CEO), including maintaining our performance-based merit increase program for fiscal year 2021. Management also elected to make discretionary adjustments to our non-executive incentive plans to account for the impact of COVID-19 on our performance. The Committee believed these factors aligned management and our employees, further supporting the application of discretion.

		Payout Factor	
Financial Performance Metric	Weight	Unweighted Adjusted	Weighted Adjusted
EBIT Growth	1/3	17%	
Revenue Growth	1/3	0%	84%
Adjusted Enterprise Free Cash Flow Conversion	1/3	67%	

Performance in respect of the strategic modifier was as follows:

Strategic Modifier Metric	Performance Goal	Modifier %	Results	
Achievement of YOY Gross Margin Improvement	≥ 70 bps	+15%	100 bps	+15%
	≤ 30 bps	-15%		
Achievement of YOY Secured Organic Secured Order Growth	≥ 6%	+10%	-7%	-10%
	≤ 3%	-10%		
	Total Strategic Modifier	**+/-25%**	**+5%**	

This combination of financial and strategic performance resulted in a formulaic AIPP result and funding level of 88%.

Given the unusual circumstances of 2020, the CEO recommended, and the Committee approved, no individual modifiers be applied in respect of the NEOs. In this spirit the Committee decided, and the Board approved, that no individual modifier would be applied in respect of the CEO.

The table below summarizes the target award potential and eventual payout amounts for the NEOs in respect of fiscal 2020 performance.

NEO	Target Opportunity (% salary)	Target Opportunity	Financial and Strategic Payout Factor	Individual Modifier	Total Payout Factor	Fiscal 2020 Annual Incentive Award
George R. Oliver[1]	160%	$2,400,000	88%	100%	88%	$2,116,800
Brian J. Stief	110%	$ 816,200	88%	100%	88%	$719,888
Jeffrey M. Williams	95%	$ 760,000	88%	100%	88%	$670,320
Ganesh Ramaswamy[2]	90%	$ 652,500	88%	100%	88%	$478,015
**Olivier Leonetti[3]	—	—	—	—	—	—

1 *Mr. Oliver's target and payout were calculated on the basis of his unreduced base salary.*

2 *Mr. Ramaswamy's payout was prorated 83.06% based on the number of days worked within the fiscal year 2020.*

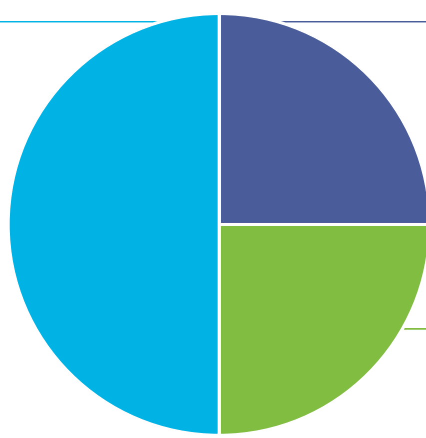
3 *Mr. Leonetti did not participate in the annual incentive performance program in fiscal 2020 given his date of appointment.*

LONG-TERM EQUITY INCENTIVE AWARDS

Another key element in the compensation of our executive team is long-term equity incentive awards, which tie a significant portion of compensation to the Company's performance over time. In fiscal 2020, three different types of long-term incentive vehicles were granted to our NEOs:

Performance Share Units (50%)

- Vest subject to performance measured over three years
- Fiscal 2020 awards contingent on pre-tax earnings, pre-tax ROIC and relative TSR
- Dividends equivalents accrue and are paid in respect of the number of shares that ultimately vest



Share Options (25%)

- Only deliver value to the extent Johnson Controls' stock price increases relative to price at date of grant
- Vest 50% after two years and 50% after three year

Restricted Share Units (25%)

- Vest in equal installments over three years
- Dividends equivalents accrue and are paid on vested awards

In combination, we believe these grants provide a balanced focus on sustainable long-term shareholder value creation and retention of key executives in the interests of our collective stakeholders. They are also reflective of market practice within our compensation peer group. The total target grant value is established based on generally targeting the market 50th percentile.

FISCAL 2020 LONG-TERM EQUITY GRANT				
	VALUE OF SHARE OPTIONS	VALUE OF RSUs	VALUE OF PSUs	TOTAL TARGET VALUE OF AWARD
George R. Oliver	$2,375,000	$2,375,000	$4,750,000	$9,500,000
Brian J. Stief	$ 670,750	$ 670,750	$1,341,500	$2,683,000
Jeffrey M. Williams	$ 750,000	$ 750,000	$1,500,000	$3,000,000
Ganesh Ramaswamy	$ 550,000	$ 550,000	$1,100,000	$2,200,000
Olivier Leonetti*	—	—	—	—

* Mr. Leonetti did not participate in the long-term incentive program in fiscal 2020 given his date of appointment.

Fiscal 2020-2022 Performance Share Units

Performance Share Units (PSUs) help to ensure our executives' pay is directly linked to the achievement of strong, sustained long-term operating performance. The balance of metrics focuses senior leaders on making strategic investments that optimize long-term shareholder value.

In response to shareholder feedback, the Committee considered and approved several changes to the operation of PSUs for fiscal 2019 that remained in place for fiscal 2020. The 2020-2022 awards are subject to three independently weighted measures, with performance assessed over three cumulative years.

Metric, Weight and Definition	Weight	Why It Matters
Pre-tax earnings growth | Income before income taxes and foreign exchange, adjusted for certain significant special items, such as transaction/ integration/ separation costs, gain or loss on divestitures, impairment charges, restructuring costs mark-to-market adjustments related to restricted asbestos investments and pension and post retirement plans and the adoption of new accounting pronouncements, all as reflected in our audited financial statements that appear in our Annual Report on Form 10-K.	1/3	Aligns three-year organic pre-tax earnings growth resulting from the effective execution of our strategic operating plan to broadly comparable companies subject to similar external market and economic factors. Our ability to generate long-term profitability is critical to our growth and funding of operating activities.
Pre-tax ROIC | ROIC is income before income taxes and foreign exchange, adjusted for certain significant special items, such as transaction/ integration/ separation costs, gain or loss on divestitures, impairment charges, restructuring costs, mark-to-market adjustments related to restricted asbestos investments and pension and post retirement plans, and the adoption of new accounting pronouncements, all as reflected in an audited financial statement that appear in our Annual Report on Form 10-K, divided by pre-tax invested capital. Pre-tax invested capital is the monthly weighted average sum of shareholders equity plus total debt, less cash and income tax accounts, adjusted for acquisitions/ divestitures and other special items.	1/3	Establishes three-year pre-tax return on invested capital improvement targets resulting from the effective execution of our strategic operating plan and the efficient deployment of capital to enhance long-term shareholder value. Our ability to generate adequate returns on our investments is critical to our growth and funding of operating activities.
Relative TSR | Percentage change in Johnson Controls' share price over the performance period (with an adjustment for reinvestment of dividends) relative to S&P 500 Industrials. Share prices are averaged over 30 days at the start and end of the performance period.	1/3	Aligns Johnson Controls' three-year stock performance, including reinvestment of dividends, to broadly comparable companies with similar external market and economic factors. Investors recognize TSR as an appropriate measure to motivate executives and achieve alignment with shareholder interests.

The Committee set the earnings growth and ROIC thresholds, targets and maximums for the 2020-2022 performance period based on Johnson Controls' long-term strategic plan as at December 2019, prior to COVID-19 being declared a pandemic. The Committee discussed whether it was appropriate to adjust the performance targets given world events following their approval. It was determined that given the continuing uncertainty, no changes would be made to outstanding PSUs; instead the Committee would continue to monitor performance and evaluate outcomes on an informed basis. As noted below, following as assessment in respect of the fiscal 2018 – 2020 awards, no adjustments were made. Given the commercial sensitivity of our long-term goals, the 2020 PSU performance goals will be disclosed at the conclusion of the three-year performance period.

Performance Metric	Weight	Fiscal 2020 Performance Goals		
		Threshold	Target	Maximum
Pre-tax Earnings Growth	1/3rd	The three-year performance goals associated with these measures will be disclosed at the conclusion of the performance period		
Pre-tax ROIC	1/3rd			
Relative TSR vs. S&P 500 Industrials	1/3rd	≥ 25th percentile	≥ 50th percentile	≥ 75th percentile

The payout opportunity in respect of each element is calculated separately and weighted to arrive at a final payout.

	Below Threshold	Threshold	Target	Maximum
Payout (% of Target)	0%	50%	100%	200%

The payout is calculated using interpolation between threshold and target, and target and maximum.

Fiscal 2018-2020 Performance Share Units

Prior to the design changes approved for fiscal 2019 and beyond, PSU awards vest subject to pre-tax earnings growth and pre-tax ROIC, measured over three one-year periods, and a relative TSR modifier measured over the aggregate three-year performance period. This means that 2/3rds of the award had already been previously earned prior to the beginning of fiscal 2020. The Committee determined that despite the negative impact of COVID-19, no changes would be made to the previously approved fiscal 2020 performance metrics and goals.

			Fiscal 2020 Performance Goals (2018-2020)			
Performance Metric	Weight	Performance Period	Threshold	Target	Maximum	Actual
Pre-Tax Earnings Growth	60%	2020	5.0%	9.2%	13.4%	-2.7%
Pre-Tax ROIC	40%		+140 bps	+170 bps	+200 bps	+180 bps
TSR Relative Modifier vs S&P 500 Industrial Index measured over three years	N/A	2018 - 2020	< 25th %ile	25th – 75th %ile	> 75th %ile	34th %ile

With respect to fiscal 2018-2020 awards, 2020 Pre-Tax Earnings Growth was -2.7% and 2020 Pre-Tax ROIC was +180bps, which resulted in aggregate performance for fiscal year 2020 of 53% of weighted target performance, exclusive of the TSR Modifier.

Fiscal 2020 marked the final year of the three-year performance period for the fiscal 2018-2020 awards. Based on aggregate performance over the three-years, awards vested at 128% of target.

Fiscal Year	Annual Performance Factor	Annual Weighting	Weighted Performance
2018	130%	1/3	43%
2019	200%	1/3	67%
2020	53%	1/3	18%
		Total Payout Percentage	128%
		2018-2020 Relative TSR Modifier	0%
		2018 – 2020 PSU Final Payout Percentage	128%

As previously disclosed, in fiscal 2017, in consideration for Mr. Stief's agreement to terminate his previously existing change of control agreement, and to incentivize Mr. Stief to remain Executive Vice President and Chief Financial Officer through December 2020, the Committee approved retention RSU and PSU awards to Mr. Stief that would vest in December 2020.

The retention awards approved by the Committee included two performance-linked awards:

- 299,251 RSUs representing a target value of $12 million, that would be converted to PSUs if the performance goals for the 2018-2020 PSU award were met at or above target, which they were; and
- 99,750 PSUs representing a target value of $4 million, subject to the same performance criteria as the 2018-2020 PSU awards.

As detailed above, the 2018-2020 PSU performance period concluded on September 30, 2020. Performance in respect of the pre-tax earnings growth, pre-tax ROIC and relative TSR metrics, which were not adjusted for the impact of COVID-19, resulted in a payout factor approved by the Committee of 128% of target, which was applied to both retention awards.

Fiscal 2020 Share Options and Restricted Share Units (RSUs)

By awarding share options and RSUs, we link long-term incentives directly to our share price. If our share price decreases, so does the value of the executive officer's compensation. Share options and RSUs also help us maintain competitive compensation levels in the market and retain high-performing employees through multi-year vesting requirements.

We valued fiscal 2020 share options using a Black-Scholes valuation. Their strike price is equal to the closing price of our common shares on the date of the grant. Fifty percent of each share option award vests two years after the date of grant, and the other fifty percent vests three years after the date of grant. Share option vesting is subject to continued employment, with earlier vesting upon retirement, and share options have a ten-year exercise term. The Committee does not permit or engage in "backdating," repricing or cash buyout of share options.

We value RSUs based on the closing price of our shares at the date of grant. RSUs generally vest in equal installments over three years.

New Hire Equity Awards

During fiscal 2020, two new executive officers, Ganesh Ramaswamy, and Olivier Leonetti, were appointed in connection with the continued services transformation and the planned retirement of Brian Stief, Chief Financial Officer. These two appointments reflected areas of importance to the Company's transformation and growth strategies, which required hiring externally to procure new skill capabilities.

- In December 2019, Ganesh Ramaswamy was named Vice President and President Global Services. In this role, also newly created, Mr. Ramaswamy leads our global services business of approximately $6.3 billion. He is driving the services transformation by improving consistency of fundamentals across the Company's global direct channels, leveraging infrastructure and working closely with regional leaders to execute strategic priorities. Since joining, he has played a key leadership role in leveraging digital and service capabilities, including the launch of tailored services powered by OpenBlue technology that provide customizable solutions to its customers around the globe.
- In August 2020, Olivier Leonetti joined the company as the successor to Brian Stief. He formally became the Chief Financial officer on November 17, 2020. Mr. Leonetti's extensive international experience and background in industrial and digital technologies will enable him to provide key leadership as the Company intensifies its focus on transforming the future of building technologies. Mr. Leonetti's appointment marks the conclusion of the planned succession with Mr. Stief retiring in December of 2020.

In connection with their appointments, the Committee reviewed and approved their compensation packages, detailed in the relevant sections of this report, as well as equity awards intended to compensate them for at-risk compensation that they were each forfeiting at their prior employers to join Johnson Controls. While both will participate in the 'normal' JCI executive pay plans in the future, the Committee approved one-time payments in association with each of their appointments. The awards comprised a combination of cash and restricted stock units, over a three-year period, reflecting the compensation being forfeited.

NEO	One-time cash payment	One-time RSU award
Ganesh Ramaswamy	$775,000	$2,400,000
Olivier Leonetti	$800,000	$5,500,000

Clawback and termination provisions have been attached to these awards to provide additional protection to shareholders. In the event of a voluntary termination within two years of appointment, individuals are required to repay the one-time cash payment in full. Termination provisions attached to the one-time RSU awards are structured to reflect various potential termination scenarios.

- Involuntary not for cause termination: award accelerated on a pro-rated basis based on the number of full months actively employed
- Death or disability: award accelerated in full
- All other scenarios, including retirement, voluntary and 'for cause' termination: full forfeiture of the outstanding unvested award

Additional Information

OTHER EXECUTIVE COMPENSATION POLICIES

To further ensure the alignment of executive interests with those of our shareholders, the Committee has approved additional compensation-related policies that apply to our NEOs.

SHARE OWNERSHIP GUIDELINES

NEOs are required to hold specified amounts of Johnson Controls shares. If an executive does not meet the minimum guideline within five years, they cannot sell any shares until they meet the requirement. Until the guideline is met, executives are required to retain after-tax shares resulting from an exercise of share options and must retain shares resulting from the vesting of restricted share units and performance share units. All shares directly or indirectly owned by, and restricted share units granted to, NEOs count towards the requirement. Share options do not count. At the end of fiscal 2020, all NEOs were in compliance with their ownership requirements, either progressing towards their goal within the required time-frame (Messrs. Ramaswamy and Leonetti) or exceeding the requirement (Messrs. Oliver, Stief and Williams), demonstrating the strong alignment of interests between our NEOs and Johnson Controls' stakeholders.

Role	Minimum Ownership Requirement (% base salary)
Chairman & Chief Executive Officer	600%
All Other NEOs (excludes former NEOs)	300%

COMPENSATION RECOUPMENT POLICY

Our recoupment policy provides that following any accounting restatement, in addition to any other remedies available to it and subject to applicable law, if the Board or any Committee of the Board determines that any annual or other incentive payment received by an executive officer resulted from any financial result or operating metric that was impacted by the executive officer's fraudulent or illegal conduct, the Board or a Board Committee could recover from the executive officer that compensation it considered appropriate under the circumstances. The Board has the sole discretion to make any and all determinations under this policy.

The Committee continues to monitor trends and developments with respect to incentive compensation recoupment policies. As part of this monitoring, in December 2020 the Committee revised our recoupment policy to allow us to recoup incentive based and equity compensation for misconduct that has the potential to cause material reputational harm.

INSIDER TRADING, ANTI-HEDGING AND ANTI-PLEDGING POLICY

Directors, executive officers, employees and other related persons may not buy, sell or engage in other transactions in the Company's shares while aware of material non-public information; buy or sell securities of other companies while aware of material non-public information about those companies that they became aware of as a result of business dealings between the Company and those companies; disclose material non-public information to any unauthorized persons outside of the Company. The policy also restricts trading for a limited group of Company employees (including executives and directors) to defined window periods that follow our quarterly earnings releases.

In addition, the Company's directors, executive officers, employees and other related persons are prohibited from:

- Pledging any Company securities held by them or their families as security for a loan, including by holding such securities in a margin account; and
- Trading in puts, calls or any other derivative securities relating to in the Company's shares, and engaging in hedging or monetization transactions relating to in the Company's shares (including through the use of financial instruments such as prepaid variable forwards, equity swaps, collars and exchange funds) or short sales of the Company's shares.

EXECUTIVE BENEFITS AND PERQUISITES

401(k) Plan

All U.S. employees are eligible for the 401(k) plan, including our NEOs. Participants can contribute up to a specified percentage of their compensation on a pre-tax basis; however, executive officers' percentages may be lower than other participants due to IRS requirements applicable to the 401(k) plan.

Normally, based on Company performance, we matched 100% of each dollar an employee contributes up to 4% of the employee’s eligible pay, and 50% of each additional dollar up to a total of 6% of the employee’s eligible pay. In addition, the Company makes a varied annual retirement contribution for eligible employees. This group of employees includes all NEOs. The contribution for this group of employees was between 1% and 5% of the participant’s eligible compensation, based on the participant’s age and participation or service. Both the matching contribution and the annual retirement contribution are subject to vesting requirements. In response to managing costs through the pandemic, the match was suspended for the duration of the 2020 calendar year (January 1, 2020 to December 31, 2020) which will impact the actual match that occurs in February 2021.

Prior to the Merger, legacy Johnson Controls also maintained a pension plan, which covered all U.S. salaried employees hired before January 1, 2006. This plan was frozen on December 31, 2014, and employees no longer accrue future pension benefits under this plan. Currently Mr. Williams is the only NEOs who participates in the plan.

Retirement Restoration Plan

The Internal Revenue Code limits the benefits we can provide to employees under the 401(k) plan, including the annual retirement contribution. Thus, we sponsor the Retirement Restoration Plan, which allows all employees whose annual retirement contributions are affected by these Internal Revenue Code limits to receive the full intended amount of the additional annual retirement contributions without regard to such limits. All employees whose annual retirement contributions under the 401(k) plan are limited, including NEOs, are eligible for the Retirement Restoration Plan. Prior to January 1, 2018, the Retirement Restoration Plan also provided for 401(k) spillover deferrals and employer matching contributions for eligible participants. Those benefits were eliminated as of January 1, 2018 for participants other than those participants who were officers of the Company immediately following the Merger including our NEOs, Messrs. Oliver, Stief and Williams and certain other high-level employees who participated in the Retirement Restoration Plan prior to January of 2018.

Executive Deferred Compensation Plan and Senior Executive Deferred Compensation Plan

Prior to January 1, 2018, we maintained the Executive Deferred Compensation Plan, which assisted all senior leaders, including NEOs, with personal financial planning by allowing participants to defer compensation and associated taxes until retirement or termination of employment. It also assisted senior leaders in the management of their executive share ownership requirements. Investment options in the Executive Deferred Compensation Plan mirrored investment options available in our 401(k) Plan.

As of January 1, 2018, to integrate our plans following the Merger, we froze the Executive Deferred Compensation Plan and adopted a new Senior Executive Deferred Compensation Plan. The new Senior Executive Deferred Compensation Plan allows participants, including our NEOs, to defer base salary and annual bonus compensation and the associated taxes until retirement or termination of employment to assist such participants with personal financial planning. The investment options under the new Senior Executive Deferred Compensation Plan continue to mirror investment options in our 401(k) Plan, which includes a company stock fund.

PERQUISITES

We provide a limited amount of perquisites to our executive officers which we believe are reasonable and consistent with market practice. We maintain a strict policy regarding eligibility and use of these benefits. The Committee grants each executive officer a perquisite allowance of 5% of base salary annually. Upon termination, any unused funds are forfeited. Allowable perquisites include:

- Financial and tax planning
- Personal use of corporate aircraft capped at $10,000 per year for the NEOs, excluding the CEO, with such amounts calculated pursuant to the Standard Industry Fare level, or SIFL rate
- Executive physical

Private club dues are not eligible for reimbursement under the perquisite allowance and unused allowance does not carry over. The CEO is encouraged to use the corporate aircraft for both business and personal use to enhance his productivity, maintain confidentiality, ensure personal security and protect his health and wellbeing particularly during the pandemic.

EXECUTIVE SEVERANCE AND CHANGE-IN-CONTROL POLICY

The Executive Severance and Change-in-Control Policy applies to all NEOs, except Mr. Stief. In connection with a retention award made to Mr. Stief in September 2017, Mr. Stief terminated his change-in-control agreement and agreed to not be covered by the Company's Severance and Change-in-Control Policy.

	Change-In-Control	Severance
Triggers	■ Involuntary termination other than for Cause, permanent disability or death within the period beginning 60 days prior to and ending two years following a change-in-control ■ Good reason resignation within the same period	■ Involuntary termination other than for Cause, permanent disability or death
Cash Severance	Base salary + target annual bonus	
Severance Multiple	CEO: 3X Other NEOs: 2X	CEO: 2X Other NEOs: 1.5X
Claims Release	Required	
Benefits Continuation	Aligned with severance multiple	
Equity Acceleration	■ Equity Incentive plan would govern (see "Potential Payments upon Termination and Change-in-Control" on page 89) Under the Plan, the Committee to provide either for adjustment/assumption of award or a cash settlement.	■ Pro-rated equity acceleration based on number of months worked during vesting period (pro-rated PSUs based on actual performance earned at vesting)
Excise Tax Gross-Up	None	
Restrictive Covenants	■ Unlimited time for non-disparagement, trade secrets and confidential information ■ Two-year post-termination non-solicitation of employees and customers ■ One and one-half year post-termination non-compete ■ Employee must affirmatively consent to be bound by these covenants as a condition of plan participation	

GLOBAL EXECUTIVE ASSIGNMENT AGREEMENT

In March 2017, Mr. Williams accepted the officer position of Vice President & President, EMEA & Latin America — Building Technologies and Solutions. This new role required Mr. Williams to relocate from the United States to the United Kingdom for the duration of his three-year assignment, and in connection with this move Mr. Williams' entered into a global assignment agreement that is substantially consistent with the policy applicable to all Johnson Controls employees, which is designed to ameliorate the increased costs associated with global assignments. The agreement includes an allowance to offset the difference in costs of living, a relocation allowance, furnished housing, and reimbursement for certain dependent visitation costs, tax equalization in accordance with the Johnson Controls Tax Equalization Policy, a club membership in the United Kingdom and reimbursement of repatriation costs such as travel, temporary housing and car rental and the shipment of goods. Mr. Williams returned in fiscal year 2020 when he accepted the position of VP & President — Global Products, Building Technologies and Solutions.

TAX AND ACCOUNTING CONSIDERATIONS

When determining total direct compensation packages, the Committee considers all factors that may have an impact on our financial performance, including tax and accounting rules.

Section 162(m) of the Internal Revenue Code limits the tax deductibility of compensation that we pay to certain covered employees, generally including our NEOs, to $1 million in any year per person.

The committee believes that the tax deduction limitation should not compromise the ability to design and maintain executive compensation arrangements necessary to attract and retain strong executive talent. Accordingly, achieving the desired flexibility in the design and delivery of compensation may not result in compensation that in certain cases is not deductible for federal income tax purposes.

Executive Compensation

The Compensation and Talent Development Committee has reviewed and discussed with management this Compensation Discussion & Analysis and, based on such review and discussion, has recommended to the Board of Directors that the Compensation Discussion & Analysis be included in the Company's 2020 Annual Report on Form 10-K and this Proxy Statement.

Submitted by the Compensation and Talent Development Committee:

Michael E. Daniels, Chair
Jean Blackwell
Roy Dunbar
Mark Vergnano

Executive Compensation Tables

The following table summarizes the compensation earned by our named executive officers in the fiscal years noted.

Summary Compensation Table for Fiscal Years 2020, 2019, and 2018

Name and Principal Position (a)	Year ($) (b)	Salary ($)(1) (c)	Bonus ($)(2) (d)	Stock/Unit Awards ($)(3) (e)	Option Awards ($)(3) (f)	Non-Equity Incentive Plan Compensation ($)(4) (g)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings ($)(5) (h)	All Other Compensation ($)(6) (i)	Total ($) (j)
George Oliver Chairman & Chief Executive Officer	2020	1,348,846	—	7,124,972	2,374,995	2,116,800	—	765,878	13,731,491
	2019	1,500,000	—	7,124,992	2,374,998	3,704,400	—	772,247	15,476,637
	2018	1,500,000	—	7,124,963	2,374,997	3,864,000	—	529,908	15,393,868
Brian J. Stief Vice Chairman & Chief Financial Officer(7)	2020	713,462	—	2,012,183	670,746	719,888	—	281,702	4,397,981
	2019	742,000	—	2,012,215	670,747	1,259,805	—	224,568	4,909,335
	2018	742,000	—	2,012,210	670,744	1,314,084	—	334,324	5,073,362
Jeffrey M. Williams VP & President — Global Products, Building Technologies and Solutions	2020	753,846	—	2,249,991	749,995	670,320	230,707	2,334,073	6,988,932
	2019	742,000	—	1,499,979	500,000	960,630	288,674	378,279	4,369,562
	2018	742,000	—	1,499,967	499,993	1,102,037	—	875,453	4,719,450
Ganesh Ramaswamy Vice President & President — Global Services	2020	580,000	775,000	4,049,924	549,994	478,015	—	40,742	6,473,675
Olivier Leonetti Executive Vice President & Chief Financial Officer Elect(7)	2020	65,463	800,000	5,499,976	—	—	—	1,442	6,366,881

(1) ***Deferred Amounts Included***: We have not reduced amounts that we show to reflect a named executive officer's election, if any, to defer the receipt of compensation into our qualified and nonqualified deferred compensation plans.

(2) ***Bonus***: The amount reflects the value of a one-time cash sign-on bonus provided to Messrs. Ramaswamy and Leonetti in connection with their appointment as officers.

(3) ***Stock/Unit Awards and Option Awards***: The amounts reflect the fair value of equity awards granted in fiscal 2020, 2019, and 2018. The equity awards granted in fiscal 2020 to each named executive officer other than Mr. Leonetti consisted of share options, restricted share units ("RSUs") and performance share units ("PSUs"). Mr. Leonetti received only RSUs given his date of appointment. The amounts in columns (e) and (f) represent the fair value of the entire amount of the award calculated in accordance with Financial Accounting Standards Board ASC Topic 718, excluding the effect of estimated forfeitures. For share options, amounts are computed by multiplying the fair value of the award (as determined under the Black-Scholes option pricing model) by the total number of options granted. For RSUs, fair value is computed by multiplying the total number of shares subject to the award by the closing market price of our ordinary shares on the date of grant. For PSUs, fair value is based on a model that considers the closing market price of our ordinary shares on the date of grant, the range of shares subject to such stock award, and the estimated probabilities of vesting outcomes. The value of PSUs included in the table assumes target performance. The values of the PSUs at the grant date if the highest level of performance conditions were to be achieved would be as follows: Mr. Oliver — $9,499,962; Mr. Stief — $2,682,938; Mr. Williams — $2,999,988; and Mr. Ramaswamy — $2,199,974. Footnote 12 to our audited financial statements for the fiscal year ended September 30, 2020, which appears in our Annual Report on Form 10-K that we filed with the Securities and Exchange Commission on November 21, 2020, includes assumptions that we used in the calculation of the equity award values.

(4) ***Non-Equity Incentive Plan Compensation***: The amounts reported in column (g) for each named executive officer reflect annual cash incentive compensation. Mr. Leonetti did not receive any annual cash incentive compensation for fiscal 2020 as he did not participate in the annual incentive performance program in fiscal 2020 given his date of appointment.

(5) ***Change In Pension Value***: The amounts reported in column (h) generally reflect the actuarial change in the present value of benefits under the qualified defined benefit pension plan established by Johnson Controls, determined as of the measurement dates used for financial statement reporting purposes for the fiscal year indicated and using interest rate and mortality rate assumptions consistent with those reflected in our audited financial statements for the fiscal year indicated. The value that an executive will actually receive under the plan will differ to the extent facts and circumstances vary from what the calculations assume. Changes in the present value of the named

executive officer's benefits are the result of the assumptions applied (as discussed in the footnotes to the "Pension Benefits as of September 30, 2020" table below). No named executive officer received preferential or above market earnings on nonqualified deferred compensation.

(6) ***All Other Compensation***: The fiscal 2020 amounts reported in column (i) for each named executive officer consist of the following:

Named Executive	Personal Use of Company Aircraft[a]	Expatriate & Relocation Benefits[b]	Tax Equalization or Gross-Up[c]	Retirement Plan Contributions[d]	Company Vehicle[e]	Financial Planning[f]	Cash Severance Payments[g]	Total All Other Compensation[h]
George Oliver	232,299	—	—	517,006	16,573	—	—	765,878
Brian J. Stief	37,038	—	—	199,895	13,142	31,627	—	281,702
Jeffrey M. Williams	28,228	73,160	1,973,153	205,686	13,846	40,000	—	2,334,073
Ganesh Ramaswamy	—	19,130	—	—	12,692	8,920	—	40,742
Olivier Leonetti	—	—	—	—	1,442	—	—	1,442

a) The Summary Compensation Table reflects the aggregate incremental pre-tax cost to us for personal use of aircraft for fiscal 2020, which was calculated using a method that takes into account the incremental cost of fuel, trip-related maintenance, crew travel expenses, on-board catering, landing fees, trip-related hangar/parking costs and other variable costs. Because our aircraft are used primarily for business travel, the calculation does not include the fixed costs that do not change based on usage, such as pilots' salaries, the acquisition costs of our owned or leased aircraft, and the cost of maintenance not related to trips.

(b) Mr. Williams received the relocation benefits set forth below as part of his expatriate assignment set forth below.

	Housing	Relocation	Vehicle	Other Expatriate Benefits & Allowances	Total
Jeffrey M. Williams	13,158	46,142	7,287	6,573	73,160

(c) The amount shown for Mr. Williams represents $1,837,936 in tax equalization and $135,217 in gross-up payments made to him in connection with his expatriate assignment disclosed in the preceding footnote.

(d) Retirement plan contributions include matching contributions made on behalf of each executive to the Company's tax-qualified 401(k) plans and Retirement Restoration Plan.

(e) Amounts reflect costs attributable to the personal use of a vehicle.

(f) Amounts reflect payments with respect to financial planning for Messrs. Stief, Williams and Ramaswamy.

(7) ***Retirement of Brian Stief***: On November 17, 2020, Mr. Leonetti assumed the role of Executive Vice President and Chief Financial Officer, with Mr. Stief retaining the title of Vice Chairman. Mr. Stief retired at the end of calendar year 2020.

Fiscal 2020 Grants of Plan-Based Awards Table

The following table summarizes cash-based and equity-based awards for each of the named executive officers that were granted in fiscal 2020.

		Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Estimated Future Payouts Under Equity Incentive Plan Awards						
Name (a)	Grant Date (b)	Threshold ($)(c)[1]	Target ($)(d)[1]	Maximum ($)(e)[1]	Threshold (#)(f)[2]	Target (#)(g)[2]	Maximum (#)(h)[2]	All Other Stock Awards: Number of Shares of Stock (#) (i)[3]	All Other Option Awards: Number of Securities Underlying Options (#) (j)[4]	Exercise or Base Price of Option Awards ($/Share) (k)[5]	Grant Date Fair Value of Stock and Option Awards ($)(l)[6]
George Oliver	N/A[7]	400,000	2,400,000	4,800,000							
	12/5/2019								325,788	41.75	2,374,995
	12/5/2019							56,886			2,374,991
	12/5/2019				22,754	113,772	227,544				4,749,981
Brian J. Stief	N/A[7]	136,033	816,200	1,632,400							
	12/5/2019								92,009	41.75	670,746
	12/5/2019							16,065			670,714
	12/5/2019				6,426	32,131	64,262				1,341,469
Jeffrey M. Williams	N/A[7]	126,667 760,000 1,520,000	760,000 760,000 1,520,000	1,520,000 760,000 1,520,000							
	12/5/2019								102,880	41.75	749,995
	12/5/2019							17,964			749,997
	12/5/2019				7,186	35,928	71,856				1,499,994
Ganesh Ramaswamy	N/A[7]	108,750	652,500	1,305,000							
	12/5/2019								75,445	41.75	549,994
	12/2/2019							56,777			2,399,964
	12/5/2019							13,173			549,973
	12/5/2019				5,269	26,347	52,694				1,099,987
Olivier Leonetti	8/31/2020							135,035			5,499,976

(1) Amounts reported in columns (c) through (e) represent the range of potential cash payments under the annual performance bonuses that could have been earned under the Johnson Controls Annual Incentive Performance Program for fiscal 2020, as described above under the heading “Annual Incentive Performance Program (AIPP),” in the Compensation Discussion & Analysis. Threshold amounts assume minimum performance levels are achieved with respect to each performance measure.

(2) Amounts in columns (f) through (h) show the range of potential share payouts for the PSUs granted to our named executive officers assuming that threshold, target and maximum performance conditions are achieved as described in the section titled “Long-Term Equity Incentive Awards” in the Compensation Discussion & Analysis. The number of PSUs that are earned, if any, will be based on performance for fiscal years 2020 to 2022 and will be determined after the close of fiscal 2022.

(3) Amounts in column (i) show the value of the RSUs granted to the named executive officers in December 2019 and August 2020 (with respect to Mr. Leonetti) as described in the section titled “Long-Term Equity Incentive Awards” and “New Hire Equity Awards” in the Compensation Discussion & Analysis. These awards vest in equal installments over three years.

(4) Amounts in column (j) show the number of the share options granted for fiscal 2020, as described above under the heading “Long-Term Equity Incentive Awards” in the Compensation Discussion & Analysis. The share options vest 50% on the second anniversary of the grant date and 50% on the third anniversary of the grant date, contingent on the named executive officer’s continued employment, and expire, at the latest, on the tenth anniversary of the grant date.

(5) Share options were granted with an exercise price per share equal to the closing market price of our ordinary shares on the date of grant.

(6) Amounts in column (l) show the grant date fair value of the option awards, RSUs and PSUs granted to the named executive officers. These amounts represent the fair value of the entire amount of the award calculated in accordance with Financial Accounting Standards Board ASC Topic 718 (ASC Topic 718), excluding the effect of estimated forfeitures. For grants of share options, amounts are computed by multiplying the fair value of the award (as determined under the Black-Scholes option pricing model) by the total number of options

granted. For grants of RSUs, fair value is computed by multiplying the total number of shares subject to the award by the closing market price of our ordinary shares on the date of grant. For grants of PSUs, the reported fair value assumes achievement of target performance, which is the probable outcome of performance conditions and is consistent with the estimate of aggregate compensation cost to be recognized over the service period.

(7) The award reflected in this row is an annual incentive performance award that we granted for the performance period of fiscal 2020, the material terms of which we describe in the Compensation Discussion & Analysis section titled “Annual Incentive Performance Program (AIPP).”

Outstanding Equity Awards at 2020 Fiscal Year-End Table

The following table shows, for each of the named executive officers, all equity awards that were outstanding as of September 30, 2020. Dollar amounts are based on the NYSE closing price of $40.85 per share for our ordinary shares on September 30, 2020.

	Option Awards				Stock Awards			
Name (a)	Number of Securities Underlying Unexercised Options (#) Exercisable (b)	Number of Securities Underlying Unexercised Options (#) Unexercisable[(1)] (c)	Option Exercise Price ($) (d)	Option Expiration Date (e)	Number of Shares of Stock That Have Not Vested (#)[(2)] (f)	Market Value of Shares of Stock that Have not Vested ($) (g)	Equity Incentive plan Awards: Number of Unearned Shares, Units or Other Rights that have Not Vested (#)[(3)] (h)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights that have Not Vested ($) (i)
George Oliver					130,874	5,346,189	403,237	16,472,218
	176,718	—	26.19	11/20/2022				
	353,542	—	26.19	11/20/2022				
	309,996	—	35.86	11/20/2023				
	331,846	—	41.86	11/25/2024				
	474,268	—	34.82	10/12/2025				
	248,994	—	41.73	10/7/2026				
	168,439	168,440	37.36	12/7/2027				
	—	427,158	33.39	12/6/2028				
	—	325,788	41.75	12/5/2029				
Brian J. Stief					362,623	14,813,154	222,433	9,086,382
	15,577	—	44.57	11/19/2023				
	34,920	—	46.29	11/18/2024				
	49,519	—	40.42	10/7/2025				
	80,975	—	41.73	10/7/2026				
	47,570	47,571	37.36	12/7/2027				
	—	120,638	33.39	12/6/2028				
	—	92,009	41.75	12/5/2029				
Jeffrey M. Williams					33,676	1,375,657	97,130	3,967,743
	19,196	—	44.57	11/19/2023				
	20,952	—	46.29	11/18/2024				
	6,437	—	42.67	1/5/2025				
	33,343	—	40.42	10/7/2025				
	50,281	—	41.73	10/7/2026				
	35,460	35,461	37.36	12/7/2027				
	—	89,928	33.39	12/6/2028				
	—	102,880	41.75	12/5/2029				
Ganesh Ramaswamy					71,482	2,920,036	26,924	1,099,845
		75,445	41.75	12/5/2029				
Olivier Leonetti					135,035	5,516,180		

(1) Vesting information for each outstanding option award for the named executive officers is described in the table below.

Vesting Date	Exercise Price	George R. Oliver	Brian J. Stief	Jeffrey M. Williams	Ganesh Ramaswamy	Olivier Leonetti
2020						
12/7/2020	$37.36	168,440	47,571	35,461	—	—
12/6/2020	$33.39	213,579	60,319	44,964	—	—
2021						
12/6/2021	$33.39	213,579	60,319	44,964	—	—
12/5/2021	$41.75	162,894	46,004	51,440	37,722	—
2022						
12/5/2022	$41.75	162,894	46,005	51,440	37,723	—

(2) The amounts in columns (f) and (g) reflect, for each named executive officer, the number and market value of RSUs which had been granted as of September 30, 2020, but which remained subject to additional vesting requirements. Scheduled vesting of all RSUs and the number of shares underlying awards, for each of the named executive officer is as follows:

Vesting Date	George R. Oliver	Brian J. Stief	Jeffrey M. Williams	Ganesh Ramaswamy	Olivier Leonetti
2020					
12/2/2020	—	—		19,339	
12/5/2020	19,377	5,472	6,119	4,487	—
12/6/2020	24,907	7,035	5,244	—	—
12/7/2020	22,927	332,136	4,830	—	—
2021					
8/31/2021	—	—	—	—	45,011
12/5/2021	19,377	5,472	6,119	4,487	—
12/6/2021	24,908	7,035	5,244	—	—
2022					
8/31/2022	—	—	—	—	45,012
12/2/2022	—	—	—	38,681	—
12/5/2022	19,378	5,473	6,119	4,487	—
2023					
8/31/2023	—	—	—	—	45,012

(3) The amounts in columns (h) and (i) reflect, for each named executive officer, the number and market value of PSUs at target which had been granted as of September 30, 2020. The number of shares earned will depend upon actual performance relative to the applicable performance metrics at the end of the performance period. Scheduled vesting of all PSUs and the number of shares underlying awards at target for each of the named executive officers is as follows:

Vesting Date	George R. Oliver	Brian J. Stief	Jeffrey M. Williams	Ganesh Ramaswamy	Olivier Leonetti
2020					
12/7/2020	137,535	147,395	28,954	—	—
2021					
12/6/2021	149,438	42,204	31,461	—	—
2022					
12/6/2022	116,264	32,835	36,715	26,924	—

Fiscal 2020 Option Exercises and Stock Vested Table

The following table shows, for each of the named executive officers, the amounts realized from options that were exercised and RSUs that vested during fiscal 2020.

	Option Awards		Stock Awards	
Name (a)	Number of Shares Acquired on Exercise (#) (b)	Value Realized on Exercise ($)(1) (c)	Number of Shares Acquired on Vesting (#) (d)	Value Realized on Vesting ($)(2) (e)
George Oliver	306,620	5,470,987	209,975	8,840,542
Brian J. Stief	—	—	174,821	7,404,669
Jeffrey M. Williams	—	—	45,733	1,913,913
Ganesh Ramaswamy	—	—	—	—
Olivier Leonetti	—	—	—	—

(1) The amounts in column (c) represent the product of the number of shares acquired on exercise and the difference between the market price of the shares at the time of exercise and the exercise price of the options.

(2) The amounts in column (e) represent the product of the number of shares a named executive officer acquired on vesting and the closing market price of the shares on the vesting date, plus the value of dividend equivalents released, if any.

Pension Benefits as of September 30, 2020

The following table sets forth certain information with respect to the potential benefits to our named executive officers under the Johnson Controls qualified pension plan as of September 30, 2020. Mr. Williams participates in the plan.

Name	Plan Name	Number of Years Credited Service (#)	Present Value of Accumulated Benefit ($)(1)
Jeffrey M. Williams	Johnson Controls Pension Plan	30.67	1,741,374

(1) Amounts in this column reflect the following assumptions: A calculation date of September 30, 2020, a 2.24% discount rate for the Johnson Controls Pension Plan, retirement occurring at normal retirement age based on Social Security Normal Retirement Age minus three years, and applicability of the 2012 Fully Generational Mortality Table for Annuitants per Treasury Regulations Section 1.430(h)(3)-1(e), that we used for financial reporting purposes as of September 30, 2020. The valuation method used to determine the present value of the accumulated benefit is the same as the method we used for financial reporting purposes as of September 30, 2020. The value that an executive will actually receive under these benefits will differ to the extent facts and circumstances vary from what these calculations assume.

Johnson Controls Pension Plan. The Johnson Controls Pension Plan is a frozen defined benefit pension plan that provides benefits for most non-union U.S. employees hired before January 1, 2006, including Mr. Williams. Because Messrs. Oliver, Stief, Ramaswamy and Leonetti were employed by Johnson Controls after January 1, 2006, they are not participants in the Pension Plan. Subject to certain limitations that the Code imposes, the monthly retirement benefit payable under the Johnson Controls Pension Plan to participants, at normal retirement age in a single life annuity, is determined as follows:

- 1.15% of final average monthly compensation times years of benefit service, plus
- 0.55% of final average monthly compensation in excess of Social Security covered compensation times years of benefit service (up to 30 years)

Service after December 31, 2014 does not count as benefit service in this formula. For purposes of this formula, “final average monthly compensation” means a participant’s gross compensation, excluding certain unusual or non-recurring items of compensation, such as severance or moving expenses, for the highest five consecutive years of the last ten consecutive years of employment occurring prior to January 1, 2015. “Social Security covered compensation” means the average of the Social Security wage base for the 35 years preceding a participant’s normal retirement age. Normal retirement age for Johnson Controls Pension Plan participants is age 65.

Participants in the Johnson Controls Pension Plan generally become vested in their pension benefits upon completion of five years of service. The Pension Plan does not pay full pension benefits until after a participant terminates employment and reaches normal retirement age. However, a participant who terminates employment may elect to receive benefits at a reduced level at any time after age 55, as follows: If a participant terminates employment prior to age 55 and completing 10 years of service, then the reduction is 5% for each year that benefits begin before the participant's Social Security retirement age; and if a participant terminates employment on or after age 55 and after completing 10 years of service, then the reduction is 5% for each year that benefits begin before the three years preceding the participant's Social Security retirement age. Mr. Williams is currently eligible for early retirement under the Pension Plan.

Non-Qualified Deferred Compensation Table at Fiscal 2020 Year-End

The following table presents information on the non-qualified deferred compensation accounts of each named executive officer at September 30, 2020.

Name (a)	Executive Contributions in Last FY ($)[1] (b)	Registrant Contributions in Last FY ($)[2] (c)	Aggregate Earnings in Last FY ($)[3] (d)	Aggregate Withdrawals/ Distributions ($)[4] (e)	Aggregate Balance at Last FYE ($)[5] (f)
George Oliver	282,633	489,006	224,422	(293,940)	3,166,131
Brian J. Stief	4,839,616	171,895	7,826	—	14,741,747
Jeffrey M. Williams	85,688	172,086	85,447	—	1,216,027
Ganesh Ramaswamy	—	—	—	—	—
Olivier Leonetti	—	—	—	—	—

(1) Amounts in column (b) include employee contributions under the Johnson Controls Executive Deferred Compensation Plan, Johnson Controls International plc Senior Executive Deferred Compensation Plan and the Johnson Controls International Retirement Restoration Plan. The Johnson Controls Executive Deferred Compensation Plan allowed participants to defer their annual bonuses, long-term performance share units and restricted share awards. The Johnson Controls International plc Senior Executive Deferred Compensation Plan allows participants to defer up to 50% of their annual base salary and 95% of their annual bonus compensation. The Retirement Restoration Plan allows executive officers to defer up to 6% of their compensation that is not eligible to be deferred into the Johnson Control 401(k) plan because of qualified plan limits that the Code imposes. All of the amounts shown in column (b) are also included in the Summary Compensation Table.

(2) Amounts in column (c) include employer contribution under the Retirement Restoration Plan. The Retirement Restoration Plan, also credits participants with an amount equal to the difference between the amount of retirement contributions made under the 401(k) plan and what such retirement contribution would have been without regard to the Code limits. All of the amounts shown in column (c) are also included in the Summary Compensation Table.

(3) The Aggregate Earnings reported in column (d) are not "above-market or preferential earnings" and therefore are not required to be reported in the Summary Compensation Table. The amounts in column (d) reflect all investment earnings, net of fees, on amounts that have been deferred under the Johnson Controls Deferred Compensation Plan and the Johnson Controls Retirement Restoration Plan. Investment earnings include any amounts relating to appreciation in the price of our ordinary shares, and negative amounts relating to depreciation in the price of our ordinary shares with respect to deferred amounts that consist of deferred share units, the value of which is tied to the value of our ordinary shares. In addition, for Mr. Oliver the amounts in column (d) also include earnings or (losses) on his notional account in the Tyco Supplemental Savings and Retirement Plan (the "Legacy Tyco SSRP"), a deferred compensation plan that, prior to the Merger, provided executives with the opportunity to elect to defer base salary and performance-based bonuses and receive tax-deferred market-based notional investment growth. The Legacy Tyco SSRP allowed executives to defer amounts above those permitted by Legacy Tyco's tax-qualified 401(k) Retirement Savings and Investment Plan (the "Legacy Tyco RSIP") as well as receive any employer contributions that were reduced under the Legacy Tyco RSIP due to IRS compensation limits. Effective January 1, 2018, the Legacy Tyco SSRP was frozen as to new participants and additional deferrals of compensation (subject to specified deferrals relating to the 2017 plan year). Investment options under the Johnson Controls nonqualified deferred compensation plans and Legacy Tyco SSRP include only funds that are available under Johnson Controls tax-qualified 401(k) retirement plans.

(4) The Aggregate Withdrawals reported in column (e) for Mr. Oliver consist of distributions under the Legacy Tyco SSRP, which allowed participants to elect in-service distributions that could commence after a minimum of five years of deferral. The Legacy Tyco SSRP permitted participants to elect to receive distributions in a single lump sum payment or in up to 15 annual installments. Distributions under the Legacy Tyco SSRP were required to commence upon retirement or other termination of employment.

Potential Payments upon Termination and Change-in-Control

The following table summarizes the severance and other enhanced benefits that would have been payable to the named executive officers upon termination of employment or upon the occurrence of a change-in-control assuming that the triggering event or events occurred on September 30, 2020. Equity award amounts are based on the closing share price of our ordinary shares of $40.85 on the NYSE on September 30, 2020.

	Change-in-Control		Other Termination			
Name/form of Compensation (a)	Without Qualified Termination ($) (b)	With Qualified Termination ($) (c)	With Cause ($) (d)	Involuntary Resignation Without Cause ($) (e)	Voluntary Resignation/ Retirement ($)[6] (f)	Death or Disability ($) (g)
George Oliver						
Severance[1]	—	14,100,003	—	7,800,002	—	—
Benefit Continuation[2]	—	1,358,241	—	203,494	—	—
Accelerated Vesting of Equity Awards[3][4]	—	20,391,770	—	15,083,760	15,083,760	25,592,861
Brian J. Stief						
Severance[5]	—	—	—	—	—	—
Benefit Continuation	—	—	—	—	—	—
Accelerated Vesting of Equity Awards[3][4]	—	—	—	—	21,986,580	24,965,518
Jeffrey M. Williams						
Severance[1]	—	3,880,001	—	2,340,001	—	—
Benefit Continuation[2]	—	417,894	—	89,620	—	—
Accelerated Vesting of Equity Awards[3]	—	4,709,767	—	3,539,215	3,539,215	6,138,022
Ganesh Ramaswamy						
Severance[1]	—	3,407,501	—	2,066,250	—	—
Benefit Continuation[2]	—	169,600	—	65,250	—	—
Accelerated Vesting of Equity Awards[3]	—	3,286,651	—	1,004,970	—	4,019,881
Olivier Leonetti						
Severance[1]	—	3,700,060	—	2,220,036	—	—
Benefit Continuation[2]	—	243,750	—	95,587	—	—
Accelerated Vesting of Equity Awards[3]	—	5,516,180	—	—	—	5,516,180

(1) Amounts shown include amounts that would have been payable under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers upon a termination by us without cause or a termination due to death or disability, in connection with a change-in-control or otherwise, as indicated, in each case on September 30, 2020. These amounts include: (a) a lump sum severance payment equal to (1) in connection with a change-in-control, three times for Mr. Oliver and two times for Messrs. Williams, Ramaswamy and Leonetti the sum of annual base salary and target bonus amount or (2) if the termination is not in connection with a change-in-control, two times for Mr. Oliver and one and one-half times for Messrs. Williams, Ramaswamy and Leonetti the sum of annual base salary and target bonus amount; and (b) if the termination is in connection with a change-in-control, payment of a prorated portion of the target bonus amount for the year of termination. Termination for "cause" under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers is defined generally as a termination of the executive officer's employment by us due to the executive officer's failure or refusal to perform the duties and responsibilities of his job, violation of any fiduciary duty owed to us or our affiliates, conviction of, or entry of a plea of nolo contendere with respect to, specified crimes, dishonesty, theft, violation of our rules or policy, or other egregious or morally repugnant conduct that has, or could have, a serious and detrimental impact on us, our affiliates or our employees. Resignation by an executive officer for "good reason" is defined generally as a resignation within 60 days prior to or two years following a change-in-control caused by any of several specified adverse changes to his employment circumstances, including diminution of his authority, duties or responsibilities, a change of more than 50 miles in the geographic location at which the executive officer must perform services that extends the commute of the executive officer, reduction of the executive officer's base compensation or target incentive opportunities, or our failure to secure an assumption of our obligations under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers.

(2) Amounts shown include: (a) in the event of a termination without cause or with good reason in connection with a change-in-control (i) the value of continued health plan coverage for thirty-six (36) months for Mr. Oliver and twenty-four (24) months for Messrs. Williams,

Ramaswamy and Leonetti (such period, the "benefits continuation period") and (ii) a cash payment equal to the amount of employer contributions would have accrued under retirement plans during the benefits continuation period; and (b) in the event of an involuntary termination without cause not in connection with a change-in-control, the value of continued health plan coverage for twenty-four (24) months for Mr. Oliver and eighteen (18) months for Messrs. Williams, Ramaswamy and Leonetti. "Change-in-Control" under the Johnson Controls International plc Severance and Change-in-Control Policy for Officers is defined generally as certain persons becoming the beneficial owner of our securities representing more than 30% of the combined voting power of our then-outstanding securities; a change in the composition of a majority of our board of directors (excluding directors whose election or nomination was approved by at least 50% of the incumbent directors); the consummation of certain reorganizations, mergers, consolidations, sales or other dispositions of at least 80% of our assets; or approval by our shareholders of our complete liquidation or dissolution.

(3) Amounts represent the intrinsic value of unvested equity awards that would have vested upon the indicated triggering event for the named executive officers.

(4) For Messrs. Oliver, Stief, and Williams, who were retirement eligible under applicable plans as of September 30, 2020, the value of certain equity awards that would vest on an accelerated basis upon retirement is presented in the table above in column (f). The value of certain equity awards that would continue to vest according to their original vesting schedule upon retirement is not included.

(5) In connection with receiving his retention RSU/PSU award, Mr. Stief agreed to waive any severance benefits he would be entitled to receive under his employment agreement or any company severance policy.

(6) A voluntary resignation is a resignation as defined under applicable agreements and plans.

As noted above, Messrs. Oliver, Stief and Williams were retirement eligible under applicable plans as of September 30, 2020. For Messrs. Oliver, Stief and Williams, upon the executive's retirement:

i. we are not obligated to pay severance;

ii. with respect to equity awards:

- for Mr. Oliver's fiscal 2018 share option awards and all of Mr. Stief's share option awards, any such awards that were granted to the executive that were outstanding for at least one full calendar year after the year of grant would accelerate so that all of the options would be exercisable in full (and the executive would forfeit all other options that have not been outstanding for at least one full calendar year after the date of grant);
- for Mr. Oliver's fiscal 2018 restricted share or RSU awards and all of Mr. Stief's restricted share or RSU awards, (A) for certain awards, the executive would retain his restricted shares and RSUs that had not vested at the time of retirement, and they would continue to vest on the normal vesting schedule, and (B) for certain awards granted to Mr. Stief in 2017, he would either fully vest in the award or forfeit the award;
- for Mr. Oliver's fiscal 2019 and fiscal 2020 share option and RSU awards and all of Mr. Williams's with respect to share options and RSU awards, the applicable award would accelerate and vest pro rata based on the number of full months of service completed since the grant date of the award; and
- for PSUs, the executive would earn the units that he held at retirement based on actual performance at the end of the performance period, but the amount would be pro-rated based on the number of full months' employment during the performance period.

In addition, Mr. Williams would be eligible to receive pension benefits upon retirement. For an estimate of the value of these pension benefits, please see the table above titled "Pension Benefits as of September 30, 2020."

CEO Pay Ratio

The ratio of our median employee's total compensation to our CEO's total compensation (the "CEO Pay Ratio") is a reasonable estimate calculated in a manner consistent with Item 402(u) of Regulation S-K. Due to the flexibility afforded by Item 402(u) in calculating the CEO Pay Ratio, the ratio may not be comparable to CEO pay ratios presented by other companies.

We identified our median paid employee using a global employee population of 93,270 as of July 1, 2020, representing employees in over 64 countries. This includes 64,560 non-U.S. employees. As part of our methodology, and in compliance with the pay ratio rule under Item 402(u), we employed the de minimis exemption for non-U.S. employees and excluded all employees in 8 countries totaling 4,991 employees (approximately 4.93% of our total workforce of 101,248). Employees in the following countries were excluded:

- Poland 102
- Indonesia 125
- Philippines 138
- Egypt 182
- Russia 149
- Thailand 373
- Turkey 576
- Japan 3,346

In addition, for employees with insufficient compensation data we assumed that such employee was paid the same as the lowest level employee within that employee's jurisdiction. This impacted approximately 167 of our employees.

As a result, the population used to identify our median employee included 93,270 of our 101,248 employees. For purposes of identifying our median employee, we considered the base salary and annual cash incentive. Base salary and annual cash incentive were chosen because (i) they represent the principal forms of compensation delivered to all employees and (ii) this information is readily available in each country. Pay was annualized for employees who worked a partial year between July 1, 2019, and June 30, 2020. Foreign currencies were converted into U.S. dollars as of July 1, 2020, based on the average daily spot rates during July 2020.

In accordance with the requirements of the Summary Compensation Table, we calculated the median paid employee's compensation. Based on such calculation, our median employee's total compensation was $38,462, while our CEO's compensation was $13,731,491. Accordingly, our CEO Pay Ratio was 357:1.

The Annual General Meeting Questions and Answers

The following questions and answers are intended to address briefly some commonly asked questions regarding the Annual General Meeting. These questions and answers may not address all questions that may be important to you. For more information, please refer to the more detailed information contained elsewhere in this proxy statement, including the documents referred to or incorporated by reference herein. For instructions on obtaining the documents incorporated by reference, see “Where You Can Find More Information.”

Why did I receive this Proxy statement?

We have sent this notice of Annual General Meeting and proxy statement, together with the enclosed proxy card or voting instruction card, because our Board of Directors is soliciting your proxy to vote at the Annual General Meeting on March 10, 2021. This proxy statement contains information about the items being voted on at the Annual General Meeting and important information about Johnson Controls. Our 2020 Annual Report on Form 10-K, which includes our consolidated financial statements for the fiscal year ended September 30, 2020 (the “Annual Report”), is enclosed with these materials.

Who is entitled to vote?

Each holder of Johnson Controls ordinary shares in our register of shareholders (such owners are often referred to as “shareholders of record,” “record holders” or “registered shareholders”) as of the close of business on January 7, 2021, the record date for the Annual General Meeting, is entitled to attend and vote at the Annual General Meeting. On January 7, 2021, there were 719,574,821 ordinary shares outstanding and entitled to vote at the Annual General Meeting. Any Johnson Controls shareholder of record as of the record date who does not receive notice of the Annual General Meeting and proxy statement, together with the enclosed proxy card or voting instruction card and the Annual Report, may obtain a copy at the Annual General Meeting or by contacting Johnson Controls at +353-21-423-5000.

We have requested that banks, brokerage firms and other nominees who hold ordinary shares on behalf of the owners of the ordinary shares (such owners are often referred to as “beneficial shareholders” or “street name holders”) as of the close of business on January 7, 2021 forward these materials, together with a proxy card or voting instruction card, to such beneficial shareholders. Johnson Controls has agreed to pay the reasonable expenses of the banks, brokerage firms and other nominees for forwarding these materials.

Finally, Johnson Controls has provided for these materials to be sent to persons who have interests in its ordinary shares through participation in Johnson Controls’ retirement savings plans. These individuals are not eligible to vote directly at the Annual General Meeting. They may, however, instruct the trustees of these plans how to vote the ordinary shares represented by their interests. The enclosed proxy card will also serve as voting instructions for the trustees of the plans.

How many votes do I have?

Every holder of an ordinary share on the record date will be entitled to one vote per share for each matter presented at the Annual General Meeting. Because each Director’s election is the subject of a separate resolution, every holder of an ordinary share on the record date will be entitled to one vote per share for each separate Director election resolution.

What is the difference between holding shares as a shareholder of record and as a beneficial owner?

Most of our shareholders hold their shares through a stockbroker, bank or other nominee rather than directly in their own name. As summarized below, there are some differences between shares held of record and those owned beneficially.

Shareholder of Record

If your shares are registered directly in your name in our share register operated by our transfer agent, EQ Shareowner Services, you are considered the shareholder of record with respect to those shares and these proxy materials are being sent to you directly by us. As the shareholder of record, you have the right to grant your voting proxy to the persons named in the proxy card (see "*How Do I Appoint and Vote via a Proxy?*" below), or to grant a written proxy to any other person, which person does not need to be a shareholder, or to attend and vote in person at the Annual General Meeting. We have enclosed a proxy card for you to use in which you can elect to appoint certain officers of the Company named therein as your proxy.

Beneficial Owner

If your shares are held in a stock brokerage account or by a bank or other nominee, you are considered the beneficial owner of shares held in "street name," and these proxy materials are being forwarded to you by your bank, broker or other nominee who is considered, with respect to those shares, the shareholder of record. As the beneficial owner, you have the right to direct your bank, broker or other nominee on how to vote your shares and are also invited to attend the Annual General Meeting. However, since you are not the shareholder of record, you may only vote these shares in person at the Annual General Meeting if you follow the instructions described below under "*Admission to the Annual General Meeting*" and "*How do I vote?*" Your bank, broker or other nominee has enclosed a voting instruction card for you to use in directing your bank, broker or other nominee as to how to vote your shares, which may contain instructions for voting by telephone or electronically.

How do I vote?

A proxy card is being sent to each shareholder of record as of the record date. If you hold your shares in the name of a bank, broker or other nominee, you should follow the instructions provided by your bank, broker or nominee when voting your shares. Otherwise, you can vote in the following ways:

- ***By Mail:*** If you are a holder of record, you can vote by marking, dating and signing the appropriate proxy card and returning it by mail in the enclosed postage-paid envelope. If you beneficially own your ordinary shares, you can vote by following the instructions on your voting instruction card.
- ***By Internet or Telephone:*** You can vote over the Internet at www.proxyvote.com by following the instructions on the proxy card or the voting instruction card or in the Notice of Internet availability of proxy materials previously sent to you. If you are not a holder of record, you can vote using a touchtone telephone by calling 1-800-454-8683.
- ***At the Annual General Meeting:*** If you are planning to attend the Annual General Meeting and wish to vote your ordinary shares in person, we will give you a ballot at the meeting. Shareholders who own their shares in "street name" are not able to vote at the Annual General Meeting unless they have a proxy, executed in their favor, from the holder of record of their shares. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be prohibitions or restrictions on travel and/or gatherings that affect in-person attendance at the Annual General Meeting. **We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting if attending in person is not feasible or not recommended**.

Even if you plan to be present at the Annual General Meeting, we encourage you to complete and mail the enclosed card to vote your ordinary shares by proxy. Telephone and Internet voting facilities for shareholders will be available 24 hours a day and will close at 11:59 p.m., Eastern Standard Time, on March 9, 2021.

How do I appoint and vote via a proxy?

If you properly fill in your proxy card appointing an officer of the Company as your proxy and send it to us in time to vote, your proxy, meaning one of the individuals named on your proxy card, will vote your shares as you have directed. You may also grant a written proxy to any other person by filling in the proxy card and identifying the person, which person does not need to be a shareholder, or attend and vote in person at the Annual General Meeting. If you sign the proxy card but do not make specific choices, your proxy will vote your shares as recommended by the Board of Directors "FOR" each Director and "FOR" each of the agenda items listed below.

If a new agenda item or a new motion or proposal for an existing agenda item is presented at the Annual General Meeting, the Company officer acting as your proxy will vote in accordance with the recommendation of our Board of Directors. At the time we began printing this proxy statement, we knew of no matters that needed to be acted on at the Annual General Meeting other than those discussed in this proxy statement.

Whether or not you plan to attend the Annual General Meeting, we urge you to submit your proxy. Returning the proxy card or submitting your vote electronically will not affect your right to attend the Annual General Meeting. You must return your proxy cards by the times and dates set forth below under "Returning Your Proxy Card" in order for your vote to be counted.

What if I return my proxy or voting instruction card but do not mark it to show how I am voting?

Your shares will be voted according to the specific instructions you have indicated on your proxy or voting instruction card. If you sign and return your proxy or voting instruction card but do not indicate specific instructions for voting, you instruct the proxy to vote your shares, "FOR" each Director and "FOR" all other proposals. For any other matter which may properly come before the Annual General Meeting, and any adjournment or postponement thereof, you instruct, by submitting proxies with blank voting instructions, the proxy to vote in accordance with the recommendation of the Board of Directors.

May I change or revoke my vote after I return my proxy or voting instruction card?

You may change your vote before it is exercised by:

- Submitting subsequent voting instructions through the telephone or Internet; if you previously voted by telephone or the Internet;
- Submitting another proxy card (or voting instruction card if you beneficially own your ordinary shares) with a later date; or
- Voting in person at the Annual General Meeting if you are a holder of record or a beneficial owner with a proxy from the holder of record (however, as noted below, in light of the COVID-19 pandemic, we strongly recommend that you vote your shares by proxy in advance of the Annual General Meeting).

Your presence without voting at the meeting will not automatically revoke your proxy, and any revocation during the meeting will not affect votes previously taken. If you hold your shares in the name of a bank, broker or other nominee, you should follow the instructions provided by your bank, broker or nominee in revoking your previously granted proxy.

What impact could the COVID-19 pandemic have on the Annual General Meeting?

The well-being of all attendees and participants at the Annual General Meeting is a primary concern for the Company and in this context we are closely monitoring developments in relation to the COVID-19 pandemic. The Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as the Board considers appropriate to address health and safety concerns. As a result, there may be restrictions on travel and/or gatherings that affect or prohibit travel to or in-person attendance at the Annual General Meeting. In addition, we may deem it advisable to have the members of our Board and senior management not be physically present at our Annual Meeting in Ireland and instead participate remotely in order to mitigate the health risks posed by the pandemic. Furthermore, to promote the health and safety of attendees, we may impose additional procedures or limitations on meeting attendance based on applicable governmental requirements or recommendations or facility requirements. Such additional procedures or limitations may include, but are not limited to, thorough screenings of attendees (including temperature checks), limits on the number of attendees to promote social distancing and requiring the use of face masks.

We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting if attending in person is not feasible or not recommended. This can be done in advance of the Annual General Meeting by availing of one of the voting options set forth above under "How Do I Vote?"

If it is not possible to proceed with the Annual General Meeting, the Annual General Meeting may be adjourned to a different time and/or venue and/or we may consider alternative measures for the holding of the Annual General Meeting that may be permitted under Irish law. If this is necessary, we will alert shareholders to any changes as soon as possible in accordance with Company's constitution and applicable laws and regulations and make such information available on the Investor Relations section of our website (http://investors.johnsoncontrols.com).

The Company will continue to monitor the impact of COVID-19 and any relevant updates regarding the Annual General Meeting will be available on www.johnsoncontrols.com.

Shareholders are also encouraged to keep up-to-date with, and follow, the guidance from the Government of Ireland and the Department of Health (of Ireland) (as appropriate) as circumstances may change at short notice. Should we determine that alternative arrangements may be advisable or required, such as changing the date, time, location or format of the meeting, we will announce our decision by press release and/or filing with the Securities and Exchange Commission and also post additional information on the Investor Relations section of our website (http://investors.johnsoncontrols.com).

Delivery of Documents to Stockholders Sharing an Address

Securities and Exchange Commission rules allow us to deliver a single copy of an annual report and proxy statement to any household not participating in electronic proxy material delivery at which two or more shareholders reside, if we believe the shareholders are members of the same family (a practice called "householding"). We believe that householding benefits both you and the Company by eliminating duplicate mailings to shareholders living at the same address and by reducing our printing and mailing costs. Each shareholder will continue to receive a separate proxy card or voting instruction card.

Your household may have received a single set of proxy materials this year. If you prefer to receive your own copy now or in future years, please request a duplicate set by calling 1-800-579-1639, by going to www.proxyvote.com, by e-mailing sendmaterial@proxyvote.com, or by writing to Johnson Controls, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717. Alternatively, if your household received multiple sets of proxy materials this year, and members of your household who are entitled to receive proxy materials would all prefer to receive only a single set of proxy materials, you may submit such a request as specified in the preceding sentence.

If a broker or other nominee holds your shares, you may continue to receive some duplicate mailings. Certain brokers will eliminate duplicate account mailings by allowing shareholders to consent to such elimination, or through implied consent if a shareholder does not request continuation of duplicate mailings. Since not all brokers and nominees may offer shareholders the opportunity this year to eliminate duplicate mailings, you may need to contact your broker or other nominee directly to discontinue duplicate mailings to your household.

What vote is required to approve each proposal at the Annual General Meeting?

Johnson Controls intends to present proposals numbered one through eight for shareholder consideration and voting at the Annual General Meeting. The vote required to approve each proposal is described below:

1. By separate resolutions, to elect the following individuals as Directors for a period of one year, expiring at the end of the Company's Annual General Meeting of Shareholders in 2022:

   (a) Jean Blackwell
   (b) Pierre Cohade
   (c) Michael E. Daniels
   (d) Juan Pablo del Valle Perochena
   (e) W. Roy Dunbar
   (f) Gretchen R. Haggerty
   (g) Simone Menne
   (h) George R. Oliver
   (i) Jürgen Tinggren
   (j) Mark Vergnano
   (k) R. David Yost
   (l) John D. Young

   The election of each Director nominee requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

2. To ratify the appointment of PricewaterhouseCoopers LLP as the independent auditors of the Company and to authorize the Audit Committee of the Board of Directors to set the auditors' remuneration, which in each case, requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

3. To authorize the Company and/or any subsidiary of the Company to make market purchases of Company shares, which requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

4. To determine the price range at which the Company can re-allot shares that it holds as treasury shares (Special Resolution), which requires the affirmative vote of at least 75% of the votes properly cast (in person or by proxy) at the Annual General Meeting.

5. To approve, in a non-binding advisory vote, the compensation of the named executive officers, which will be considered approved with the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting. The advisory vote on executive compensation is non-binding, meaning that our Board of Directors will not be obligated to take any compensation actions or to adjust our executive compensation programs or policies as a result of the vote.

6. To approve the Johnson Controls International plc 2021 Equity and Incentive Plan, which requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

7. To approve the authorization for the Board of Directors to issue shares up to 33% of its issued share capital, which requires the affirmative vote of a majority of the votes properly cast (in person or by proxy) at the Annual General Meeting.

8. To approve the authorization for the Board of Directors to issue shares for cash up to a maximum of approximately 5% of issued share capital (Special Resolution), which requires the affirmative vote of at least 75% of the votes properly cast (in person or by proxy) at the Annual General Meeting.

What is the quorum requirement for the Annual General Meeting?

In order to conduct any business at the Annual General Meeting, holders of a majority of Johnson Controls' ordinary shares which are outstanding and entitled to vote on the record date must be present in person or represented by valid proxies. This is called a quorum. Your shares will be counted for purposes of determining if there is a quorum, whether representing votes for, against or abstained, or broker non-votes, if you:

- are present and vote in person at the meeting;
- have voted by telephone or the Internet; OR
- you have submitted a proxy card or voting instruction form by mail.

What is the effect of broker non-votes and abstentions?

Abstentions and broker non-votes are considered present for purposes of determining the presence of a quorum. Abstentions and broker non-votes will not be considered votes properly cast at the Annual General Meeting. Because the approval of all of the proposals is based on the votes properly cast at the Annual General Meeting, abstentions and broker non-votes will not have any effect on the outcome of voting on these proposals.

A broker non-vote occurs when a broker holding shares for a beneficial owner does not vote on a particular agenda item because the broker does not have discretionary voting power for that particular item and has not received instructions from the beneficial owner. Although brokers have discretionary power to vote your shares with respect to "routine" matters, they do not have discretionary power to vote your shares on "non-routine" matters pursuant to the rules of The New York Stock Exchange (the "NYSE"). We believe the following proposals will be considered non-routine under NYSE rules and therefore your broker will not be able to vote your shares with respect to these proposals unless the broker receives appropriate instructions from you: Proposal No. 1 (Election of Directors), Proposal No. 5 (Advisory Vote on Executive Compensation) and Proposal No. 6 (Approval of the Johnson Controls International plc 2021 Equity and Incentive Plan). Your broker will not be able to vote your shares with respect to these proposals unless the broker receives appropriate instructions from you.

How will voting on any other business be conducted?

Other than matters incidental to the conduct of the Annual General Meeting and those set forth in this proxy statement, we do not know of any business or proposals to be considered at the Annual General Meeting. If any other business is proposed and properly presented at the Annual General Meeting, the proxy holders must vote in accordance with the instructions given by the shareholder. You may specifically instruct the proxy holder how to vote in such a situation. In the absence of specific instructions, by signing the proxy, you instruct the proxy holder to vote in accordance with the recommendations of the Board of Directors.

Important notice regarding the availability of proxy materials for the Annual General Meeting:

Our proxy statement for the Annual General Meeting and the form of proxy card are available at www.proxyvote.com.

As permitted by SEC rules, we are making this proxy statement available to our shareholders electronically via the Internet. On January 22, 2021, we first mailed to our shareholders a Notice containing instructions on how to access this proxy statement and vote online. If you received a Notice by mail, you will not receive a printed copy of the proxy materials in the mail. Instead, the Notice instructs you on how to access and review all of the important information contained in the proxy statement. The Notice also instructs you on how you may submit your proxy over the Internet. If you received a Notice by mail and would like to receive a printed copy of our proxy materials, you should follow the instructions for requesting such materials contained on the Notice.

Returning Your Proxy Card

Shareholders who are voting by mail should complete and return the proxy card as soon as possible. In order to assure that your proxy is received in time to be voted at the meeting, the proxy card must be completed in accordance with the instructions and received at one of the addresses set forth below by the dates and times specified:

Ireland:

By 5:00 p.m., local time, on March 9, 2021 by hand or mail at:

Johnson Controls International plc
One Albert Quay
Cork, Ireland

United States:

By 5:00 p.m., Eastern Standard Time, on March 9, 2021 by mail at:

Broadridge Financial Solutions
c/o Vote Processing
51 Mercedes Way
Edgewood, NY 11717

If your shares are held beneficially in “street name,” you should return your proxy card or voting instruction card in accordance with the instructions on that card or as provided by the bank, brokerage firm or other nominee who holds Johnson Controls shares on your behalf.

Admission to the Annual General Meeting

The well-being of all attendees and participants at the Annual General Meeting is a primary concern for the Company and in this context we are closely monitoring developments in relation to the COVID-19 pandemic. While all shareholders are invited to attend the Annual General Meeting, the Annual General Meeting will proceed subject to the guidance provided by the Government of Ireland and the Department of Health (of Ireland) or any other governmental agency in place at the time of the meeting and such other measures as we consider appropriate to address health and safety concerns. As a result, there may be restrictions on travel and/or gatherings that affect or prohibit travel to or in-person attendance at the Annual General Meeting. Furthermore, we may impose additional procedures or limitations on meeting attendance based on applicable governmental requirements or recommendations or facility requirements. Such additional procedures or limitations may include, but are not limited to, thorough screenings of attendees (including temperature checks), limits on the number of attendees to promote social distancing and requiring the use of face masks.

We therefore strongly encourage all shareholders to vote their shares by proxy in advance of the Annual General Meeting to ensure you can vote and be represented at the Annual General Meeting if attending in person is not feasible or not recommended. This can be done in advance of the Annual General Meeting by availing of one of the voting options set forth above under “How Do I Vote?”

For admission to the Annual General Meeting, shareholders of record should bring the admission ticket attached to the enclosed proxy card to the Registered Shareholders check-in area, where their ownership will be verified. Those who have beneficial ownership of shares held by a bank, brokerage firm or other nominee should come to the Beneficial Owners check-in area. Beneficial owners who wish to vote in person at the Annual General Meeting are requested to obtain a “legal proxy” executed in their favor, from their broker, bank, nominee or other custodian that authorizes you to vote the shares held by them on your behalf. In addition, you must bring to the Annual General Meeting an account statement or letter from the broker, bank or other nominee indicating that you are the owner of the shares. Registration will begin at 2:00 pm, local time, and the Annual General Meeting will begin at 3:00 pm, local time.

Johnson Controls Annual Report

The Johnson Controls International plc 2020 Annual Report on Form 10-K containing our audited consolidated financial statements with accompanying notes and schedules is available on the Company’s website in the Investor Relations Section at www.johnsoncontrols.com. Copies of these documents may be obtained without charge by contacting Johnson Controls by phone at +353-21-423-5000. Copies may also be obtained without charge by contacting Investor Relations in writing or may be physically inspected at the offices of Johnson Controls International plc, One Albert Quay, Cork, Ireland.

Ordinary Share Price and Dividend Information

The shares of the Company's ordinary shares are traded on the New York Stock Exchange under the symbol "JCI."

Title of Class	Number of Record Holders as of December 31, 2020
Ordinary Shares, $0.01 par value	33,212

	Ordinary Shares Price Range		Dividends	
	FY 2020	FY 2019	FY 2020	FY 2019
First Quarter	$40.24 - 44.82	$28.51 - 36.51	$0.26	$0.26
Second Quarter	22.78 - 42.65	30.01 - 36.94	0.26	0.26
Third Quarter	24.77 - 37.07	35.81 - 41.31	0.26	0.26
Fourth Quarter	33.31 - 43.20	40.91 - 44.30	0.26	0.26
Year	$22.78 - 44.82	$28.51 - 44.30	$1.04	$1.04

Presentation of Irish Statutory Accounts

The Company's Irish Statutory Accounts for the fiscal year ended September 30, 2020, including the reports of the Directors and auditors thereon, will be presented at the Annual General Meeting. The Company's Irish Statutory Accounts have been approved by the Board of Directors of the Company. There is no requirement under Irish law that such statements be approved by shareholders, and no such approval will be sought at the Annual General Meeting. The Company's Irish Statutory Accounts, with the Non-Financial Disclosure Report, will be available at least 21 days before the date of the Annual General Meeting, along with the proxy statement, the Company's Annual Report on Form 10-K and other proxy materials at www.proxyvote.com, and in the Investor Relations section of the Company's website at www.johnsoncontrols.com.

Costs of Solicitation

We will pay the cost of solicitation of proxies. We have engaged Mackenzie Partners as the proxy solicitor for the Annual General Meeting for an approximate fee of $12,500, plus expenses. In addition to the use of the mail, certain of our Directors, officers or employees may solicit proxies by telephone or personal contact. Upon request, we will reimburse brokers, dealers, banks and trustees, or their nominees, for reasonable expenses incurred by them in forwarding proxy materials to beneficial owners of shares.

We are furnishing this proxy statement to our shareholders in connection with the solicitation of proxies by our Board of Directors for use at an Annual General Meeting of our shareholders. We are first mailing this proxy statement and the accompanying form of proxy to shareholders beginning on or about January 22, 2021.

Transfer Agent

Our transfer agent is EQ Shareowner Services. All communications concerning shareholders of record accounts, including address changes, name changes, common stock transfer requirements, and similar issues can be handled by contacting EQ Shareowner Services at 1-800-401-1952 (U.S.), 651-450-4064 (outside the U.S.), www.shareowneronline.com, or in writing, P.O. Box 64854, St. Paul, MN 55164-0854.

Shareholder Proposals for the 2022 Annual General Meeting

In accordance with the rules established by the SEC, as well as under the provisions of our Memorandum and Articles of Association, any shareholder proposal submitted pursuant to Rule 14a-8 under the Securities Exchange Act of 1934 (the "Exchange Act") intended for inclusion in the proxy statement for next year's Annual General Meeting must be received by Johnson Controls no later than September 24, 2021. Such proposals should be sent to our Corporate Secretary at our registered address, which is: One Albert Quay, Cork, Ireland. To be included in the proxy statement, the proposal must comply with the requirements as to form and substance established by the SEC and our Articles of Association, and must be a proper subject for shareholder action under applicable law. Any shareholder proposal that is not submitted for inclusion in the proxy statement but is instead sought to be presented directly at the 2021 Annual General Meeting must be received by the

Secretary at the address listed above prior to December 8, 2021. Securities and Exchange Commission rules permit management to vote proxies in its discretion in certain cases if the shareholder does not comply with this deadline and in certain other cases notwithstanding the shareholder's compliance with this deadline.

New proposals or motions with regard to existing agenda items are not subject to such restrictions and can be made at the meeting by each shareholder attending or represented. Note that if specific voting instructions are not provided to the proxy, shareholders who submit a proxy card instruct the proxy to vote their shares in accordance with the recommendations of the Board of Directors with regard to the items appearing on the agenda.

Where You Can Find More Information

We file annual, quarterly and special reports, proxy statements and other information with the SEC. Our SEC filings are also available to the public at the SEC's website (www.sec.gov).

The SEC's website contains reports, proxy statements and other information regarding issuers, like us, that file electronically with the SEC. You may find our reports, proxy statements and other information at the SEC website. In addition, you can obtain reports and proxy statements and other information about us at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

We maintain a website on the Internet at www.johnsoncontrols.com. We make available free of charge, on or through our website, our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after such material is filed with the SEC. This reference to our Internet address is for informational purposes only and shall not, under any circumstances, be deemed to incorporate the information available at such Internet address into this proxy.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth the number of registered shares beneficially owned as of January 14, 2021 by each current Director, each Named Executive Officer and the Directors and Executive Officers of Johnson Controls as a group.

Beneficial Owner	Title	Number of Ordinary Shares Beneficially Owned(1)(2)	Pct of Class
Jean Blackwell	Director	8,693	*
Pierre Cohade	Director	7,529	*
Michael E. Daniels	Director	72,433	*
Juan Pablo del Valle Perochena	Director	11,218	*
W. Roy Dunbar	Director	10,863	*
Gretchen R. Haggerty	Director	15,499	*
Olivier Leonetti	Named Executive Officer	149,261	*
Simone Menne	Director	9,207	*
George R. Oliver	Chairman and CEO	3,582,754	*
Ganesh Ramaswamy	Named Executive Officer	66,483	*
Brian Stief	Former Vice Chairman and Chief Financial Officer	350,544	*
Jürgen Tinggren	Director	28,735	*
Mark Vergnano	Director	23,517	*
Jeffrey M. Williams	Named Executive Officer	310,712	*
R. David Yost	Director	54,087	*
John D. Young	Director	9,861	*
All current Directors and Executive Officers as a group (23 persons)		5,444,276	*

* Less than 1.0%

(1) The number shown reflects the number of ordinary shares owned beneficially as of January 14, 2021, based on information furnished by the persons named, public filings and Johnson Controls' records. A person is deemed to be a beneficial owner of ordinary shares if he or she, either alone or with others, has the power to vote or to dispose of those ordinary shares. Except as otherwise indicated below and subject to applicable community property laws, each owner has sole voting and sole investment authority with respect to the shares listed. To the extent indicated in the notes below, ordinary shares beneficially owned by a person include ordinary shares of which the person has the right to acquire beneficial ownership within 60 days after January 14, 2021. There were 718,371,308 Johnson Controls ordinary shares outstanding on such date.

(2) Includes the maximum number of shares for which these individuals can acquire beneficial ownership upon (i) the exercise of share options that are currently vested or will vest within 60 days of January 14, 2021 as follows: Mr. Oliver, 2,445,822; Mr. Stief, 332,451; Mr. Williams, 246,094; and all executive officers as a group 3,286,296 and (ii) the vesting of RSUs that will vest within 60 days of January 14, 2021 as follows: Messrs. Cohade, Daniels, del Valle Perochena, Dunbar, Tinggren, Vergnano, Yost and Young, and Mses. Blackwell, Haggerty and Menne 4,604 RSUs; and all Directors and Executive Officers as a group, 50,648 RSUs.

The following table sets forth the information indicated for persons or groups known to the Company to be beneficial owners of more than 5% of the outstanding ordinary shares.

Name and Address of Beneficial Owner	Number of Ordinary Shares Beneficially Owned	Percentage of Ordinary Shares Outstanding
Dodge & Cox, 555 California Street, 40th Floor, San Francisco, CA 94104	88,654,177(1)	11.92%
The Vanguard Group, 100 Vanguard Blvd., Malvern, PA 19355	64,095,461(2)	8.30%
BlackRock, Inc., 55 East 52nd Street, New York, NY 10055	44,652,634(3)	6.00%

(1) Based solely on the information reported by Dodge & Cox in a Notification of Holdings under Irish law provided to the Company on October 5, 2020 and reporting ownership as of September 29, 2020, Dodge & Cox, together with its affiliates, held an interest in 88,654,177 ordinary shares.

(2) The amount shown for the number of ordinary shares over which The Vanguard Group exercised investment discretion was provided pursuant to the Schedule 13G/A filed February 12, 2020 with the SEC, indicating beneficial ownership as of December 31, 2019.

(3) Based solely on the information reported by BlackRock, Inc. in a Standard Form TR-1 under Article 12(1) of Directive 2004/109/EC and Article 11(3) of the Commission Directive 2007/14/EC provided to the Company on June 29, 2020 and reporting ownership as of June 26, 2020, BlackRock, Inc., together with its affiliates, held an interest in 44,652,634 ordinary shares.

Annex A
Non-GAAP Reconciliations

This Proxy Statement contains financial information regarding adjusted earnings per share, which is a non-GAAP performance measure. The adjusting items include transaction/integration costs, net mark-to-market adjustments, restructuring and impairment costs, an acquisition related compensation charge, tax indemnification reserve release, environmental reserve, loss on extinguishment of debt and discrete tax items. Financial information regarding adjusted free cash flow and adjusted free cash flow conversion also presented, which are non-GAAP performance measures. Management believes that, when considered together with unadjusted amounts, these non-GAAP measures are useful to investors in understanding period-over-period operating results and business trends of the Company. Management may also use these metrics as guides in forecasting, budgeting and long-term planning processes and for compensation purposes. These metrics should be considered in addition to, and not as replacements for, the most comparable GAAP measure.

Diluted Earnings Per Share Reconciliation

	Net Income Attributable to JCI plc from Continuing Operations	
	Twelve Months Ended September 30,	
	2020	**2019**
Earnings per share as reported for JCI plc	$ 0.84	$ 1.26
Adjusting items:		
Transaction costs	—	0.01
Integration costs	0.18	0.35
Related tax impact	(0.02)	(0.04)
Acquisition related compensation charge	0.05	—
Related tax impact	(0.01)	—
Net mark-to-market adjustments	0.36	0.71
Related tax impact	(0.09)	(0.15)
Restructuring and impairment costs	1.04	0.27
Related tax impact	(0.06)	(0.06)
NCI impact of restructuring and impairment	(0.01)	—
Tax indemnification reserve release	—	(0.26)
Environmental reserve	—	0.16
Related tax impact	—	(0.03)
Loss on extinguishment of debt	—	0.07
Discrete tax items	(0.05)	(0.32)
NCI impact of discrete tax items	0.01	—
Adjusted earnings per share for JCI plc*	$ 2.24	$ 1.96

* May not sum due to rounding

Adjusted Free Cash Flow Reconciliation

(in billions)	**Twelve Months Ended September 30, 2020**
Cash provided by operating activities from continuing operations	$ 2.5
Capital expenditures	(0.4)
Reported free cash flow *	2.0
Adjusting items:	
Transaction/integration costs	0.2
Restructuring payments	0.2
Nonrecurring tax refunds	(0.6)
Total adjusting items*	(0.1)
Adjusted free cash flow	$ 1.9
Adjusted net income from continuing operations attributable to JCI	$ 1.7
Adjusted free cash flow conversion	115%

* May not sum due to rounding

ANNEX B
JOHNSON CONTROLS INTERNATIONAL PLC
2021 EQUITY AND INCENTIVE PLAN

1. Purpose, Effective Date and Prior Plan.

(a) *Purpose*. The Johnson Controls International plc 2021 Equity and Incentive Plan has two complementary purposes: (i) to attract and retain outstanding individuals to serve as officers, employees, directors, consultants and advisors and (ii) to increase shareholder value. This Plan will provide participants incentives to increase shareholder value by offering such individuals the opportunity to acquire ordinary shares of the Company, or receive monetary payments either based on the value of the ordinary shares of the Company or as a result of the achievement of performance goals, on the potentially favorable terms that this Plan provides.

(b) *Effective Date; History*. This Plan shall become effective on the date of the Company's 2021 Annual General Meeting of Shareholders (the "Effective Date"), *provided* that the Company's shareholders approve the Plan on such date.

(c) *Termination of Prior Plan*. Upon the Effective Date, the Johnson Controls International plc. 2012 Share and Incentive Plan, as amended and restated (the "Prior Plan") shall terminate, and no new awards may be granted thereunder after the Effective Date, although awards previously granted under the Prior Plan and still outstanding as of the Effective Date will remain outstanding and continue to be subject to all terms and conditions of the Prior Plan.

2. Definitions. Capitalized terms used in this Plan have the meanings given below. Additional defined terms are set forth in other sections of this Plan.

(a) "10% Shareholder" means an employee of the Company or a Subsidiary who, as of the date an ISO is granted to such individual, owns more than ten percent (10%) of the total combined voting power of all classes of shares then issued by the Company or a Subsidiary.

(b) "Administrator" means the Committee or the Board; *provided* that, with respect to Participants who are Non-Employee Directors, the Administrator shall mean the Board.

(c) "Affiliate" means each Subsidiary and any other entity that, directly or through one or more intermediaries, is controlled by, controls, or is under common control with the Company within the meaning of Code Sections 414(b) or (c), *provided* that, in applying such provisions, the phrase "at least 50 percent" shall be used in place of "at least 80 percent" each place it appears therein.

(d) "Award" means a grant of Options, Share Appreciation Rights, Performance Share Units, Restricted Shares, Restricted Share Units, Dividend Equivalent Units, a Cash Incentive Award, and Other Share-Based Awards.

(e) "Beneficial Ownership" (or derivatives thereof) shall have the meaning ascribed to such term in Rule 13d-3 of the General Rules and Regulations under the Exchange Act.

(f) "Board" means the Board of Directors of the Company.

(g) "Cash Incentive Award" means the right to receive a cash payment to the extent Performance Goals are achieved (or other requirements are met), as described in Section 10.

(h) "Cause" means, with respect to a Participant, the Administrator's determination, made in good faith, that a Participant has committed any of the following: (i) a violation of the provisions of any Award agreement, employment agreement, non-competition agreement, confidentiality agreement, or similar agreement with the Company or an Affiliate, or the Company's or an Affiliate's code of ethics or other policy governing the Participant's conduct, as then in effect; (ii) conduct rising to the level of gross negligence or willful misconduct in the course of employment with the Company or an Affiliate, or a Participant's refusal to perform the duties and responsibilities of the Participant's job; (iii) any conduct that does, or is reasonably likely to, bring the Company or an Affiliate negative publicity or cause financial or reputational harm to the Company or its Affiliates; (iv) commission of an act of dishonesty or disloyalty involving the Company or an Affiliate, including but not limited to theft of Company or Affiliate property; (v) violation of any federal, state or local law in connection with the Participant's employment or service; (vi) breach of any fiduciary duty to the Company or an Affiliate; (vii) embezzlement, misappropriation or fraud, whether or not related to the Participant's employment or service; or (viii) the Participant's conviction of or plea of guilty or nolo contendere to a crime that constitutes a felony (or state law equivalent) or a crime that constitutes a misdemeanor involving moral turpitude.

(i) “Change of Control” means the first to occur of the following events after the Effective Date:

(i) The acquisition by any Person of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 35% or more of either (A) the then-outstanding Shares (the “Outstanding Company Shares”) or (B) the combined voting power of the then-outstanding voting securities of the Company entitled to vote generally in the election of directors (the “Outstanding Company Voting Securities”); *provided*, however, that the following acquisitions shall not constitute a Change of Control: (1) any acquisition directly from the Company, (2) any acquisition (including any purchase or redemption) by the Company, (3) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any Affiliate or (4) any acquisition by any corporation pursuant to a transaction that complies with Sections 2(i)(iii)(A) – 2(i)(iii)(C);

(ii) Any time at which individuals who, as of immediately following the Effective Date, constitute the Board (the “Incumbent Board”) cease for any reason to constitute at least a majority of the Board; *provided*, *however*, that any individual becoming a director subsequent to the Effective Date whose election, or nomination for election by the Company’s shareholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of a Person other than the Board;

(iii) Consummation of a reorganization, merger, takeover, scheme of arrangement, statutory share exchange or consolidation or similar corporate transaction involving the Company or any of its subsidiaries, a sale or other disposition of all or substantially all of the assets of the Company, or the acquisition of assets or shares of another entity by the Company or any of its subsidiaries (each, a “Business Combination”), in each case unless, following such Business Combination, (A) all or substantially all of the individuals and entities that were the beneficial owners of the Outstanding Company Shares and the Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the then-outstanding shares and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation that, as a result of such transaction, owns the Company or all or substantially all of the Company’s assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership immediately prior to such Business Combination of the Outstanding Company Shares and the Outstanding Company Voting Securities, as the case may be, (B) no Person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or an Affiliate or such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 35% or more of, respectively, the then-outstanding shares of the corporation resulting from such Business Combination or the combined voting power of the then-outstanding voting securities of such corporation, except to the extent that such ownership existed prior to the Business Combination, and (C) at least a majority of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement or of the action of the Board providing for such Business Combination; or

(iv) Approval by the shareholders of the Company of a complete liquidation or dissolution of the Company.

Notwithstanding the foregoing, for purposes of an Award (x) that provides for the payment of deferred compensation that is subject to Code Section 409A or (y) with respect to which the Company permits a deferral election, the definition of Change of Control herein shall be deemed amended to conform to the requirements of Code Section 409A to the extent necessary for the Award and deferral election to comply with Code Section 409A.

(j) “Code” means the United States Internal Revenue Code of 1986, as amended. Any reference to a specific provision of the Code includes any successor provision and the regulations promulgated under such provision.

(k) “Committee” means the Compensation Committee of the Board (or a successor committee with the same or similar authority).

(l) “Company” means Johnson Controls International plc, an Irish public limited company, or any successor thereto.

(m) “Director” means a director of the Company.

(n) “Disability” means: (i) with respect to an ISO, the meaning given in Code Section 22(e)(3), and (ii) with respect to all other Awards, the inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of at least twelve (12) months, as determined by the Administrator. The Administrator shall make the determination of Disability and may request such evidence of disability as it reasonably determines.

(o) “Dividend Equivalent Unit” means the right, granted in tandem with another Award to the extent permitted by Section 11, to receive a payment, in cash or property, equal to the cash dividends or other distributions paid with respect to a Share.

(p) “Exchange Act” means the United States Securities Exchange Act of 1934, as amended. Any reference to a specific provision of the Exchange Act includes any successor provision and the regulations and rules promulgated under such provision.

(q) “Fair Market Value” means, a price that is based (i) on the opening, closing, actual, high or low sale price, or the arithmetic mean of selling prices of, a Share on the New York Stock Exchange or such other exchange or automated trading system on which the Shares are then principally traded (the “Applicable Exchange”) on the applicable date, the preceding trading day or the next succeeding trading day, or (ii) the arithmetic mean of selling prices on all trading days over a specified averaging period that is within 30 days before or 30 days after the applicable date, or such arithmetic mean weighted by volume of trading on each trading day in the period, in each case as determined by the Administrator in its discretion; *provided* that, if an arithmetic mean of prices is used to set a grant price or an exercise price for an Option or Share Appreciation Right that is intended to be exempt from Code Section 409A, then the commitment to grant the applicable Award based on such arithmetic mean must be irrevocable before the beginning of the specified averaging period in accordance with United States Treasury Regulation § 1.409A-1(b)(5)(iv)(A). The method of determining Fair Market Value with respect to an Award shall be determined by the Administrator and may differ depending on whether Fair Market Value is in reference to the grant, exercise, vesting, settlement, or payout of an Award; *provided* that, if the Administrator does not specify a different method, then the Fair Market Value of a Share as of a given date shall be the closing sale price on the day as of which Fair Market Value is to be determined or, if there shall be no such sale on such date, the next preceding day on which such a sale shall have occurred. If the Shares are not traded on an established stock exchange, the Administrator shall determine in good faith the Fair Market Value of a Share. Notwithstanding the foregoing, in the case of a sale of Shares on the Applicable Exchange, the actual sale price shall be the Fair Market Value of such Shares. The Administrator also shall establish the Fair Market Value of any other property.

(r) “ISO” means an Option that meets the requirements of Code Section 422 to be an incentive stock option.

(s) “Non-Employee Director” means a Director who is not also an officer (other than being an officer solely by virtue of being a Director) or an employee of the Company or an Affiliate.

(t) “Option” means the right to purchase Shares at a stated price for a specified period of time.

(u) “Other Share-Based Awards” means the awards described in Section 11.

(v) “Participant” means an individual selected by the Administrator to receive an Award pursuant to Section 4.

(w) “Performance Awards” means a Performance Share Unit, Cash Incentive Award, and any Award of Restricted Shares or Restricted Share Units the payment or vesting of which is contingent on the attainment of one or more Performance Goals.

(x) “Performance Goals” means any objective or subjective goals (including individual performance goals) that the Administrator establishes with respect to an Award which may, but is not required to, relate to one or more of the following: basic or diluted earnings per share for the Company on a consolidated basis, total shareholder return, Fair Market Value of Shares, net sales, cost of sales, gross profit, selling, general and administrative expenses, operating income, segment income, earnings before interest and the provision for income taxes (EBIT), earnings before interest, the provision for income taxes, depreciation, and amortization (EBITDA), net income, accounts receivable, inventories, trade working capital, return on equity, return on assets, return on invested capital, return on sales, economic value added, or other measure of profitability that considers the cost of capital employed, free cash flow, net cash provided by operating activities, net increase (decrease) in cash and cash equivalents, customer satisfaction, which may include customer backlog and/or relationships, market share, quality, safety, realization or creation of innovation projects or products, employee engagement employee and/or supplier diversity improvement, sustainability measures, such as reduction in greenhouse gases, completion of integration of acquired businesses and/or strategic activities, development, completion and implementation of succession planning.

The Performance Goals may be measured for the Company on a consolidated basis, for any one or more Affiliates or divisions of the Company and/or for any other business unit or units of the Company or an Affiliate as defined by the Administrator at the time of selection.

Where applicable, the Performance Goals may be expressed, without limitation, in terms of attaining a specified level of the particular criterion or the attainment of an increase or decrease (expressed as absolute numbers, averages and/or percentages) in the particular criterion or achievement in relation to a peer group or other index. The Performance Goals may include a threshold level of performance below which no payment will be made (or no vesting will occur), levels of performance at which specified payments will be paid (or specified vesting will occur), and a maximum level of performance above which no additional payment will be made (or at which full vesting will occur).

(y) “Performance Share Unit” means the right to receive a Share (including a Restricted Share) to the extent Performance Goals are achieved.

(z) “Person” means any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act).

(aa) “Plan” means this Johnson Controls International plc 2021 Equity and Incentive Plan, as it may be amended from time to time.

(bb) “Restriction Period” means the length of time established relative to an Award during which the Participant cannot sell, assign, transfer, pledge or otherwise encumber the Shares or units subject to such Award.

(cc) “Restricted Share” means a Share that is subject to a risk of forfeiture, a Restriction Period, or both a risk of forfeiture and a Restriction Period.

(dd) “Restricted Share Unit” means the right to receive a Share (including a Restricted Share) or a payment equal to the Fair Market Value of one Share, that is subject to a risk of forfeiture, a Restriction Period, or both a risk of forfeiture and a Restriction Period.

(ee) “Retirement” means, except as otherwise determined by the Administrator and set forth in an Award agreement, termination of employment from the Company and its Affiliates (for other than Cause) on or after attainment of age fifty-five (55) and completion of five (5) years of continuous service with the Company and its Affiliates.

(ff) “Rule 16b-3” means Rule 16b-3 promulgated by the United States Securities and Exchange Commission (or any successor agency) under the Exchange Act, or any successor rule or regulation thereto.

(gg) “Section 16 Participants” means Participants who are subject to the provisions of Section 16 of the Exchange Act.

(hh) “Share” means an ordinary share of the Company.

(ii) “Share Appreciation Right” or “SAR” means the right to receive a payment (in cash or in Shares having a Fair Market Value) equal to the appreciation of the Fair Market Value of a Share during a specified period of time.

(jj) “Subsidiary” has the meaning given in Code Section 422.

(kk) “Unrestricted Shares” means Shares issued under the Plan that are not subject to either a risk of forfeiture or a Restriction Period.

3. Administration.

(a) *Administration*. The Administrator shall administer this Plan and all Awards made hereunder. In addition to the authority specifically granted to the Administrator in this Plan, the Administrator has full discretionary authority to: (i) interpret the provisions of this Plan and any Award agreement; (ii) prescribe, amend and rescind rules and regulations relating to this Plan and Awards; (iii) correct any defect, supply any omission, or reconcile any inconsistency in this Plan, any Award or agreement covering an Award in the manner and to the extent it deems desirable to carry this Plan or such Award into effect; and (iv) make all other determinations necessary or advisable for the administration of this Plan and Awards. All Administrator determinations shall be made in the sole discretion of the Administrator, need not be uniform among all Participants (even if similarly situated), and are final and binding on all interested parties.

(b) *Delegation to Other Committees or Officers.* To the extent applicable law permits, the Board may delegate to another committee of the Board or to one or more officers of the Company, or the Committee may delegate to a sub-committee of the Committee or one or more officers of the Company, any or all of their respective authority and responsibility as an Administrator of the Plan; *provided* that no such delegation is permitted with respect to Share-based Awards made to

Section 16 Participants at the time any such delegated authority or responsibility is exercised unless the delegation is to another committee of the Board consisting entirely of directors who are "non-employee directors" within the meaning of Rule 16b-3. If the Board or the Committee has made such a delegation, then all references to the Administrator in this Plan include such other committee, sub-committee or one or more officers to the extent of such delegation.

(c) *Indemnification*. No member of the Board or the Committee, and no officer or member of any other committee or sub-committee to whom a delegation under Section 3(b) has been made, will be liable for any act done, or determination made, by the individual in good faith with respect to this Plan or any Award to the maximum extent such exculpation is permitted by applicable law. The Company will indemnify and hold harmless each member of the Board and the Committee, and each officer or member of any other committee or sub-committee to whom a delegation under Section 3(b) has been made, as to any acts or omissions with respect to this Plan or any Award to the maximum extent that the law, the Company's charter documents and any indemnification agreement or deed of indemnification between such member and the Company or an Affiliate permit.

4. Eligibility.

(a) *General.* The Administrator (to the extent of its authority) may designate any of the following as a Participant from time to time: any officer or other employee of the Company or its Affiliates or any individual that the Company or an Affiliate has engaged to become an officer or employee; any consultant or advisor who provides services to the Company or its Affiliates; or any Director, including a Non-Employee Director. The Administrator's designation of a Participant in any year will not require the Administrator to designate such person to receive an Award in any other year. No individual shall have any right to be granted an Award, even if an Award was granted to such individual at any prior time, or if a similarly-situated individual is or was granted an Award under similar circumstances.

(b) *Non-Employee Director Limit.* The total grant date fair value of Awards granted to a Non-Employee Director during any fiscal year of the Company under this Plan may not exceed $750,000 less the value of all other compensation paid to such Non-Employee Director during such fiscal year for services as a Non-Employee Director. For avoidance of doubt, compensation will count towards this limit for the fiscal year in which it was granted or earned, and not later when distributed, in the event it is deferred or otherwise settled in a later year.

5. Types of Awards. Subject to the terms of this Plan, the Administrator may grant any type of Award to any Participant it selects, but only employees of the Company or a Subsidiary may receive grants of ISOs. Awards may be granted alone or in addition to, in tandem with, or (subject to the prohibition on repricing set forth in Section 16(e)) in substitution for any other Award (or any other award granted under another plan of the Company or any Affiliate).

6. Shares Reserved under this Plan.

(a) *Plan Reserve.* Subject to adjustment as provided in Section 18, an aggregate of fifty-five million (55,000,000) Shares (the "Reserve") are reserved for issuance under this Plan, all of which may be issued pursuant to ISOs. The Shares reserved for issuance may be either authorized and unissued Shares or Shares reacquired at any time and now or hereafter held as treasury shares. For purposes of determining the aggregate number of Shares in the Reserve, any fractional Share shall be rounded to the next highest full Share.

(b) *Depletion of the Reserve.* The Reserve shall be depleted on the date of grant of an Award by one Share for each Share subject to an Option or SAR (that will be settled in Shares), and by 3.46 Shares for the maximum number of Shares subject to an Award other than an Option or SAR. For clarity, an Award that provides for settlement solely in cash shall not cause any depletion of the Reserve at the time such Award is granted. If an award is later amended, however, to permit or require settlement in Shares, then the Reserve shall be depleted at the time of such amendment by the maximum number of Shares which may be issued in settlement of such Award.

(c) *Replenishment of Shares Under this Plan*. To the extent (i) an Award lapses, expires, terminates or is cancelled without the issuance of Shares under the Award (whether due currently or on a deferred basis), (ii) an Award is settled in cash in lieu of Shares, (iii) it is determined during or at the conclusion of the term of an Award that all or some portion of the Shares with respect to which the Award was granted will not be issuable on the basis that the conditions for such issuance will not be satisfied, (iv) Shares are forfeited under an Award, or (v) Shares are issued under an Award and the Company subsequently reacquires them pursuant to rights reserved upon the issuance of the Shares, then such Shares shall be credited to the Plan's reserve (in the same number as they depleted the reserve) and may again be used for new Awards under this Plan, but Shares credited to the Plan's reserve pursuant to clause (v) may not be issued pursuant to ISOs. Notwithstanding the foregoing, in no event shall the following Shares be recredited to the Reserve: Shares tendered in payment of or withheld to satisfy the exercise price of an Option or as a result of the net settlement of an outstanding Share Appreciation Right (subject to compliance with applicable law); Shares withheld to satisfy federal, state or local tax withholding obligations (including in connection with the exercise or net settlement of an outstanding Share Appreciation Right); or Shares purchased by the Company (subject to compliance with applicable law) using proceeds from Option exercises.

7. Options. Subject to the terms of this Plan, the Administrator will determine all terms and conditions of each Option, including but not limited to:

(a) whether the Option is an ISO or a "nonqualified share option" which does not meet the requirements of Code Section 422, *provided* that if the aggregate Fair Market Value of the Shares subject to all ISOs granted to a Participant (as determined on the date of grant of each such Option) that become exercisable during a calendar year exceeds the dollar limitation set forth in Code Section 422(d), then such ISOs shall be treated as nonqualified share options to the extent such limitation is exceeded;

(b) the number of Shares subject to the Option;

(c) the date of grant, which may not be prior to the date of the Administrator's approval of the grant;

(d) the exercise price, which may not be less than the Fair Market Value of the Shares subject to the Option as determined on the date of grant; *provided* that an ISO granted to a 10% Shareholder must have an exercise price at least equal to 110% of the Fair Market Value of the Shares subject to the Option as determined on the date of grant;

(e) the terms and conditions of exercise, including the manner and form of payment of the exercise price, which may be made by (i) delivery of cash or other Shares or other securities of the Company (including by attestation) having a then Fair Market Value equal to the exercise price of such Shares, (ii) by delivery (including by fax) to the Company or its designated agent of an executed irrevocable option exercise form together with irrevocable instructions to a broker-dealer to sell or margin a sufficient portion of the Shares and deliver the sale or margin loan proceeds directly to the Company to pay for the exercise price, (iii) by surrendering and/or waiving the right to receive Shares otherwise deliverable to the Participant upon exercise of the Award having a Fair Market Value at the time of exercise equal to the total exercise price, or (iv) any combination of the foregoing; and

(f) the term; *provided* that each Option must terminate no later than ten (10) years after the date of grant and each ISO granted to a 10% Shareholder must terminate no later than five (5) years after the date of grant.

In all other respects, the terms of any ISO should comply with the provisions of Code Section 422 except to the extent the Administrator determines otherwise. If an Option that is intended to be an ISO fails to meet the requirements thereof, the Option shall automatically be treated as a nonqualified share option to the extent of such failure.

8. Share Appreciation Rights. Subject to the terms of this Plan, the Administrator will determine all terms and conditions of each SAR, including but not limited to:

(a) the number of Shares to which the SAR relates;

(b) the date of grant, which may not be prior to the date of the Administrator's approval of the grant;

(c) the grant price, *provided* that the grant price shall not be less than the Fair Market Value of the Shares subject to the SAR as determined on the date of grant;

(d) the terms and conditions of exercise or maturity;

(e) the term, *provided* that each SAR must terminate no later than ten (10) years after the date of grant; and

(f) whether the SAR will be settled in cash, Shares or a combination thereof.

9. Share and Unit Awards. Subject to the terms of this Plan, the Administrator will determine all terms and conditions of each award of Restricted Shares, Restricted Share Units, or Performance Share Units, including but not limited to:

(a) the number of Shares and/or units to which such Award relates;

(b) whether, as a condition for the Participant to realize all or a portion of the benefit provided under the Award, one or more Performance Goals must be achieved during such period as the Administrator specifies;

(c) the Restriction Period with respect to Restricted Shares or Restricted Share Units;

(d) the performance period for Performance Awards; and

(e) with respect to Restricted Share Units and Performance Share Units, whether to settle such Awards in cash, in Shares, or a combination thereof and the timing of settlement thereof.

10. Cash Incentive Awards. Subject to the terms of this Plan, the Administrator will determine all terms and conditions of a Cash Incentive Award, including but not limited to the Performance Goals, performance period, the potential amount payable, and the manner and timing of payment. Nothing herein shall preclude the Company or any Affiliate from making cash incentive award payments outside the terms of this Plan.

11. Other Share-Based Awards. Subject to the terms of this Plan, the Administrator may grant to Participants other types of Awards not described in Sections 7, 8 and 9, which shall be denominated or payable in, valued in whole or in part by reference to, or otherwise based on, Shares, either alone or in addition to or in conjunction with other Awards, and payable in Shares or cash. Without limitation, such Other Share-Based Award may include the issuance of (a) Unrestricted Shares, which may be awarded in lieu of cash compensation to which a Participant is otherwise entitled, in exchange for cancellation of a compensation right (except as prohibited by Section 16(e)), as a bonus, upon the attainment of Performance Goals or otherwise or (b) rights to acquire Shares from the Company. The Administrator shall determine all terms and conditions of any Other Share-Based Award, including but not limited to, the time or times at which such Awards shall be made, and the number of Shares to be granted pursuant to such Awards or to which such Award shall relate; *provided* that any Other Share-Based Award that provides for purchase rights shall be priced at 100% of Fair Market Value on the date of grant of the Award; and *provided further* that the date of grant cannot be prior to the date the Administrator takes action to approve the Award.

12. Dividends and Dividend Equivalent Units.

(a) *Dividends.* If dividends are paid in cash on Restricted Shares, then such dividends will either, at the discretion of the Administrator, be (i) automatically reinvested as additional Restricted Shares that are subject to the same terms and conditions, including the Restriction Period, as the original grant of Restricted Shares, or (ii) paid out in cash at the same time and to the same extent that the underlying Restricted Shares vest. For clarity, in no event will dividends be paid on unvested Restricted Shares.

(b) *Dividend Equivalent Units.* The Administrator may grant Dividend Equivalent Units only in tandem with a “full value” Award (defined as an Award of Restricted Share Units, Performance Share Units, and any other similar Award under which the value of the Award is measured as the full value of a Share rather than the increase in the value of a Share) other than an Award of Restricted Shares that includes the right to receive dividends. Dividend Equivalent Units will either, at the discretion of the Administrator, be (i) accumulated and paid, in cash or Shares in the Administrator’s discretion, at the same time and to the same extent that the tandem Award vests or is earned or (ii) reinvested in additional units or shares, as applicable, that are subject to the same terms and conditions (including vesting and forfeiture) as the tandem Award. For clarity, in no event will Dividend Equivalent Units be paid on unvested tandem Awards.

13. Minimum Vesting Period; Discretion to Accelerate Vesting.

(a) *Minimum Vesting Period.* All Awards granted under the Plan that may be settled in Shares must have a minimum vesting period of one (1) year from the date of grant, *provided* that such minimum vesting period will not apply to Awards with respect to up to five percent (5%) of the Reserve. For purposes of Awards granted to Non-Employee Directors, “one year” may mean the period of time from one annual shareholders meeting to the next annual shareholders meeting, *provided* that such period of time is not less than fifty (50) weeks.

(b) *Discretion to Accelerate.* Notwithstanding Section 13(a), the Administrator may accelerate the vesting of an Award or deem an Award to be earned, in whole or in part, in the event of (i) a Participant’s death, Disability, Retirement, or termination without Cause, (ii) as provided in Section 19, or (iii) upon any other event as determined by the Administrator in its sole and absolute discretion.

14. Effect of Termination on Awards. Subject to the terms of the Plan, the Administrator shall have the discretion to determine, at the time an Award is made to a Participant or any time thereafter, the effect of the Participant’s termination of employment or service with the Company and its Affiliates on the Award.

15. Transferability.

(a) *Restrictions on Transfer*. No Award (other than Unrestricted Shares), and no right under any such Award, shall be assignable, alienable, saleable, or transferable by a Participant other than (i) by will or by the laws of descent and distribution, or (ii) to the extent the Administrator allows a Participant to designate in writing a beneficiary to exercise or receive the value of the Award after the Participant's death or to transfer an Award; *provided* that no such transfer will be allowed with respect to ISOs if such transferability is not permitted by Code Section 422.

(b) *Restrictions on Exercisability*. Each Award, and each right under any Award, shall be exercisable during the lifetime of the Participant only by such individual or, if permissible under applicable law, by such individual's guardian or legal representative.

16. Termination and Amendment of Plan; Amendment, Modification or Cancellation of Awards.

(a) *Term of Plan*. Unless the Board or Committee earlier terminates this Plan pursuant to Section 16(b), this Plan will terminate on the tenth (10^{th}) anniversary of the Effective Date.

(b) *Termination and Amendment of Plan*. The Board or the Committee may amend, alter, suspend, discontinue or terminate this Plan at any time, subject to the following limitations:

(i) the Board must approve any amendment of this Plan to the extent the Company determines such approval is required by: (A) prior action of the Board, (B) applicable corporate law, or (C) any other applicable law;

(ii) shareholders must approve any amendment of this Plan to the extent the Company determines such approval is required by: (A) Section 16 of the Exchange Act, (B) the Code, (C) the listing requirements of any principal securities exchange or market on which the Shares are then traded, or (D) any other applicable law; and

(iii) shareholders must approve any of the following Plan amendments: (A) an amendment to materially increase the Shares in the Reserve (except as permitted by Section 18), (B) an amendment to materially expand the group of individuals that may become Participants, or (C) an amendment that would diminish the limitations set forth in Section 13(a) or 16(e).

(c) *Amendment, Modification, Cancellation and Disgorgement of Awards*.

(i) Subject to the requirements of the Plan, including the limitations of Section 16(e), the Administrator may modify, amend or cancel any Award or waive any restrictions or conditions applicable to any Award or the exercise of the Award, *provided* that any such action that materially diminishes the rights of the Participant, or which results in cancellation of the Award, shall be effective only if agreed to by the Participant or any other Person(s) as may then have an interest in the Award, but the Administrator need not obtain Participant (or other interested party) consent for the modification, amendment or cancellation of an Award pursuant to the provisions of Section 18 or 19 or as follows: (A) to the extent the Administrator deems such action necessary to comply with any applicable law or the listing requirements of any principal securities exchange or market on which the Shares are then traded; (B) to the extent the Administrator deems necessary to preserve favorable accounting or tax treatment of any Award for the Company or an Affiliate; (C) to the extent the Administrator determines that such action does not materially and adversely affect the value of an Award or that such action is in the best interest of the affected Participant or any other Person(s) as may then have an interest in the Award; (D) as provided in Section 20(n); or (E) adjust or replace any Performance Goals applicable to an Award at any time before the end of the relevant performance period.

(ii) Any Awards granted pursuant to this Plan, and any Shares issued or cash paid pursuant to an Award, shall be subject to (A) any recoupment, clawback, equity holding, share ownership or similar policies adopted by the Company from time to time and (B) any recoupment, clawback, equity holding, share ownership or similar requirements made applicable by law, regulation or listing standards to the Company from time to time.

(iii) Unless the Award agreement specifies otherwise, the Administrator may cancel any Award at any time if the Participant is not in compliance with all applicable provisions of the Award agreement and the Plan.

(d) *Survival of Authority and Awards*. Notwithstanding the foregoing, the termination of the Plan will not affect the authority of the Board and the Administrator to take the actions set forth in this Section 16, and to otherwise administer the Plan and Awards, with respect to Awards outstanding as of the date of such termination. In addition, termination of this Plan will not affect the rights of Participants with respect to Awards outstanding as of the date of such termination.

(e) *Repricing and Backdating Prohibited*. Notwithstanding anything in this Plan to the contrary, and except for the adjustments provided in Section 18, the following actions are prohibited under the Plan: (i) an amendment to the terms of outstanding Options or SARs to reduce the exercise price of such outstanding Options or SARs; (ii) the cancellation of outstanding Options or SARs in exchange for Options or SARs with an exercise price that is less than the exercise price of the original Options or SARs; or (iii) the cancellation of outstanding Options or SARs with an exercise price above the current Share price in exchange for cash or other securities or other Awards issued under the Plan. In addition, the Administrator may not make a grant of an Option or SAR with a grant date that is effective prior to the date the Administrator takes action to approve such Award.

(f) *Foreign Participation*. To assure the viability of Awards granted to Participants employed or residing in countries or jurisdictions other than the United States of America, the Administrator may provide for such special terms as it may consider necessary or appropriate to accommodate differences in local law, tax policy or custom, including different definitions for those terms defined in Section 2. Moreover, the Administrator may approve such supplements to, or amendments, restatements or alternative versions of, this Plan as it determines is necessary or appropriate for such purposes. Any such amendment, restatement or alternative versions that the Administrator approves for purposes of using this Plan in one country or jurisdiction will not affect the terms of this Plan for any other country or jurisdiction. In addition, all such supplements, amendments, restatements or alternative versions must comply with the provisions of Section 16(b).

In addition, if an Award is held by a Participant who is employed or residing in a country or jurisdiction other than the United States of America and the amount payable or Shares issuable under such Award would be taxable to the Participant under Code Section 457A in the year such Award is no longer subject to a substantial risk of forfeiture, then the amount payable or Shares issuable under such Award shall be paid or issued to the Participant as soon as practicable after such substantial risk of forfeiture lapses (or, for Awards that are not considered nonqualified deferred compensation subject to Code Section 409A, no later than the end of the short-term deferral period permitted by Code Section 457A) notwithstanding anything in this Plan or the Award agreement to contrary.

17. Taxes.

(a) *Withholding*. In the event the Company or an Affiliate of the Company is required to withhold any Federal, state or local taxes or other amounts in respect of any income recognized by a Participant as a result of the grant, vesting, payment or settlement of an Award or disposition of any Shares acquired under an Award, the Company or an Affiliate may satisfy such obligation by:

(i) deducting cash from any payments of any kind otherwise due to the Participant, including under the Award;

(ii) withholding (or permitting the Participant to elect withholding of) Shares otherwise issuable under the Award;

(iii) cancelling (or permitting the Participant to elect the cancellation of) Shares otherwise vesting under the Award;

(iv) permitting or requiring the Participant to tender back Shares received in connection with such Award or deliver other previously owned Shares;

(v) permitting or requiring the Participant to sell Shares issued pursuant to an Award and having the Company or an agent of the Company withhold from the proceeds of the sale of such Shares; or

(vi) requiring the Participant to pay cash, promptly on demand, or make other arrangements satisfactory to the Company regarding the payment to the Company of the aggregate amount of any such taxes and other amounts; *provided* that, if the Participant fails to make such payment or other satisfactory arrangements, then the Administrator may cancel the Award.

If an election is provided, the election must be made before the date as of which the amount of tax to be withheld is determined and otherwise as the Administrator requires. If Shares are used to satisfy the withholding obligation, then the Fair Market Value of such Shares may not exceed the total maximum statutory tax withholding obligations associated with the transaction to the extent needed for the Company or its Affiliate to avoid an accounting charge. The Company may require the Participant to repay the Company or an Affiliate of the Company, in cash or Shares, for taxes paid on the Participant's behalf.

(b) *No Guarantee of Tax Treatment*. Notwithstanding any provisions of the Plan, the Company does not guarantee to any Participant or any other Person with an interest in an Award that (i) any Award intended to be exempt from Code Section 409A shall be so exempt, (ii) any Award intended to comply with Code Section 409A or Code Section 422 shall so comply, (iii) any Award shall otherwise receive a specific tax treatment under any other applicable tax law, nor in any such case will the Company or any Affiliate indemnify, defend or hold harmless any individual with respect to the tax consequences of any Award.

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

18. Adjustment Provisions.

(a) *Definition of Corporate Event.* For purposes of this Section 18, a "Corporate Event" means the occurrence of any of the following:

(i) the Company is involved in a merger or other transaction in which the Shares are changed or exchanged;

(ii) the Company subdivides or combines the Shares or declares a dividend payable in Shares, other securities or other property;

(iii) the Company effects a cash dividend the amount of which, on a per Share basis, exceeds ten percent (10%) of the Fair Market Value of a Share at the time the dividend is declared, or the Company effects any other dividend or other distribution on the Shares in the form of cash, or a repurchase or redemption of Shares, that the Board determines by resolution is special or extraordinary in nature or that is in connection with a transaction that the Company characterizes publicly as a recapitalization or reorganization involving the Shares; or

(iv) any other event shall occur, which, in the case of this clause (iv), in the judgment of the Board or Committee necessitates an adjustment to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under this Plan.

(b) *Adjustment of Shares Upon Corporate Event*. If a Corporate Event occurs, then, subject to subsection (c):

(i) The Administrator shall, in such manner as it may deem equitable to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under this Plan, adjust as applicable: (A) the number and type of shares included in the Reserve; (B) the number and type of shares subject to outstanding Awards; (C) the grant, purchase, or exercise price with respect to any Award; and (D) the Performance Goals of an Award. If the Corporate Event results in a change to or elimination of the Shares, then such adjustment may include, without limitation, the substitution, on an equitable basis as the Administrator determines, of each Share then subject to an Award and the Shares subject to this Plan (if the Plan will continue in effect), for the number and kind of shares, other securities, cash or other property to which holders of Shares are or will be entitled in respect of each Share pursuant to the Corporate Event; or

(ii) In lieu of the foregoing, the Administrator may make provision for a cash payment to the holder of an outstanding Award in exchange for the cancellation of all or a portion of the Award (without the necessity of the consent of the Award holder) in an amount determined by the Administrator effective at such time as the Administrator specifies (which may be the time such transaction or event is effective).

Notwithstanding clause (i) or (ii), in the case of a Share dividend (other than a Share dividend declared in lieu of an ordinary cash dividend) or subdivision or combination of the Shares (including a reverse share split), if no action is taken by the Administrator, adjustments contemplated by this subsection that are proportionate shall nevertheless automatically be made as of the date of such share dividend or subdivision or combination of the Shares.

(c) *Requirements for Adjustment.* With respect to Awards of ISOs, no adjustment may be authorized to the extent that such authority would cause this Plan to violate Code Section 422(b). Further, the number of Shares subject to any Award payable or denominated in Shares must always be a whole number. In any event, previously granted Options or SARs are subject only to such adjustments as are necessary to maintain the relative proportionate interest the Options and SARs represented immediately prior to any such event and to preserve, without exceeding, the value of such Options or SARs.

(d) *Issuance or Assumption*. Notwithstanding any other provision of this Plan, and without affecting the number of Shares otherwise available in the Reserve, in connection with any merger, consolidation, acquisition of property or shares, or reorganization, the Administrator may authorize the issuance or assumption of awards under this Plan upon such terms and conditions as it may deem appropriate, subject to the listing requirements of any principal securities exchange or market on which the Shares are then traded.

19. Change of Control.

(a) *Governing Treatment*. With respect to a Participant, to the extent the Participant has in effect an Award agreement, or employment, retention, change of control, severance or similar agreement, or is covered by a change of control, severance or similar plan or policy that specifically provides for the treatment of an Award upon a Change of Control (or upon certain terminations of employment or service following a Change of Control), then such provisions shall control over the remainder of the provisions of this Section 19. In all other cases, the following provisions of this Section 19 shall apply.

(b) *Treatment Upon Change of Control*.

(i) If the purchaser, successor or surviving corporation (or parent thereof) (the "Survivor") so agrees, some or all outstanding Awards shall be continued, or assumed or replaced with the same type of award with similar terms and conditions, by the Survivor in the Change of Control transaction (the "Replacement Award"). If applicable, each Replacement Award shall be appropriately adjusted, immediately after such Change of Control, to apply to the number and class of securities which would have been issuable to the Participant upon the consummation of such Change of Control had the Award been exercised, vested or earned immediately prior to such Change of Control, and other appropriate adjustments in the terms and conditions of the Award shall be made. If a Participant with outstanding Replacement Awards experiences a Change of Control Termination (as defined below), then effective upon the date of the Participant's termination of employment or service, all outstanding Replacement Awards shall automatically vest in full, assuming, with respect to Awards subject to Performance Goals for which the performance period has not been completed at the time of such termination, that any such Performance Goals either (A) were to continue to be achieved at the same rate as the level of achievement in effect at the date of termination through the end of the performance period as determined by the Administrator, or (B) had been met at the target level, whichever is higher.

A "Change of Control Termination" means a termination of employment or service within twenty-four (24) months following a Change of Control where either of the following applies: (1) the Survivor terminates the Participant's employment or service without Cause or, (2) if as of immediately prior to the Change of Control the Participant has in effect an employment, retention, change of control, severance or similar agreement with the Company or any Affiliate, or the Company or an Affiliate has a severance or change in control plan or policy that applies to the Participant, in either case that contemplates the termination of Participant's employment or service for good reason, and the Participant terminates the Participant's employment or service for good reason.

(ii) To the extent the Survivor in the Change of Control transaction does not agree to provide Replacement Awards, then:

(A) Immediately prior to the date of the Change of Control, all outstanding Awards shall automatically vest in full, assuming, with respect to Awards subject to Performance Goals for which the performance period has not been completed at the time of the Change of Control, that any such Performance Goals either (1) were to continue to be achieved at the same rate as the level of achievement in effect as of the date of the Change of Control through the end of the performance period, as determined by the Administrator, or (2) had been met at the target level, whichever is higher; and

(B) All outstanding Awards shall be cancelled as of the date of the Change of Control and the vested value thereof shall be paid in full in cash or Shares, as provided by the Award, on (or as soon as practicable following) the date of the Change of Control. For purposes hereof, the vested value (1) of an Option or SAR shall be the excess, if any, of the Change of Control Price (as defined below) of the Shares subject to the Award over the exercise or grant price for such Shares, (2) of any Award that is valued in relation to the full Fair Market Value of Shares shall be the Change of Control Price multiplied by the number of Shares subject to such Award, and (3) of all other Awards, shall be the amount due under such Award.

The "Change of Control Price" shall mean the per share price paid or deemed paid in the Change of Control transaction, as determined by the Administrator.

(iii) Notwithstanding clauses (i) or (ii) above, unless the Board or the Administrator takes action prior to a Change of Control to provide otherwise, if the Shares following the Change of Control will not be traded on an established securities exchange, then:

(A) With respect to any Award that would otherwise be settled in Shares, the Participant may elect, at the time of such settlement, to receive a cash payment equal to the Fair Market Value of the Shares to be delivered (or in the case of an Option or SAR, the excess of the Fair Market Value the Shares covered by the Award over the purchase or grant price of such Shares under the Award) in lieu of such Shares; and

(B) The Fair Market Value of the Shares subject to the Awards shall be determined without regard to any discounts for lack of marketability, minority ownership or similar factors.

(c) *Deferral Elections.* Notwithstanding anything to the contrary in this Section 19, (i) no acceleration of payment will be made if it would cause an Award that is subject to Code Section 409A to be subject to the tax imposed by Code Section 409A, and in such event, payment shall be made as originally contemplated by such Award as necessary to avoid such taxation, and (ii) if the Participant has a deferral election in effect under Code Section 409A with respect to any amount due under any Award, then such amount shall be deferred pursuant to such election and shall not be paid at the times provided herein.

(d) *Application of Limits on Payments*. Except to the extent the Participant has in effect an employment or similar agreement with the Company or any Affiliate or is subject to a policy that provides for a more favorable result to the Participant upon a Change of Control, in the event that the Company's legal counsel or accountants determine that any payment, benefit or transfer by the Company under this Plan or any other plan, agreement, or arrangement to or for the benefit of the Participant (in the aggregate, the "Total Payments") to be subject to the tax ("Excise Tax") imposed by Code Section 4999 but for this Section 19(d), then, notwithstanding any other provision of this Plan to the contrary, the Total Payments shall be delivered either (i) in full or (ii) in an amount such that the value of the aggregate Total Payments that the Participant is entitled to receive shall be One Dollar ($1.00) less than the maximum amount that the Participant may receive without being subject to the Excise Tax, whichever of (i) or (ii) results in the receipt by the Participant of the greatest benefit on an after-tax basis (taking into account applicable federal, state and local income taxes and the Excise Tax). In the event that (ii) results in a greater after-tax benefit to the Participant, payments or benefits included in the Total Payments shall be reduced or eliminated by applying the following principles, in order: (A) the payment or benefit with the higher ratio of the parachute payment value to present economic value (determined using reasonable actuarial assumptions) shall be reduced or eliminated before a payment or benefit with a lower ratio; (B) the payment or benefit with the later possible payment date shall be reduced or eliminated before a payment or benefit with an earlier payment date; and (C) cash payments shall be reduced prior to non-cash benefits; *provided* that if the foregoing order of reduction or elimination would violate Code Section 409A, then the reduction shall be made pro rata among the payments or benefits included in the Total Payments (on the basis of the relative present value of the parachute payments).

20. Miscellaneous.

(a) *Other Terms and Conditions*. The grant of any Award may also be subject to other provisions (whether or not applicable to the Award granted to any other Participant) as the Administrator determines appropriate, including, without limitation, provisions for:

(i) one or more means to enable Participants to defer the delivery of Shares or recognition of taxable income relating to Awards or cash payments derived from the Awards on such terms and conditions as the Administrator determines, including, by way of example, the form and manner of the deferral election, the treatment of dividends paid on the Shares during the deferral period or a means for providing a return to a Participant on amounts deferred, and the permitted distribution dates or events (provided that no such deferral means may result in an increase in the number of Shares issuable under this Plan);

(ii) restrictions on resale or other disposition of Shares; and

(iii) compliance with federal or state securities laws and stock exchange requirements.

(b) *Employment and Service*. The issuance of an Award shall not confer upon a Participant any right with respect to continued employment or service with the Company or any Affiliate and shall not lessen or affect any right of the Company or any Affiliate to terminate the employment or service of such Participant. Unless determined otherwise by the Administrator, for purposes of the Plan and all Awards, the following rules shall apply:

(i) a Participant who transfers employment between the Company and its Affiliates, or between Affiliates, will not be considered to have terminated employment; and

(ii) a Participant employed by an Affiliate will be considered to have terminated employment when such entity ceases to be an Affiliate.

(c) *Compliance with Code Section 409A.* Notwithstanding the terms of the Plan or any Award agreement to the contrary, if an Award is subject to Code Section 409A, or is eligible for deferral pursuant to a deferred compensation plan governed by Code Section 409A, then the provisions of Code Section 409A are incorporated into this Plan and such Award to the extent necessary for such Award to comply therewith, including the following:

(i) the term "Change of Control" and "Disability" shall have the meanings given in Code Section 409A;

(ii) the term "termination of employment", "termination of service" or similar terms shall mean a "separation from service" within the meaning of Code Section 409A;

(iii) if the payment of compensation under an Award is made upon a Participant's termination of service, and if such Participant is a "specified employee" within the meaning of Code Section 409A, then such payment shall not be made before a date that is six months after the date of the separation from service to the extent needed to comply with Code Section 409A; and

(iv) except to the extent specifically provided otherwise in the applicable award agreement, in the case of any Award that includes a "series of installment payments" (within the meaning of Section 1.409A-2(b)(2)(iii) of the Treasury Regulations), the Award holder's right to the series of installment payments shall be treated as a right to a series of separate payments and not as a right to a single payment.

(d) *No Fractional Shares*. No fractional Shares or other securities may be issued or delivered pursuant to this Plan. If, but for this provision, fractional Shares would be issuable pursuant to an Award, then such fractional Share shall be canceled without payment thereunder. Notwithstanding the foregoing, the Administrator may alternatively decide, in its sole discretion, and the Administrator may determine whether cash, other securities or other property will be paid or transferred in lieu of any fractional Shares or other securities, or whether such fractional Shares or other securities or any rights to fractional Shares or other securities will be canceled, terminated or otherwise eliminated.

(e) *Offset*. The Company shall have the right to offset, from any amount payable or shares deliverable hereunder, any amount that the Participant owes to the Company or any Affiliate without the consent of the Participant or any individual with a right to the Participant's Award.

(f) *Unfunded Plan; Awards Not Includable for Benefits Purposes*. This Plan is unfunded and does not create, and should not be construed to create, a trust or separate fund with respect to this Plan's benefits. This Plan does not establish any fiduciary relationship between the Company and any Participant or other Person. To the extent any Person holds any rights by virtue of an Award granted under this Plan, such rights are no greater than the rights of the Company's or an Affiliate's general unsecured creditors. Income recognized by a Participant pursuant to an Award shall not be included in the determination of benefits under any employee pension benefit plan (as such term is defined in Section 3(2) of the Employee Retirement Income Security Act of 1974, as amended) or group insurance or other benefit plans applicable to the Participant which are maintained by the Company or any Affiliate, except as may be provided under the terms of such plans or determined by resolution of the Board.

(g) *Requirements of Law and Securities Exchange*. The granting of Awards and the issuance of Shares in connection with an Award are subject to all applicable laws, rules and regulations and to such approvals by any governmental agencies or national securities exchanges as may be required. Notwithstanding any other provision of this Plan or any Award agreement, the Company has no liability to deliver any Shares under this Plan or make any payment unless such delivery or payment would comply with all applicable laws and the applicable requirements of any securities exchange or similar entity, and unless and until the Participant has taken all actions required by the Company in connection therewith. The Company may impose such restrictions on any Shares issued under the Plan as the Company determines necessary or desirable to comply with all applicable laws, rules and regulations or the requirements of any national securities exchange.

(h) *Restrictive Legends; Representations*. All Shares delivered (whether in certificated or book entry form) pursuant to any Award or the exercise thereof shall bear such legends or be subject to such stop transfer orders as the Administrator may deem advisable under the Plan or under applicable laws, rules or regulations or the requirements of any national securities exchange. The Administrator may require each Participant or other Person who acquires Shares under the Plan by means of an Award to represent to the Company in writing that such Participant or other Person is acquiring the Shares without a view to the distribution thereof.

(i) *Delivery and execution of electronic documents*. To the extent permitted by applicable law, the Administrator may (i) deliver by email or other electronic means (including posting on a web site maintained by the Company or by a third party under contract with the Company) all documents relating to the Plan or any Award thereunder and all other documents that the Company is required to deliver to Participants or to its shareholders in connection with the Plan and (ii) permit Participants to electronically execute applicable Plan documents (including, but not limited to, Award agreements) in the manner prescribed by the Administrator.

(j) *Governing Law; Arbitration Policy*. This Plan, and all Awards hereunder, and all determinations made and actions taken pursuant to this Plan, shall be governed by the internal laws of the State of Wisconsin (without reference to conflict of law principles thereof) and construed in accordance therewith, to the extent not otherwise governed by the laws of the United States or as otherwise provided hereinafter. Notwithstanding anything to the contrary herein, any disputes related to this Plan or any Award made hereunder shall be subject to the Company's arbitration policy, as in effect from time to time. By accepting an Award made hereunder, each Participant agrees to be bound by the Company's arbitration policy, as it may be in effect from time to time.

(k) *Construction*. Whenever any words are used herein in the masculine, they shall be construed as though they were used in the feminine in all cases where they would so apply; and wherever any words are used in the singular or plural, they shall be construed as though they were used in the plural or singular, as the case may be, in all cases where they would so apply. Titles of sections are for general information only, and this Plan is not to be construed with reference to such titles.

(l) *No Rights as Shareholders*. A Participant who is granted an Award under the Plan will have no rights as a shareholder of the Company with respect to the Award unless and until the Shares underlying the Award are registered in the Participant's name.

(m) *Nature of Payments*. Any gain realized or income recognized pursuant to Awards under the Plan constitutes a special incentive payment to the Participant and will not be taken into account as compensation or otherwise included in the determination of benefits for purposes of any other employee benefit plan of the Company or an Affiliate, except as the Administrator otherwise provides. The adoption of the Plan will have no effect on Awards made or to be made under any other benefit plan covering an employee of the Company or an Affiliate or any predecessor or successor of the Company or an Affiliate. The grant of an Option or SAR will impose no obligation upon the Participant to exercise the Award.

(n) *Severability; Reformation*. If any provision of this Plan or any Award agreement or any Award (i) is or becomes or is deemed to be invalid, illegal or unenforceable in any jurisdiction, or as to any Person or Award, or (ii) would disqualify this Plan, any Award agreement or any Award under any law the Administrator deems applicable, then such provision should be construed or deemed amended to conform to applicable laws, or if it cannot be so construed or deemed amended without, in the determination of the Administrator, materially altering the intent of this Plan, Award agreement or Award, then such provision should be stricken as to such jurisdiction, Person or Award, and the remainder of this Plan, such Award agreement and such Award will remain in full force and effect. In addition, if any provision of any Award agreement or any Award is not permitted by the terms of the Plan, then the Administrator may determine, in its discretion, whether to void the Award, or construe or amend such provision to conform to the terms of the Plan.

(o) *Manner of Action.* Actions, determinations and authorizations taken by the Administrator or the Board with respect to the Plan and Awards are not required to take any specific form. For example, and without limiting the generality of the foregoing, any action or authorization by the Board or the Administrator that is not described as an amendment, but that would be inconsistent with the Plan or an Award agreement as then in effect without an amendment, shall be given the same effect as a formal amendment thereto, *provided* that such amendment is permitted by Section 16.

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

FORM 10-K

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

For the Fiscal Year Ended September 30, 2020

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
4.25% Senior Notes due 2021	JCI21B	New York Stock Exchange
3.750% Senior Notes due 2021	JCI21C	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
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

Securities Registered Pursuant to Section 12(g) of the Exchange Act: **None**

Indicate by check mark whether the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☑ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes ☐ No ☑

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ No ☐

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

Large accelerated filer	☑	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

As of March 31, 2020, the aggregate market value of Johnson Controls International plc Common Stock held by non-affiliates of the registrant was approximately $20.0 billion based on the closing sales price as reported on the New York Stock Exchange. As of October 31, 2020, 723,907,803 ordinary shares, par value $0.01 per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement to be delivered to shareholders in connection with the annual general meeting of shareholders to be held on March 10, 2021 are incorporated by reference into Part III.

JOHNSON CONTROLS INTERNATIONAL PLC

Index to Annual Report on Form 10-K

Year Ended September 30, 2020

CAUTIONARY STATEMENTS FOR FORWARD-LOOKING INFORMATION

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

The Company has made statements in this document that are forward-looking and therefore are subject to risks and uncertainties. All statements in this document other than statements of historical fact are, or could be, "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. In this document, statements regarding Johnson Controls' future financial position, sales, costs, earnings, cash flows, other measures of results of operations, synergies and integration opportunities, capital expenditures and debt levels are forward-looking statements. Words such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," "should," "forecast," "project" or "plan" and terms of similar meaning are also generally intended to identify forward-looking statements. However, the absence of these words does not mean that a statement is not forward-looking. Johnson Controls cautions that these statements are subject to numerous important risks, uncertainties, assumptions and other factors, some of which are beyond Johnson Controls’ control, that could cause Johnson Controls’ actual results to differ materially from those expressed or implied by such forward-looking statements, including, among others, risks related to: Johnson Controls’ ability to manage general economic, business, capital market and geopolitical conditions, including the impacts of natural disasters, 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 Johnson Controls’ business operations or tax status; the ability to develop or acquire new products and technologies that achieve market acceptance; changes to laws or policies governing foreign trade, including increased tariffs or trade restrictions; maintaining the capacity, reliability and security of Johnson Controls' enterprise and product information technology infrastructure; the risk of infringement or expiration of intellectual property rights; any delay or inability of Johnson Controls to realize the expected benefits and synergies of recent portfolio transactions such as its merger with Tyco and the disposition of the Power Solutions business; the outcome of litigation and governmental proceedings; the ability to hire and retain key senior management; the tax treatment of recent portfolio transactions; significant transaction costs and/or unknown liabilities associated with such transactions; the availability of raw materials and component products; fluctuations in currency exchange rates; 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" (refer to Part I, Item 1A, of this Annual Report on Form 10-K). 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.

PART I

ITEM 1 BUSINESS

General

Johnson Controls International plc, headquartered in Cork, Ireland, is a global diversified technology and multi-industrial leader, serving a wide range of customers in more than 150 countries. The Company’s products and solutions enable smart, energy efficient, sustainable buildings that work seamlessly together to advance the safety, comfort and intelligence of spaces to power its customers’ mission. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

Johnson Controls was originally incorporated in the state of Wisconsin in 1885 as Johnson Electric Service Company to manufacture, install and service automatic temperature regulation systems for buildings. The Company was renamed to Johnson Controls, Inc. in 1974. In 2005, the Company acquired York International, a global supplier of heating, ventilating, air-conditioning ("HVAC") and refrigeration equipment and services. In 2014, the Company acquired Air Distribution Technologies, Inc., one of the largest independent providers of air distribution and ventilation products in North America. In 2015, the Company formed a joint venture with Hitachi to expand its building related product offerings. In 2016, Johnson Controls, Inc. and Tyco completed their combination (the "Merger"), combining Johnson Controls portfolio of building efficiency solutions with Tyco’s portfolio of fire and security solutions. Following the Merger, Tyco changed its name to “Johnson Controls International plc.”

In 2016, Johnson Controls completed the spin-off of its automotive business into Adient plc, an independent, publicly traded company. In 2019, the Company sold its Power Solutions business to BCP Acquisitions LLC, an entity controlled by investment funds managed by Brookfield Capital Partners LLC, completing the Company’s transformation into a pure-play building technologies and solutions provider.

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, repair, retrofit and replacement of equipment (in the HVAC, security and fire-protection space), energy-management consulting and data-driven “smart building” services and solutions powered by its digital platforms and capabilities.

Business Segments

The Company conducts its business through four business segments: Building Solutions North America, Building Solutions EMEA/LA, Building Solutions Asia Pacific and Global Products.

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

Building Solutions EMEA/LA: Building Solutions EMEA/LA designs, sells, installs, and services HVAC, controls, refrigeration, integrated electronic security, integrated fire detection and suppression systems, and provides technical services, 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, 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 and produces heating and air conditioning for residential and commercial applications, and markets products and refrigeration systems to replacement and new construction market customers globally. The Global Products business also designs, manufactures and sells fire protection and security products, including intrusion security, anti-theft devices, and access control and video management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. Global Products also includes the Johnson Controls-Hitachi joint venture.

For more information on the Company’s segments, refer to Note 19, "Segment Information," of the notes to consolidated financial statements.

Products/Systems and Services

The Company sells and installs its commercial HVAC control systems, security systems, fire-detection systems, equipment and services primarily through its extensive direct channel, consisting of a global network of sales and service offices. Significant sales are also generated through global third-party channels, such as distributors of air-conditioning, controls, security and fire-detection products. The Company’s large base of current customers leads to significant repeat business for the maintenance, retrofit and replacement markets. The Company is also able to leverage its installed base to generate sales for its service business. Trusted building brands, such as YORK®, Hitachi Air Conditioning, *Metasys*®, Ansul, *Ruskin*®, Titus®, Frick®, PENN®, Sabroe®, Simplex® and Grinnell® give the Company the most diverse portfolio in the building technology industry.

The Company provides data-driven services and solutions to create smarter, safer and more sustainable buildings. In fiscal 2020, the Company launched OpenBlue, a digitally driven suite of connected solutions that delivers impactful sustainability, new occupant experiences, and respectful 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.

In fiscal 2020, approximately 35% of sales originated from product offerings, 38% of sales originated from installations and 27% of sales originated from service offerings.

Competition

The Company conducts its operations through thousands of individual contracts that are either negotiated or awarded on a competitive basis. Key factors in the award of contracts include system and service performance, quality, price, design, reputation, technology, application engineering capability and construction or project management expertise. Competitors for HVAC equipment, security, fire detection, fire suppression and controls in the residential and non-residential marketplace include many regional, national and international providers. Larger competitors include Honeywell International, Inc.; Siemens Building Technologies, an operating group of Siemens AG; Schneider Electric SA; Carrier Global Corporation; Trane Technologies plc; Daikin Industries, Ltd.; Lennox International, Inc.; GC Midea Holding Co, Ltd. and Gree Electric Appliances, Inc. In addition to HVAC equipment, the Company competes in a highly fragmented HVAC services market. The loss of any individual contract or customer would not have a material adverse effect on the Company.

Business Strategy

The Company's business strategy is to sustain and expand its position as a global diversified technology and multi-industrial leader in HVAC, industrial refrigeration, fire protection, security and building management systems by offering a full spectrum of products and solutions for customer buildings across the globe. The Company executes its strategy by creating growth platforms, driving operational improvements and creating a high performance culture. The Company has strong starting positions in attractive and growing end-markets across HVAC, controls, fire, security and services, enhanced by its comprehensive product portfolio and substantial installed base. The Company believes that it is well positioned to capitalize on the prevalent trends in the buildings industry, including sustainability and energy efficiency, urbanization in smarter and safer buildings and infrastructure. The Company has three strategic priorities:

Leading position in commercial HVAC equipment: Leverage the technological advantages created by the Company's chiller and rooftop platforms and continued investment in emerging areas such as heat pumps, into leading positions in commercial HVAC. The Company intends to pursue both organic and inorganic opportunities to expand its global commercial HVAC position.

Leading position in building management systems: Strengthen the existing portfolio of individual core systems across controls, fire and security while leading the migration towards flatter architectures and convergence, and building out the capabilities to be a leader in smart buildings which result in lower cost, autonomous and higher value customer outcomes.

Growth enabled by digital: Integrate digital capabilities into our products, including predictive analytics, digital twin technology and "smart building" applications, to provide differentiated capabilities and drive growth. Leverage differentiated capabilities including services innovation enabled by digital, tiered service offerings and efficient service delivery, coupled with the company's large installed base to accelerate service growth.

To realize these priorities, the Company is leveraging its technology leadership, comprehensive product portfolio, global presence, substantial installed base and strong channels to monetize the lifecycle opportunities of install, service, retrofit and replacement which are established and delivered by the Company's direct field businesses across the globe. Towards this end, the Company's field businesses are focused on commercial excellence, technology-enabled services and execution rigor.

Backlog

The Company's backlog is applicable to its sales of systems and services. At September 30, 2020, the backlog was $9.4 billion, of which $9.2 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 September 30, 2020, remaining performance obligations were $14.4 billion, which is $5.0 billion higher than the Company's backlog of $9.4 billion. Differences between the Company's remaining performance obligations and backlog are primarily due to the following:

- 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.

Raw Materials

Raw materials used by the businesses in connection with their operations, including steel, aluminum, brass, copper, polypropylene and certain flurochemicals used in fire suppression agents, were readily available during fiscal 2020. The Company expects such availability to continue. In fiscal 2021, commodity prices could fluctuate throughout the year and could significantly affect the results of operations.

Intellectual Property

Generally, the Company seeks statutory protection for strategic or financially important intellectual property developed in connection with its business. Certain intellectual property, where appropriate, is protected by contracts, licenses, confidentiality or other agreements. From time to time, the Company takes action to protect its businesses by asserting its intellectual property rights against third-party infringers.

The Company owns numerous U.S. and non-U.S. patents (and their respective counterparts), the more important of which cover those technologies and inventions embodied in current products or which are used in the manufacture of those products. While the Company believes patents are important to its business operations and in the aggregate constitute a valuable asset, no single patent, or group of patents, is critical to the success of the business. The Company, from time to time, grants licenses under its patents and technology and receives licenses under patents and technology of others.

The Company’s trademarks, certain of which are material to its business, are registered or otherwise legally protected in the U.S. and many non-U.S. countries where products and services of the Company are sold. The Company, from time to time, becomes involved in trademark licensing transactions.

Most works of authorship produced for the Company, such as computer programs, catalogs and sales literature, carry appropriate notices indicating the Company’s claim to copyright protection under U.S. law and appropriate international treaties.

Environmental, Health and Safety Matters

Laws addressing the protection of the environment and workers’ safety and health govern the Company’s ongoing global operations. They generally provide for civil and criminal penalties, as well as injunctive and remedial relief, for noncompliance or require remediation of sites where Company-related materials have been released into the environment.

The Company has expended substantial resources globally, both financial and managerial, to comply with environmental laws and worker safety laws and maintains procedures designed to foster and ensure compliance. Certain of the Company’s businesses are, or have been, engaged in the handling or use of substances that may impact workplace health and safety or the environment. The Company is committed to protecting its workers and the environment against the risks associated with these substances.

The Company’s operations and facilities have been, and in the future may become, the subject of formal or informal enforcement actions or proceedings for noncompliance with environmental laws and worker safety laws or for the remediation of Company-related substances released into the environment. Such matters typically are resolved with regulatory authorities through commitments to compliance, abatement or remediation programs and, in some cases, payment of penalties. See Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for further discussion of environmental matters.

Government Regulation and Supervision

The Company's operations are subject to numerous federal, state and local laws and regulations, both within and outside the U.S., in areas such as consumer protection, government contracts, international trade, environmental protection, labor and employment, tax, licensing and others. For example, most U.S. states and non-U.S. jurisdictions in which the Company operates have licensing laws directed specifically toward the alarm and fire suppression industries. The Company's security businesses currently rely extensively upon the use of wireline and wireless telephone service to communicate signals. Wireline and wireless telephone companies in the U.S. are regulated by the federal and state governments. In addition, government regulation of fire safety codes can impact the Company's fire businesses. The Company's businesses may also be affected by changes in governmental regulation of refrigerants and energy efficiency standards, noise regulation and product safety regulations, including changes related to hydro fluorocarbons/emissions reductions efforts, energy conservation standards and the regulation of fluorinated gases. These and other laws and regulations impact the manner in which the Company conducts its business, and changes in legislation or government policies can affect the Company's worldwide operations, both favorably and unfavorably. For a more detailed description of the various laws and regulations that affect the Company's business, see Item 1A. Risk Factors.

Regulatory Capital Expenditures

The Company's efforts to comply with numerous federal, state and local laws and regulations applicable to its business and products often results in capital expenditures. The Company makes capital expenditures to design and upgrade its fire and security products to comply with or exceed standards applicable to the alarm, fire suppression and security industries. The Company also makes capital expenditures to meet or exceed energy efficiency standards, including the regulation of refrigerants, hydro fluorocarbons/emissions reductions efforts and the regulation of fluorinated gasses, particularly with respect to the Company's HVAC products and solutions. The Company's ongoing environmental compliance program also results in capital expenditures. Regulatory and environmental considerations are a part of all significant capital expenditure decisions; however, expenditures in fiscal 2020 related solely to regulatory compliance were not material. It is management's opinion that the amount of any future capital expenditures related to compliance with any individual regulation or grouping of related regulations will not have a material adverse effect on the Company's financial results or competitive position in any one year. See Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for further discussion of environmental matters.

Human Capital Management

As of September 30, 2020, the Company employed approximately 97,000 people worldwide, of which approximately 36,000 were employed in the United States and approximately 61,000 were outside the United States. Approximately 21,000 employees are covered by collective bargaining agreements or works councils and the Company believes that its relations with the labor unions are generally good.

The Company believes that success of its mission is realized by the engagement and empowerment of its employees to serve and win with clients, everywhere, every day. The Chief Human Resources Officer ("CHRO") is responsible for developing and executing the Company's human capital strategy. This includes the attraction, acquisition, development and engagement of talent to deliver on the Company's strategy and the design of employee compensation and benefits programs. The CHRO and the Chief Diversity Officer are responsible for developing and integrating the Company's diversity and inclusion roadmap. In addition, the Chief Executive Officer ("CEO") and CHRO regularly update the Company's board of directors and its committees on the operation and status of these human capital trends and activities. Key areas of focus for the Company include:

Health and Safety: The Company's health and safety programs are designed around global standards with appropriate variations addressing the multiple jurisdictions and regulations, specific hazards and unique working environments of the Company's manufacturing, service and install, and headquarter operations. The Company requires each of its locations to perform regular safety audits to ensure proper safety policies, program procedures, analyses and training are in place. In addition, the Company engages an independent third party conformity assessment and certification vendor to audit selected operations for adherence to its global health and safety standards. The Company utilizes a mixture of leading and lagging indicators to assess the health and safety performance of its operations. Lagging indicators include the OSHA Total Recordable Incident Rate ("TRIR") and the Lost Time (or Lost Workday) Incident Rate ("LTIR") based upon the number of incidents per 100 employees (or per 200,000 work hours). Leading indicators include reporting and closure of all near miss events and Environmental, Health and Safety ("EHS") coaching and engagement conversations. Reported total workforce numbers include employees and supervised contractors. In fiscal year 2020, the Company had a TRIR of 0.40, a LTIR of 0.12 and 0 work-related fatalities.

Diversity and Inclusion: The Company believes that its rich culture of inclusion and diversity enables it to create, develop and fully leverage the strengths of its workforce to exceed customer expectations and meet its growth objectives. Current key initiatives include employee experience, Business Resource Groups ("BRG"), learning and development, talent acquisition, external relationships, and metrics and measurements. The Company places a high value on inclusion, engaging employees in our BRG programs staffed by employees with diverse backgrounds, experiences or characteristics who share a common interest in professional development, improving corporate culture and delivering sustained business results. The Company maintains its BRG chapters worldwide across nine categories: African American, Asia Pacific, LGBTQ+, Emerging Leaders, Hispanic, Disabilities, Veterans, Women and Sustainability. The Company uses these groups to serve as a source of inclusion and to support the acquisition of diverse talent internally and externally. Each BRG is sponsored and supported by senior leaders across the enterprise.

The Company has implemented several measures that focus on ensuring accountabilities exist for making progress in diversity. The CEO and other senior leaders have diversity and inclusion objectives embedded in their annual performance goals. The Company also commits to having a diverse talent pipeline by partnering with its business units in their workforce planning forecasts to develop initiatives and goals to recruit diverse talent across all leadership and skill areas. The Company trains its recruiting workforce in diversity sourcing strategies and partners with external organizations that develop and supply diverse talent. As of September 30, 2020, approximately 24% of the Company's global workforce was female and 19% of the Company's employees in managerial roles were female. As of September 30, 2020, minorities represented approximately 27% of the Company's US workforce, of which 18% of our US employees in managerial roles were minorities.

Training and Talent Development: The Company is committed to the continued development of its people. Strategic talent reviews and succession planning occur on a planned cadence annually – globally and across all business areas. The CEO and CHRO convene meetings with senior company leadership and the Board of Directors to review top enterprise talent. The Company continues to provide opportunities for the Company's internal employees to grow their careers, with over half of open management positions filled internally during fiscal year 2020.

The Company provides technical and leadership training to employees, customers and suppliers who work for or with the Company’s products and services. Training is provided in a number of formats to accommodate the learner’s style and pace, location, and technological knowledge and access. In fiscal year 2020, the Company offered more than 3,000 courses to all audiences. In addition, the Company’s focus on employee development has been structured over the last several years through programs designed to imbed essential skills that are aligned to the Company’s culture. All managers are accountable to introduce and teach a new skill or toolset each month to their teams. In fiscal year 2020, approximately 1.37 million learning activities were completed by approximately 83,000 currently active employees.

Refer to "Impact of COVID-19 pandemic" included in Item 7, "Management’s Discussion and Analysis of Financial Condition and Results of Operations" for information on Human Capital Management actions taken by the Company in response to the COVID-19 pandemic.

Seasonal Factors

Certain of the Company's sales are seasonal as the demand for residential air conditioning equipment generally increases in the summer months. This seasonality is mitigated by the other products and services provided by the Company that have no material seasonal effect.

Research and Development Expenditures

Refer to Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements for research and development expenditures.

Available Information

The Company’s filings with the U.S. Securities and Exchange Commission ("SEC"), including annual reports on Form 10-K, quarterly reports on Form 10-Q, definitive proxy statements on Schedule 14A, current reports on Form 8-K, and any amendments to those reports filed pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, are made available free of charge through the Investor Relations section of the Company’s Internet website at http://www.johnsoncontrols.com as soon as reasonably practicable after the Company electronically files such material with, or furnishes it to, the SEC. Copies of any materials the Company files with the SEC can also be obtained free of charge through the SEC’s website at http://www.sec.gov. The Company also makes available, free of charge, its Code of Ethics, Corporate Governance Guidelines, Board of Directors committee charters and other information related to the Company on the Company’s Internet website or in printed form upon request. The Company is not including the information contained on the Company's website as a part of, or incorporating it by reference into, this Annual Report on Form 10-K.

ITEM 1A RISK FACTORS

Risks Related to Economic and Political Conditions

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 severely restricted the level of economic activity around the world and has caused a significant contraction in the global economy. In response to this outbreak, the governments of many countries, states, cities and other geographic regions have taken preventive or protective actions, such as imposing restrictions on travel and business operations. Currently, the effectiveness of economic stabilization efforts and other measures being taken to mitigate the effects of these actions and the spread of COVID-19 remains uncertain.

As a result of the COVID-19 pandemic, 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. Such actions have prevented, and may in the future prevent us from accessing the facilities of our customers to deliver and install products, provide services and complete maintenance. Although some governments have lifted shutdown orders and similar restrictions, a resurgence in the spread of COVID-19 could cause the reinstitution of such preventive or protective measures. While a substantial portion of our businesses have been classified as essential in jurisdictions in which facility closures have been mandated, some of our facilities have nevertheless been ordered to close, and we can give no assurance that there will not be additional closures in the future or that our businesses 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. For example, during portions of fiscal year 2020, we experienced temporary reductions of our manufacturing and operating capacity in India, China and Mexico as a result of government-mandated actions to control the spread of COVID-19. In addition, we have modified our business practices (including employee travel, employee work locations and cancellation of 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. Further, we have experienced, and may continue to experience, disruptions or delays in our supply chain as a result of such actions, which have resulted in higher supply chain costs to us in order to maintain the supply of materials and components for our products.

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. The focus on managing and mitigating the impacts of COVID-19 on our business 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.

We may also experience impacts from market downturns and changes in consumer behavior related to pandemic fears as a result of COVID-19. For example, we experienced a decline in demand in our global businesses as a result of the impact of efforts to contain the spread of COVID-19. In addition, our customers may choose to delay or abandon projects on which we provide products and/or services. We may also experience adverse impacts on demand and sales volumes from industries that are sensitive to economic downturns and volatility in commodity prices. 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. For example, in fiscal year 2020, we were required to record an impairment charge of indefinite-lived intangible assets primarily related to our retail business and an impairment of the North America Retail reporting unit's goodwill.

If the COVID-19 pandemic becomes more pronounced in our global markets, experiences a resurgence in markets recovering from the spread of COVID-19, or if another significant natural disaster or pandemic were to occur in the future, our operations in areas impacted by such events could experience further adverse financial impacts due to market changes and other resulting events and circumstances. The extent to which the COVID-19 pandemic impacts our financial condition will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of COVID-19, the longevity of COVID-19, the impact of COVID-19 on economic activity, the actions to contain its impacts on public health, and the global economy and the speed at which economic activity resumes following the lifting of measures designed to mitigate the spread of COVID-19. The impact of COVID-19 may also exacerbate other risks discussed in Item 1A of this Annual Report on Form 10-K, any of which could have a material effect on our financial condition, results of operations and cash flows.

Some of the industries in which we operate are cyclical and, accordingly, demand for our products and services could be adversely affected by downturns in these industries.

Much of the demand for installation of HVAC, security products, and fire detection and suppression 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. Commercial and residential real estate markets are prone to significant fluctuations in supply and demand. In addition, most commercial and residential real estate developers rely heavily on project financing in order to initiate and complete projects. Declines in real estate values could lead to significant reductions in the availability of project financing, even in markets where demand may otherwise be sufficient to support new construction. These factors could in turn temper demand for new HVAC, fire detection and suppression, and security installations.

Levels of industrial capital expenditures for facility expansions and maintenance are dependent on general economic conditions, economic conditions within specific industries we serve, expectations of future market behavior and available financing. Additionally, volatility in commodity prices can negatively affect the level of these activities and can result in postponement of capital spending decisions or the delay or cancellation of existing orders.

The businesses of many of our industrial customers are to varying degrees cyclical and have experienced periodic downturns. During such economic downturns, including the current economic downturn caused by COVID-19, customers in these industries tend to delay major capital projects, including greenfield construction, maintenance projects and upgrades. Additionally, demand for our products and services may be affected by volatility in energy and commodity prices and fluctuating demand forecasts, as our customers may be more conservative in their capital planning, which may reduce demand for our products and services. Although our industrial customers tend to be less dependent on project financing than real estate developers, disruptions in financial markets and banking systems could make credit and capital markets difficult for our customers to access, and could significantly raise the cost of new debt for our customers. Any difficulty in accessing these markets and the increased associated costs can have a negative effect on investment in large capital projects, including necessary maintenance and upgrades, even during periods of favorable end-market conditions.

Many of our customers inside and outside of the industrial and commercial sectors, including governmental and institutional customers, have experienced budgetary constraints as sources of revenue have been negatively impacted by adverse or stagnant economic conditions. These budgetary constraints have in the past and may in the future reduce demand for our products and services among governmental and institutional customers.

Reduced demand for our products and services could result in the delay or cancellation of existing orders or lead to excess capacity, which unfavorably impacts our absorption of fixed costs. This reduced demand may also erode average selling prices in the industries we serve. Any of these results could materially and adversely affect our business, financial condition, results of operations and cash flows.

Risks associated with our non-U.S. operations could adversely affect our business, financial condition and results of operations.

We have significant operations in a number of countries outside the U.S., some of which are located in emerging markets. Long-term economic uncertainty in some of the regions of the world in which we operate, such as Asia, South America, the Middle East, Europe and emerging markets, could result in the disruption of markets and negatively affect cash flows from our operations to cover our capital needs and debt service requirements.

In addition, as a result of our global presence, a significant portion of our revenues and expenses is denominated in currencies other than the U.S. dollar. We are therefore subject to non-U.S. currency risks and non-U.S. exchange exposure. While we employ financial instruments to hedge some of our transactional foreign exchange exposure, these activities do not insulate us completely from those exposures. Exchange rates can be volatile and a substantial weakening of foreign currencies against the

U.S. dollar could reduce our profit margin in various locations outside of the U.S. and adversely impact the comparability of results from period to period.

There are other risks that are inherent in our non-U.S. operations, including the potential for changes in socio-economic conditions, laws and regulations, including anti-trust, import, export, labor and environmental laws, and monetary and fiscal policies; protectionist measures that may prohibit acquisitions or joint ventures, or impact trade volumes; unsettled or unstable political conditions; government-imposed plant or other operational shutdowns; backlash from foreign labor organizations related to our restructuring actions; corruption; natural and man-made disasters, hazards and losses; violence, civil and labor unrest, and possible terrorist attacks.

These and other factors may have a material adverse effect on our business and results of operations.

Risks Related to Government Regulations

Our businesses operate in regulated industries and are subject to a variety of complex and continually changing laws and regulations.

Our operations and employees are subject to various U.S. federal, state and local licensing laws, codes and standards and similar foreign laws, codes, standards and regulations. Changes in laws or regulations could require us to change the way we operate or to utilize resources to maintain compliance, which could increase costs or otherwise disrupt operations. In addition, failure to comply with any applicable laws or regulations could result in substantial fines or revocation of our operating permits and licenses. Competition or other regulatory investigations can continue for several years, be costly to defend and can result in substantial fines. If laws and regulations were to change or if we or our products failed to comply, our business, financial condition and results of operations could be adversely affected.

Due to the international scope of our operations, the system of laws and regulations to which we are subject is complex and includes regulations issued by the U.S. Customs and Border Protection, the U.S. Department of Commerce's Bureau of Industry and Security, the U.S. Treasury Department's Office of Foreign Assets Control and various non U.S. governmental agencies, including applicable export controls, anti-trust, customs, currency exchange control and transfer pricing regulations, laws regulating the foreign ownership of assets, and laws governing certain materials that may be in our products. No assurances can be made that we will continue to be found to be operating in compliance with, or be able to detect violations of, any such laws or regulations. For example, existing free trade laws and regulations, such as the United States-Mexico-Canada Agreement, or any successor agreement, provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture products or from where we import products or raw materials (either directly or through our suppliers) could have an impact on our competitive position, business and financial results. For example, certain of our businesses have a significant presence in the United Kingdom (the “U.K.”), where the success of the Brexit referendum in 2016 has continued to cause political and economic uncertainty. Although it is unknown what the full terms of the U.K.’s future relationship with the European Union will be, it is possible that the U.K. may be at risk of losing access to free trade agreements for goods and services with the EU and other countries, which may result in increased tariffs on U.K. imports and exports that could have an adverse effect on our profitability.

We cannot predict the nature, scope or effect of future regulatory requirements to which our operations might be subject or the manner in which existing laws might be administered or interpreted.

Global climate change and related regulations could negatively affect our business.

The effects of climate change, such as extreme weather conditions, create financial risks to our business. For example, the demand for our products and services, such as residential air conditioning equipment, may be affected by unseasonable weather conditions. The effects of climate change could also disrupt our operations by impacting the availability and cost of materials needed for manufacturing and could increase insurance and other operating costs. These factors may impact our decisions to construct new facilities or maintain existing facilities in areas most prone to physical climate risks. We could also face indirect financial risks passed through the supply chain and disruptions that could result in increased prices for our products and the resources needed to produce them.

There is a general consensus that greenhouse gas emissions are linked to global climate change, and that these emissions must be reduced dramatically to avert the worst effects of climate change. Increased public awareness and concern regarding global climate change will result in more regional and/or federal requirements to reduce greenhouse gas emissions. For example, policies are being implemented to curtail the use of high global warming potential refrigerants, increase building energy efficiency, and shift away from the combustion of fossil fuels as a heating source. In some cases, these policies may render our existing technology and products noncompliant, particularly within our line of HVAC products and solutions. As a result, we may be required to make increased capital expenditures to improve our product portfolio to meet new regulations and standards. While we have been committed to continuous improvements to our product portfolio to meet and exceed anticipated regulatory standard levels, there can be no assurance that our commitments will be successful, that our products will be accepted by the market, that proposed regulation or deregulation will not have a negative competitive impact or that economic returns will reflect our investments in new product development.

There continues to be a lack of consistent climate legislation, which creates economic and regulatory uncertainty. Such regulatory uncertainty extends to incentives, which if discontinued, could adversely impact the demand for energy efficient buildings, and could increase costs of compliance. These factors may impact the demand for our products, obsolescence of our products and our results of operations.

We are subject to requirements relating to environmental and safety regulations and environmental remediation matters which could adversely affect our business, results of operation and reputation.

We are subject to numerous federal, state and local environmental laws and regulations governing, among other things, solid and hazardous waste storage, treatment and disposal, and remediation of releases of hazardous materials. There are significant capital, operating and other costs associated with compliance with these environmental laws and regulations. Environmental laws and regulations may become more stringent in the future, which could increase costs of compliance or require us to manufacture with alternative technologies and materials. For example, proposed federal and state legislative action concerning the use and clean-up of fire-fighting foam products could negatively impact our fire-fighting business and our results of operations, thereby enhancing the risks to our business described under “Potential liability for environmental contamination could result in substantial costs” below.

Federal, state and local authorities also regulate a variety of matters, including, but not limited to, health, safety laws governing employee injuries, and permitting requirements in addition to the environmental matters discussed above. If we are unable to adequately comply with applicable health and safety regulations and provide our employees with a safe working environment, we may be subject to litigation and regulatory action, in addition to negatively impacting our ability to attract and retain talented employees. New legislation and regulations may require the Company to make material changes to its operations, resulting in significant increases to the cost of production.

We could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act and similar anti-bribery laws around the world.

The U.S. Foreign Corrupt Practices Act (the "FCPA"), the U.K. Bribery Act and similar anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments to government officials or other persons for the purpose of obtaining or retaining business. Recent years have seen a substantial increase in anti-bribery law enforcement activity, with more frequent and aggressive investigations and enforcement proceedings by both U.S. and non-U.S. regulators, and increases in criminal and civil proceedings brought against companies and individuals. Our policies mandate compliance with these anti-bribery laws. We operate in many parts of the world that are recognized as having governmental and commercial corruption and local customs and practices that can be inconsistent with anti-bribery laws. We cannot assure you that our internal control policies and procedures will always protect us from reckless or criminal acts committed by our employees or third party intermediaries. In the event that we believe or have reason to believe that our employees or agents have or may have violated applicable anti-corruption laws, or if we are subject to allegations of any such violations, we may be required to investigate or have outside counsel investigate the relevant facts and circumstances, which can be expensive and require significant time and attention from senior management. Violations of these laws may result in criminal or civil sanctions, which could disrupt our business and result in a material adverse effect on our reputation, business, financial condition, results of operations and cash flows. In addition, we could be subject to commercial impacts such as lost revenue from customers who decline to do business with us as a result of such compliance matters, or we could be subject to lawsuits brought by private litigants, each of which could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

We are subject to risks arising from regulations applicable to companies doing business with the U.S. government.

Our customers include many U.S. federal, state and local government authorities. Doing business with the U.S. government and state and local authorities subjects us to unusual risks, including dependence on the level of government spending and compliance with and changes in governmental procurement and security regulations. Agreements relating to the sale of products to government entities may be subject to termination, reduction or modification, either at the convenience of the government or for failure to perform under the applicable contract. We are subject to potential government investigations of business practices and compliance with government procurement and security regulations, which can be expensive and burdensome. If we were charged with wrongdoing as a result of an investigation, we could be suspended from bidding on or receiving awards of new government contracts, which could have a material adverse effect on the Company's results of operations. In addition, various U.S. federal and state legislative proposals have been made in the past that would deny governmental contracts to U.S. companies that have moved their corporate location abroad. We are unable to predict the likelihood that, or final form in which, any such proposed legislation might become law, the nature of regulations that may be promulgated under any future legislative enactments, or the effect such enactments and increased regulatory scrutiny may have on our business.

Risks Related to Our Business Operations

Our future growth is dependent upon our ability to develop or acquire new products and technologies that achieve market acceptance with acceptable margins.

Our future success depends on our ability to develop or acquire, manufacture and bring competitive, and increasingly complex, products and services to market quickly and cost-effectively. Our ability to develop or acquire new products, services and technologies requires the investment of significant resources. These acquisitions and development efforts divert resources from other potential investments in our businesses, and they may not lead to the development of new technologies, products or services on a timely basis. Moreover, as we introduce new products, we may be unable to detect and correct defects in the design of a product or in its application to a specified use, which could result in loss of sales or delays in market acceptance. Even after introduction, new or enhanced products may not satisfy customer preferences and product failures may cause customers to reject our products. As a result, these products may not achieve market acceptance and our brand image could suffer. We must also attract, develop and retain individuals with the requisite technical expertise and understanding of customers' needs to develop new technologies and introduce new products, particularly as we increase investment in our digital solutions businesses and our OpenBlue platform. The laws and regulations applicable to our products, and our customers' product and service needs, change from time to time, and regulatory changes may render our products and technologies noncompliant. We must also monitor disruptive technologies and business models. In addition, the markets for our products, services and technologies may not develop or grow as we anticipate. The failure of our technology, products or services to gain market acceptance due to more attractive offerings by our competitors, the introduction of new competitors to the market with new or innovative product offerings or the failure to address any of the above factors could significantly reduce our revenues, increase our operating costs or otherwise materially and adversely affect our business, financial condition, results of operations and cash flows.

Cybersecurity incidents could disrupt business operations, result in the loss of critical and confidential information, and adversely impact our reputation and results of operations.

We rely upon the capacity, reliability and security of our IT and data security infrastructure and our ability to expand and continually update this infrastructure in response to the changing needs of our business. As we implement new systems or integrate existing systems, they may not perform as expected. We also face the challenge of supporting our older systems and implementing necessary upgrades. In addition, we are increasingly relying on our IT infrastructure to support our operations as we manage the impact of COVID-19, including through initiating remote-work protocols for a substantial number of our employees in regions impacted by the spread of the virus. If we experience a problem with the functioning of an important IT system as a result of the increased burden placed on our IT infrastructure or a security breach of our IT systems, including during system upgrades and/or new system implementations, the resulting disruptions could have an adverse effect on our business.

Global cybersecurity threats and incidents can range from uncoordinated individual attempts to gain unauthorized access to IT systems to sophisticated and targeted measures known as advanced persistent threats, directed at the Company, its products, its customers and/or its third party service providers, including cloud providers. Our customers, including the U.S. government, are increasingly requiring cybersecurity protections and mandating cybersecurity standards in our products, and we may incur additional costs to comply with such demands. While we have experienced, and expect to continue to experience, these types of threats and incidents, none of them to date have been material to the Company. We seek to deploy comprehensive measures to deter, prevent, detect, respond to and mitigate these threats, including identity and access controls, data protection, vulnerability assessments, product software designs which we believe are less susceptible to cyber attacks, continuous monitoring of our IT networks and systems, maintenance of backup and protective systems and the incorporation of cybersecurity design throughout the lifecycle of our products. Despite these efforts, cybersecurity incidents, depending on their nature and scope, could potentially result in the misappropriation, destruction, corruption or unavailability of critical data and confidential or proprietary information (our own or that of third parties) and the disruption of business operations. Cybersecurity incidents aimed at the software imbedded in our products could lead to third party claims that our product failures have caused a similar range of damages to our customers, and this risk is enhanced by the increasingly connected nature of our products. The potential consequences of a material cybersecurity incident include financial loss, reputational damage, litigation with third parties, theft of intellectual property, fines levied by the Federal Trade Commission, diminution in the value of our investment in research, development and engineering, and increased cybersecurity protection and remediation costs due to the increasing sophistication and proliferation of threats, which in turn could adversely affect our competitiveness and results of operations.

Data privacy, identity protection, and information security may require significant resources and presents certain risks.

We collect, store, have access to and otherwise process certain confidential or sensitive data, including proprietary business information, personal data or other information that is subject to privacy and security laws, regulations and/or customer-imposed controls. Despite our efforts to protect such data, our business and our products may be vulnerable to material security breaches, theft, misplaced or lost data, programming errors, or errors that could potentially lead to compromising such data, improper use of our products, systems, software solutions or networks, unauthorized access, use, disclosure, modification or destruction of information, defective products, production downtimes and operational disruptions. A significant actual or perceived risk of theft, loss, fraudulent use or misuse of customer, employee or other data, whether by us, our suppliers, channel partners, customers or other third parties, as a result of employee error or malfeasance, or as a result of the imaging, software, security and other products we incorporate into our products, as well as non-compliance with applicable industry standards or our contractual or other legal obligations or privacy and information-security policies regarding such data, could result in costs, fines, litigation or regulatory actions, or could lead customers to select products and services of our competitors. In addition, any such event could harm our reputation, cause unfavorable publicity or otherwise adversely affect certain potential customers' perception of the security and reliability of our services as well as our credibility and reputation, which could result in lost sales. In addition, we operate in an environment in which there are different and potentially conflicting data privacy laws in effect in the various U.S. states and foreign jurisdictions in which we operate and we must understand and comply with each law and standard in each of these jurisdictions while ensuring the data is secure. For example, proposed regulations restricting the use of biometric security technology could impact the products and solutions offered by our security business. Government enforcement actions can be costly and interrupt the regular operation of our business, and violations of data privacy laws can result in fines, reputational damage and civil lawsuits, any of which may adversely affect our business, reputation and financial statements.

Infringement or expiration of our intellectual property rights, or allegations that we have infringed upon the intellectual property rights of third parties, could negatively affect us.

We rely on a combination of trademarks, trade secrets, patents, copyrights, know-how, confidentiality provisions and licensing arrangements to establish and protect our proprietary rights. We cannot guarantee, however, that the steps we have taken to protect our intellectual property will be adequate to prevent infringement of our rights or misappropriation or theft of our technology, trade secrets or know-how. For example, effective patent, trademark, copyright and trade secret protection may be unavailable or limited in some of the countries in which we operate. In addition, while we generally enter into confidentiality agreements with our employees and third parties to protect our trade secrets, know-how, business strategy and other proprietary information, such confidentiality agreements could be breached or otherwise may not provide meaningful protection for our trade secrets and know-how related to the design, manufacture or operation of our products. We, from time to time, resort to litigation to protect our intellectual property rights. Such proceedings can be burdensome and costly, and we may not prevail. Further, adequate remedies may not be available in the event of an unauthorized use or disclosure of our trade secrets and manufacturing expertise. Finally, for those products in our portfolio that rely on patent protection, once a patent has expired, the product is generally open to competition. Products under patent protection usually generate significantly higher revenues than those not protected by patents. If we fail to successfully enforce our intellectual property rights, our competitive position could suffer, which could harm our business, financial condition, results of operations and cash flows.

In addition, we are, from time to time, subject to claims of intellectual property infringement by third parties, including practicing entities and non-practicing entities. Regardless of the merit of such claims, responding to infringement claims can be expensive and time-consuming. The litigation process is subject to inherent uncertainties, and we may not prevail in litigation matters regardless of the merits of our position. Intellectual property lawsuits or claims may become extremely disruptive if the plaintiffs succeed in blocking the trade of our products and services and they may have a material adverse effect on our business, financial condition, results of operations and cash flows.

We rely on our global direct installation channel for a significant portion of our revenue. Failure to maintain and grow the installed base resulting from direct channel sales could adversely affect our business.

Unlike many of our competitors, the Company relies on a direct sales channel for a substantial portion of our revenue. The direct channel provides for the installation of fire and security solutions, and HVAC equipment manufactured by the Company. This represents a significant distribution channel for our products, creates a large installed base of our fire and security solutions, and HVAC equipment, and creates opportunities for longer term service and monitoring revenue. If we are unable to maintain or grow this installation business, whether due to changes in economic conditions, a failure to anticipate changing customer needs, a failure to introduce innovative or technologically advanced solutions, or for any other reason, our installation revenue could decline, which could in turn adversely impact our product pull-through and our ability to grow service and monitoring revenue.

A material disruption of our operations, particularly at our monitoring and/or manufacturing facilities, could adversely affect our business.

If our operations, particularly at our monitoring facilities and/or manufacturing facilities, were to be disrupted as a result of significant equipment failures, natural disasters, power outages, fires, explosions, terrorism, sabotage, adverse weather conditions, public health crises, labor disputes or other reasons, we may be unable to effectively respond to alarm signals, fill customer orders and otherwise meet obligations to or demand from our customers, which could adversely affect our financial performance.

Interruptions in production could increase our costs and reduce our sales. Any interruption in production capability could require us to make substantial capital expenditures or purchase alternative material at higher costs to fill customer orders, which could negatively affect our profitability and financial condition. We maintain property damage insurance that we believe to be adequate to provide for reconstruction of facilities and equipment, as well as business interruption insurance to mitigate losses resulting from significant production interruption or shutdown caused by an insured loss. However, any recovery under our insurance policies may not offset the lost sales or increased costs that may be experienced during the disruption of operations, which could adversely affect our business, financial condition, results of operations and cash flows.

Our business may be adversely affected by work stoppages, union negotiations, labor disputes and other matters associated with our labor force.

We employ approximately 97,000 people worldwide. Approximately 21% of these employees are covered by collective bargaining agreements or works councils. Although we believe that our relations with the labor unions and works councils that represent our employees are generally good and we have experienced no material strikes or work stoppages recently, no assurances can be made that we will not experience in the future these and other types of conflicts with labor unions, works councils, other groups representing employees or our employees generally, or that any future negotiations with our labor unions will not result in significant increases in our cost of labor. Additionally, a work stoppage at one of our suppliers could materially and adversely affect our operations if an alternative source of supply were not readily available. Stoppages by employees of our customers could also result in reduced demand for our products.

We are exposed to greater risks of liability for employee acts or omissions, or system failure, in our fire and security businesses than may be inherent in other businesses.

If a customer or third party believes that he or she has suffered harm to person or property due to an actual or alleged act or omission of one of our employees or a security or fire system failure, he or she may pursue legal action against us, and the cost of defending the legal action and of any judgment could be substantial. In particular, because many of our products and services are intended to protect lives and real and personal property, we may have greater exposure to litigation risks than businesses that provide other products and services. We could face liability for failure to respond adequately to alarm activations or failure of our fire protection to operate as expected. The nature of the services we provide exposes us to the risks that we may be held liable for employee acts or omissions or system failures. As a result, such employee acts or omissions or system failures could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We do not own the right to use the ADT® brand name in the U.S. and Canada.

We own the ADT® brand name in jurisdictions outside of the U.S. and Canada, and The ADT Corporation ("ADT") owns the brand name in the U.S. and Canada. Although we have entered into agreements with ADT designed to protect the value of the ADT® brand, we cannot assure you that actions taken by ADT will not negatively impact the value of the brand outside of the U.S. and Canada. These factors expose us to the risk that the ADT® brand name could suffer reputational damage or devaluation for reasons outside of our control, including ADT's business conduct in the U.S. and Canada. Any of these factors may adversely affect our business, financial condition, results of operations and cash flows.

Risks Related to Litigation

Potential liability for environmental contamination could result in substantial costs.

We have projects underway at multiple current and former manufacturing and testing facilities to investigate and remediate environmental contamination resulting from past operations by us or by other businesses that previously owned or used the properties, including our Fire Technology Center and Stanton Street manufacturing facility located in Marinette, Wisconsin. These projects relate to a variety of activities, including arsenic, solvent, oil, metal, lead, perfluorooctane sulfonate ("PFOS"), perfluorooctanoic acid ("PFOA") and/or other per- and polyfluorinated substances ("PFAS") and other hazardous substance contamination cleanup; and structure decontamination and demolition, including asbestos abatement. Because of uncertainties associated with environmental regulation and environmental remediation activities at sites where we may be liable, future expenses that we may incur to remediate identified sites and resolve outstanding litigation could be considerably higher than the current accrued liability on our consolidated statements of financial position, which could have a material adverse effect on our business, results of operations and cash flows.

In addition, we have been named, along with others, 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 U.S. military and others for fire suppression purposes and related training exercises. Plaintiffs generally allege that the fire-fighting 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 in these cases 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. It is 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. Such claims may also negatively affect our reputation. See Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for additional information on these matters.

We are party to asbestos-related product litigation that could adversely affect our financial condition, results of operations and cash flows.

We and certain of our 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 typically involve 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. We cannot predict with certainty the extent to which we will be successful in litigating or otherwise resolving lawsuits in the future and we continue to evaluate different strategies related to asbestos claims filed against us including entity restructuring and judicial relief. Unfavorable rulings, judgments or settlement terms could have a material adverse impact on our business and financial condition, results of operations and cash flows. See Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for additional information on these matters.

Risks Relating to Strategic Transactions

We may be unable to successfully execute or effectively integrate acquisitions or joint ventures.

We expect acquisitions of businesses and assets, as well as joint ventures (or other strategic arrangements), to play a role in our future growth. We cannot be certain that we will be able to identify attractive acquisition or joint venture targets, obtain financing for acquisitions on satisfactory terms, successfully acquire identified targets or form joint ventures, or manage the timing of acquisitions with capital obligations across our businesses.

Acquisitions and investments may involve significant cash expenditures, debt incurrences, equity issuances, operating losses and expenses. Acquisitions involve numerous other risks, including:

- the diversion of management attention to integration matters;
- difficulties in integrating operations and systems;
- challenges in conforming standards, controls, procedures and accounting and other policies, business cultures and compensation structures;
- difficulties in assimilating employees and in attracting and retaining key personnel;
- challenges in keeping existing customers and obtaining new customers;
- difficulties in achieving anticipated cost savings, synergies, business opportunities and growth prospects;
- contingent liabilities (including contingent tax liabilities) that are larger than expected; and
- potential unknown liabilities, adverse consequences and unforeseen increased expenses associated with acquired companies.

The goodwill and intangible assets recorded with past acquisitions, including our merger with Tyco, were significant and impairment of such assets could result in a material adverse impact on our financial condition and results of operations. Competition for acquisition opportunities in the various industries in which we operate may rise, thereby increasing our costs of making acquisitions or causing us to refrain from making further acquisitions.

Many of these factors are outside of our control, and any one of them could result in increased costs, decreased expected revenues and diversion of management time and energy, which could materially impact our business, financial condition and results of operations.

Risks associated with joint venture investments may adversely affect our business and financial results.

We have entered into several joint ventures and we may enter into additional joint ventures in the future. Our joint venture partners may at any time have economic, business or legal interests or goals that are inconsistent with our goals or with the goals of the joint venture. In addition, we may compete against our joint venture partners in certain of our other markets. Disagreements with our business partners may impede our ability to maximize the benefits of our partnerships. Our joint venture arrangements may require us, among other matters, to pay certain costs or to make certain capital investments or to seek our joint venture partner's consent to take certain actions. In addition, our joint venture partners may be unable or unwilling to meet their economic or other obligations under the operative documents, and we may be required to either fulfill those obligations alone to ensure the ongoing success of a joint venture or to dissolve and liquidate a joint venture. These risks could result in a material adverse effect on our business and financial results.

Divestitures of some of our businesses or product lines may materially adversely affect our financial condition, results of operations or cash flows.

We continually evaluate the performance and strategic fit of all of our businesses and may sell businesses or product lines. For example, we completed the spin-off of our Automotive Experience business in October 2016 and sold our Scott Safety business in October 2017. In addition, on April 30, 2019, we sold our Power Solutions business to BCP Acquisitions LLC. Divestitures involve risks, including difficulties in the separation of operations, services, products and personnel, the diversion of management's attention from other business concerns, the disruption of our business, the potential loss of key employees and the retention of uncertain environmental or other contingent liabilities related to the divested business. Some divestitures, like the Power Solutions divestiture, may be dilutive to earnings. In addition, divestitures may result in significant asset impairment charges, including those related to goodwill and other intangible assets, which could have a material adverse effect on our financial condition and results of operations. We cannot assure you that we will be successful in managing these or any other significant risks that we encounter in divesting a business or product line, and any divestiture we undertake could materially and adversely affect our business, financial condition, results of operations and cash flows, and may also result in a diversion of management attention, operational difficulties and losses. With respect to the Power Solutions divestiture, there can be no assurance whether the strategic benefits and expected financial impact of the divestiture will be achieved.

Risks Related to Tax Matters

The Internal Revenue Service ("IRS") may not agree that we should be treated as a non-U.S. corporation for U.S. federal tax purposes.

Under current U.S. federal tax law, a corporation is generally considered to be a tax resident in the jurisdiction of its organization or incorporation. Because Johnson Controls International plc is an Irish incorporated entity, it would generally be classified as a non-U.S. corporation (and, therefore, a non-U.S. tax resident) under these rules. However, Section 7874 of the Code ("Section 7874") provides an exception to this general rule under which a non-U.S. incorporated entity may, in certain circumstances, be treated as a U.S. corporation for U.S. federal tax purposes.

Under Section 7874, if (1) former Johnson Controls, Inc. shareholders owned (within the meaning of Section 7874) 80% or more (by vote or value) of our ordinary shares after the Merger by reason of holding Johnson Controls, Inc. common stock (such ownership percentage the "Section 7874 ownership percentage"), and (2) our "expanded affiliated group" did not have "substantial business activities" in Ireland ("the substantial business activities test"), we will be treated as a U.S. corporation for U.S. federal tax purposes. If the Section 7874 ownership percentage of the former Johnson Controls, Inc. shareholders after the Merger was less than 80% but at least 60%, and the substantial business activities test was not met, we and our U.S. affiliates (including the U.S. affiliates historically owned by Tyco) may, in some circumstances, be subject to certain adverse U.S. federal income tax rules (which, among other things, could limit their ability to utilize certain U.S. tax attributes to offset U.S. taxable income or gain resulting from certain transactions). The application of these rules could result in significant additional U.S. tax liability and limit our ability to restructure or access cash earned by certain of our non-U.S. subsidiaries, in each case, without incurring substantial U.S. tax liabilities.

Based on the terms of the Merger, the rules for determining share ownership under Section 7874 and certain factual assumptions, we believe that former Johnson Controls, Inc. shareholders owned (within the meaning of Section 7874) less than 60% (by both vote and value) of our ordinary shares after the Merger by reason of holding shares of Johnson Controls, Inc. common stock. Therefore, under current law, we believe that we should not be treated as a U.S. corporation for U.S. federal tax purposes and that Section 7874 should otherwise not apply to us or our affiliates as a result of the Merger.

However, the determination of the Section 7874 ownership percentage is complex and is subject to factual and legal uncertainties. Thus, there can be no assurance that the IRS will agree with the position that we should not be treated as a U.S. corporation for U.S. federal tax purposes or that Section 7874 does not otherwise apply as a result of the Merger.

Regardless of any application of Section 7874, we are treated as an Irish tax resident for Irish tax purposes. Consequently, if we were to be treated as a U.S. corporation for U.S. federal tax purposes under Section 7874, we could be liable for both U.S. and Irish taxes, which could have a material adverse effect on our financial condition and results of operations.

Future potential changes to the tax laws could adversely affect us and our U.S. affiliates (including the U.S. affiliates historically owned by Tyco).

Legislative and regulatory action may be taken in the U.S., which, if ultimately enacted, could override tax treaties upon which we rely, or broaden the circumstances under which we would be considered a U.S. resident, each of which could materially and adversely affect our effective tax rate. We cannot predict the outcome of any specific legislative or regulatory proposals and such changes could have a prospective or retroactive application. However, if proposals were enacted that had the effect of disregarding the incorporation in Ireland or limiting Johnson Controls International plc's ability, as an Irish company, to take advantage of tax treaties with the U.S., we could be subject to increased taxation, potentially significant expense, and/or other adverse tax consequences. Additionally, the U.S. Congress, government agencies in jurisdictions where we and our affiliates do business, and the Organization for Economic Co-operation and Development have focused on issues related to the taxation of multinational corporations, such as base erosion and profit shifting. It is possible that jurisdictions in which we do business could react to such developments or their own concerns by enacting tax legislation that could adversely affect us or our affiliates. There is uncertainty regarding the tax policies of the jurisdictions where we operate, and if changes are enacted, there could be a resulting increase in our effective tax rate. Additionally, the tax laws of Ireland and other jurisdictions could change in the future, and such changes could cause a material increase in our effective tax rate.

Changes to the U.S. model income tax treaty could adversely affect us.

On February 17, 2016, the U.S. Treasury released a revised U.S. model income tax convention (the "new model"), which is the baseline text used by the U.S. Treasury to negotiate tax treaties. If any or all of the modifications to the model treaty are adopted in the main jurisdictions in which we do business, they could, among other things, cause double taxation, increase audit risk and substantially increase our worldwide tax liability. We cannot predict the outcome of any specific modifications to the model treaty, and we cannot provide assurance that any such modifications will not apply to us.

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

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

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

Risks Relating to Our Jurisdiction of Incorporation

Irish law differs from the laws in effect in the U.S. and may afford less protection to holders of our securities.

It may not be possible to enforce court judgments obtained in the U.S. against us in Ireland based on the civil liability provisions of the U.S. federal or state securities laws. In addition, there is some uncertainty as to whether the courts of Ireland would recognize or enforce judgments of U.S. courts obtained against us or our directors or officers based on the civil liabilities provisions of the U.S. federal or state securities laws or hear actions against us or those persons based on those laws. We have been advised that the U.S. currently does not have a treaty with Ireland providing for the reciprocal recognition and enforcement of judgments in civil and commercial matters. Therefore, a final judgment for the payment of money rendered by any U.S. federal or state court based on civil liability, whether or not based solely on U.S. federal or state securities laws, would not automatically be enforceable in Ireland.

A judgment obtained against us will be enforced by the courts of Ireland if the following general requirements are met:

- U.S. courts must have had jurisdiction in relation to the particular defendant according to Irish conflict of law rules (the submission to jurisdiction by the defendant would satisfy this rule); and
- the judgment must be final and conclusive and the decree must be final and unalterable in the court which pronounces it.

A judgment can be final and conclusive even if it is subject to appeal or even if an appeal is pending. But where the effect of lodging an appeal under the applicable law is to stay execution of the judgment, it is possible that in the meantime the judgment may not be actionable in Ireland. It remains to be determined whether final judgment given in default of appearance is final and conclusive. Irish courts may also refuse to enforce a judgment of the U.S. courts which meets the above requirements for one of the following reasons:

- the judgment is not for a definite sum of money;
- the judgment was obtained by fraud;
- the enforcement of the judgment in Ireland would be contrary to natural or constitutional justice;
- the judgment is contrary to Irish public policy or involves certain U.S. laws which will not be enforced in Ireland; or
- jurisdiction cannot be obtained by the Irish courts over the judgment debtors in the enforcement proceedings by personal service Ireland or outside Ireland under Order 11 of the Irish Superior Courts Rules.

As an Irish company, Johnson Controls is governed by the Irish Companies Acts, which differ in some material respects from laws generally applicable to U.S. corporations and shareholders, including, among others, differences relating to interested director and officer transactions and shareholder lawsuits. Likewise, the duties of directors and officers of an Irish company generally are owed to the company only. Shareholders of Irish companies generally do not have a personal right of action against directors or officers of the company and may exercise such rights of action on behalf of the company only in limited circumstances. Accordingly, holders of Johnson Controls International plc securities may have more difficulty protecting their interests than would holders of securities of a corporation incorporated in a jurisdiction of the U.S.

Transfers of Johnson Controls ordinary shares may be subject to Irish stamp duty.

For the majority of transfers of Johnson Controls ordinary shares, there is no Irish stamp duty. However, Irish stamp duty is payable for certain share transfers. A transfer of Johnson Controls ordinary shares from a seller who holds shares beneficially (i.e. through the Depository Trust Company ("DTC")) to a buyer who holds the acquired shares beneficially is not subject to Irish stamp duty (unless the transfer involves a change in the nominee that is the record holder of the transferred shares). A transfer of Johnson Controls ordinary shares by a seller who holds shares directly (i.e. not through DTC) to any buyer, or by a seller who holds the shares beneficially to a buyer who holds the acquired shares directly, may be subject to Irish stamp duty (currently at the rate of 1% of the price paid or the market value of the shares acquired, if higher) payable by the buyer. A shareholder who directly holds shares may transfer those shares into his or her own broker account to be held through DTC without giving rise to Irish stamp duty provided that the shareholder has confirmed to Johnson Controls transfer agent that there is no change in the ultimate beneficial ownership of the shares as a result of the transfer and, at the time of the transfer, there is no agreement in place for a sale of the shares.

We currently intend to pay, or cause one of our affiliates to pay, stamp duty in connection with share transfers made in the ordinary course of trading by a seller who holds shares directly to a buyer who holds the acquired shares beneficially. In other cases, Johnson Controls may, in its absolute discretion, pay or cause one of its affiliates to pay any stamp duty. Johnson Controls Memorandum and Articles of Association provide that, in the event of any such payment, Johnson Controls (i) may seek reimbursement from the buyer, (ii) may have a lien against the Johnson Controls ordinary shares acquired by such buyer and any dividends paid on such shares and (iii) may set-off the amount of the stamp duty against future dividends on such shares. Parties to a share transfer may assume that any stamp duty arising in respect of a transaction in Johnson Controls ordinary shares has been paid unless one or both of such parties is otherwise notified by Johnson Controls.

Dividends paid by us may be subject to Irish dividend withholding tax.

In certain circumstances, as an Irish tax resident company, we will be required to deduct Irish dividend withholding tax (currently at the rate of 20%) from dividends paid to our shareholders. Shareholders that are residents in the U.S., European Union countries (other than Ireland) or other countries with which Ireland has signed a tax treaty (whether the treaty has been ratified or not) generally should not be subject to Irish withholding tax so long as the shareholder has provided its broker, for onward transmission to our qualifying intermediary or other designated agent (in the case of shares held beneficially), or us or our transfer agent (in the case of shares held directly), with all the necessary documentation by the appropriate due date prior to payment of the dividend. However, some shareholders may be subject to withholding tax, which could adversely affect the price of our ordinary shares.

Dividends received by you could be subject to Irish income tax.

Dividends paid in respect of Johnson Controls ordinary shares generally are not subject to Irish income tax where the beneficial owner of these dividends is exempt from dividend withholding tax, unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in Johnson Controls.

Johnson Controls shareholders who receive their dividends subject to Irish dividend withholding tax generally will have no further liability to Irish income tax on the dividend unless the beneficial owner of the dividend has some connection with Ireland other than his or her shareholding in Johnson Controls.

General Risk Factors

General economic, political, credit and capital market conditions could adversely affect our financial performance, our ability to grow or sustain our businesses and our ability to access the capital markets.

We compete around the world in various geographic regions and product markets. Global economic and political conditions affect each of our primary businesses and the businesses of our customers and suppliers. Any future financial distress or disruption in the industries and/or markets where we compete could negatively affect our revenues and financial performance in future periods, result in future restructuring charges, and adversely impact our ability to grow or sustain our businesses. Further, negative economic conditions as a result of the COVID-19 pandemic in one or more countries or regions in which we operate could require changes to funding certain of our strategic growth investments.

The capital and credit markets provide us with liquidity to operate and grow our businesses beyond the liquidity that operating cash flows provide. A worldwide economic downturn and/or disruption of the credit markets, including the economic downturn and capital market volatility caused by the COVID-19 pandemic, could reduce our access to capital necessary for our operations and executing our strategic plan. If our access to capital were to become significantly constrained, or if costs of capital increased significantly due to lowered credit ratings, prevailing industry conditions, the volatility of the capital markets or other factors; then our financial condition, results of operations and cash flows could be adversely affected.

If we are unable to adequately react to negative economic impacts that decrease demand for our products and services and/or negative movements in capital markets our results of operations, financial condition or liquidity could be adversely affected.

The potential insolvency or financial distress of third parties could adversely impact our business and results of operations.

We are exposed to the risk that third parties to various arrangements who owe us money or goods and services, or who purchase goods and services from us, will not be able to perform their obligations or continue to place orders due to insolvency or financial distress. Notably, the global COVID-19 pandemic has created heightened risk that third parties may be unable to perform their obligations or suffer financial distress due to the global economic impact of the pandemic and the regulatory measures that have been enacted by governments to contain the spread of the virus, however, we are unable predict the impact that COVID-19 will have on any of our customers, suppliers, vendors, and other business partners, and each of their financial conditions or their ability to perform their obligations. If third parties fail to perform their obligations under arrangements with us, we may be forced to replace the underlying commitment at current or above market prices or on other terms that are less favorable to us. In such events, we may incur losses, or our results of operations, financial condition or liquidity could otherwise be adversely affected.

Legal proceedings in which we are, or may be, a party may adversely affect us.

We are currently, and may in the future, become subject to legal proceedings and commercial or contractual disputes. These are typically claims that arise in the normal course of business including, without limitation, commercial or contractual disputes with our suppliers or customers, intellectual property matters, third party liability, including product liability claims, and employment claims.

Our business success depends on attracting and retaining qualified personnel.

Our ability to sustain and grow our business requires us to hire, retain and develop a highly skilled and diverse management team and workforce. Failure to ensure that we have the leadership capacity with the necessary skill set and experience could impede our ability to deliver our growth objectives, execute our strategic plan and effectively transition our leadership. Organizational and reporting changes resulting from any future leadership transition or corporate initiatives could result in increased turnover. Additionally, any unplanned turnover or inability to attract and retain key employees could have a negative effect on our results of operations.

Volatility in commodity prices may adversely affect our results of operations.

Increases in commodity costs can negatively impact the profitability of orders in backlog as prices on such orders are typically fixed; therefore, in the short-term, our ability to adjust for changes in certain commodity prices is limited. In these cases, if we are not able to recover commodity cost increases through price increases to our customers on new orders, then such increases will have an adverse effect on our results of operations. In cases where commodity price risk cannot be naturally offset or hedged through supply based fixed-price contracts, we use commodity hedge contracts to minimize overall price risk associated with our anticipated commodity purchases. Unfavorability in our hedging programs during a period of declining commodity prices could result in lower margins as we reduce prices to match the market on a fixed commodity cost level. Additionally, to the extent we do not or are unable to hedge certain commodities and the commodity prices substantially increase, such increases will have an adverse effect on our results of operations.

Risks related to our defined benefit retirement plans may adversely impact our results of operations and cash flow.

Significant changes in actual investment return on defined benefit plan assets, discount rates, mortality assumptions and other factors could adversely affect our results of operations and the amounts of contributions we must make to our defined benefit plans in future periods. Because we mark-to-market our defined benefit plan assets and liabilities on an annual basis, large non-cash gains or losses could be recorded in the fourth quarter of each fiscal year or when a remeasurement event occurs. Generally accepted accounting principles in the U.S. require that we calculate income or expense for the plans using actuarial valuations. These valuations reflect assumptions about financial markets and interest rates, which may change based on economic conditions. Funding requirements for our defined benefit plans are dependent upon, among other factors, interest rates, underlying asset returns and the impact of legislative or regulatory changes related to defined benefit funding obligations. For a discussion regarding the significant assumptions used to determine net periodic benefit cost, refer to "Critical Accounting Estimates and Policies" included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

A downgrade in the ratings of our debt could restrict our ability to access the debt capital markets and increase our interest costs.

Unfavorable changes in the ratings that rating agencies assign to our debt may ultimately negatively impact our access to the debt capital markets and increase the costs we incur to borrow funds. If ratings for our debt fall below investment grade, our access to the debt capital markets would become restricted and the price we pay to issue debt could increase. Historically, we have relied on our ability to issue commercial paper rather than to draw on our credit facility to support our daily operations, which means that a downgrade in our ratings or volatility in the financial markets causing limitations to the debt capital markets could have an adverse effect on our business or our ability to meet our liquidity needs.

Additionally, several of our credit agreements generally include an increase in interest rates if the ratings for our debt are downgraded. Further, an increase in the level of our indebtedness may increase our vulnerability to adverse general economic and industry conditions and may affect our ability to obtain additional financing.

A variety of other factors could adversely affect the results of operations of our business.

Any of the following could materially and adversely impact the results of operations of our business: loss of, changes in, or failure to perform under guaranteed performance contracts with our major customers; cancellation of, or significant delays in, projects in our backlog; delays or difficulties in new product development; our ability to recognize the expected benefits of our restructuring actions, financial instability or market declines of our major component suppliers; the unavailability of raw materials (primarily steel, copper and electronic components) necessary for production of our products; price increases of limited-source components, products and services that we are unable to pass on to the market; unseasonable weather conditions in various parts of the world; changes in energy costs or governmental regulations that would decrease the incentive for customers to update or improve their building control systems; and natural or man-made disasters or losses that impact our ability to deliver products and services to our customers.

ITEM 1B UNRESOLVED STAFF COMMENTS

The Company has no unresolved written comments regarding its periodic or current reports from the staff of the SEC.

ITEM 2 PROPERTIES

The Company has properties in approximately 65 countries throughout the world, with its world headquarters located in Cork, Ireland and its North American operational headquarters located in Milwaukee, Wisconsin USA. The Company's wholly- and majority-owned facilities primarily consist of manufacturing, sales and service offices, research and development facilities, monitoring centers, and assembly and/or warehouse centers. At September 30, 2020, these properties totaled approximately 44 million square feet of floor space of which 18 million square feet are owned and 26 million square feet are leased. The Company considers its facilities to be suitable for their current uses and adequate for current needs. The majority of the facilities are operating at normal levels based on capacity. The Company does not anticipate difficulty in renewing existing leases as they expire or in finding alternative facilities.

ITEM 3 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. On September 30, 2016, approximately one month after the closing of the merger, plaintiffs filed a preliminary injunction motion seeking, among other items, to compel Johnson Controls, Inc. to make certain intercompany payments that plaintiffs contend will impact the United States federal income tax consequences of the merger to the putative class of certain Johnson Controls, Inc. shareholders and to enjoin Johnson Controls, Inc. from reporting to the Internal Revenue Service the capital gains taxes payable by this putative class as a result of the closing of the merger. The court held a hearing on the preliminary injunction motion on January 4, 2017, and on January 25, 2017, the judge denied the plaintiffs' motion. Plaintiffs filed an amended complaint on February 15, 2017, and the Company filed a motion to dismiss on April 3, 2017. On October 17, 2019, the court heard oral arguments on the motion to dismiss and took the matter under advisement. Although the Company believes it has substantial defenses to plaintiffs' claims, it is not able to predict the outcome of this action.

Refer to Note 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 I, Item 3, "Legal Proceedings."

ITEM 4 MINE SAFETY DISCLOSURES

Not applicable.

EXECUTIVE OFFICERS OF THE REGISTRANT

Pursuant to General Instruction G(3) of Form 10-K, the following list of executive officers of the Company as of November 16, 2020 is included as an unnumbered Item in Part I of this report in lieu of being included in the Company's Proxy Statement relating to the annual general meeting of shareholders to be held on March 10, 2021.

Tomas Brannemo, 49, has served as Vice President and President, Building Solutions, Europe, Middle East, Africa and Latin America since September 2019. He previously served as Senior Vice President and President, Water Infrastructure and Europe Commercial Team of Xylem Inc., a leading global water technology company. At Xylem, he also served as Senior Vice President and President, Transport and Treatment, from 2017 to 2019 and other roles from 2010 to 2017. Between 2006 and 2010, he held various marketing, sales and engineering positions at Volvo Construction Company.

John Donofrio, 58, has served as Executive Vice President and General Counsel of the Company since November 15, 2017. He previously served as Vice President, General Counsel and Secretary of Mars, Incorporated, a global food manufacturer from October 2013 to November 2017. Before joining Mars in October 2013, Mr. Donofrio was Executive Vice President, General Counsel and Secretary for The Shaw Group Inc., a global engineering and construction company, from October 2009 until February 2013. Prior to joining Shaw, Mr. Donofrio was Senior Vice President, General Counsel and Chief Compliance Officer at Visteon Corporation, a global automotive supplier, a position he held from 2005 until October 2009. Mr. Donofrio has been a Director of FARO Technologies, Inc., a designer, developer, manufacturer and marketer of software driven, 3D measurement, imaging and realization systems, since 2008.

Michael J. Ellis, 64, has served as Executive Vice President and Chief Customer & Digital Officer since October 2019. From May 2018 to October 2019, he served as a Managing Director at Accenture, a global provider of professional services in strategy, consulting, digital, technology and operations. He previously served as Chairman and CEO of ForgeRock, a global digital security software company, from 2012 to 2018. Prior to joining ForgeRock, from 2008 to 2012, he held various senior executive roles at SAP SE, a global provider of enterprise software solutions. Previously, he also served as Chief Executive Officer of Univa, a leading innovator in enterprise-grade workload management and optimization solutions, and as Senior Vice President Business Development at i2 Technologies, a provider of supply chain solutions.

Visal Leng, 50, has served as Vice President and President, Building Solutions, Asia Pacific since September 2018. He previously served as President Asia Pacific of Baker Hughes, the world's first and only full stream provider of integrated oilfield products, services and digital solutions, from July 2017 to September 2018. Prior to the merger of Baker Hughes with General Electric in 2017, he held a number of roles with increasing responsibility in General Electric from his hire in November 1996, including President of its Asia Pacific oil and gas operations from January 2014 to July 2017; and Asia Pacific Regional General Manager from October 2011 to December 2013.

Olivier Leonetti, 55, was elected Executive Vice President and Chief Financial Officer-Elect in September 2020 and will assume the role of Chief Financial Officer and Principal Financial Officer on the date immediately following the filing of this Annual Report on Form 10-K. Prior to joining Johnson Controls, Mr. Leonetti served as the Senior Vice President and Chief Financial Officer of Zebra Technologies, a provider of enterprise-level data capture and automatic identification solutions, a position he had held since November 2016. Prior to joining Zebra, Mr. Leonetti was the Executive Vice

President and Chief Financial Officer of Western Digital, a provider of data infrastructure solutions from 2014 to 2016. Prior to joining Western Digital, Mr. Leonetti served as Vice President of Finance – Global Commercial Organization at Amgen, Inc. from 2011 to 2014. From 1997 to 2011, Mr. Leonetti served in various senior finance positions with increasing responsibility at Dell Inc., including most recently as Vice President of Finance. Prior to joining Dell Inc., Mr. Leonetti served in various worldwide finance capacities with Lex Rac Service plc and the Gillette Company. Mr. Leonetti also serves as a director on the board of Eaton Corporation plc, a provider of power management technologies and services.

Nathan Manning, 44, was elected Vice President and President, Building Solutions, North America in October 2020. He previously served as Vice President and General Manager, Field Operations, from March 2020 to October 2020 and Vice President and General Manager, HVAC and Controls Building Solutions North America, from January 2019 to March 2020. Prior to joining Johnson Controls, he served in various roles at General Electric, a diversified industrial and technology company, where he held the position of General Manager, Operational Excellence for General Electric's GE Power segment from August 2017 until December 2018 and the position of General Manager, Services of GE Energy Connections, a division of GE Power, from November 2015 until August 2017. Prior to joining General Electric, Mr. Manning served as Vice President, General Manager of Eaton Aerospace, a segment of Eaton Corporation plc, a provider of power management technologies and services, from February 2014 until November 2015. Prior to joining Eaton, Mr. Manning served in a number of roles with increasing responsibility in General Electric from his hire in January 2000, including as President and Chief Executive Officer of Aviage Systems, a joint venture between General Electric and Aviation Industry Corporation of China, from July 2012 until February 2014.

Lynn Minella, 62, has served as Executive Vice President and Chief Human Resources Officer since June 2017. Prior to joining Johnson Controls, she served as Group Human Resources Director at BAE Systems Plc from June 2012 to June 2017. Prior to BAE Systems, she was with Air Products and Chemicals, Inc. from 2004 until 2012 where she was the Senior Vice President of Human Resources and Communications. Earlier in her career she also held a variety of human resources roles of increasing responsibility at International Business Machines Corporation.

George R. Oliver, 61, has served as Chief Executive Officer and Chairman of the Board since September 2017. He previously served as our President and Chief Operating Officer following the completion of the merger of Johnson Controls and Tyco in September 2016. Prior to that, Mr. Oliver was Tyco's Chief Executive Officer, a position he held since September 2012. He joined Tyco in July 2006, and served as President of a number of operating segments from 2007 through 2011. Before joining Tyco, he served in operational leadership roles of increasing responsibility at several General Electric divisions. Mr. Oliver also serves as a Director on the board of Raytheon Technologies, an aerospace and defense company.

Ganesh Ramaswamy, 52, has served as Vice President and President, Global Services for Johnson Controls since December 2019. From 2015 to 2019, Mr. Ramaswamy served in various executive leadership roles at Danaher Corporation, a diversified manufacturer of life sciences, diagnostics, and industrial products and services, including Senior Vice President, High Growth markets—Beckman Coulter, President, Videojet Technologies, and, most recently, as Danaher Vice President & Group Executive, Marking & Coding. From 2011 to 2015, Mr. Ramaswamy served in various executive roles at Pentax Medical, a provider of endoscopic imaging devices and solutions, including as President of Pentax Medical from 2013 to 2015. Earlier in his career, Mr. Ramaswamy served in various roles of increasing responsibility with the General Electric Company across product development, service operations, and general management.

Brian J. Stief, 64, has served as Vice Chairman and Chief Financial Officer since November 2019. He also serves as the Company's Principal Financial Officer. He was elected Executive Vice President and Chief Financial Officer following the completion of the Merger in September 2016 and served in that role until November 2019. Prior to the Merger, he was elected Executive Vice President and Chief Financial Officer of Johnson Controls, Inc. in September 2014. He previously served Johnson Controls, Inc. as Vice President and Corporate Controller from 2010 to 2014. Prior to joining Johnson Controls, Inc. in 2010, Mr. Stief was a partner with PricewaterhouseCoopers LLP (an audit and assurance, tax and consulting services provider), which he joined in 1979 and in which he became partner in 1989. As previously disclosed, Mr. Leonetti will succeed Mr. Stief as the Company's Chief Financial Officer and Principal Financial Officer on the date immediately following the filing of this Annual Report on Form 10-K.

Robert VanHimbergen, 44, has served as Vice President and Corporate Controller since December 2017. Mr. VanHimbergen joined Johnson Controls in 2007 as the Corporate Director of Global Accounting and has held various Corporate and Power Solutions positions of increasing responsibility. His most recent position was serving as the Chief

Financial Officer of Yanfeng Automotive Interiors, an Adient joint venture, formed in 2015. Mr. VanHimbergen began his career at PricewaterhouseCoopers in 1998.

Jeff M. Williams, 59, has served as Vice President and President, Global Products, Building Technologies and Solutions since July 2019. He previously served as Vice President and President, Building Solutions, Europe, Middle East, Africa and Latin America from March 2017 to July 2019. Prior thereto, he served as Vice President - Enterprise Operations - Engineering and Supply Chain from January 2015 through the Merger to March 2017. With respect to roles at Johnson Controls, Inc., he served as Vice President, Program Management Office from 2015 to 2016, as Group Vice President and General Manager Global Seating & Supply Chain from 2013 to 2014, and as Group Vice President and General Manager Customer Group Americas from 2010 to 2012. Mr. Williams joined Johnson Controls, Inc. in 1984.

There are no family relationships, as defined by the instructions to this item, among the Company's executive officers.

PART II

ITEM 5 MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

The shares of the Company's ordinary shares are traded on the New York Stock Exchange under the symbol "JCI."

Title of Class	Number of Record Holders as of October 31, 2020
Ordinary Shares, $0.01 par value	33,602

In March 2019, the Company's Board of Directors approved an $8.5 billion increase to its existing share repurchase authorization, subject to the completion of the previously announced sale of the Company's Power Solutions business, which closed on April 30, 2019. The share repurchase program does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. During fiscal year 2020, the Company repurchased approximately $2.2 billion of its ordinary shares on an open market. As of September 30, 2020, approximately $2.4 billion remains available under the share repurchase program.

The following table presents information regarding the repurchase of the Company's ordinary shares by the Company as part of the publicly announced program during the three months ended September 30, 2020.

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
7/1/20 - 7/31/20				
Purchases by Company	7,582,369	$ 35.74	7,582,369	$ 2,827,957,020
8/1/20 - 8/31/20				
Purchases by Company	4,606,669	39.62	4,606,669	2,645,430,057
9/1/20 - 9/30/20				
Purchases by Company	6,824,919	41.54	6,824,919	2,361,931,131

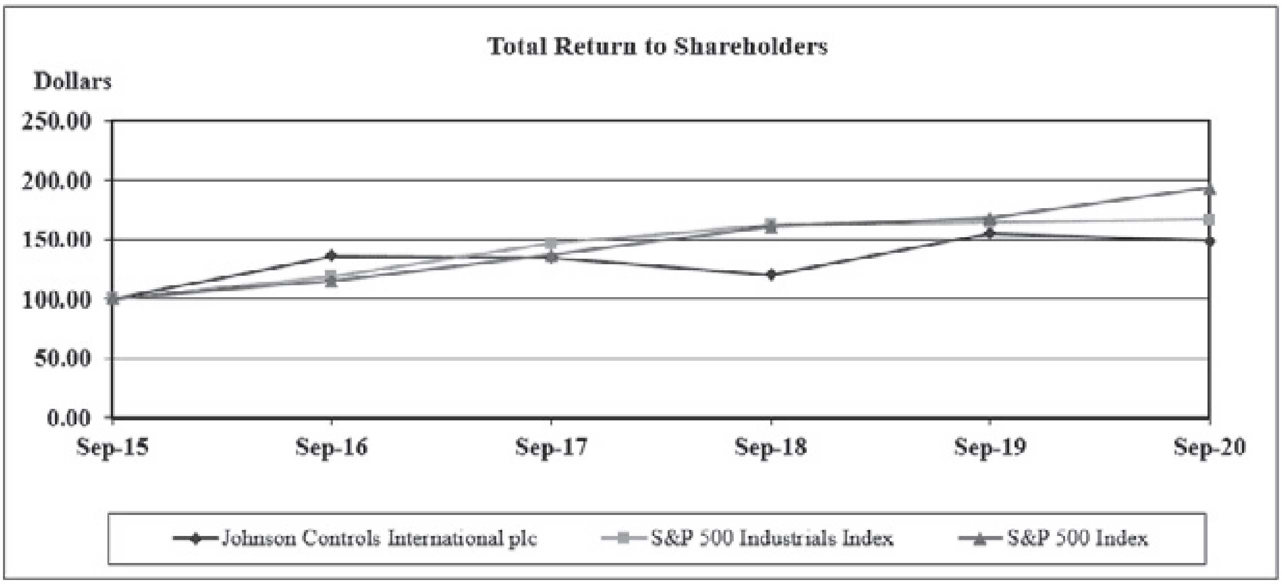
During the three months ended September 30, 2020, acquisitions of shares by the Company from certain employees in order to satisfy employee tax withholding requirements in connection with the vesting of restricted shares were not material.

Equity compensation plan information is incorporated by reference from Part III, Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," of this document and should be considered an integral part of this Item 5.

The following information in Item 5 is not deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C under the Securities Exchange Act of 1934 ("Exchange Act") or to the liabilities of Section 18 of the Exchange Act, and will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Exchange Act, except to the extent the Company specifically incorporates it by reference into such a filing.

The line graph below compares the cumulative total shareholder return on the Company's ordinary shares with the cumulative total return of companies on the Standard & Poor's ("S&P's") 500 Stock Index and the companies on the S&P 500 Industrials Index. This graph assumes the investment of $100 on September 30, 2015 and the reinvestment of all dividends since that date.

COMPANY/INDEX	Sep15	Sep16	Sep17	Sep18	Sep19	Sep20
Johnson Controls International plc	100.00	136.57	135.31	120.96	155.95	149.30
S&P 500 Industrials Index	100.00	119.70	146.45	162.79	164.99	167.12
S&P 500 Index	100.00	115.43	136.91	161.43	168.30	193.80



ITEM 6 SELECTED FINANCIAL DATA

The following selected financial data reflects the results of operations, financial position data and ordinary share information for the fiscal years ended September 30, 2016 through September 30, 2020 (dollars in millions, except per share data).

	Year ended September 30,				
	2020	2019	2018	2017	2016
OPERATING RESULTS					
Net sales	$ 22,317	$ 23,968	$ 23,400	$ 22,835	$ 14,184
Segment EBITA (1)	2,948	3,041	3,138	2,831	1,427
Income (loss) from continuing operations attributable to Johnson Controls (6)	631	1,100	1,175	672	(10)
Net income (loss) attributable to Johnson Controls	631	5,674	2,162	1,611	(868)
Earnings (loss) per share from continuing operations (6)					
Basic	$ 0.84	$ 1.26	$ 1.27	$ 0.72	$ (0.01)
Diluted	0.84	1.26	1.26	0.71	(0.01)
Return on average shareholders' equity attributable to Johnson Controls (2) (6)	3 %	5 %	6 %	3 %	— %
Capital expenditures	$ 443	$ 586	$ 645	$ 760	$ 491
Depreciation and amortization	822	825	824	919	382
Number of employees	97,000	104,000	122,000	121,000	209,000
FINANCIAL POSITION					
Working capital (as defined) (3)	$ 147	$ 975	$ 471	$ 449	$ (619)
Total assets	40,815	42,287	48,797	51,884	63,179
Long-term debt	7,526	6,708	9,623	11,885	10,966
Total debt	7,819	7,219	10,930	13,465	12,636
Shareholders' equity attributable to Johnson Controls	17,447	19,766	21,164	20,447	24,118
Total debt to capitalization (4)	31 %	27 %	34 %	40 %	34 %
Net book value per share (5)	$ 24.03	$ 25.42	$ 22.88	$ 22.03	$ 25.77
ORDINARY SHARE INFORMATION					
Dividends per share	$ 1.04	$ 1.04	$ 1.04	$ 1.00	$ 1.16
Market prices					
High	$ 44.82	$ 44.65	$ 42.60	$ 46.17	$ 48.97
Low	22.78	28.30	32.89	36.74	30.30
Weighted average shares (in millions)					
Basic	751.0	870.2	925.7	935.3	667.4
Diluted	753.6	874.3	931.7	944.6	672.6
Number of shareholders	33,776	35,367	37,836	40,260	41,299

(1) Segment earnings before interest, taxes and amortization ("EBITA") is calculated as 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. Refer to Note 19, "Segment Information," of the notes to consolidated financial statements for a reconciliation of segment EBITA to income from continuing operations before income taxes.

(2) Return on average shareholders' equity attributable to Johnson Controls represents income from continuing operations attributable to Johnson Controls divided by average shareholders' equity attributable to Johnson Controls.

(3) Working capital is defined 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.

(4) Total debt to total capitalization represents total debt divided by the sum of total debt and shareholders' equity attributable to Johnson Controls.

(5) Net book value per share represents shareholders' equity attributable to Johnson Controls divided by the number of shares outstanding at the end of the period.

(6) Income (loss) from continuing operations attributable to Johnson Controls includes $783 million, $235 million, $255 million, $347 million and $222 million of significant restructuring and impairment costs in fiscal year 2020, 2019, 2018, 2017 and 2016, respectively. It also includes $274 million, $618 million, $(24) million, $(384) million and $341 million of net mark-to-market losses (gains) in fiscal year 2020, 2019, 2018, 2017 and 2016, respectively. The preceding amounts are stated on a pre-tax basis.

ITEM 7 MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

General

The Company engineers, manufactures and commissions 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, repair, retrofit and replacement of equipment (in the HVAC, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its digital platforms and capabilities.

This discussion summarizes the significant factors affecting the consolidated operating results, financial condition and liquidity of the Company for the fiscal year ended September 30, 2020. This discussion should be read in conjunction with Item 8, the consolidated financial statements and the notes to consolidated financial statements. A detailed discussion of the 2019 to 2018 year-over-year changes are not included herein and can be found in the Management's Discussion and Analysis section in the Company's 2019 Annual Report on Form 10-K filed November 21, 2019.

Impact of COVID-19 pandemic

The global outbreak of COVID-19 has severely restricted the level of economic activity around the world and has caused a significant contraction in the global economy. In response to this outbreak, the governments of many countries, states, cities and other geographic regions have taken preventative or protective actions, such as imposing restrictions on travel and business operations.

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. Such actions have and may in the future prevent the Company from accessing the facilities of its customers to deliver and install products, provide services and complete maintenance. In addition, some of the Company's customers have chosen to delay or abandon projects on which the Company provides products and/or services as a result of such actions. Although some governments have lifted shutdown orders and similar restrictions, a resurgence in the spread of COVID-19 could cause the reinstitution of such preventive or protective measures. While a substantial portion of the Company's businesses have been classified as an essential business in jurisdictions in which facility closures have been mandated, some of its facilities have nevertheless been ordered to close, and we can give no assurance that there will not be additional closures in the future or that our businesses will be classified as essential in each of the jurisdictions in which we operate.

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

In the second quarter of fiscal 2020, the Company experienced a temporary reduction of its manufacturing and operating capacity in China as a result of government-mandated actions to control the spread of COVID-19. In the third quarter of fiscal 2020, the Company experienced similar reductions as a result of government-mandated actions in India and Mexico. During the fourth quarter of fiscal 2020, the Company's facilities were generally able to operate at normal levels, though its manufacturing capacity in India continues to be reduced as a result of continued lockdowns in the region. The Company has experienced, and may continue to experience, disruptions or delays in its supply chain as a result of government-mandated actions, which has resulted in higher supply chain costs to the Company in order to maintain the supply of materials and components for its products.

In order to mitigate disruptions to its supply chain and manufacturing capacity, the Company took actions including redistributing its manufacturing capacity to facilities and regions unaffected by shutdown orders, accelerating the purchase and shipment of components from suppliers in identified hot spots, diversifying the Company's supplier base, conducting government outreach to support the Company's and its suppliers' designations as essential businesses, and expanded its existing supplier financing programs to support supplier viability and business continuity. While these actions have generally been successful in preserving the Company's supply chain and manufacturing capacity, the potential resurgence of COVID-19 in various jurisdictions could lead to further disruptions.

The Company experienced a decline in demand and volumes in its global businesses as a result of the impact of efforts to contain the spread of COVID-19. Specifically, the Company experienced lower demand due to restricted access to customer sites to perform service and installation work as well as reduced discretionary capital spending by the Company's customers. In response, the Company quickly moved to execute temporary and permanent cost mitigation actions to offset a portion of the impact of COVID-19 on the demand for its products and services, such as deferring or reducing capital expenditures, implementing cost structure changes, short-term furloughing of salaried employees and limiting discretionary spending including corporate expense. These measures were in addition to the Company's previously disclosed fiscal 2020 restructuring plan. Although the Company intends that the temporary cost mitigation actions initiated in fiscal 2020 will cease in fiscal 2021, the necessity of future cost mitigation actions will depend on the continued impact of COVID-19, which is highly uncertain.

The global pandemic has also provided the Company with the opportunity to help its customers prepare to re-open by delivering solutions and support that enhance the safety and increase the efficiency of their operations. The Company has seen an increase in demand for its products and solutions that promote building health and optimize customers' infrastructure, including thermal cameras, indoor air quality, location-based services for contact tracing and touchless access control.

During the second quarter of fiscal 2020, the Company determined that it had a triggering event requiring assessment of impairment for certain of its indefinite-lived intangible assets due to declines in revenue directly attributable to the COVID-19 pandemic. As a result, the Company recorded an impairment charge of $62 million related primarily to the Company's retail business indefinite-lived intangible assets within restructuring and impairment costs in the consolidated statements of income in the second quarter of fiscal 2020. During the third quarter of fiscal 2020, the Company determined that it had a triggering event requiring assessment of impairment for certain of its indefinite-lived intangible assets, long-lived assets and goodwill due to declines in revenue and further declines in forecasted cash flows in its North America Retail reporting unit directly attributable to the COVID-19 pandemic. As a result, the Company recorded an impairment charge of $424 million related to the Company's North America Retail reporting unit's goodwill within restructuring and impairment costs in the consolidated statements of income in the third quarter of fiscal 2020. There were no indefinite-lived intangibles or goodwill impairments resulting from the fiscal 2020 annual impairment tests performed in the fourth quarter of fiscal 2020. However, it is possible that future changes in such circumstances, including a more prolonged and/or severe COVID-19 pandemic, would require the Company to record additional non-cash impairment charges.

The Company continues to actively monitor its liquidity position and working capital needs. The Company believes that, following its implementation of liquidity and cost mitigation actions in fiscal 2020, it remains in a solid overall capital resources and liquidity position that is adequate to meet its projected needs. As a result, following a review of its liquidity position, the Company resumed its share repurchase program in July 2020, which had been suspended in March 2020. In September 2020, the Company issued $1.8 billion of senior notes. A portion of the proceeds, together with cash from operations, were used to repay short-term debt obligations incurred by the Company at the onset of the pandemic to preserve its near-term financial flexibility, as well as repay or redeem other near term-indebtedness.

The extent to which the COVID-19 outbreak 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 new information that may emerge concerning the severity and longevity of COVID-19, the resurgence of COVID-19 in regions that have begun to recover from the initial impact of the pandemic, the impact of COVID-19 on economic activity, and the actions to contain its impact on public health and the global economy. See Part I, Item 1A, Risk Factors, for an additional discussion of risks related to COVID-19.

FISCAL YEAR 2020 COMPARED TO FISCAL YEAR 2019

Net Sales

(in millions)	Year Ended September 30, 2020	2019	Change
Net sales	$ 22,317	$ 23,968	-7%

The decrease in net sales was due to lower organic sales ($1,543 million), the unfavorable impact of foreign currency translation ($150 million) and lower sales due to business divestitures ($11 million), partially offset by acquisitions ($53 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales decreased 6% as compared to the prior year due to lower demand, primarily attributable to the COVID-19 pandemic. Refer to the "Segment Analysis" below within Item 7 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

(in millions)	Year Ended September 30, 2020	2019	Change
Cost of sales	$ 14,906	$ 16,275	-8%
Gross profit	7,411	7,693	-4%
% of sales	33.2 %	32.1 %	

Cost of sales and gross profit both decreased and gross profit as a percentage of sales increased by 110 basis points. Gross profit decreased due to organic sales declines primarily due to the unfavorable impact of the COVID-19 pandemic, partially offset by cost mitigation actions. Net mark-to-market adjustments had a net favorable year-over-year impact on cost of sales of $40 million ($88 million loss in fiscal 2020 compared to a $128 million loss in fiscal 2019) primarily due to a more significant reduction in discount rates in the prior year. Foreign currency translation had a favorable impact on cost of sales of approximately $100 million. Refer to the "Segment Analysis" below within Item 7 for a discussion of segment earnings before interest, taxes and amortization ("EBITA") by segment.

Selling, General and Administrative Expenses

(in millions)	Year Ended September 30, 2020	2019	Change
Selling, general and administrative expenses	$ 5,665	$ 6,244	-9%
% of sales	25.4 %	26.1 %	

Selling, general and administrative expenses ("SG&A") decreased by $579 million, and SG&A as a percentage of sales decreased by 70 basis points. The decrease in SG&A included the favorable impact of cost mitigation actions and reductions in discretionary spend in the current year. The net mark-to-market adjustments had a net favorable year-over-year impact on SG&A of $304 million ($186 million loss in fiscal 2020 compared to a $490 million loss in fiscal 2019) primarily due to a more significant reduction in discount rates in the prior year. Additional favorable impacts included a prior year environmental charge ($140 million) and foreign currency translation ($30 million). These items were partially offset by a prior year tax indemnification reserve release ($226 million). Refer to the "Segment Analysis" below within Item 7 for a discussion of segment EBITA by segment.

Restructuring and Impairment Costs

(in millions)	Year Ended September 30, 2020	2019	Change
Restructuring and impairment costs	$ 783	$ 235	*

* Measure not meaningful

Refer to Note 7, "Goodwill and Other Intangible Assets," Note 16, "Significant Restructuring and Impairment Costs," and Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for further disclosure related to the Company's restructuring plans and impairment costs.

Net Financing Charges

(in millions)	Year Ended September 30, 2020	2019	Change
Net financing charges	$ 231	$ 350	-34%

Refer to Note 9, "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)	Year Ended September 30, 2020	2019	Change
Equity income	$ 171	$ 192	-11%

The decrease in equity income was primarily due to lower income at certain partially-owned affiliates of the Johnson Controls - Hitachi joint venture primarily due to the unfavorable impact of the COVID-19 pandemic. Foreign currency translation had an unfavorable impact on equity income of $3 million. Refer to the "Segment Analysis" below within Item 7 for a discussion of segment EBITA by segment.

Income Tax Provision

(in millions)	Year Ended September 30, 2020	2019	Change
Income tax provision (benefit)	$ 108	$ (233)	*
Effective tax rate	12%	-22%	

* Measure not meaningful

The statutory tax rate in Ireland of 12.5% is being used as a comparison since the Company is domiciled in Ireland.

For fiscal 2020, the effective tax rate for continuing operations was 12% and was lower than the statutory tax rate primarily due to tax audit reserve adjustments, the income tax effects of mark-to-market adjustments, valuation allowance adjustments and the benefits of continuing global tax planning initiatives, partially offset by a discrete tax charge related to the remeasurement of deferred tax assets and liabilities as a result of Swiss tax reform, the tax impact of an impairment charge and tax rate differentials.

For fiscal 2019, the effective rate for continuing operations was below the statutory rate primarily due to tax audit reserve adjustments, the income tax effects of mark-to-market adjustments, a tax indemnification reserve release, the tax benefits of an asset held for sale impairment charge and continuing global tax planning initiatives, partially offset by valuation allowance adjustments as a result of tax law changes, a discrete tax charge related to newly enacted regulations related to U.S. Tax Reform and tax rate differentials.

The fiscal 2020 effective tax rate increased as compared to fiscal 2019 primarily due to the discrete tax items. The fiscal year 2020 and 2019 global tax planning initiatives related primarily to changes in entity tax status, global financing structures and alignment of the Company's global business functions in a tax efficient manner. Refer to Note 18, "Income Taxes," of the notes to consolidated financial statements for further details.

Income From Discontinued Operations, Net of Tax

	Year Ended September 30,		
(in millions)	2020	2019	Change
Income from discontinued operations, net of tax	$ —	$ 4,598	*

* Measure not meaningful

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

Income Attributable to Noncontrolling Interests

	Year Ended September 30,		
(in millions)	2020	2019	Change
Income from continuing operations attributable to noncontrolling interests	$ 164	$ 189	-13%
Income from discontinued operations attributable to noncontrolling interests	—	24	*

* Measure not meaningful

The decrease in income from continuing operations attributable to noncontrolling interests was primarily due to lower net income primarily due to the COVID-19 pandemic at certain partially-owned affiliates within the Global Products segment.

Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

Net Income Attributable to Johnson Controls

	Year Ended September 30,		
(in millions)	2020	2019	Change
Net income attributable to Johnson Controls	$ 631	$ 5,674	-89%

The decrease in net income attributable to Johnson Controls was primarily due to the prior year income from discontinued operations, higher restructuring and impairment charges, higher income tax provision and the unfavorable impact of the COVID-19 pandemic, partially offset by lower SG&A and net financing charges. Fiscal 2020 diluted earnings per share attributable to Johnson Controls was $0.84 compared to $6.49 in fiscal 2019.

Comprehensive Income Attributable to Johnson Controls

	Year Ended September 30,		
(in millions)	2020	2019	Change
Comprehensive income attributable to Johnson Controls	$ 650	$ 5,350	-88%

The decrease in comprehensive income attributable to Johnson Controls was due to lower net income attributable to Johnson Controls ($5,043 million), partially offset by an increase in other comprehensive income attributable to Johnson Controls ($343 million) resulting primarily from foreign currency translation adjustments. The favorable foreign currency translation adjustments were primarily driven by weakening of the British pound and euro currencies against the U.S. dollar in the prior year.

SEGMENT ANALYSIS

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

	Net Sales for the Year Ended September 30,			Segment EBITA for the Year Ended September 30,		
(in millions)	2020	2019	Change	2020	2019	Change
Building Solutions North America	$ 8,605	$ 9,031	-5%	$ 1,157	$ 1,153	—%
Building Solutions EMEA/LA	3,440	3,655	-6%	338	368	-8%
Building Solutions Asia Pacific	2,403	2,658	-10%	319	341	-6%
Global Products	7,869	8,624	-9%	1,134	1,179	-4%
	$ 22,317	$ 23,968	-7%	$ 2,948	$ 3,041	-3%

Net Sales:

- The decrease in Building Solutions North America was due to lower volumes ($414 million) and the unfavorable impact of foreign currency translation ($12 million). The decrease in volumes was primarily attributable to the unfavorable impact of the COVID-19 pandemic.
- The decrease in Building Solutions EMEA/LA was primarily attributable to lower volumes ($151 million), the unfavorable impact of foreign currency translation ($96 million) and business divestitures ($6 million), partially offset by incremental sales related to business acquisitions ($38 million). The decrease in volumes was primarily attributable to the unfavorable impact of the COVID-19 pandemic.
- The decrease in Building Solutions Asia Pacific was due to lower volumes ($232 million) and the unfavorable impact of foreign currency translation ($31 million), partially offset by incremental sales related to a business acquisition ($8 million). The decrease in volumes was primarily attributable to the unfavorable impact of the COVID-19 pandemic.
- The decrease in Global Products was due to lower volumes ($746 million), the unfavorable impact of foreign currency translation ($11 million) and lower volumes related to business divestitures ($5 million), partially offset by incremental sales related to business acquisitions ($7 million). The decrease in volumes was primarily attributable to the unfavorable impact of the COVID-19 pandemic.

Segment EBITA:

- The increase in Building Solutions North America was due to prior year integration costs ($26 million), partially offset by current year integration costs ($11 million), unfavorable volumes, net of productivity savings and cost mitigation actions ($10 million), and the unfavorable impact of foreign currency translation ($1 million).
- The decrease in Building Solutions EMEA/LA was due to the unfavorable impact of foreign currency translation ($17 million), unfavorable volumes, net of productivity savings and cost mitigation actions ($14 million), lower equity income ($7 million), current year integration costs ($2 million) and lower income due to business divestitures ($1 million), partially offset by higher income due to business acquisitions ($7 million) and prior year integration costs ($4 million).
- The decrease in Building Solutions Asia Pacific was due to unfavorable volumes, net of productivity savings and cost mitigation actions ($18 million), and current year integration costs ($7 million), partially offset by prior year integration costs ($2 million) and higher income due to business acquisitions ($1 million).
- The decrease in Global Products was due to unfavorable volumes, net of favorable price/cost, productivity savings and cost mitigation actions ($143 million), a compensation charge related to a noncontrolling interest acquisition ($39 million), current year integration costs ($13 million), lower equity income driven primarily by the unfavorable impact

of COVID-19 ($12 million), the unfavorable impact of foreign currency translation ($5 million), lower income due to business acquisitions ($2 million) and lower income due to business divestitures ($1 million), partially offset by a prior year environmental charge ($140 million) and prior year integration costs ($30 million).

LIQUIDITY AND CAPITAL RESOURCES

Working Capital

(in millions)	September 30, 2020	September 30, 2019	Change
Current assets	$ 10,053	$ 12,393	
Current liabilities	(8,248)	(9,070)	
	1,805	3,323	-46%
Less: Cash	(1,951)	(2,805)	
Add: Short-term debt	31	10	
Add: Current portion of long-term debt	262	501	
Less: Assets held for sale	—	(98)	
Add: Liabilities held for sale	—	44	
Working capital (as defined)	$ 147	$ 975	-85%
Accounts receivable	$ 5,294	$ 5,770	-8%
Inventories	1,773	1,814	-2%
Accounts payable	3,120	3,582	-13%

- 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 September 30, 2020 as compared to September 30, 2019, was primarily due to lower income tax assets, a decrease in accounts receivable, and the establishment of an operating lease liability on the balance sheet in the first quarter of fiscal 2020 as a result of the adoption of Accounting Standards Codification ("ASC") 842, partially offset by a decrease in accounts payable due to lower spending and a decrease in accrued compensation and benefits liabilities.

- The Company's days sales in accounts receivable at September 30, 2020 were 63, a decrease from 67 at September 30, 2019. There has been no significant adverse change in the level of overdue receivables or significant changes in revenue recognition methods.

- The Company's inventory turns for the year ended September 30, 2020 were higher than the comparable period ended September 30, 2019 primarily due to changes in inventory production levels.

- Days in accounts payable at September 30, 2020 were 69 days, a decrease from 72 days for the comparable period ended September 30, 2019.

Cash Flows From Continuing Operations

	Year Ended September 30,	
(in millions)	2020	2019
Cash provided by operating activities	$ 2,479	$ 1,743
Cash used by investing activities	(258)	(533)
Cash used by financing activities	(2,824)	(10,519)

- The increase in cash provided by operating activities was primarily due to the timing of income tax payments/refunds and favorable changes in accounts receivable, partially offset by unfavorable changes in accounts payable and accrued liabilities.

- The decrease in cash used by investing activities was primarily due to lower capital expenditures and higher cash proceeds from business divestitures and the sale of property, plant & equipment.

- The decrease in cash used by financing activities was primarily due to lower stock repurchases, higher long-term debt borrowings, net of repayments, and lower short-term debt repayments.

Capitalization

(in millions)	September 30, 2020	September 30, 2019	Change
Short-term debt	$ 31	$ 10	
Current portion of long-term debt	262	501	
Long-term debt	7,526	6,708	
Total debt	$ 7,819	$ 7,219	8%
Less: cash and cash equivalents	1,951	2,805	
Total net debt	$ 5,868	$ 4,414	33%
Shareholders' equity attributable to Johnson Controls ordinary shareholders	17,447	19,766	-12%
Total capitalization	$ 23,315	$ 24,180	-4%
Total net debt as a % of total capitalization	25.2 %	18.3 %	

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

- The Company believes its capital resources and liquidity position at September 30, 2020 are adequate to meet projected needs. The Company believes requirements for working capital, capital expenditures, dividends, stock repurchases, minimum pension contributions, debt maturities and any potential acquisitions in fiscal 2021 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 revolving credit facility which expires in December 2020. There were no draws on the revolving credit facilities as of September 30, 2020 and 2019. The Company also selectively makes use of short-term credit lines other than its revolving credit facility. The Company, as of September 30, 2020, could borrow up to $3.0 billion based on committed credit lines. In addition, the Company held cash and cash equivalents of $2.0 billion as of September 30, 2020. As such, the Company believes it has sufficient financial resources to fund operations and meet its obligations for the foreseeable future.

- In September 2020, the Company issued $1.8 billion of senior notes, which includes $625 million of green bonds with an interest rate of 1.750% which are due in 2030, €500 million with an interest rate of 0.375% which are due in 2027 and €500 million with an interest rate of 1.000% which are due in 2032. Portions of the issuance proceeds were used to repay €750 million of notes which were due in December 2020 and debt which was issued in April 2020, including $675 million of European financing arrangements which were due in September 2020 and $275 million of bank term loans which were due in April 2021. In July 2020, the Company repaid $300 million of a bank term loan that was issued in April 2020. In March 2020, the Company retired $500 million in principal amount, plus accrued interest, of its 5.0% fixed rate notes that expired in March 2020.

- 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 ASC 715-60, "Defined Benefit Plans - Other Postretirement," or (ii) the cumulative foreign currency translation adjustment. As of September 30, 2020, the Company was in compliance with all covenants and other requirements set forth in its credit agreements and the indentures, governing its notes, and expect to remain in compliance for the foreseeable future. None of the Company's debt agreements limit access to stated borrowing levels or require accelerated repayment in the event of a decrease in the Company's credit rating.

- The 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. However, in fiscal 2019, the Company provided income tax expense related to a change in the Company's assertion over the outside basis differences of the Company's investment in certain subsidiaries as a result of the planned divestiture of the Power Solutions business. Also, in fiscal 2018, due to U.S. Tax Reform, the Company provided income tax related to the change in the Company's assertion over the outside basis difference of certain non-U.S. subsidiaries owned directly or indirectly by U.S. subsidiaries. Under U.S. Tax Reform, the U.S. has enacted a tax system that provides an exemption for dividends received by U.S. corporations from 10% or more owned non-U.S. corporations. However, certain non-U.S., U.S. state and withholding taxes may still apply when closing an outside basis difference via distribution or other transactions. The Company currently does not intend nor foresee a need to repatriate undistributed earnings included in the outside basis differences other than in tax efficient manners. Except as noted, the Company's intent is to reduce basis differences only when it would be tax efficient. The Company expects existing U.S. cash and liquidity to continue to be sufficient to fund the Company's U.S. operating activities and cash commitments for investing and financing activities for at least the next twelve months and thereafter for the foreseeable future. In 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.

- 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 and asset impairments 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 2020, the Company recorded $297 million of costs resulting from the 2020 restructuring plan. The Company currently estimates that upon completion of the restructuring action, the fiscal 2020 restructuring plans will reduce annual operating costs for continuing operations by approximately $430 million. The Company expects the annual benefit of these actions will be substantially realized in 2021. For fiscal 2020, the savings, net of execution costs, were approximately 30% of the expected annual operating cost reduction. The restructuring action is expected to be substantially complete in fiscal 2021. The Company has outstanding restructuring reserves of $108 million at September 30, 2020, all of which is expected to be paid in cash.

  – In fiscal 2018, the Company recorded $255 million of costs resulting from the 2018 restructuring plan. The Company currently estimates that upon completion of the restructuring action, the fiscal 2018 restructuring plan will reduce annual operating costs for continuing operations by approximately $300 million. The annual restructuring activities are substantially completed, and final payments are expected to be made in fiscal 2021. The Company has outstanding restructuring reserves of $30 million at September 30, 2020, all of which is expected to be paid in cash.

  – In fiscal 2017, the Company recorded $347 million of costs resulting from the 2017 restructuring plan. The Company currently estimates that upon completion of the restructuring action, the fiscal 2017 restructuring plan will reduce annual operating costs for continuing operations by approximately $260 million. The annual restructuring activities are substantially completed, and final payments are expected to be made in fiscal 2021. The Company has outstanding restructuring reserves of $6 million at September 30, 2020, all of which is expected to be paid in cash.

- Refer to Note 9, "Debt and Financing Arrangements," of the notes to consolidated financial statements for additional information on items impacting capitalization.

Co-Issued Securities: Summarized Financial Information

The following information is provided in compliance with Rule 13-01 of Regulation S-X under the Securities Exchange Act of 1934 with respect to the (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”) and (iii) €500 million aggregate principal amount of 1.000% Senior Notes due 2032 (the “2032 Notes” and together with 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”). Refer to Note 9, "Debt and Financing Arrangements," of the notes to consolidated financial statements for additional information.

TFSCA is a wholly-owned consolidated subsidiary of the Company that is 99.996% owned directly by the Parent Company and 0.004% 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 for the year ended September 30, 2020 (in millions):

	Year Ended September 30, 2020
Net sales	$ —
Gross profit	—
Loss from continuing operations	(450)
Net loss	(450)
Income attributable to noncontrolling interests	—
Net loss attributable to the entity	(450)

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

	Year Ended September 30, 2020
Net sales	$ —
Gross profit	—
Income from continuing operations	702
Net income	702
Income attributable to noncontrolling interests	—
Net income attributable to the entity	702

The following table presents summarized balance sheet information as of September 30, 2020 (in millions):

	September 30, 2020
Current assets	$ 522
Noncurrent assets	318
Current liabilities	7,612
Noncurrent liabilities	7,258
Noncontrolling interests	—

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

	September 30, 2020
Current assets	$ 838
Noncurrent assets	7,338
Current liabilities	2,724
Noncurrent liabilities	3,406
Noncontrolling interests	—

The same accounting policies as described in Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements are used by the Parent Company and each of its subsidiaries in connection with the summarized financial information presented above.

Contractual Obligations

A summary of the Company’s significant contractual obligations for continuing operations as of September 30, 2020 is as follows (in millions):

	Total	2021	2022 - 2023	2024 - 2025	2026 and Beyond
Contractual Obligations					
Long-term debt*	$ 7,822	$ 262	$ 1,505	$ 1,051	$ 5,004
Interest on long-term debt*	3,814	213	412	364	2,825
Operating leases**	1,291	352	470	234	235
Purchase obligations	1,087	911	102	63	11
Pension and postretirement contributions	388	49	67	70	202
Total contractual cash obligations	$ 14,402	$ 1,787	$ 2,556	$ 1,782	$ 8,277

* Refer to Note 9, "Debt and Financing Arrangements," of the notes to consolidated financial statements for information related to the Company's long-term debt.

** Refer to Note 8, "Leases," of the notes to consolidated financial statements for information related to the Company's leases.

CRITICAL ACCOUNTING ESTIMATES AND POLICIES

The Company prepares its consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). This requires management to make estimates and assumptions that affect reported amounts and related disclosures. Actual results could differ from those estimates. The following policies are considered by management to be the most critical in understanding the judgments that are involved in the preparation of the Company's consolidated financial statements and the uncertainties that could impact the Company's results of operations, financial position and cash flows.

Revenue Recognition

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

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

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

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

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

Shipping and handling costs billed to customers are included in sales and the related costs are included in cost of sales when control transfers to the customer. The Company presents amounts collected from customers for sales and other taxes net of the related amounts remitted. Refer to Note 4, "Revenue Recognition," of the notes to consolidated financial statements for disclosure of the Company's revenue recognition activity.

Goodwill and Indefinite-Lived Intangible Assets

Goodwill reflects the cost of an acquisition in excess of the fair values assigned to identifiable net assets acquired. 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. The Company performs impairment reviews for its reporting units, which have been determined to be the Company’s reportable segments or one level below the reportable segments in certain instances, using a fair value method based on management’s judgments and assumptions or third party valuations. The fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. In estimating the fair value, the Company uses multiples of earnings based on the average of published multiples of earnings of comparable entities with similar operations and economic characteristics and applies to the Company's average of historical and future financial results. In certain instances, the Company uses discounted cash flow analyses or estimated sales price to further support the fair value estimates. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." The estimated fair value is then compared with the carrying amount of the reporting unit, including recorded goodwill. The Company is subject to financial statement risk to the extent that the carrying amount exceeds the estimated fair value. The assumptions included in the impairment tests require judgment, and changes to these inputs could impact the results of the calculations. The primary assumptions used in the impairment tests were management's projections of future cash flows. Although the Company's cash flow forecasts are based on assumptions that are considered reasonable by management and consistent with the plans and estimates management is using to operate the underlying businesses, there are significant judgments in determining the expected future cash flows attributable to a reporting unit. Refer to Note 7, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for information regarding the goodwill impairment testing performed in fiscal years 2020, 2019 and 2018.

Indefinite-lived intangible assets are also subject to at least annual impairment testing. Indefinite-lived intangible assets primarily consist of trademarks and trade names and are tested for impairment using a relief-from-royalty method. A considerable amount of management judgment and assumptions are required in performing the impairment tests. The key assumptions used in the impairment tests were long-term revenue growth projections, discount rates and general industry, market and macro-economic conditions.

While the Company believes the judgments and assumptions used in the impairment tests are reasonable, different assumptions could change the estimated fair values and, therefore, future impairment charges could be required, which could be material to the consolidated financial statements.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including tangible assets and other intangible assets with definitive lives, for impairment whenever events or changes in circumstances indicate that the asset’s carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets," ASC 350-30, "General Intangibles Other than Goodwill" and ASC 985-20, "Costs of Software to be Sold, Leased, or Marketed." ASC 360-10-15 requires the Company to group assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and evaluate the asset group against the sum of the undiscounted future cash flows. If the undiscounted cash flows do not indicate the carrying amount of the asset group is recoverable, an impairment charge is measured as the amount by which the carrying amount of the asset group exceeds its fair value based on discounted cash flow analysis or appraisals. ASC 350-30 requires intangible assets acquired in a business combination that are used in research and development activities be considered indefinite lived until the completion or abandonment of the associated research and development efforts. During the period that those assets are considered indefinite lived, they shall not be amortized but shall be tested for impairment annually and more frequently if events or changes in circumstances indicate that it is more likely than not that the asset is impaired. If the carrying amount of an intangible asset exceeds its fair value, an entity shall recognize an impairment loss in an amount equal to that excess. ASC 985-20 requires the unamortized capitalized costs of a computer software product be compared to the net realizable value of that product. The amount by which the unamortized capitalized costs of a computer software product exceed the net realizable value of that asset shall be written off. Refer to Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for information regarding the impairment testing performed in fiscal years 2020, 2019 and 2018.

Employee Benefit Plans

The Company provides a range of benefits to its employees and retired employees, including pensions and postretirement benefits. Plan assets and obligations are measured annually, or more frequently if there is a significant remeasurement event, based on the Company’s measurement date utilizing various actuarial assumptions such as discount rates, assumed rates of return, compensation increases, turnover rates and health care cost trend rates as of that date. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when appropriate.

The Company utilizes a mark-to-market approach for recognizing pension and postretirement benefit expenses, including measuring the market related value of plan assets at fair value and recognizing actuarial gains and losses in the fourth quarter of each fiscal year or at the date of a remeasurement event. Refer to Note 15, "Retirement Plans," of the notes to consolidated financial statements for disclosure of the Company's pension and postretirement benefit plans.

U.S. GAAP requires that companies recognize in the statement of financial position a liability for defined benefit pension and postretirement plans that are underfunded or unfunded, or an asset for defined benefit pension and postretirement plans that are over funded. U.S. GAAP also requires that companies measure the benefit obligations and fair value of plan assets that determine a benefit plan's funded status as of the date of the employer's fiscal year end.

The Company considers the expected benefit payments on a plan-by-plan basis when setting assumed discount rates. As a result, the Company uses different discount rates for each plan depending on the plan jurisdiction, the demographics of participants and the expected timing of benefit payments. For the U.S. pension and postretirement plans, the Company uses a discount rate provided by an independent third party calculated based on an appropriate mix of high quality bonds. For the non-U.S. pension and postretirement plans, the Company consistently uses the relevant country specific benchmark indices for determining the various discount rates. The Company's weighted average discount rate on U.S. pension plans was 2.25% and 2.95% at September 30, 2020 and 2019, respectively. The Company's weighted average discount rate on postretirement plans was 1.90% and 2.65% at September 30, 2020 and 2019, respectively. The Company's weighted average discount rate on non-U.S. pension plans was 1.35% and 1.50% at September 30, 2020 and 2019, respectively.

In estimating the expected return on plan assets, the Company considers the historical returns on plan assets, adjusted for forward-looking considerations, inflation assumptions and the impact of the active management of the plans' invested assets. Reflecting the relatively long-term nature of the plans' obligations, approximately 27% of the plans' assets are invested in equity securities and 63% in fixed income securities, with the remainder primarily invested in alternative investments. For the years ending September 30, 2020 and 2019, the Company's expected long-term return on U.S. pension plan assets used to determine net periodic benefit cost was 6.90% and 7.10%, respectively. The actual rate of return on U.S. pension plans was above 6.90% in fiscal year 2020 and above 7.10% in fiscal year 2019. For the years ending September 30, 2020 and 2019, the Company's weighted average expected long-term return on non-U.S. pension plan assets was 5.20% and 5.20%, respectively. The actual rate of return on non-U.S. pension plans was below 5.20% in fiscal year 2020 and above 5.20% in fiscal year 2019. For the years ending September 30, 2020 and 2019, the Company's weighted average expected long-term return on postretirement plan assets was 5.70% and 5.65%, respectively. The actual rate of return on postretirement plan assets was below 5.70% in fiscal year 2020 and below 5.65% in fiscal year 2019.

Beginning in fiscal 2021, the Company believes the long-term rate of return will approximate 6.50%, 4.90% and 5.30% for U.S. pension, non-U.S. pension and postretirement plans, respectively. Any differences between actual investment results and the expected long-term asset returns will be reflected in net periodic benefit costs in the fourth quarter of each fiscal year or at the date of a significant remeasurement event. If the Company's actual returns on plan assets are less than the Company's expectations, additional contributions may be required.

In fiscal 2020, total employer contributions for continuing operations to the defined benefit pension plans were $58 million, none of which were voluntary contributions made by the Company. The Company expects to contribute approximately $46 million in cash to its defined benefit pension plans in fiscal 2021. In fiscal 2020, total employer contributions for continuing operations to the postretirement plans were $3 million. The Company expects to contribute approximately $3 million in cash to its postretirement plans in fiscal 2021.

Based on information provided by its independent actuaries and other relevant sources, the Company believes that the assumptions used are reasonable; however, changes in these assumptions could impact the Company's financial position, results of operations or cash flows.

Loss Contingencies

Accruals are recorded for various contingencies including legal proceedings, environmental matters, self-insurance and other claims that arise in the normal course of business. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of internal and/or external legal counsel and actuarially determined estimates. Additionally, the Company records receivables from third party insurers when recovery has been determined to be probable.

The Company is subject to laws and regulations relating to protecting the environment. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. Refer to Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements.

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 records receivables from third party insurers when recovery has been determined to be probable. The Company maintains captive insurance companies to manage its insurable liabilities.

Asbestos-Related Contingencies and Insurance Receivables

The Company and certain of its subsidiaries along with numerous other companies are named as defendants in personal injury lawsuits based on alleged exposure to asbestos-containing materials. The Company's estimate of the liability and corresponding insurance recovery for pending and future claims and defense costs is based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present value from 2068 (which is the Company's reasonable best estimate of the actuarially determined time period through which asbestos-related claims will be filed against Company affiliates). Asbestos-related defense costs are included in the asbestos liability. The Company's legal strategy for resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. 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.

In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable. The Company's estimate of asbestos-related insurance recoveries represents estimated amounts due to the Company for previously paid and settled claims and the probable reimbursements relating to its estimated liability for pending and future claims discounted to present value. In determining the amount of insurance recoverable, the Company considers available insurance, allocation methodologies, solvency and creditworthiness of the insurers. Refer to Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for a discussion on management's judgments applied in the recognition and measurement of asbestos-related assets and liabilities.

Income Taxes

The Company accounts for income taxes in accordance with ASC 740, "Income Taxes." Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and other loss carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The Company records a valuation allowance that primarily represents non-U.S. operating and other loss carryforwards for which realization is uncertain. Management judgment is required in determining the Company’s provision for income taxes, deferred tax assets and liabilities, and the valuation allowance recorded against the Company’s net deferred tax assets. In calculating the provision for income taxes on an interim basis, 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 the actual results as compared to those forecasted at the beginning of the fiscal year.

The Company reviews the realizability of its deferred tax asset valuation allowances 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. At September 30, 2020, the Company had a valuation allowance of $5.5 billion for continuing operations, of which $5.3 billion relates to net operating loss carryforwards primarily in France, Germany, Ireland, Luxembourg, Spain, United Kingdom and the U.S. for which sustainable taxable income has not been demonstrated; and $0.2 billion for other deferred tax assets.

The Company's federal income tax returns and certain non-U.S. income tax returns for various fiscal years remain under various stages of audit by the IRS and respective non-U.S. tax authorities. Although the outcome of tax audits is always uncertain, management believes that it has appropriate support for the positions taken on its tax returns and that its annual tax provisions included amounts sufficient to pay assessments, if any, which may be proposed by the taxing authorities. At September 30, 2020, the Company had recorded a liability of $2.5 billion for its best estimate of the probable loss on certain of its tax positions, the majority of which is included in other noncurrent liabilities in the consolidated statements of financial position. Nonetheless, the amounts ultimately paid, if any, upon resolution of the issues raised by the taxing authorities may differ materially from the amounts accrued for each year.

The Company does not generally provide additional U.S. or non-U.S. income taxes on outside basis differences of consolidated subsidiaries included in shareholders' equity attributable to Johnson Controls International plc, except in limited circumstances including anticipated taxation on planned divestitures. The reduction of the outside basis differences via the sale or liquidation of these subsidiaries and/or distributions could create taxable income. The Company's intent is to reduce the outside basis differences only when it would be tax efficient. Refer to "Capitalization" within the "Liquidity and Capital Resources" section for discussion of U.S. and non-U.S. cash projections.

Refer to Note 18, "Income Taxes," of the notes to consolidated financial statements for the Company's income tax disclosures.

NEW ACCOUNTING PRONOUNCEMENTS

Refer to the "New Accounting Pronouncements" section within Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements.

RISK MANAGEMENT

The Company selectively uses derivative instruments to reduce market risk associated with changes in foreign currency, commodities and stock-based compensation. All hedging transactions are authorized and executed pursuant to clearly defined policies and procedures, which strictly prohibit the use of financial instruments for speculative purposes. At the inception of the hedge, the Company assesses the effectiveness of the hedge instrument and designates the hedge instrument as either (1) a hedge of a recognized asset or liability or of a recognized firm commitment (a fair value hedge), (2) a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to an unrecognized asset or liability (a cash flow hedge) or (3) a hedge of a net investment in a non-U.S. operation (a net investment hedge). The Company performs hedge effectiveness testing on an ongoing basis depending on the type of hedging instrument used. All other derivatives not designated as hedging instruments under ASC 815, "Derivatives and Hedging," are revalued in the consolidated statements of income.

For all foreign currency derivative instruments designated as cash flow hedges, retrospective effectiveness is tested on a monthly basis using a cumulative dollar offset test. The fair value of the hedged exposures and the fair value of the hedge instruments are revalued, and the ratio of the cumulative sum of the periodic changes in the value of the hedge instruments to the cumulative sum of the periodic changes in the value of the hedge is calculated. The hedge is deemed as highly effective if the ratio is between 80% and 125%. For commodity derivative contracts designated as cash flow hedges, effectiveness is tested using a regression calculation. Ineffectiveness is minimal as the Company aligns most of the critical terms of its derivatives with the supply contracts.

For net investment hedges, the Company assesses its net investment positions in the non-U.S. operations and compares it with the outstanding net investment hedges on a quarterly basis. The hedge is deemed effective if the aggregate outstanding principal of the hedge instruments designated as the net investment hedge in a non-U.S. operation does not exceed the Company's net investment positions in the respective non-U.S. operation.

Equity swaps and any other derivative instruments not designated as hedging instruments under ASC 815 require no assessment of effectiveness.

A discussion of the Company's accounting policies for derivative financial instruments is included in Note 1, "Summary of Significant Accounting Policies," of the notes to consolidated financial statements, and further disclosure relating to derivatives and hedging activities is included in Note 10, "Derivative Instruments and Hedging Activities," and Note 11, "Fair Value Measurements," of the notes to consolidated financial statements.

Foreign Exchange

The Company has manufacturing, sales and distribution facilities around the world and thus makes investments and enters into transactions denominated in various foreign currencies. In order to maintain strict control and achieve the benefits of the Company's global diversification, foreign exchange exposures for each currency are netted internally so that only its net foreign exchange exposures are, as appropriate, hedged with financial instruments.

The Company hedges 70% to 90% of the nominal amount of each of its known foreign exchange transactional exposures. The Company primarily enters into foreign currency exchange contracts to reduce the earnings and cash flow impact of the variation of non-functional currency denominated receivables and payables. Gains and losses resulting from hedging instruments offset the foreign exchange gains or losses on the underlying assets and liabilities being hedged. The maturities of the forward exchange contracts generally coincide with the settlement dates of the related transactions. Realized and unrealized gains and losses on these contracts are recognized in the same period as gains and losses on the hedged items. The Company also selectively hedges anticipated transactions that are subject to foreign exchange exposure, primarily with foreign currency exchange contracts, which are designated as cash flow hedges in accordance with ASC 815.

The Company has entered into foreign currency denominated debt obligations to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effects of debt obligations are reflected in the accumulated other comprehensive income ("AOCI") account within shareholders' equity attributable to Johnson Controls ordinary shareholders where they offset gains and losses recorded on the Company's net investments globally.

At September 30, 2020 and 2019, the Company estimates that an unfavorable 10% change in the exchange rates would have decreased net unrealized gains by approximately $363 million and $358 million, respectively.

Interest Rates

Substantially all of the Company's outstanding debt has fixed interest rates. A 10% increase in the average cost of the Company's variable rate debt would have had an immaterial impact on pre-tax interest expense for the year ended September 30, 2020 and 2019.

Commodities

The Company uses commodity hedge contracts in the financial derivatives market in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. As a cash flow hedge, gains and losses resulting from the hedging instruments offset the gains or losses on purchases of the underlying commodities that will be used in the business. The maturities of the commodity hedge contracts coincide with the expected purchase of the commodities.

ENVIRONMENTAL, HEALTH AND SAFETY AND OTHER MATTERS

The Company's global operations are governed by environmental laws and worker safety laws. Under various circumstances, these laws impose civil and criminal penalties and fines, as well as injunctive and remedial relief, for noncompliance and require remediation at sites where Company-related substances have been released into the environment.

The Company has expended substantial resources globally, both financial and managerial, to comply with applicable environmental laws and worker safety laws and to protect the environment and workers. The Company believes it is in substantial compliance with such laws and maintains procedures designed to foster and ensure compliance. However, the Company has been, and in the future may become, the subject of formal or informal enforcement actions or proceedings regarding noncompliance with such laws or the remediation of Company-related substances released into the environment. Such matters typically are resolved with regulatory authorities through commitments to compliance, abatement or remediation programs and in some cases payment of penalties. Historically, neither such commitments nor penalties imposed on the Company have been material.

Refer to Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for additional information.

QUARTERLY FINANCIAL DATA

(in millions, except per share data) (quarterly amounts unaudited)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
2020					
Net sales	$ 5,576	$ 5,444	$ 5,343	$ 5,954	$ 22,317
Gross profit	1,803	1,801	1,832	1,975	7,411
Net income (loss) (1)	191	236	(122)	490	795
Net income (loss) attributable to Johnson Controls	159	213	(182)	441	631
Earnings (loss) per share (2)					
Basic	0.21	0.28	(0.24)	0.60	0.84
Diluted	0.21	0.28	(0.24)	0.60	0.84
2019					
Net sales	$ 5,464	$ 5,779	$ 6,451	$ 6,274	$ 23,968
Gross profit	1,725	1,844	2,144	1,980	7,693
Net income (3)	399	558	4,276	654	5,887
Net income attributable to Johnson Controls	355	515	4,192	612	5,674
Earnings per share (2)					
Basic	0.39	0.57	4.81	0.78	6.52
Diluted	0.38	0.57	4.79	0.77	6.49

(1) The fiscal 2020 first quarter net income includes $39 million of integration costs, $10 million of mark-to-market gains, and $111 million of restructuring and impairment costs. The fiscal 2020 second quarter net income includes $38 million of integration costs, $32 million of mark-to-market losses, and $62 million of restructuring and impairment costs. The fiscal 2020 third quarter net income includes $30 million of integration costs, $132 million of mark-to-market losses, and $610 million of restructuring and impairment costs. The fiscal 2020 fourth quarter net income includes $28 million of integration costs, $120 million of mark-to-market losses, and $39 million of a compensation charge related to a noncontrolling interest acquisition. The preceding amounts are stated on a pre-tax and pre-noncontrolling interest impact basis.

(2) Due to the use of the weighted-average shares outstanding for each quarter for computing earnings per share, the sum of the quarterly per share amounts may not equal the per share amount for the year.

(3) The fiscal 2019 first quarter net income includes $50 million of transaction and integration costs and $21 million of mark-to-market losses. The fiscal 2019 second quarter net income includes $70 million of transaction and integration costs and $20 million of mark-to-market gains. The fiscal 2019 third quarter net income includes a $5.2 billion gain on sale of the Power Solutions business, net of transaction and other costs, $235 million of restructuring and impairment costs, $226 million of tax indemnification reserve release, $140 million of environmental charge, $86 million of transaction and integration costs, $60 million of loss on debt extinguishment and $9 million of mark-to-market gains. The fiscal 2019 fourth quarter net income includes $626 million of net mark-to-market losses and $111 million of transaction and integration costs. The preceding amounts are stated on a pre-tax and pre-noncontrolling interest impact basis and include both continuing and discontinued operations activity.

ITEM 7A QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

See "Risk Management" included in Item 7 - Management’s Discussion and Analysis of Financial Condition and Results of Operations.

ITEM 8 FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Johnson Controls International plc

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statements of financial position of Johnson Controls International plc and its subsidiaries (the "Company") as of September 30, 2020 and 2019, and the related consolidated statements of income, of comprehensive income (loss), of shareholders' equity attributable to Johnson Controls ordinary shareholders, and of cash flows for each of the three years in the period ended September 30, 2020, including the related notes and financial statement schedule listed in the accompanying index (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of September 30, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of September 30, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of September 30, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for leases as of October 1, 2019.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Goodwill Impairment Assessment

As described in Note 7 to the consolidated financial statements, the Company's consolidated goodwill balance was $17,932 million as of September 30, 2020. Management reviews goodwill for impairment during the fourth fiscal quarter or more frequently if events or changes in circumstances indicate the asset might be impaired. Management considered the ongoing deterioration in general economic and market conditions due to the COVID-19 pandemic and its impact on each of the Company's reporting units' performance. Due to further declines in cash flow projections of the North America Retail reporting unit in the third quarter of fiscal 2020 as a result of the COVID-19 pandemic, management concluded a triggering event occurred requiring assessment of impairment for its North America Retail reporting unit. As a result, management recorded a non-cash impairment charge of $424 million in the third quarter of fiscal 2020. Management reviewed the goodwill of all reporting units for the fiscal 2020 annual impairment test in the fourth quarter, and there were no additional impairments recorded. Management performs impairment reviews for its reporting units using a fair value method based on management's judgments and assumptions. The estimated fair value is then compared with the carrying amount of each reporting unit, including recorded goodwill. In estimating the fair value of the reporting units, management uses multiples of earnings based on the average of published multiples of earnings of comparable entities with similar operations and economic characteristics and applies the multiples to the Company's average of historical and future financial results for each reporting unit. In certain instances, management uses discounted cash flow analyses to further support the fair value estimates, whereby other than management's internal projections of future cash flows, the primary assumptions were the weighted-average cost of capital and long-term growth rates.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment is a critical audit matter are the significant judgment by management when developing the fair value of each reporting unit; this, in turn, led to a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions relating to (i) the multiples of earnings of comparable entities with similar operations and economic characteristics when using the multiples of earnings approach and (ii) the revenue growth rates included in the internal projections of future cash flows, discount rates used in the weighted-average cost of capital and long-term growth rates when using discounted cash flow analyses. In addition, the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the fair value of the Company's reporting units. These procedures also included, among others, (i) testing management's process for developing the fair value estimates, (ii) evaluating the appropriateness of the multiples of earnings model and the discounted cash flow model, as applicable, (iii) testing the completeness, accuracy, and relevance of underlying data used in the models, and (iv) evaluating the significant assumptions used by management related to the multiples of earnings of comparable entities with similar operations and economic characteristics, revenue growth rates, discount rates and long-term growth rates. In those instances where management used a multiples of earnings approach, evaluating management's assumption related to the identification of appropriate comparable entities with similar operations and economic characteristics used to determine the multiples of earnings of each reporting unit involved evaluating whether the assumption used by management was reasonable considering (i) current and past financial performance of the reporting units, (ii) external market, industry and macroeconomic data, and (iii) whether the assumption was consistent with evidence obtained in other areas of the audit. In those instances where management used discounted cash flow analyses, evaluating management's assumptions related to the revenue growth rates, discount rates and long-term growth rates involved evaluating whether the assumptions used by management were reasonable considering (i) current and past financial performance of the reporting units, (ii) external market, industry and macroeconomic data, and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of management's fair value models and management's significant assumptions related to the multiples of earnings of comparable entities with similar operations and economic characteristics, discount rates used in the weighted-average cost of capital, and long-term growth rates.

Uncertain Tax Positions

As described in Note 18 to the consolidated financial statements, the Company recorded uncertain tax position liabilities totaling $2,528 million, primarily as a non-current liability, as of September 30, 2020. The Company is subject to income taxes in the U.S. and numerous foreign jurisdictions. Judgment is required by management in determining the Company's worldwide provision for income taxes and recording the related income tax assets and liabilities. In the ordinary course of the Company's business, there are many transactions and calculations where the ultimate tax determination is uncertain. As disclosed by management, a liability for the best estimate of the probable loss on certain of the tax positions has been recorded by management. The Company's income tax filings are regularly under audit by tax authorities. The amounts ultimately paid, if any, upon resolution of the issues raised by the taxing authorities may differ materially from the amounts accrued for each year.

The principal considerations for our determination that performing procedures relating to uncertain tax positions is a critical audit matter are (i) the significant judgment by management in identifying and recording the estimated probable loss for each uncertain tax position; this, in turn, led to a high degree of auditor judgment, subjectivity, and effort in performing procedures to evaluate the timely identification and accurate measurement of uncertain tax positions, (ii) the evaluation of audit evidence available to support the tax liabilities for uncertain tax positions is complex and resulted in significant auditor judgment as the nature of the evidence is often highly subjective, and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's assessment of uncertain tax positions, including controls over the identification and estimate of probable loss for uncertain tax positions. These procedures also included, among others, (i) for a sample of uncertain tax positions by jurisdiction, testing the information used in the calculation of the estimate of probable loss and testing the calculation of the estimate of probable loss, (ii) testing the completeness of management's assessment of the identification of uncertain tax positions, and (iii) evaluating the status and results of income tax audits with the relevant tax authorities, as applicable. Professionals with specialized skill and knowledge were used to assist in the evaluation of the completeness and measurement of the Company's uncertain tax positions, including evaluating the reasonableness of management's assessment of whether tax positions are more-likely-than-not of being sustained and the amount of potential benefit to be realized, and the application of relevant tax laws.

/s/ PricewaterhouseCoopers LLP
Milwaukee, Wisconsin
November 16, 2020

We have served as the Company's auditor since 1957.

Johnson Controls International plc
Consolidated Statements of Income

(in millions, except per share data)	**Year Ended September 30, 2020**	**2019**	**2018**
Net sales			
Products and systems	$ 16,253	$ 17,711	$ 17,332
Services	6,064	6,257	6,068
	22,317	23,968	23,400
Cost of sales			
Products and systems	11,401	12,577	12,315
Services	3,505	3,698	3,418
	14,906	16,275	15,733
Gross profit	7,411	7,693	7,667
Selling, general and administrative expenses	(5,665)	(6,244)	(5,642)
Restructuring and impairment costs	(783)	(235)	(255)
Net financing charges	(231)	(350)	(401)
Equity income	171	192	177
Income from continuing operations before income taxes	903	1,056	1,546
Income tax provision (benefit)	108	(233)	197
Income from continuing operations	795	1,289	1,349
Income from discontinued operations, net of tax (Note 3)	—	4,598	1,034
Net income	795	5,887	2,383
Income from continuing operations attributable to noncontrolling interests	164	189	174
Income from discontinued operations attributable to noncontrolling interests	—	24	47
Net income attributable to Johnson Controls	$ 631	$ 5,674	$ 2,162
Amounts attributable to Johnson Controls ordinary shareholders:			
Income from continuing operations	$ 631	$ 1,100	$ 1,175
Income from discontinued operations	—	4,574	987
Net income	$ 631	$ 5,674	$ 2,162
Basic earnings per share attributable to Johnson Controls			
Continuing operations	$ 0.84	$ 1.26	$ 1.27
Discontinued operations	—	5.26	1.07
Net income	$ 0.84	$ 6.52	$ 2.34
Diluted earnings per share attributable to Johnson Controls			
Continuing operations	$ 0.84	$ 1.26	$ 1.26
Discontinued operations	—	5.23	1.06
Net income	$ 0.84	$ 6.49	$ 2.32

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

Johnson Controls International plc
Consolidated Statements of Comprehensive Income (Loss)

(in millions)	Year Ended September 30, 2020	2019	2018
Net income	$ 795	$ 5,887	$ 2,383
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	25	(342)	(483)
Realized and unrealized gains (losses) on derivatives	8	6	(29)
Realized and unrealized gains on marketable securities	—	—	4
Pension and postretirement plans	8	(6)	—
Other comprehensive income (loss)	41	(342)	(508)
Total comprehensive income	836	5,545	1,875
Comprehensive income attributable to noncontrolling interests	186	195	186
Comprehensive income attributable to Johnson Controls	$ 650	$ 5,350	$ 1,689

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

Johnson Controls International plc
Consolidated Statements of Financial Position

(in millions, except par value and share data)	**September 30, 2020**	**2019**
Assets		
Cash and cash equivalents	$ 1,951	$ 2,805
Accounts receivable, less allowance for doubtful accounts of $173 and $173, respectively	5,294	5,770
Inventories	1,773	1,814
Assets held for sale	—	98
Other current assets	1,035	1,906
Current assets	10,053	12,393
Property, plant and equipment - net	3,059	3,348
Goodwill	17,932	18,178
Other intangible assets - net	5,356	5,632
Investments in partially-owned affiliates	914	853
Noncurrent assets held for sale	147	60
Other noncurrent assets	3,354	1,823
Total assets	$ 40,815	$ 42,287
Liabilities and Equity		
Short-term debt	$ 31	$ 10
Current portion of long-term debt	262	501
Accounts payable	3,120	3,582
Accrued compensation and benefits	838	953
Deferred revenue	1,435	1,407
Liabilities held for sale	—	44
Other current liabilities	2,562	2,573
Current liabilities	8,248	9,070
Long-term debt	7,526	6,708
Pension and postretirement benefits	1,140	1,044
Other noncurrent liabilities	5,368	4,636
Long-term liabilities	14,034	12,388
Commitments and contingencies (Note 22)		
Ordinary shares (par value $0.01; 2.0 billion shares authorized; shares issued: 2020 - 753,907,315; 2019 - 804,495,430)	8	8
Ordinary A shares (par value €1.00; 40,000 shares authorized, none outstanding as of September 30, 2020 and 2019)	—	—
Preferred shares (par value $0.01; 200,000,000 shares authorized, none outstanding as of September 30, 2020 and 2019)	—	—
Ordinary shares held in treasury, at cost (shares held: 2020 - 27,684,632; 2019 - 26,864,793)	(1,119)	(1,086)
Capital in excess of par value	16,865	16,812
Retained earnings	2,469	4,827
Accumulated other comprehensive loss	(776)	(795)
Shareholders' equity attributable to Johnson Controls	17,447	19,766
Noncontrolling interests	1,086	1,063
Total equity	18,533	20,829
Total liabilities and equity	$ 40,815	$ 42,287

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

Johnson Controls International plc
Consolidated Statements of Cash Flows

(in millions)	Year Ended September 30, 2020	2019	2018
Operating Activities of Continuing Operations			
Net income from continuing operations attributable to Johnson Controls	$ 631	$ 1,100	$ 1,175
Income from continuing operations attributable to noncontrolling interests	164	189	174
Net income from continuing operations	795	1,289	1,349
Adjustments to reconcile net income from continuing operations to cash provided by operating activities:			
Depreciation and amortization	822	825	824
Pension and postretirement benefit expense (income)	118	515	(170)
Pension and postretirement contributions	(61)	(53)	(56)
Equity in earnings of partially-owned affiliates, net of dividends received	(36)	(34)	(128)
Deferred income taxes	(537)	612	(739)
Non-cash restructuring and impairment charges	582	235	36
Gain on Scott Safety business divestiture	—	—	(114)
Equity-based compensation	74	95	106
Other - net	(90)	29	(35)
Changes in assets and liabilities, excluding acquisitions and divestitures:			
Accounts receivable	534	(312)	(475)
Inventories	45	(72)	(103)
Other assets	(52)	(99)	(171)
Restructuring reserves	(29)	(121)	1
Accounts payable and accrued liabilities	(717)	56	340
Accrued income taxes	1,031	(1,222)	855
Cash provided by operating activities from continuing operations	2,479	1,743	1,520
Investing Activities of Continuing Operations			
Capital expenditures	(443)	(586)	(645)
Sale of property, plant and equipment	127	27	48
Acquisition of businesses, net of cash acquired	(77)	(25)	(21)
Business divestitures, net of cash divested	135	12	2,202
Changes in long-term investments	—	25	(1)
Proceeds (payments) for equity swap	—	14	(15)
Cash provided (used) by investing activities from continuing operations	(258)	(533)	1,568
Financing Activities of Continuing Operations			
Increase (decrease) in short-term debt - net	(33)	(1,296)	96
Increase in long-term debt	1,804	—	1,136
Repayment of long-term debt	(1,386)	(2,333)	(3,704)
Debt financing costs	(12)	—	(4)
Stock repurchases and retirements	(2,204)	(5,983)	(300)
Payment of cash dividends	(790)	(920)	(954)
Proceeds from the exercise of stock options	75	171	66
Dividends paid to noncontrolling interests	(114)	(132)	(43)
Cash received for prior divestitures	2	4	—
Employee equity-based compensation withholding	(34)	(31)	(42)
Cash paid to acquire a noncontrolling interest	(132)	—	—
Other - net	—	1	—
Cash used by financing activities from continuing operations	(2,824)	(10,519)	(3,749)
Discontinued Operations			
Cash provided (used) by operating activities	(260)	(541)	996
Cash provided (used) by investing activities	—	12,611	(372)
Cash used by financing activities	(113)	(35)	(3)
Cash provided (used) by discontinued operations	(373)	12,035	621
Effect of exchange rate changes on cash, cash equivalents and restricted cash	115	(120)	(106)
Change in cash, cash equivalents and restricted cash held for sale	—	15	14
Increase (decrease) in cash, cash equivalents and restricted cash	(861)	2,621	(132)
Cash, cash equivalents and restricted cash at beginning of period	2,821	200	332
Cash, cash equivalents and restricted cash at end of period	1,960	2,821	200
Less: Restricted cash	9	16	15
Cash and cash equivalents at end of period	$ 1,951	$ 2,805	$ 185

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

Johnson Controls International plc
Consolidated Statements of Shareholders' Equity Attributable to Johnson Controls Ordinary Shareholders

(in millions, except per share data)	Total	Ordinary Shares	Capital in Excess of Par Value	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Income (Loss)
At September 30, 2017	$ 20,447	$ 9	$ 16,390	$ 5,231	$ (710)	$ (473)
Comprehensive income (loss)	1,689	—	—	2,162	—	(473)
Cash dividends						
Ordinary ($1.04 per share)	(968)	—	—	(968)	—	—
Repurchases of ordinary shares	(300)	—	—	—	(300)	—
Adoption of ASU 2016-09	179	—	—	179	—	—
Other, including options exercised	117	1	159	—	(43)	—
At September 30, 2018	21,164	10	16,549	6,604	(1,053)	(946)
Comprehensive income (loss)	5,350	—	—	5,674	—	(324)
Cash dividends						
Ordinary ($1.04 per share)	(887)	—	—	(887)	—	—
Repurchases and retirements of ordinary shares	(5,983)	(2)	—	(5,981)	—	—
Divestiture of Power Solutions	483	—	—	—	—	483
Adoption of ASC 606	(45)	—	—	(45)	—	—
Adoption of ASU 2016-01	—	—	—	8	—	(8)
Adoption of ASU 2016-16	(546)	—	—	(546)	—	—
Other, including options exercised	230	—	263	—	(33)	—
At September 30, 2019	19,766	8	16,812	4,827	(1,086)	(795)
Comprehensive income	650	—	—	631	—	19
Cash dividends						
Ordinary ($1.04 per share)	(780)	—	—	(780)	—	—
Repurchases and retirements of ordinary shares	(2,204)	—	—	(2,204)	—	—
Adoption of ASC 842	(5)	—	—	(5)	—	—
Change in noncontrolling interest share	(83)	—	(83)	—	—	—
Other, including options exercised	103	—	136	—	(33)	—
At September 30, 2020	**$ 17,447**	**$ 8**	**$ 16,865**	**$ 2,469**	**$ (1,119)**	**$ (776)**

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

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements include the consolidated accounts of Johnson Controls International plc, a corporation organized under the laws of Ireland, and its subsidiaries (Johnson Controls International plc and all its subsidiaries, hereinafter collectively referred to as the "Company," "Johnson Controls" or "JCI plc").

Nature of Operations

Johnson Controls International plc, headquartered in Cork, Ireland, is a global diversified technology and multi-industrial leader, serving a wide range of customers in more than 150 countries. The Company's products and solutions enable smart, energy efficient, sustainable buildings that work seamlessly together to advance the safety, comfort and intelligence of spaces to power its customers' mission. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

In 2019, the Company sold its Power Solutions business to BCP Acquisitions LLC ("Purchaser"), an entity controlled by investment funds managed by Brookfield Capital Partners LLC, completing the Company's transformation into a pure-play building technologies and solutions provider. The transaction closed on April 30, 2019 with net cash proceeds of $11.6 billion after tax and transaction-related expenses. Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further information.

The Company is a global leader in engineering, manufacturing and commissioning 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, repair, retrofit and replacement of equipment (in the HVAC, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its digital platforms and capabilities.

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 accounting principles generally accepted in the United States of America ("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.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Fair Value of Financial Instruments

The fair values of cash and cash equivalents, accounts receivable, short-term debt and accounts payable approximate their carrying values. See Note 10, "Derivative Instruments and Hedging Activities," and Note 11, "Fair Value Measurements," of the notes to consolidated financial statements for fair value of financial instruments, including derivative instruments, hedging activities and long-term debt.

Assets and Liabilities Held for Sale

The Company classifies assets and liabilities (disposal groups) to be sold as held for sale in the period in which all of the following criteria are met: management, having the authority to approve the action, commits to a plan to sell the disposal group; the disposal group is available for immediate sale in its present condition subject only to terms that are usual and customary for sales of such disposal groups; an active program to locate a buyer and other actions required to complete the plan to sell the disposal group have been initiated; the sale of the disposal group is probable, and transfer of the disposal group is expected to qualify for recognition as a completed sale within one year, except if events or circumstances beyond the Company's control extend the period of time required to sell the disposal group beyond one year; the disposal group is being actively marketed for sale at a price that is reasonable in relation to its current fair value; and actions required to complete the plan indicate that it is unlikely that significant changes to the plan will be made or that the plan will be withdrawn.

In addition, the Company classifies disposal groups to be disposed of other than by sale (e.g. spin-off) as held for sale in the period the disposal occurs.

The Company initially measures a disposal group that is classified as held for sale at the lower of its carrying value or fair value less any costs to sell. Any loss resulting from this measurement is recognized in the period in which the held for sale criteria are met. Conversely, gains are not recognized on the sale of a disposal group until the date of sale. The Company assesses the fair value of a disposal group, less any costs to sell, each reporting period it remains classified as held for sale and reports any subsequent changes as an adjustment to the carrying value of the disposal group, as long as the new carrying value does not exceed the carrying value of the disposal group at the time it was initially classified as held for sale.

Upon determining that a disposal group meets the criteria to be classified as held for sale, the Company reports the assets and liabilities of the disposal group, if material, in the line items assets held for sale and liabilities held for sale in the consolidated statements of financial position. Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further information.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less when purchased to be cash equivalents.

Restricted Cash

At September 30, 2020 and September 30, 2019, the Company held restricted cash of approximately $9 million and $16 million, respectively all of which was recorded within other current assets in the consolidated statements of financial position. These amounts related to cash restricted for payment of asbestos liabilities.

Receivables

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 doubtful accounts resulting from the inability or unwillingness of customers to make required payments. The allowance for doubtful accounts is based on historical experience, existing economic conditions and any specific customer collection issues the Company has identified. The Company enters into supply chain financing programs to sell certain accounts receivable without recourse to third-party financial institutions. 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.

Inventories

Inventories are stated at the lower of cost or market using the first-in, first-out ("FIFO") method. Finished goods and work-in-process inventories include material, labor and manufacturing overhead costs.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation is provided over the estimated useful lives of the respective assets using the straight-line method for financial reporting purposes and accelerated methods for income tax purposes. The estimated useful lives generally range from 3 to 40 years for buildings and improvements, subscriber systems up to 15 years, and from 3 to 15 years for machinery and equipment. The Company capitalizes interest on borrowings during the active construction period of major capital projects. Capitalized interest is added to the cost of the underlying assets and is amortized over the useful lives of the assets.

Goodwill and Indefinite-Lived Intangible Assets

Goodwill reflects the cost of an acquisition in excess of the fair values assigned to identifiable net assets acquired. 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. The Company performs impairment reviews for its reporting units, which have been determined to be the Company's reportable segments or one level below the reportable segments in certain instances, using a fair value method based on management's judgments and assumptions or third party valuations. The fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. In estimating the fair value, the Company uses multiples of earnings based on the average of published multiples of earnings of comparable entities with similar operations and economic characteristics and applies the multiples to the Company's average of historical and future financial results for each reporting unit. In certain instances, the Company uses discounted cash flow analyses or estimated sales price to further support the fair value estimates. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." The estimated fair value is then compared with the carrying amount of the reporting unit, including recorded goodwill. The Company is subject to financial statement risk to the extent that the carrying amount exceeds the estimated fair value. Refer to Note 7, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for information regarding the goodwill impairment testing performed in fiscal years 2020, 2019 and 2018.

Indefinite-lived intangible assets are also subject to at least annual impairment testing. Indefinite-lived intangible assets primarily consist of trademarks and trade names and are tested for impairment using a relief-from-royalty method. A considerable amount of management judgment and assumptions are required in performing the impairment tests.

Leases

Lessee arrangements

The Company leases certain administrative, production and other facilities, fleet vehicles, information technology equipment and other equipment under arrangements that are accounted for as operating leases. The Company determines whether an arrangement contains a lease at contract inception based on whether the arrangement involves the use of a physically distinct identified asset and whether the Company has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period as well as the right to direct the use of the asset.

Right-of-use assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. Right-of-use assets and the corresponding lease liabilities are recognized at commencement date based on the present value of lease payments for all leases with terms longer than twelve months. As the majority of the Company's leases do not provide an implicit interest rate, to determine the present value of lease payments, the Company uses its incremental borrowing rate based on information available on the lease commencement date and uses the implicit rate when readily determinable. The Company determines its incremental borrowing rate based on a comparable market yield curve consistent with the Company's credit rating, term of the lease and relative economic environment. The Company has elected to combine lease and nonlease components for its leases.

Lessor arrangements

The Company's monitoring services and maintenance agreements within its security business that include subscriber system assets for which the Company retains ownership contain both lease and nonlease components. The Company has elected the practical expedient to combine lease and nonlease components for these arrangements where the timing and pattern of transfer of the lease and nonlease components are the same and the lease component would be classified as an operating lease if accounted for separately. The Company has concluded that in these arrangements the nonlease components are the predominant characteristic, and as a result, the combined component is accounted for under the revenue guidance.

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 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. Refer to Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for information regarding the impairment testing performed in fiscal years 2020, 2019 and 2018.

Revenue Recognition

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

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

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

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

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

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

Subscriber System Assets, Dealer Intangibles and Related Deferred Revenue Accounts

The Company considers assets related to the acquisition of new customers in its electronic security business in three asset categories: internally generated residential subscriber systems outside of North America, internally generated commercial subscriber systems (collectively referred to as subscriber system assets) and customer accounts acquired through the ADT dealer program, primarily outside of North America (referred to as dealer intangibles). Subscriber system assets include installed property, plant and equipment for which the Company retains ownership and deferred costs directly related to the customer acquisition and system installation. Subscriber system assets represent capitalized equipment (e.g. security control panels, touch pad, motion detectors, window sensors, and other equipment) and installation costs associated with electronic security monitoring arrangements under which the Company retains ownership of the security system assets in a customer's place of business, or outside of North America, residence. Installation costs represent costs incurred to prepare the asset for its intended use. The Company pays property taxes on the subscriber system assets and upon customer termination, may retrieve such assets. These assets embody a probable future economic benefit as they generate future monitoring revenue for the Company.

Costs related to the subscriber system equipment and installation are categorized as property, plant and equipment rather than deferred costs. Deferred costs associated with subscriber system assets represent direct and incremental selling expenses (such as commissions) related to acquiring the customer. Commissions related to up-front consideration paid by customers in connection with the establishment of the monitoring arrangement are determined based on a percentage of the up-front fees and do not exceed deferred revenue. Such deferred costs are recorded as other current and noncurrent assets within the consolidated statements of financial position.

Subscriber system assets and any deferred revenue resulting from the customer acquisition are accounted for over the expected life of the subscriber. In certain geographical areas where the Company has a large number of customers that behave in a similar manner over time, the Company accounts for subscriber system assets and related deferred revenue using pools, with separate pools for the components of subscriber system assets and any related deferred revenue based on the same month and year of acquisition. The Company depreciates its pooled subscriber system assets and related deferred revenue using a straight-line method with lives up to 12 years and considering customer attrition. The Company uses a straight-line method with a 15-year life for non-pooled subscriber system assets (primarily in Europe, Latin America and Asia) and related deferred revenue, with remaining balances written off upon customer termination.

Certain contracts and related customer relationships result from purchasing residential security monitoring contracts from an external network of independent dealers who operate under the ADT dealer program, primarily outside of North America. Acquired contracts and related customer relationships are recorded at their contractually determined purchase price.

During the first 6 months (12 months in certain circumstances) after the purchase of the customer contract, any cancellation of monitoring service, including those that result from customer payment delinquencies, results in a chargeback by the Company to the dealer for the full amount of the contract purchase price. The Company records the amount charged back to the dealer as a reduction of the previously recorded intangible asset.

Intangible assets arising from the ADT dealer program described above are amortized in pools determined by the same month and year of contract acquisition on a straight-line basis over the period of the customer relationship. The estimated useful life of dealer intangibles ranges from 12 to 15 years.

Research and Development Costs

Expenditures for research activities relating to product development and improvement are charged against income as incurred and included within selling, general and administrative expenses for continuing operations in the consolidated statements of income. Such expenditures for the years ended September 30, 2020, 2019 and 2018 were $274 million, $319 million and $310 million, respectively.

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 common shares outstanding during the reporting period. Diluted EPS is calculated by dividing net income attributable to Johnson Controls by the weighted average number of common shares and common 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. See Note 13, "Earnings per Share," of the notes to consolidated financial statements for the calculation of earnings per share.

Foreign Currency Translation

Substantially all of the Company's international operations use the respective local currency as the functional currency. Assets and liabilities of international entities have been translated at period-end exchange rates, and income and expenses have been translated using average exchange rates for the period. Monetary assets and liabilities denominated in non-functional currencies are adjusted to reflect period-end exchange rates. The aggregate transaction gains (losses), net of the impact of foreign currency hedges, included in income from continuing operations for the years ended September 30, 2020, 2019 and 2018 were $(32) million, $(10) million and $1 million, respectively.

Derivative Financial Instruments

The Company has written policies and procedures that place all financial instruments under the direction of Corporate treasury and restrict all derivative transactions to those intended for hedging purposes. The use of financial instruments for speculative purposes is strictly prohibited. The Company selectively uses financial instruments to manage the market risk from changes in foreign exchange rates, commodity prices, stock-based compensation liabilities and interest rates.

The fair values of all derivatives are recorded in the consolidated statements of financial position. The change in a derivative's fair value is recorded each period in current earnings or accumulated other comprehensive income ("AOCI"), depending on whether the derivative is designated as part of a hedge transaction and if so, the type of hedge transaction. See Note 10, "Derivative Instruments and Hedging Activities," and Note 11, "Fair Value Measurements," of the notes to consolidated financial statements for disclosure of the Company's derivative instruments and hedging activities.

Investments

The Company invests in debt and equity securities which are marked to market at the end of each accounting period. For fiscal 2020 and 2019, unrealized gains and losses on these securities are recognized in the Company's consolidated statements of income. For periods prior to fiscal 2019, the unrealized gains and losses on these securities, other than the deferred compensation plan assets, were recognized in AOCI within the consolidated statement of shareholders' equity unless an unrealized loss is deemed to be other than temporary, in which case such loss was charged to earnings. The deferred compensation plan assets are marked to market at the end of each accounting period and all unrealized gains and losses are recorded in the consolidated statements of income.

Pension and Postretirement Benefits

The Company utilizes a mark-to-market approach for recognizing pension and postretirement benefit expenses, including measuring the market related value of plan assets at fair value and recognizing actuarial gains and losses in the fourth quarter of each fiscal year or at the date of a remeasurement event. Refer to Note 15, "Retirement Plans," of the notes to consolidated financial statements for disclosure of the Company's pension and postretirement benefit plans.

Loss Contingencies

Accruals are recorded for various contingencies including legal proceedings, environmental matters, self-insurance and other claims that arise in the normal course of business. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of internal and/or external legal counsel and actuarially determined estimates. Additionally, the Company records receivables from third party insurers when recovery has been determined to be probable.

The Company is subject to laws and regulations relating to protecting the environment. The Company provides for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. Refer to Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements.

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 records receivables from third party insurers when recovery has been determined to be probable. The Company maintains captive insurance companies to manage its insurable liabilities.

Asbestos-Related Contingencies and Insurance Receivables

The Company and certain of its subsidiaries along with numerous other companies are named as defendants in personal injury lawsuits based on alleged exposure to asbestos-containing materials. The Company's estimate of the liability and corresponding insurance recovery for pending and future claims and defense costs is based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present value from 2068 (which is the Company's reasonable best estimate of the actuarially determined time period through which asbestos-related claims will be filed against Company affiliates). Asbestos-related defense costs are included in the asbestos liability. The Company's legal strategy for resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. 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.

In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable. The Company's estimate of asbestos-related insurance recoveries represents estimated amounts due to the Company for previously paid and settled claims and the probable reimbursements relating to its estimated liability for pending and future claims discounted to present value. In determining the amount of insurance recoverable, the Company considers available insurance, allocation methodologies, solvency and creditworthiness of the insurers. Refer to Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for a discussion on management's judgments applied in the recognition and measurement of asbestos-related assets and liabilities.

Income Taxes

Deferred tax liabilities and assets are recognized for the expected future tax consequences of events that have been reflected in the consolidated financial statements. Deferred tax liabilities and assets are determined based on the differences between the book and tax basis of particular assets and liabilities and operating loss carryforwards, using tax rates in effect for the years in which the differences are expected to reverse. A valuation allowance is provided to reduce the carrying or book value of deferred tax assets if, based upon the available evidence, including consideration of tax planning strategies, it is more-likely-than-not that some or all of the deferred tax assets will not be realized. Refer to Note 18, "Income Taxes," of the notes to consolidated financial statements.

Retrospective Changes

Certain amounts as of September 30, 2019 and 2018 have been revised to conform to the current year's presentation.

New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)." ASU No. 2016-02 requires recognition of operating leases as lease assets and liabilities on the balance sheet, and disclosure of key information about leasing arrangements. The Company adopted Topic 842 and the related amendments using a modified-retrospective approach as of October 1, 2019 and applied the new guidance to all leases through a cumulative-effect adjustment to beginning retained earnings. The comparative periods have not been recast and continue to be reported under the previous lease accounting guidance. The Company has elected to apply the package of transitional practical expedients, under which the Company did not reassess prior conclusions about lease identification, lease classification, and initial direct costs of existing leases as of the date of adoption. The adoption of the new guidance resulted in recognition of a right-of-use asset and related lease liabilities of $1.1 billion, with an immaterial impact to retained earnings. Refer to Note 8, “Leases,” for additional lease disclosures.

In May 2020, the SEC issued Final Rule Release No. 33-10786, which amends the financial statement requirements for acquisitions and dispositions of businesses and related pro forma financial information required under SEC Regulation S-X, Rule 3-05. Among other things, the final rule modifies the significance test required in SEC Regulation S-X, Rule 1-02(w) by changing the income test to use the lower measure of significance based on income from continuing operations before taxes or revenue. In accordance with Rules 3-09 or 4-08(g), the revised income test will apply to the evaluation of equity method investments for significance. The final rule is effective on January 1, 2021, however, voluntary early adoption is permitted as long as all amendments are adopted in their entirety. The Company early adopted all provisions of the final rule during the fourth quarter of fiscal 2020. As a result of the revised income test, none of the Company’s non-consolidated partially-owned affiliates, either individually or in the aggregate, are considered significant subsidiaries which require disclosure in the Company’s footnotes for fiscal 2020.

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

2. ACQUISITIONS AND DIVESTITURES

Fiscal Year 2020

During fiscal 2020, the Company completed certain acquisitions for a combined purchase price, net of cash acquired, of $82 million, of which $77 million was paid as of September 30, 2020. In connection with the acquisitions, the Company recorded goodwill of $35 million within the Building Solutions EMEA/LA segment and $21 million within the Global Products segment. The acquisitions were not material to the Company's consolidated financial statements.

Additionally, in the fourth quarter of fiscal 2020, the Company acquired additional ownership interest in one of its consolidated subsidiaries within the Global Products segment for a purchase price of $132 million, all of which was paid as of September 30, 2020. In connection with this transaction, the Company recorded a compensation charge of $39 million related to the cash settlement of equity awards.

In the fourth quarter of fiscal 2020, the Company completed certain divestitures within the Global Products and Building Solutions Asia Pacific segments. The combined selling price, net of cash divested, was $152 million, of which $135 million was received as of September 30, 2020. In connection with the divestitures, the Company reduced goodwill by $11 million within the Building Solutions Asia Pacific segment. The divestitures were not material to the Company's consolidated financial statements.

Fiscal Year 2019

On April 30, 2019, the Company completed the sale of its Power Solutions business to BCP Acquisitions LLC for a purchase price of $13.2 billion. The net cash proceeds after tax and transaction-related expenses were $11.6 billion. In connection with the sale, the Company recorded a gain, net of transaction and other costs, of $5.2 billion ($4.0 billion after tax), subject to post-closing working capital and net debt adjustments, within income from discontinued operations, net of tax, in the consolidated statements of income. Refer to Note 3, "Discontinued Operations," of the notes to consolidated financial statements for further disclosure related to the Company's discontinued operations.

During fiscal 2019, the Company completed certain divestitures within the Global Products and Building Solutions EMEA/LA segments. The combined selling price was $18 million, $16 million of which was received as of September 30, 2019. In connection with the sale, the Company reduced goodwill by $1 million within the Building Solutions EMEA/LA segment. The divestitures were not material to the Company's consolidated financial statements.

During fiscal 2019, the Company completed certain acquisitions for a combined purchase price of $32 million, $25 million of which was paid as of September 30, 2019. In connection with the acquisitions, the Company recorded goodwill of $11 million within the Global Products segment, $8 million within the Building Solutions Asia Pacific segment, and $6 million within the Building Solutions EMEA/LA segment. The acquisitions were not material to the Company's consolidated financial statements.

Fiscal Year 2018

During fiscal 2018, the Company completed certain acquisitions for a combined purchase price, net of cash acquired, of $21 million, all of which was paid as of September 30, 2018. In connection with the acquisitions, the Company recorded goodwill of $14 million within the Global Products segment and $1 million within the Building Solutions EMEA/LA segment. The acquisitions were not material to the Company's consolidated financial statements.

In the first quarter of fiscal 2018, the Company completed the sale of its Scott Safety business to 3M Company. The selling price, net of cash divested, was $2.0 billion, all of which was received as of September 30, 2018. In connection with the sale, the Company recorded a pre-tax gain of $114 million within selling, general and administrative expenses in the consolidated statements of income and reduced goodwill in assets held for sale by $1.2 billion. The gain, net of tax, recorded was $84 million.

Also during fiscal 2018, the Company completed certain divestitures primarily within the Global Products segment. The combined selling price was $204 million, all of which was received as of September 30, 2018. In connection with the divestitures, the Company reduced goodwill by $35 million. The divestitures were not material to the Company's consolidated financial statements.

3. DISCONTINUED OPERATIONS

Power Solutions

During the first quarter of fiscal 2019, the Company determined that its Power Solutions business met the criteria to be classified as a discontinued operation and, as a result, its historical financial results are reflected in the Company's consolidated financial statements as a discontinued operation, and assets and liabilities were classified as assets and liabilities held for sale. The Company did not allocate any general corporate overhead to discontinued operations.

The following table summarizes the results of Power Solutions which are classified as discontinued operations for the fiscal years ended September 30, 2019 and 2018 (in millions). As the Power Solutions sale occurred on April 30, 2019, there are only seven months of results included in the fiscal year ended September 30, 2019.

	Year Ended September 30,	
	2019	2018
Net sales	$ 5,001	$ 8,000
Income from discontinued operations before income taxes	6,039	1,355
Provision for income taxes on discontinued operations	(1,441)	(321)
Income from discontinued operations attributable to noncontrolling interests, net of tax	(24)	(47)
Income from discontinued operations	$ 4,574	$ 987

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

For the fiscal year ended September 30, 2019, the effective tax rate was more than the Irish statutory rate of 12.5% primarily due to the tax impacts of the divestiture of the Power Solutions business and tax rate differentials. For the fiscal year ended September 30, 2018, the effective tax rate was more than the Irish statutory rate of 12.5% primarily due to legal entity restructuring associated with the Power Solutions business and tax rate differentials.

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 $147 million at September 30, 2020.

During the third quarter of 2019, the Company determined that a business within its Global Products segment met the criteria to be classified as held for sale. This business was sold in the fourth quarter of fiscal 2020. The assets and liabilities of this business are presented as held for sale in the consolidated statements of financial position as of September 30, 2019. Assets and liabilities held for sale are recorded at the lower of carrying value or fair value less any costs to sell. The Company recorded impairment charges within restructuring and impairment costs in the consolidated statements of income of $15 million in the first quarter of fiscal 2020 and $235 million in the third quarter of fiscal 2019 to write down the carrying value of the assets held for sale to fair value less any costs to sell. Refer to Note 17, "Impairment of Long-Lived Assets" of the notes to consolidated financial statements for further information regarding the impairment charges. The business did not meet the criteria to be classified as a discontinued operation as the divestiture did not have a major effect on the Company's operations and financial results.

4. REVENUE RECOGNITION

Disaggregated Revenue

The following table presents the Company's revenues disaggregated by segment and by products and systems versus services revenue for the years ended September 30, 2020 and 2019 (in millions):

	Year Ended September 30, 2020			Year Ended September 30, 2019		
	Products & Systems	Services	Total	Products & Systems	Services	Total
Building Solutions North America	$ 5,371	$ 3,234	$ 8,605	$ 5,745	$ 3,286	$ 9,031
Building Solutions EMEA/LA	1,644	1,796	3,440	1,767	1,888	3,655
Building Solutions Asia Pacific	1,369	1,034	2,403	1,575	1,083	2,658
Global Products	7,869	—	7,869	8,624	—	8,624
Total	$ 16,253	$ 6,064	$ 22,317	$ 17,711	$ 6,257	$ 23,968

The following table presents further disaggregation of Global Products segment revenues by product type for the years ended September 30, 2020 and 2019 (in millions):

	Year Ended September 30, 2020	Year Ended September 30, 2019
Building management systems	$ 1,205	$ 1,292
HVAC & refrigeration equipment	5,613	6,181
Specialty products	1,051	1,151
Total	$ 7,869	$ 8,624

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 liabilities consist of deferred revenue. Contract balances are classified as assets or liabilities on a contract-by-contract basis at the end of each reporting period.

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

	Location of contract balances	September 30, 2020	September 30, 2019
Contract assets - current	Accounts receivable - net	$ 1,395	$ 1,389
Contract assets - noncurrent	Other noncurrent assets	104	90
Contract liabilities - current	Deferred revenue	(1,435)	(1,407)
Contract liabilities - noncurrent	Other noncurrent liabilities	(245)	(228)
Total		$ (181)	$ (156)

For the year ended September 30, 2020, the Company recognized revenue of approximately $1.3 billion that was included in the beginning of period contract liability balance. For the year ended September 30, 2019, the Company recognized revenue of approximately $1.2 billion that was included in the beginning of period contract liability balance.

Performance Obligations

A performance obligation is a distinct good, service, or 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 September 30, 2020, the aggregate amount of the transaction price allocated to remaining performance obligations was approximately $14.4 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.

As of September 30, 2020, the Company recorded costs to obtain or fulfill a contract of $223 million, of which $119 million is recorded within other current assets and $104 million is recorded within other noncurrent assets in the consolidated statements of financial position. As of September 30, 2019, the Company recorded costs to obtain or fulfill a contract of $212 million, of which $110 million is recorded within other current assets and $102 million is recorded within other noncurrent assets in the consolidated statements of financial position.

During the year ended September 30, 2020, the Company recognized amortization expense of $162 million related to costs to obtain or fulfill a contract. There were no impairment losses recognized in the year ended September 30, 2020. During the year ended September 30, 2019, the Company recognized amortization expense of $157 million related to costs to obtain or fulfill a contract. There were no impairment losses recognized in the year ended September 30, 2019.

5. INVENTORIES

Inventories consisted of the following (in millions):

	September 30, 2020	September 30, 2019
Raw materials and supplies	$ 629	$ 588
Work-in-process	142	176
Finished goods	1,002	1,050
Inventories	$ 1,773	$ 1,814

6. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consisted of the following (in millions):

	September 30, 2020	September 30, 2019
Buildings and improvements	$ 1,351	$ 1,499
Subscriber systems	679	661
Machinery and equipment	3,332	2,969
Construction in progress	327	465
Land	241	250
Total property, plant and equipment	5,930	5,844
Less: accumulated depreciation	(2,871)	(2,496)
Property, plant and equipment - net	$ 3,059	$ 3,348

Interest costs capitalized during the fiscal years ended September 30, 2020, 2019 and 2018 were $1 million, $6 million and $17 million, respectively.

7. GOODWILL AND OTHER INTANGIBLE ASSETS

The changes in the carrying amount of goodwill in each of the Company's reportable segments for the fiscal years ended September 30, 2020 and 2019 were as follows (in millions):

	September 30, 2018	Business Acquisitions	Business Divestitures	Impairments	Currency Translation and Other	September 30, 2019
Building Solutions North America	$ 9,603	$ —	$ —	$ —	$ (15)	$ 9,588
Building Solutions EMEA/LA	1,950	6	(1)	—	(106)	1,849
Building Solutions Asia Pacific	1,235	8	—	—	(49)	1,194
Global Products	5,593	11	(22)	—	(35)	5,547
Total	$ 18,381	$ 25	$ (23)	$ —	$ (205)	$ 18,178

	September 30, 2019	Business Acquisitions	Business Divestitures	Impairments	Currency Translation and Other	September 30, 2020
Building Solutions North America	$ 9,588	$ —	$ —	$ (424)	$ (4)	$ 9,160
Building Solutions EMEA/LA	1,849	35	—	—	83	1,967
Building Solutions Asia Pacific	1,194	—	(11)	—	43	1,226
Global Products	5,547	21	—	—	11	5,579
Total	$ 18,178	$ 56	$ (11)	$ (424)	$ 133	$ 17,932

The fiscal 2019 Global Products business divestiture amount includes $22 million of goodwill transferred to noncurrent assets held for sale in the consolidated statements of financial position related to the fiscal 2020 disposal of a business within the Global Products segment.

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

The Company reviews goodwill for impairment during the fourth fiscal quarter or more frequently if events or changes in circumstances indicate the asset might be impaired. The Company considered the ongoing deterioration in general economic and market conditions due to the COVID-19 pandemic and its impact on each of the Company's reporting units' performance. Due to further declines in cash flow projections of the North America Retail reporting unit in the third quarter of fiscal 2020 as a result of the COVID-19 pandemic, the Company concluded a triggering event occurred requiring assessment of impairment for its North America Retail reporting unit. As a result, the Company recorded a non-cash impairment charge of $424 million within restructuring and impairment costs in the consolidated statements of income in the third quarter of fiscal 2020, which was determined by comparing the carrying amount of a reporting unit to its fair value in accordance with ASU No. 2017-04, "Intangible - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," which the Company early adopted. The North America Retail reporting unit has a remaining goodwill balance of $230 million at September 30, 2020. The Company used a discounted cash flow model to estimate the fair value of the reporting unit. Other than management's internal projections of future cash flows, the primary assumptions used in the model were the weighted-average cost of capital and long-term growth rates, which are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." Although the Company's cash flow forecasts are based on assumptions that are considered reasonable by management and consistent with the plans and estimates management is using to operate the underlying business, there was significant judgment in determining the expected future cash flows attributable to the North America Retail reporting unit.

There were no goodwill impairments resulting from the fiscal 2020 and 2019 annual impairment tests. With the exception of the North America Retail reporting unit that had a recent goodwill impairment and is recorded at fair value, no reporting unit was determined to be at risk of failing the goodwill impairment test. The estimated fair value for North America Retail reporting unit exceeded its carrying value by 6%. The Company performs impairment reviews for its reporting units, which have been determined to be the Company's reportable segments or one level below the reportable segments in certain instances, using a fair value method based on management's judgments and assumptions or third party valuations. The fair value of a reporting unit refers to the price that would be received to sell the unit as a whole in an orderly transaction between market participants at the measurement date. In estimating the fair value, the Company uses multiples of earnings based on the average of published multiples of earnings of comparable entities with similar operations and economic characteristics and applies the multiples to the Company's average of historical and future financial results for each reporting unit. In certain instances, the Company uses discounted cash flow analyses or estimated sales price to further support the fair value estimates. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." The estimated fair value is then compared with the carrying amount of the reporting unit, including recorded goodwill. The Company is subject to financial statement risk to the extent that the carrying amount exceeds the estimated fair value.

The assumptions included in the impairment tests require judgment, and changes to these inputs could impact the results of the calculations. The primary assumptions used in the impairment tests were management's projections of future cash flows. Although the Company's cash flow forecasts are based on assumptions that are considered reasonable by management and consistent with the plans and estimates management is using to operate the underlying businesses, there are significant judgments in determining the expected future cash flows attributable to a reporting unit.

The Company continuously monitors for events and circumstances that could negatively impact the key assumptions in determining fair value, including long-term revenue growth projections, profitability, discount rates, recent market valuations from transactions by comparable companies, volatility in the Company's market capitalization, and general industry, market and macro-economic conditions. It is possible that future changes in such circumstances, including a more prolonged and/or severe COVID-19 pandemic, or future changes in the variables associated with the judgments, assumptions and estimates used in assessing the fair value of the reporting unit, 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):

	September 30, 2020			September 30, 2019		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Amortized intangible assets						
Technology	$ 1,332	$ (497)	$ 835	$ 1,307	$ (370)	$ 937
Customer relationships	2,773	(969)	1,804	2,722	(759)	1,963
Miscellaneous	657	(268)	389	584	(224)	360
Total amortized intangible assets	4,762	(1,734)	3,028	4,613	(1,353)	3,260
Unamortized intangible assets						
Trademarks/tradenames	2,248	—	2,248	2,282	—	2,282
Miscellaneous	80	—	80	90	—	90
	2,328	—	2,328	2,372	—	2,372
Total intangible assets	$ 7,090	$ (1,734)	$ 5,356	$ 6,985	$ (1,353)	$ 5,632

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. Indefinite-lived intangible assets primarily consist of trademarks and tradenames and are tested for impairment using a relief-from-royalty method. During the second and third quarters of fiscal 2020, the Company determined that it had a triggering event at each reporting period end requiring assessment of impairment for certain of its indefinite-lived intangible assets due to declines in revenue directly attributable to the COVID-19 pandemic. As a result, the Company recorded an impairment charge of $62 million related primarily to the Company's retail business indefinite-lived intangible assets within restructuring and impairment costs in the consolidated statements of income in the second quarter of fiscal 2020. No further impairment was required to be recorded in the third quarter of fiscal 2020 as a result of the completed impairment assessment.

There were no indefinite-lived intangible asset impairments resulting from fiscal 2020 and 2019 annual impairment tests. The estimated fair values of all indefinite-lived intangibles substantially exceeded their carrying values, with the exception of the indefinite-lived trademarks related to the Company's security and Asia Pacific subscriber businesses. The estimated fair value for the security and Asia Pacific indefinite-lived trademarks exceeded their carrying value by 4% and 2%, respectively. The carrying amount of the security and Asia Pacific indefinite-lived trademarks as of September 30, 2020 was $299 million and $37 million, respectively.

The Company continuously monitors for events and circumstances that could negatively impact the key assumptions in determining fair value, including long-term revenue growth projections, discount rates and general industry, market and macro-economic conditions. It is possible that future changes in such circumstances, including a more prolonged and/or severe COVID-19 pandemic, or future changes in the variables associated with the judgments, assumptions and estimates used in assessing the fair value of the indefinite-lived intangible assets, would require the Company to record an additional non-cash impairment charge.

Amortization of other intangible assets included within continuing operations for the fiscal years ended September 30, 2020, 2019 and 2018 was $386 million, $377 million and $376 million, respectively. Excluding the impact of any future acquisitions, the Company anticipates amortization for fiscal 2021, 2022, 2023, 2024 and 2025 will be approximately $404 million, $403 million, $402 million, $383 million and $365 million, respectively.

8. LEASES

Most leases contain options to renew or terminate the lease. Right-of-use assets and lease liabilities reflect only the options which the Company is reasonably certain to exercise. Lease expense is recognized on a straight-line basis over the lease term.

The Company has certain real estate leases that contain variable lease payments which are based on changes in the Consumer Price Index (CPI). Additionally, the Company's leases generally require it to pay for fuel, maintenance, repair, insurance and taxes. These payments are not included in the right-of-use asset or lease liability and are expensed as incurred.

The following table presents the Company's lease costs for the fiscal year ended September 30, 2020 (in millions):

	Year Ended September 30, 2020
Operating lease cost	$ 399
Variable lease cost	145
Total lease costs	$ 544

Total rental expense for continuing operations for the fiscal years ended September 30, 2019 and 2018 was $452 million and $408 million, respectively.

The following table presents supplemental consolidated statement of financial position information as of September 30, 2020 (in millions):

	Location of lease balances	September 30, 2020
Operating lease right-of-use assets	Other noncurrent assets	$ 1,190
Operating lease liabilities - current	Other current liabilities	332
Operating lease liabilities - noncurrent	Other noncurrent liabilities	875
Weighted-average remaining lease term		6 years
Weighted-average discount rate		2.2 %

The following table presents supplemental cash flow information related to operating leases for the fiscal year ended September 30, 2020 (in millions):

	Year Ended September 30, 2020
Cash paid for amounts included in the measurement of lease liability:	
Operating cash outflows from operating leases	$ 397
Noncash operating lease activity:	
Right-of-use assets obtained in exchange for operating lease liabilities	467

The following table presents maturities of operating lease liabilities as of September 30, 2020 (in millions):

	September 30, 2020
2021	$ 352
2022	279
2023	191
2024	143
2025	91
After 2025	235
Total operating lease payments	1,291
Less: interest	(84)
Present value of lease payments	$ 1,207

As previously disclosed in the Company's Annual Report on Form 10-K for the year ended September 30, 2019 and accounted for under the previous lease accounting guidance, future minimum operating lease payments for long-term noncancellable operating leases as of September 30, 2019 were as follows (in millions):

	September 30, 2019
2020	$ 352
2021	287
2022	200
2023	111
2024	71
After 2024	172
Total minimum lease payments	$ 1,193

9. DEBT AND FINANCING ARRANGEMENTS

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

	September 30,	
	2020	2019
Bank borrowings	$ 31	$ 10
Weighted average interest rate on short-term debt outstanding	3.4 %	2.0 %

The Company had no commercial paper outstanding as of September 30, 2020 and 2019.

In December 2019, the Company entered into a syndicated $2.5 billion committed revolving credit facility, which is scheduled to expire in December 2024, and a syndicated $500 million committed revolving credit facility, which is scheduled to expire in December 2020. Additionally, the Company terminated its syndicated 5-year $2 billion committed revolving credit facility and four 364-day revolving credit facilities with total committed capacity of $750 million. As of September 30, 2020, there were no draws on the revolving credit facilities.

Long-term debt consisted of the following (in millions; due dates by fiscal year):

	September 30, 2020	September 30, 2019
Unsecured notes		
JCI plc - 5.00% due in 2020 ($453 million par value)	$ —	$ 453
JCI Inc. - 5.00% due in 2020 ($47 million par value)	—	47
JCI plc - 0.00% due in 2021 (€750 million par value)	—	818
JCI plc - 4.25% due in 2021 ($204 million par value)	204	204
JCI Inc. - 4.25% due in 2021 ($53 million par value)	53	53
JCI plc - 3.75% due in 2022 ($171 million par value)	171	171
JCI Inc. - 3.75% due in 2022 ($22 million par value)	22	22
JCI plc - 4.625% due in 2023 ($25 million par value)	26	26
Tyco International Finance S.A. ("TIFSA") - 4.625% due in 2023 ($7 million par value)	7	7
JCI plc - 1.00% due in 2023 (€888 million par value)	1,039	967
JCI plc - 3.625% due in 2024 ($453 million par value)	453	453
JCI Inc. - 3.625% due in 2024 ($31 million par value)	31	31
JCI plc - 1.375% due in 2025 (€423 million par value)	503	471
TIFSA - 1.375% due in 2025 (€54 million par value)	64	60
JCI plc - 3.90% due in 2026 ($487 million par value)	516	521
TIFSA - 3.90% due in 2026 ($51 million par value)	51	51
JCI plc and Tyco Fire & Security Finance S.C.A. ("TFSCA") - 0.375% due in 2027 (€500 million par value)	583	—
JCI plc and TFSCA - 1.75% due in 2030 ($625 million par value)	623	—
JCI plc and TFSCA - 1.00% due in 2032 (€500 million par value)	584	—
JCI plc - 6.00% due in 2036 ($342 million par value)	339	339
JCI Inc. - 6.00% due in 2036 ($8 million par value)	8	8
JCI plc - 5.70% due in 2041 ($190 million par value)	189	189
JCI Inc. - 5.70% due in 2041 ($30 million par value)	30	30
JCI plc - 5.25% due in 2042 ($155 million par value)	155	155
JCI Inc. - 5.25% due in 2042 ($6 million par value)	6	6
JCI plc - 4.625% due in 2044 ($444 million par value)	441	441
JCI Inc. - 4.625% due in 2044 ($6 million par value)	6	6
JCI plc - 5.125% due in 2045 ($477 million par value)	564	567
TIFSA - 5.125% due in 2045 ($23 million par value)	22	22
JCI plc - 6.95% due in 2046 ($32 million par value)	32	32
JCI Inc. - 6.95% due in 2046 ($4 million par value)	4	4
JCI plc - 4.50% due in 2047 ($500 million par value)	496	496
JCI plc - 4.95% due in 2064 ($341 million par value)	340	340
JCI Inc. - 4.95% due in 2064 ($15 million par value)	15	15
JCI plc - Term Loan - ¥25 billion; LIBOR JPY plus 0.40% due in 2022	237	232
Other	8	3
Gross long-term debt	7,822	7,240
Less: current portion	262	501
Less: debt issuance costs	34	31
Net long-term debt	$ 7,526	$ 6,708

The installments of long-term debt maturing in subsequent fiscal years are: 2021 - $262 million; 2022 - $432 million; 2023 - $1,073 million; 2024 - $484 million; 2025 - $567 million; 2026 and thereafter - $5,004 million. The Company's long-term debt includes various financial covenants, none of which are expected to restrict future operations.

Total interest paid on both short and long-term debt for continuing operations for the fiscal years ended September 30, 2020, 2019 and 2018 was $247 million, $369 million and $401 million, respectively.

Financing Arrangements

In September 2020, the Company and its wholly owned subsidiary, TFSCA issued €500 million aggregate principal amount of their 0.375% Senior Notes due 2027 and €500 million aggregate principal amount of their 1.000% Senior Notes due 2032. A portion of the proceeds were used to repay €750 million of notes which were due in December 2020 and the short-term debt which was issued in April 2020, including $675 million of European financing arrangements which were due in September 2020 and $275 million of bank term loans which were due in April 2021. The remainder of the proceeds is to be used for general corporate purposes. In July 2020, the Company repaid $300 million of a bank term loan that was issued in April 2020.

In September 2020, the Company and its wholly owned subsidiary, TFSCA issued $625 million of green bonds with an interest rate of 1.750% which are due in 2030. The net proceeds are being used to support projects that focus on sustainability and support the Company's 2025 sustainability goals.

In March 2020, the Company retired $500 million in principal amount, plus accrued interest, of its 5.0% fixed rate notes that expired in March 2020.

Net Financing Charges

The Company's net financing charges line item in the consolidated statements of income for the years ended September 30, 2020, 2019 and 2018 contained the following components (in millions):

	Year Ended September 30,		
	2020	2019	2018
Interest expense, net of capitalized interest costs	$ 240	$ 335	$ 409
Banking fees and bond cost amortization	26	28	30
Loss on debt extinguishment	—	60	—
Interest income	(23)	(61)	(13)
Net foreign exchange results for financing activities	(12)	(12)	(25)
Net financing charges	$ 231	$ 350	$ 401

10. 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 11, "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 hedge 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 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 fiscal years ended September 30, 2020 and 2019.

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

	Volume Outstanding as of	
Commodity	September 30, 2020	September 30, 2019
Copper	2,497	3,561
Aluminum	3,036	2,967

Net Investment Hedges

The Company enters into foreign currency denominated debt obligations to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effects of the debt obligations are reflected in the AOCI account within shareholders' equity attributable to Johnson Controls ordinary shareholders where they offset currency gains and losses recorded on the Company's net investments globally. At September 30, 2020, the Company had 888 million euro, 500 million euro, 500 million euro, 423 million euro and 54 million euro in bonds designated as net investment hedges in the Company's net investment in Europe and 25 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan. At September 30, 2019, the Company had 888 million euro, 750 million euro, 423 million euro and 54 million euro in bonds designated as net investment hedges in the Company's net investment in Europe and 25 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan.

Derivatives Not Designated as Hedging Instruments

The Company selectively uses equity swaps to reduce market risk associated with certain of its stock-based compensation plans, such as its deferred compensation plans. These equity compensation liabilities increase as the Company's stock price increases and decrease as the Company's stock price decreases. In contrast, the value of the swap agreement moves in the opposite direction of these liabilities, allowing the Company to fix a portion of the liabilities at a stated amount. As of September 30, 2020 and 2019, the Company hedged approximately 1.4 million of its ordinary shares, which have a cost basis of $60 million.

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

Fair Value of Derivative Instruments

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

	Derivatives and Hedging Activities Designated as Hedging Instruments under ASC 815		Derivatives and Hedging Activities Not Designated as Hedging Instruments under ASC 815	
	September 30, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Other current assets				
Foreign currency exchange derivatives	$ 10	$ 16	$ 17	$ 19
Commodity derivatives	2	—	—	—
Other noncurrent assets				
Equity swap	—	—	58	62
Total assets	$ 12	$ 16	$ 75	$ 81
Other current liabilities				
Foreign currency exchange derivatives	$ 10	$ 23	$ —	$ —
Commodity derivatives	—	1	—	—
Long-term debt				
Foreign currency denominated debt	3,010	2,544	—	—
Total liabilities	$ 3,020	$ 2,568	$ —	$ —

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	
	September 30, 2020	September 30, 2019	September 30, 2020	September 30, 2019
Gross amount recognized	$ 87	$ 97	$ 3,020	$ 2,568
Gross amount eligible for offsetting	(10)	(11)	(10)	(11)
Net amount	$ 77	$ 86	$ 3,010	$ 2,557

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 fiscal years ended September 30, 2020, 2019 and 2018 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Year Ended September 30, 2020	2019	2018
Foreign currency exchange derivatives	$ 1	$ 2	$ 2
Commodity derivatives	6	(4)	(14)
Total	$ 7	$ (2)	$ (12)

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 fiscal years ended September 30, 2020, 2019 and 2018 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Location of Gain (Loss) Reclassified from AOCI into Income	Year Ended September 30, 2020	2019	2018
Foreign currency exchange derivatives	Cost of sales	$ (5)	$ 4	$ 2
Foreign currency exchange derivatives	Income from discontinued operations	—	—	2
Commodity derivatives	Cost of sales	2	(4)	5
Commodity derivatives	Income from discontinued operations	—	(10)	7
Total		$ (3)	$ (10)	$ 16

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 fiscal years ended September 30, 2020, 2019 and 2018 (in millions):

Derivatives Not Designated as Hedging Instruments under ASC 815	Location of Gain (Loss) Recognized in Income on Derivative	Year Ended September 30, 2020	2019	2018
Foreign currency exchange derivatives	Cost of sales	$ (1)	$ (8)	$ 4
Foreign currency exchange derivatives	Net financing charges	87	(60)	42
Foreign currency exchange derivatives	Income tax provision	—	(1)	(4)
Foreign currency exchange derivatives	Income from discontinued operations	—	52	(7)
Equity swap	Selling, general and administrative	(4)	14	(8)
Total		$ 82	$ (3)	$ 27

The pre-tax gains (losses) recorded in foreign currency translation adjustment ("CTA") within other comprehensive income (loss) related to net investment hedges were $(172) million, $145 million and $45 million for the years ended September 30, 2020, 2019 and 2018, respectively. For the years ended September 30, 2020, 2019 and 2018, no gains or losses were reclassified from CTA into income for the Company's outstanding net investment hedges.

11. 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 September 30, 2020 and 2019 (in millions):

		Fair Value Measurements Using:		
	Total as of September 30, 2020	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 27	$ —	$ 27	$ —
Exchange traded funds (fixed income)[1]	19	19	—	—
Commodity derivatives	2	—	2	—
Other noncurrent assets				
Deferred compensation plan assets	63	63	—	—
Exchange traded funds (fixed income)[1]	143	143	—	—
Exchange traded funds (equity)[1]	129	129	—	—
Equity swap	58	—	58	—
Total assets	$ 441	$ 354	$ 87	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 10	$ —	$ 10	$ —
Total liabilities	$ 10	$ —	$ 10	$ —

		Fair Value Measurements Using:		
	Total as of September 30, 2019	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 35	$ —	$ 35	$ —
Exchange traded funds (fixed income)[1]	19	19	—	—
Other noncurrent assets				
Deferred compensation plan assets	71	71	—	—
Exchange traded funds (fixed income)[1]	138	138	—	—
Exchange traded funds (equity)[1]	116	116	—	—
Equity swap	62	—	62	—
Total assets	$ 441	$ 344	$ 97	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 23	$ —	$ 23	$ —
Commodity derivatives	1	—	1	—
Total liabilities	$ 24	$ —	$ 24	$ —

[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 the 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.

The following table presents the portion of unrealized gains (losses) recognized in the consolidated statements of income for the years ended September 30, 2020 and 2019 that relate to equity securities still held at September 30, 2020 and 2019 (in millions):

	Year Ended September 30,	
	2020	2019
Deferred compensation plan assets	$ 1	$ (2)
Investments in exchange traded funds	21	12

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

The fair values of cash and cash equivalents, accounts receivable, short-term debt and accounts payable approximate their carrying values. At September 30, 2020, the fair value of long-term debt was $8.6 billion, including public debt of $8.4 billion and other long-term debt of $0.2 billion. At September 30, 2019, the fair value of long-term debt was $7.6 billion, including public debt of $7.4 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.

12. STOCK-BASED COMPENSATION

The Johnson Controls International plc 2012 Share and Incentive Plan (the "Plan"), as amended in September 2016, authorizes stock options, stock appreciation rights, restricted (non-vested) stock/units, performance shares, performance units and other stock-based awards. The Compensation Committee of the Company's Board of Directors determines the types of awards to be granted to individual participants and the terms and conditions of the awards. As of September 30, 2020, there were 76 million shares of the Company's common stock reserved and 27 million shares available for issuance under the Plan.

The Company has four share-based compensation plans, which are described below. For the fiscal years ended September 30, 2020, 2019 and 2018, compensation cost charged against income for continuing operations, excluding the offsetting impact of outstanding equity swaps, for those plans was approximately $66 million, $103 million and $89 million, respectively, all of which was recorded in selling, general and administrative expenses.

The total income tax benefit recognized for continuing operations in the consolidated statements of income for share-based compensation arrangements was approximately $16 million, $26 million and $22 million for the fiscal years ended September 30, 2020, 2019 and 2018, respectively. The tax impact from the exercise and vesting of equity settled awards was less than $1 million of tax benefit, $6 million of tax expense and $3 million of tax expense for the fiscal years ended September 30, 2020, 2019 and 2018, respectively. The Company does not settle stock options granted under share-based payment arrangements to cash.

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. 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.

	Year Ended September 30,		
	2020	2019	2018
Expected life of option (years)	6.5	6.4	6.5
Risk-free interest rate	1.67%	2.77%	2.28%
Expected volatility of the Company’s stock	22.40%	21.80%	23.70%
Expected dividend yield on the Company’s stock	2.49%	3.29%	2.78%

A summary of stock option activity at September 30, 2020, and changes for the year then ended, is presented below:

	Weighted Average Option Price	Shares Subject to Option	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (in millions)
Outstanding, September 30, 2019	$ 35.07	12,369,749		
Granted	41.67	1,347,310		
Exercised	28.80	(2,504,516)		
Forfeited or expired	38.30	(1,097,638)		
Outstanding, September 30, 2020	$ 37.14	10,114,905	4.9	$ 46
Exercisable, September 30, 2020	$ 36.98	7,473,203	3.6	$ 36

The weighted-average grant-date fair value of options granted during the fiscal years ended September 30, 2020, 2019 and 2018 was $7.29, $5.56 and $7.04, respectively.

The total intrinsic value of options exercised during the fiscal years ended September 30, 2020, 2019 and 2018 was approximately $30 million, $73 million and $38 million, respectively.

In conjunction with the exercise of stock options, the Company received cash payments for the fiscal years ended September 30, 2020, 2019 and 2018 of approximately $75 million, $171 million and $66 million, respectively.

At September 30, 2020, the Company had approximately $9 million of total unrecognized compensation cost related to non-vested stock options granted for continuing operations which is expected to be recognized over a weighted-average period of 1.8 years.

Stock Appreciation Rights ("SARs")

SARs vest under the same terms and conditions as stock option awards; however, they are settled in cash for the difference between the market price on the date of exercise and the exercise price. As a result, SARs are recorded in the Company’s consolidated statements of financial position as a liability until the date of exercise.

The fair value of each SAR award is estimated using a similar method described for stock options. The fair value of each SAR award is recalculated at the end of each reporting period and the liability and expense are adjusted based on the new fair value.

The assumptions used to determine the fair value of the SAR awards at September 30, 2020 were as follows:

Expected life of SAR (years)	0.4 - 2.5
Risk-free interest rate	0.11% - 0.18%
Expected volatility of the Company's stock	22.40%
Expected dividend yield on the Company's stock	2.49%

A summary of SAR activity at September 30, 2020, and changes for the year then ended, is presented below:

	Weighted Average SAR Price	Shares Subject to SAR	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (in millions)
Outstanding, September 30, 2019	$ 28.67	368,009		
Exercised	26.88	(129,277)		
Forfeited or expired	25.47	(26,095)		
Outstanding, September 30, 2020	$ 30.14	212,637	1.8	$ 2
Exercisable, September 30, 2020	$ 30.14	212,637	1.8	$ 2

In conjunction with the exercise of SARs granted, the Company made payments of $2 million, $3 million and $3 million during the fiscal years ended September 30, 2020, 2019 and 2018, respectively.

Restricted (Non-vested) Stock / Units

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

A summary of non-vested restricted stock awards at September 30, 2020, and changes for the fiscal year then ended, is presented below:

	Weighted Average Price	Shares/Units Subject to Restriction
Non-vested, September 30, 2019	$ 35.98	3,333,076
Granted	41.38	2,053,292
Vested	37.39	(1,634,306)
Forfeited	37.47	(522,183)
Non-vested, September 30, 2020	$ 38.58	3,229,879

At September 30, 2020, the Company had approximately $81 million of total unrecognized compensation cost related to non-vested restricted stock arrangements granted for continuing operations which is expected to be recognized over a weighted-average period of 2.1 years.

Performance Share Awards

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

The fair value of each PSU is estimated on the date of grant using a Monte Carlo simulation that uses the assumptions noted in the following table. The risk-free interest rate for periods during the contractual life of the PSU is based on the U.S. Treasury yield curve in effect at the time of grant. For fiscal 2020, 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. For fiscal 2019 and 2018, the expected volatility is based on the historical volatility of the Company's stock since October 2016 blended with the historical volatility of certain peer companies' stock prior to October 2016 over the most recent three-year period as of the grant date.

	Year Ended September 30,		
	2020	2019	2018
Risk-free interest rate	1.60%	2.76%	1.92%
Expected volatility of the Company’s stock	21.80%	22.90%	21.70%

A summary of the status of the Company’s non-vested PSUs at September 30, 2020, and changes for the fiscal year then ended, is presented below:

	Weighted Average Price	Shares/Units Subject to PSU
Non-vested, September 30, 2019	$ 39.82	1,825,519
Granted	42.48	476,939
Vested	44.98	(515,975)
Forfeited	38.87	(168,539)
Non-vested, September 30, 2020	$ 39.06	1,617,944

At September 30, 2020, the Company had approximately $25 million of total unrecognized compensation cost related to non-vested performance-based share unit awards granted for continuing operations which is expected to be recognized over a weighted-average period of 1.8 years.

13. EARNINGS PER SHARE

The Company presents both basic and diluted 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):

	Year Ended September 30,		
	2020	2019	2018
Income Available to Ordinary Shareholders			
Income from continuing operations	$ 631	$ 1,100	$ 1,175
Income from discontinued operations	—	4,574	987
Basic and diluted income available to shareholders	$ 631	$ 5,674	$ 2,162
Weighted Average Shares Outstanding			
Basic weighted average shares outstanding	751.0	870.2	925.7
Effect of dilutive securities:			
Stock options, unvested restricted stock and unvested performance share awards	2.6	4.1	6.0
Diluted weighted average shares outstanding	753.6	874.3	931.7
Antidilutive Securities			
Options to purchase shares	1.4	1.4	1.5

14. EQUITY AND NONCONTROLLING INTERESTS

Dividends

The authority to declare and pay dividends is vested in the Board of Directors. The timing, declaration and payment of future dividends to holders of the Company's ordinary shares is determined by the Company's Board of Directors and depends upon many factors, including the Company's financial condition and results of operations, the capital requirements of the Company's businesses, industry practice and any other relevant factors.

Under Irish law, dividends may only be paid (and share repurchases and redemptions must generally be funded) out of "distributable reserves." The creation of distributable reserves was accomplished by way of a capital reduction, which the Irish High Court approved on December 18, 2014 and as acquired in conjunction with the Merger.

Share Repurchase Program

In March 2019, the Company's Board of Directors approved an $8.5 billion increase to its existing share repurchase authorization, subject to the completion of the previously announced sale of the Company's Power Solutions business, which closed on April 30, 2019. The share repurchase program does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. As of September 30, 2020, approximately $2.4 billion remains available under the share repurchase program.

During fiscal year 2020, the Company repurchased and retired approximately $2,204 million of its ordinary shares. During fiscal year 2019, the Company repurchased approximately $5,983 million of its ordinary shares, of which $4,035 million of its ordinary shares were purchased through a publicly announced "modified Dutch auction" tender offer and immediately retired, and $1,948 million of its ordinary shares were purchased on an open market and retired in the fourth quarter of fiscal 2019. During fiscal year 2018, the Company repurchased approximately $300 million of its ordinary shares.

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

	Equity Attributable to Johnson Controls International plc	Equity Attributable to Noncontrolling Interests	Total Equity
At September 30, 2017	$ 20,447	$ 920	$ 21,367
Total comprehensive income (loss):			
Net income	2,162	186	2,348
Foreign currency translation adjustments	(458)	(22)	(480)
Realized and unrealized losses on derivatives	(19)	(1)	(20)
Realized and unrealized gains on marketable securities	4	—	4
Other comprehensive loss	(473)	(23)	(496)
Comprehensive income	1,689	163	1,852
Other changes in equity:			
Cash dividends - ordinary shares ($1.04 per share)	(968)	—	(968)
Dividends attributable to noncontrolling interests	—	(43)	(43)
Repurchases of ordinary shares	(300)	—	(300)
Change in noncontrolling interest share	—	23	23
Adoption of ASU 2016-09	179	—	179
Reclassification from redeemable noncontrolling interest	—	231	231
Other, including options exercised	117	—	117
At September 30, 2018	21,164	1,294	22,458
Total comprehensive income (loss):			
Net income	5,674	213	5,887
Foreign currency translation adjustments	(325)	(17)	(342)
Realized and unrealized gains (losses) on derivatives	7	(1)	6
Pension and postretirement plans	(6)	—	(6)
Other comprehensive loss	(324)	(18)	(342)
Comprehensive income	5,350	195	5,545
Other changes in equity:			
Cash dividends - ordinary shares ($1.04 per share)	(887)	—	(887)
Dividends attributable to noncontrolling interests	—	(132)	(132)
Repurchases and retirements of ordinary shares	(5,983)	—	(5,983)
Divestiture of Power Solutions	483	(295)	188
Adoption of ASC 606	(45)	—	(45)
Adoption of ASU 2016-16	(546)	—	(546)
Other, including options exercised	230	1	231
At September 30, 2019	19,766	1,063	20,829
Total comprehensive income:			
Net income	631	164	795
Foreign currency translation adjustments	7	18	25
Realized and unrealized gains on derivatives	4	4	8
Pension and postretirement plans	8	—	8
Other comprehensive income	19	22	41
Comprehensive income	650	186	836
Other changes in equity:			
Cash dividends - ordinary shares ($1.04 per share)	(780)	—	(780)
Dividends attributable to noncontrolling interests	—	(114)	(114)
Repurchases and retirements of ordinary shares	(2,204)	—	(2,204)
Change in noncontrolling interest share	(83)	(49)	(132)
Adoption of ASC 842	(5)	—	(5)
Other, including options exercised	103	—	103
At September 30, 2020	$ 17,447	$ 1,086	$ 18,533

The Company adopted ASC 606, "Revenue from Contracts with Customers" effective October 1, 2018. As a result, the Company recorded $45 million to beginning retained earnings, which relates primarily to deferred revenue recorded for the Power Solutions business for certain battery core returns that represent a material right provided to customers.

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

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

The Company consolidates certain subsidiaries in which the noncontrolling interest party has within their control the right to require the Company to redeem all or a portion of its interest in the subsidiary. The redeemable noncontrolling interests are reported at their estimated redemption value. Any adjustment to the redemption value impacts retained earnings but does not impact net income. Redeemable noncontrolling interests which are redeemable only upon future events, the occurrence of which is not currently probable, are recorded at carrying value. As of September 30, 2020 and 2019, the Company does not have any subsidiaries for which the noncontrolling interest party has within their control the right to require the Company to redeem any portion of its interests.

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

	Year Ended September 30, 2018
Beginning balance, September 30	$ 211
Net income	35
Foreign currency translation adjustments	(3)
Realized and unrealized losses on derivatives	(9)
Dividends	(3)
Reclassification to noncontrolling interest	(231)
Ending balance, September 30	$ —

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

	Year Ended September 30,		
	2020	2019	2018
Foreign currency translation adjustments			
Balance at beginning of period	$ (785)	$ (939)	$ (481)
Divestiture of Power Solutions	—	479	—
Aggregate adjustment for the period (net of tax effect of $1, $0 and $(3)) (1)	7	(325)	(458)
Balance at end of period	(778)	(785)	(939)
Realized and unrealized gains (losses) on derivatives			
Balance at beginning of period	(2)	(13)	6
Divestiture of Power Solutions (net of tax effect of $0, $1 and $0)	—	4	—
Current period changes in fair value (net of tax effect of $1, $(1) and $(4))	3	(1)	(8)
Reclassification to income (net of tax effect of $0, $2 and $(5)) (2)	1	8	(11)
Balance at end of period	2	(2)	(13)
Realized and unrealized gains (losses) on marketable securities			
Balance at beginning of period	—	8	4
Adoption of ASU 2016-01 (3)	—	(8)	—
Current period changes in fair value (net of tax effect of $0, $0 and $1)	—	—	5
Reclassification to income (net of tax effect of $0, $0 and $(1)) (4)	—	—	(1)
Balance at end of period	—	—	8
Pension and postretirement plans			
Balance at beginning of period	(8)	(2)	(2)
Reclassification to income (net of tax effect of $(1), $0 and $0)	(1)	—	—
Other changes (net of tax effect of $4, $0 and $0)	9	(6)	—
Balance at end of period	—	(8)	(2)
Accumulated other comprehensive loss, end of period	$ (776)	$ (795)	$ (946)

(1) During fiscal 2018, $12 million of cumulative CTA was recognized as part of the divestiture-related gain recognized as part of the divestiture of Scott Safety.

(2) Refer to Note 10, "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.

(3) The Company adopted ASU 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" effective October 1, 2018 and, as a result, reclassified $8 million of unrealized gains on marketable securities to retained earnings.

(4) During fiscal 2018, the Company sold certain marketable common stock for approximately $3 million. As a result, the Company recorded $2 million of realized gains within selling, general and administrative expenses.

15. RETIREMENT PLANS

Pension Benefits

The Company has non-contributory defined benefit pension plans covering certain U.S. and non-U.S. employees. The benefits provided are primarily based on years of service and average compensation or a monthly retirement benefit amount. Certain of the Company's U.S. pension plans have been amended to prohibit new participants from entering the plans and no longer accrue benefits. Funding for U.S. pension plans equals or exceeds the minimum requirements of the Employee Retirement Income Security Act of 1974. Funding for non-U.S. plans observes the local legal and regulatory limits. Also, the Company makes contributions to union-trusteed pension funds for construction and service personnel.

For pension plans with accumulated benefit obligations ("ABO") that exceed plan assets for continuing and discontinued operations, the projected benefit obligation ("PBO"), ABO and fair value of plan assets of those plans were $5,598 million, $5,539 million and $4,528 million, respectively, as of September 30, 2020 and $5,450 million, $5,388 million and $4,484 million, respectively, as of September 30, 2019.

In fiscal 2020, total employer contributions to the defined benefit pension plans were $58 million, none of which were voluntary contributions made by the Company. The Company expects to contribute approximately $46 million in cash to its defined benefit pension plans in fiscal 2021. Projected benefit payments from the plans as of September 30, 2020 are estimated as follows (in millions):

2021	$ 323
2022	301
2023	307
2024	309
2025	309
2026 - 2030	1,516

Postretirement Benefits

The Company provides certain health care and life insurance benefits for eligible retirees and their dependents primarily in the U.S. and Canada. Most non-U.S. employees are covered by government sponsored programs, and the cost to the Company is not significant.

Eligibility for coverage is based on meeting certain years of service and retirement age qualifications. These benefits may be subject to deductibles, co-payment provisions and other limitations, and the Company has reserved the right to modify these benefits.

The health care cost trend assumption does not have a significant effect on the amounts reported.

In fiscal 2020, total employer contributions to the postretirement plans were $3 million. The Company expects to contribute approximately $3 million in cash to its postretirement plans in fiscal 2021 for continuing operations. Projected benefit payments from the plans as of September 30, 2020 are estimated as follows (in millions):

2021	$ 13
2022	12
2023	12
2024	12
2025	11
2026 - 2030	45

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 ("Act") includes a prescription drug benefit under Medicare as well as a federal subsidy to sponsors of retiree health care benefit plans providing a benefit that is at least actuarially equivalent to Medicare Part D.1. Under the Act, the Medicare subsidy amount is received directly by the plan sponsor and not the related plan. Further, the plan sponsor is not required to use the subsidy amount to fund postretirement benefits and may use the subsidy for any valid business purpose. Projected subsidy receipts are estimated to be less than $1 million per year over the next ten years.

Defined Contribution Plans

The Company sponsors various defined contribution savings plans that allow employees to contribute a portion of their pre-tax and/or after-tax income in accordance with plan specified guidelines. Under specified conditions, the Company will contribute to certain savings plans based on predetermined percentages of compensation earned by the employee and/or will match a percentage of the employee contributions up to certain limits. The Company temporarily suspended contributions in fiscal 2020 in response to the COVID-19 pandemic. Defined contribution plan contributions charged to expense for continuing and discontinued operations amounted to $104 million, $198 million and $205 million for the fiscal years ended 2020, 2019 and 2018, respectively.

Multiemployer Benefit Plans

The Company contributes to multiemployer benefit plans based on obligations arising from collective bargaining agreements related to certain of its hourly employees in the U.S. These plans provide retirement benefits to participants based on their service to contributing employers. The benefits are paid from assets held in trust for that purpose. The trustees typically are responsible for determining the level of benefits to be provided to participants as well as for such matters as the investment of the assets and the administration of the plans.

The risks of participating in these multiemployer benefit plans are different from single-employer benefit plans in the following aspects:

- Assets contributed to the multiemployer benefit plan by one employer may be used to provide benefits to employees of other participating employers.
- If a participating employer stops contributing to the multiemployer benefit plan, the unfunded obligations of the plan may be borne by the remaining participating employers.
- If the Company stops participating in some of its multiemployer benefit plans, the Company may be required to pay those plans an amount based on its allocable share of the underfunded status of the plan, referred to as a withdrawal liability.

The Company participates in approximately 280 multiemployer benefit plans, none of which are individually significant to the Company. The number of employees covered by the Company's multiemployer benefit plans has remained consistent over the past three years, and there have been no significant changes that affect the comparability of fiscal 2020, 2019 and 2018 contributions. The Company recognizes expense for the contractually-required contribution for each period. The Company contributed $66 million, $69 million and $68 million to multiemployer benefit plans in fiscal 2020, 2019 and 2018, respectively.

Based on the most recent information available, the Company believes that the present value of actuarial accrued liabilities in certain of these multiemployer benefit plans may exceed the value of the assets held in trust to pay benefits. Currently, the Company is not aware of any significant multiemployer benefits plans for which it is probable or reasonably possible that the Company will be obligated to make up any shortfall in funds. Moreover, if the Company were to exit certain markets or otherwise cease making contributions to these funds, the Company could trigger a withdrawal liability. Currently, the Company is not aware of any multiemployer benefit plans for which it is probable or reasonably possible that the Company will have a significant withdrawal liability. Any accrual for a shortfall or withdrawal liability will be recorded when it is probable that a liability exists and it can be reasonably estimated.

Plan Assets

The Company's investment policies employ an approach whereby a mix of equities, fixed income and alternative investments are used to maximize the long-term return of plan assets for a prudent level of risk. The investment portfolio primarily contains a diversified blend of equity and fixed income investments. Equity investments are diversified across U.S. and non-U.S. stocks, as well as growth, value and small to large capitalizations. Fixed income investments include corporate and government issues, with short-, mid- and long-term maturities, with a focus on investment grade when purchased and a target duration close to that of the plan liability. Investment and market risks are measured and monitored on an ongoing basis through regular investment portfolio reviews, annual liability measurements and periodic asset/liability studies. The majority of the real estate component of the portfolio is invested in a diversified portfolio of high-quality, operating properties with cash yields greater than the targeted appreciation. Investments in other alternative asset classes, including hedge funds and commodities, diversify the expected investment returns relative to the equity and fixed income investments. As a result of the Company's diversification strategies, there are no significant concentrations of risk within the portfolio of investments.

The Company's actual asset allocations are in line with target allocations. The Company rebalances asset allocations as appropriate, in order to stay within a range of allocation for each asset category.

The expected return on plan assets is based on the Company's expectation of the long-term average rate of return of the capital markets in which the plans invest. The average market returns are adjusted, where appropriate, for active asset management returns. The expected return reflects the investment policy target asset mix and considers the historical returns earned for each asset category.

The Company's plan assets at September 30, 2020 and 2019, by asset category, are as follows (in millions):

Asset Category	Total as of September 30, 2020	Fair Value Measurements Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Pension				
Cash and Cash Equivalents	$ 36	$ —	$ 36	$ —
Equity Securities				
Large-Cap	198	198	—	—
Small-Cap	255	255	—	—
International - Developed	220	220	—	—
International - Emerging	33	33	—	—
Fixed Income Securities				
Government	382	159	223	—
Corporate/Other	1,386	1,386	—	—
Total Investments in the Fair Value Hierarchy	2,510	$ 2,251	$ 259	$ —
Investments Measured at Net Asset Value, as Practical Expedient:				
Real Estate Investments Measured at Net Asset Value*	276			
Due to Broker	(80)			
Total Plan Assets	$ 2,706			
Non-U.S. Pension				
Cash and Cash Equivalents	$ 178	$ 178	$ —	$ —
Equity Securities				
Large-Cap	357	23	334	—
International - Developed	226	52	174	—
International - Emerging	4	—	4	—
Fixed Income Securities				
Government	704	64	640	—
Corporate/Other	652	321	331	—
Hedge Fund	49	—	49	—
Real Estate	27	27	—	—
Total Investments in the Fair Value Hierarchy	2,197	$ 665	$ 1,532	$ —
Investments Measured at Net Asset Value, as Practical Expedient:				
Real Estate Investments Measured at Net Asset Value*	16			
Total Plan Assets	$ 2,213			
Postretirement				
Cash and Cash Equivalents	$ 5	$ 5	$ —	$ —
Equity Securities				
Large-Cap	23	—	23	—
Small-Cap	7	—	7	—
International - Developed	16	—	16	—
International - Emerging	10	—	10	—
Fixed Income Securities				
Government	19	—	19	—
Corporate/Other	53	—	53	—
Commodities	12	—	12	—
Real Estate	8	—	8	—
Total Plan Assets	$ 153	$ 5	$ 148	$ —

Asset Category	Total as of September 30, 2019	Fair Value Measurements Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Pension				
Cash and Cash Equivalents	$ 55	$ 24	$ 31	$ —
Equity Securities				
Large-Cap	276	276	—	—
Small-Cap	232	232	—	—
International - Developed	266	233	33	—
International - Emerging	52	42	10	—
Fixed Income Securities				
Government	332	47	285	—
Corporate/Other	1,266	1,266	—	—
Real Estate	55	55	—	—
Total Investments in the Fair Value Hierarchy	2,534	$ 2,175	$ 359	$ —
Investments Measured at Net Asset Value, as Practical Expedient:				
Real Estate Investments Measured at Net Asset Value*	202			
Total Plan Assets	$ 2,736			
Non-U.S. Pension				
Cash and Cash Equivalents	$ 174	$ 174	$ —	$ —
Large-Cap	214	23	191	—
International - Developed	289	54	235	—
International - Emerging	12	1	11	—
Fixed Income Securities				
Government	778	69	709	—
Corporate/Other	517	289	228	—
Hedge Fund	69	—	69	—
Real Estate	31	31	—	—
Total Investments in the Fair Value Hierarchy	2,084	$ 641	$ 1,443	$ —
Investments Measured at Net Asset Value, as Practical Expedient:				
Real Estate Investments Measured at Net Asset Value*	14			
Total Plan Assets	$ 2,098			
Postretirement				
Cash and Cash Equivalents	$ 6	$ 6	$ —	$ —
Equity Securities				
Large-Cap	22	—	22	—
Small-Cap	8	—	8	—
International - Developed	19	—	19	—
International - Emerging	9	—	9	—
Fixed Income Securities				
Government	20	—	20	—
Corporate/Other	55	—	55	—
Commodities	13	—	13	—
Real Estate	11	—	11	—
Total Plan Assets	$ 163	$ 6	$ 157	$ —

* The fair value of certain investments in real estate do not have a readily determinable fair value and requires the fund managers to independently arrive at fair value by calculating net asset value ("NAV") per share. In order to calculate NAV per share, the fund managers value the real estate investments using any one, or a combination of, the following methods: independent third party appraisals, discounted cash flow analysis of net cash flows projected to be generated by the investment and recent sales of comparable investments. Assumptions used to revalue the properties are updated every quarter. Due to the fact that the fund managers calculate NAV per share, the Company utilizes a practical expedient for measuring the fair value of its real-estate investments, as provided for under ASC 820, "Fair Value Measurement." In applying the practical expedient, the Company is not required to further adjust the NAV provided by the fund manager in order to determine the fair value of its investment as the NAV per share is calculated in a manner consistent with the measurement principles of ASC 946, "Financial Services - Investment Companies," and as of the Company's measurement date. The Company believes this is an appropriate methodology to obtain the fair value of these assets. For the component of the real estate portfolio under development, the investments are carried at cost until they are completed and valued by a third party appraiser. In accordance with ASU No. 2015-07, "Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)," investments for which fair value is measured using the net asset value per share practical expedient should be disclosed separate from the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of total plan assets to the amounts presented in the notes to consolidated financial statements.

The following is a description of the valuation methodologies used for assets measured at fair value. Certain assets are held within commingled funds which are valued at the unitized NAV or percentage of the net asset value as determined by the manager of the fund. These values are based on the fair value of the underlying net assets owned by the fund.

Cash and Cash Equivalents: The fair value of cash is valued at cost.

Equity Securities: The fair value of equity securities is determined by direct quoted market prices. The underlying holdings are direct quoted market prices on regulated financial exchanges.

Fixed Income Securities: The fair value of fixed income securities is determined by direct or indirect quoted market prices. If indirect quoted market prices are utilized, the value of assets held in separate accounts is not published, but the investment managers report daily the underlying holdings. The underlying holdings are direct quoted market prices on regulated financial exchanges.

Commodities: The fair value of the commodities is determined by quoted market prices of the underlying holdings on regulated financial exchanges.

Hedge Funds: The fair value of hedge funds is accounted for by the custodian. The custodian obtains valuations from underlying managers based on market quotes for the most liquid assets and alternative methods for assets that do not have sufficient trading activity to derive prices. The Company and custodian review the methods used by the underlying managers to value the assets. The Company believes this is an appropriate methodology to obtain the fair value of these assets.

Real Estate: The fair value of real estate is determined by quoted market prices of the underlying Real Estate Investment Trusts ("REITs"), which are securities traded on an open exchange.

The methods described above may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, while the Company believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

There were no Level 3 assets as of September 30, 2020 or 2019 or any Level 3 asset activity during fiscal 2020 or 2019.

Funded Status

The table that follows contains the ABO and reconciliations of the changes in the PBO, the changes in plan assets and the funded status (in millions):

	Pension Benefits				Postretirement Benefits	
	U.S. Plans		Non-U.S. Plans			
September 30,	2020	2019	2020	2019	2020	2019
Accumulated Benefit Obligation	$ 3,217	$ 3,115	$ 2,627	$ 2,549	$ —	$ —
Change in Projected Benefit Obligation						
Projected benefit obligation at beginning of year	$ 3,115	$ 3,191	$ 2,652	$ 2,542	$ 174	$ 196
Service cost	—	8	25	22	1	1
Interest cost	67	108	36	54	4	6
Plan participant contributions	—	—	3	2	4	6
Power Solutions divestiture	—	(390)	—	(86)	—	(9)
Other divestitures	—	—	(2)	(8)	—	—
Actuarial (gain) loss	298	441	7	337	(3)	15
Amendments made during the year	—	—	—	26	(13)	(19)
Benefits and settlements paid	(263)	(243)	(109)	(126)	(21)	(23)
Estimated subsidy received	—	—	—	—	1	1
Curtailment	—	—	(8)	—	—	—
Other	—	—	4	(2)	—	—
Currency translation adjustment	—	—	118	(109)	(1)	—
Projected benefit obligation at end of year	$ 3,217	$ 3,115	$ 2,726	$ 2,652	$ 146	$ 174
Change in Plan Assets						
Fair value of plan assets at beginning of year	$ 2,736	$ 3,046	$ 2,098	$ 2,117	$ 163	$ 174
Actual return on plan assets	228	266	75	203	4	7
Power Solutions divestiture	—	(371)	—	(45)	—	(4)
Other divestitures	—	—	—	(4)	—	—
Employer and employee contributions	5	38	56	50	7	9
Benefits paid	(112)	(136)	(73)	(76)	(21)	(23)
Settlement payments	(151)	(107)	(36)	(50)	—	—
Other	—	—	—	(2)	—	—
Currency translation adjustment	—	—	93	(95)	—	—
Fair value of plan assets at end of year	$ 2,706	$ 2,736	$ 2,213	$ 2,098	$ 153	$ 163
Funded status	$ (511)	$ (379)	$ (513)	$ (554)	$ 7	$ (11)
Amounts recognized in the statement of financial position consist of:						
Prepaid benefit cost	$ 32	$ 30	$ 29	$ 25	$ 78	$ 66
Accrued benefit liability	(543)	(409)	(542)	(579)	(71)	(77)
Net amount recognized	$ (511)	$ (379)	$ (513)	$ (554)	$ 7	$ (11)
Weighted Average Assumptions (1)						
Discount rate (2)	2.25 %	2.95 %	1.35 %	1.50 %	1.90 %	2.65 %
Rate of compensation increase	N/A	N/A	2.75 %	2.80 %	N/A	N/A

(1) Plan assets and obligations are determined based on a September 30 measurement date at September 30, 2020 and 2019.

(2) The Company considers the expected benefit payments on a plan-by-plan basis when setting assumed discount rates. As a result, the Company uses different discount rates for each plan depending on the plan jurisdiction, the demographics of participants and the expected timing of benefit payments. For the U.S. pension and postretirement plans, the Company uses a discount rate provided by an independent third party calculated based on an appropriate mix of high quality bonds. For the non-U.S. pension and postretirement plans, the Company consistently uses the relevant country specific benchmark indices for determining the various discount rates. The Company has elected to utilize a full yield curve approach in the estimation of service and interest components of net periodic benefit cost (credit) for pension and other postretirement for plans that utilize a yield curve approach. The full yield curve approach applies the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows.

Accumulated Other Comprehensive Income

The amounts in AOCI in the consolidated statements of financial position, exclusive of tax impacts, that have not yet been recognized as components of net periodic benefit cost (credit) at September 30, 2020 and 2019 related to pension and postretirement benefits are $(5) million and $6 million, respectively.

The amounts in AOCI expected to be recognized as components of net periodic benefit cost (credit) over the next fiscal year related to pension and postretirement benefits are not significant.

Net Periodic Benefit Cost

The table that follows contains the components of net periodic benefit costs, which are primarily recorded in selling, general and administrative expenses in the consolidated statements of income (in millions):

	Pension Benefits								
	U.S. Plans			Non-U.S. Plans			Postretirement Benefits		
Year ended September 30,	2020	2019	2018	2020	2019	2018	2020	2019	2018
Components of Net Periodic Benefit Cost (Credit):									
Service cost	$ —	$ 8	$ 15	$ 25	$ 22	$ 23	$ 1	$ 1	$ 2
Interest cost	67	108	105	36	54	57	4	6	7
Expected return on plan assets	(180)	(199)	(229)	(111)	(105)	(114)	(9)	(9)	(10)
Net actuarial (gain) loss	244	361	7	43	236	(22)	2	17	5
Amortization of prior service cost (credit)	—	—	—	1	—	—	(3)	—	—
Curtailment gain	—	—	—	(8)	—	(2)	—	—	—
Settlement loss	6	13	—	—	4	—	—	—	—
Net periodic benefit cost (credit)	137	291	(102)	(14)	211	(58)	(5)	15	4
Net periodic benefit cost related to discontinued operations	—	(2)	(5)	—	—	(7)	—	—	(2)
Net periodic benefit cost (credit) included in continuing operations	$ 137	$ 289	$(107)	$ (14)	$ 211	$ (65)	$ (5)	$ 15	$ 2
Expense Assumptions:									
Discount rate	2.95 %	4.10 %	3.80 %	1.50 %	2.45 %	2.40 %	2.65 %	3.80 %	3.70 %
Expected return on plan assets	6.90 %	7.10 %	7.50 %	5.20 %	5.20 %	5.35 %	5.70 %	5.65 %	5.65 %
Rate of compensation increase	N/A	3.50 %	3.20 %	2.80 %	2.95 %	2.90 %	N/A	N/A	N/A

16. 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 has committed to various restructuring plans in its Building Technologies & Solutions business and its corporate operations. Restructuring plans generally result in charges for workforce reductions, plant closures and asset impairments 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 2020, the Company committed to a significant restructuring plan ("2020 Plan") and recorded $297 million of restructuring and impairment costs in the consolidated statements of income. This is the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. Of the restructuring and impairment costs recorded, $136 million related to the Global Products segment, $64 million related to the Building Solutions North America segment, $49 million related to the Building Solutions Asia Pacific segment, $43 million related to the Building Solutions EMEA/LA segment and $5 million related to Corporate. The restructuring actions are expected to be substantially complete in fiscal 2021.

The following table summarizes the changes in the Company's 2020 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	$ 196	$ 96	$ 5	$ 297
Utilized—cash	(92)	—	(3)	(95)
Utilized—noncash	—	(96)	—	(96)
Currency translation	2	—	—	2
Balance at September 30, 2020	$ 106	$ —	$ 2	$ 108

Also included in restructuring and impairment costs in the consolidated statements of income in fiscal 2020 are goodwill impairment related to the North America Retail reporting unit of $424 million and indefinite-lived intangible asset impairments of $62 million. Refer to Note 7, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for further information regarding these impairments.

In fiscal 2018, the Company committed to a significant restructuring plan ("2018 Plan") and recorded $255 million of restructuring and impairment costs for continuing operations in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. Of the restructuring and impairment costs recorded, $113 million related to the Global Products segment, $56 million related to the Building Solutions EMEA/LA segment, $50 million related to Corporate, $20 million related to the Building Solutions North America segment and $16 million related to the Building Solutions Asia Pacific segment. The restructuring actions were substantially complete in 2020.

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

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

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Total
Original reserve	$ 209	$ 42	$ 12	$ 263
Utilized—cash	(45)	—	(2)	(47)
Utilized—noncash	—	(42)	—	(42)
Balance at September 30, 2018	$ 164	$ —	$ 10	$ 174
Utilized—cash	(61)	—	(6)	(67)
Transfer to liabilities held for sale	(4)	—	—	(4)
Currency translation	(1)	—	—	(1)
Balance at September 30, 2019	$ 98	$ —	$ 4	$ 102
Utilized—cash	(69)	—	—	(69)
Adoption of ASC 842 (1)	—	—	(4)	(4)
Currency translation	1	—	—	1
Balance at September 30, 2020	$ 30	$ —	$ —	$ 30

(1) Represents liability for facility closings recorded as an offset to right-of-use asset upon adoption of ASC 842.

In fiscal 2017, the Company committed to a significant restructuring plan ("2017 Plan") and recorded $347 million of restructuring and impairment costs for continuing operations in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. Of the restructuring and impairment costs recorded, $166 million related to Corporate, $74 million related to the Building Solutions EMEA/LA segment, $59 million related to the Building Solutions North America segment, $32 million related to the Global Products segment and $16 million related to the Building Solutions Asia Pacific segment. The restructuring actions were substantially complete in fiscal 2020.

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

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

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Total
Original Reserve	$ 276	$ 77	$ 14	$ 367
Utilized—cash	(75)	—	—	(75)
Utilized—noncash	—	(77)	(1)	(78)
Adjustment to restructuring reserves	25	—	—	25
Balance at September 30, 2017	$ 226	$ —	$ 13	$ 239
Utilized—cash	(152)	—	(6)	(158)
Currency translation	(1)	—	—	(1)
Balance at September 30, 2018	$ 73	$ —	$ 7	$ 80
Utilized—cash	(11)	—	(2)	(13)
Transfer to liabilities held for sale	(3)	—	—	(3)
Currency translation	(3)	—	—	(3)
Balance at September 30, 2019	$ 56	$ —	$ 5	$ 61
Utilized—cash	(50)	—	—	(50)
Adoption of ASC 842 (1)	—	—	(5)	(5)
Balance at September 30, 2020	$ 6	$ —	$ —	$ 6

(1) Represents liability for facility closings recorded as an offset to right-of-use asset upon adoption of ASC 842.

The Company's fiscal 2020, 2018 and 2017 restructuring plans included workforce reductions of approximately 16,400 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 September 30, 2020, approximately 12,700 of the employees have been separated from the Company pursuant to the restructuring plans. In addition, the restructuring plans included nine plant closures. As of September 30, 2020, eight of the nine plants have been closed.

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

17. IMPAIRMENT OF LONG-LIVED ASSETS

In fiscal 2020, the Company concluded it had triggering events requiring assessment of impairment for certain of its long-lived assets caused by the economic impacts of the COVID-19 pandemic on the North America Retail asset group. The Company performed a quantitative impairment analysis and determined there was no impairment of long-lived assets as of September 30, 2020.

In fiscal 2020, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with its restructuring actions announced in fiscal 2020. As a result, the Company reviewed the long-lived assets for impairment and recorded $81 million of asset impairment charges within restructuring and impairment costs in the consolidated statements of income. Of these impairment charges, $42 million related to the Global Products segment, $24 million related to the Building Solutions Asia Pacific segment and $15 million related to the Building Solutions North America segment. The impairments were primarily measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

In fiscal 2019 and again in 2020, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with the plans to dispose of a business within its Global Products segment that met the criteria to be classified as held for sale. Assets and liabilities held for sale are required to be recorded at the lower of carrying value or fair value less any costs to sell. Accordingly, the Company recorded impairment charges of $250 million, including $15 million in fiscal 2020 and $235 million in fiscal 2019, within restructuring and impairment costs in the consolidated statements of income to write down the carrying value of the assets held for sale to fair value less any costs to sell. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

In fiscal 2018, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with its restructuring actions announced in fiscal 2018. As a result, the Company reviewed the long-lived assets for impairment and recorded $36 million of asset impairment charges within restructuring and impairment costs in the consolidated statements of income. Of the total impairment charges, $31 million related to the Global Products segment and $5 million related to Corporate assets. In addition, the Company recorded $6 million of asset impairments within discontinued operations related to the Power Solutions segment in fiscal 2018.

Refer to Note 16, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

During September 30, 2020, 2019 and 2018, the Company concluded it did not have any other triggering events requiring assessment of impairment of its long-lived assets. Refer to Note 1, "Summary of Significant Accounting Policies," and Note 7, "Goodwill and Other Intangible Assets," of the notes to consolidated financial statements for discussion of the Company's goodwill impairment testing.

18. INCOME TAXES

The more significant components of the Company's income tax provision from continuing operations are as follows (in millions):

	Year Ended September 30,		
	2020	2019	2018
Tax expense at Ireland statutory rate	$ 113	$ 132	$ 193
U.S. state income tax, net of federal benefit	8	15	15
Income subject to the U.S. federal tax rate	(92)	(110)	39
Income subject to rates different than the statutory rate	99	38	(201)
Reserve and valuation allowance adjustments	(70)	(284)	31
Impact of acquisitions and divestitures	—	—	16
U.S. Tax Reform discrete items	—	—	108
Restructuring and impairment costs	50	(24)	(4)
Income tax provision (benefit)	$ 108	$ (233)	$ 197

The statutory tax rate in Ireland of 12.5% is being used as a comparison since the Company is domiciled in Ireland.

For fiscal 2020, the effective tax rate for continuing operations was 12% and was lower than the statutory tax rate primarily due to tax audit reserve adjustments, the income tax effects of mark-to-market adjustments, valuation allowance adjustments and the benefits of continuing global tax planning initiatives, partially offset by a discrete tax charge related to the remeasurement of deferred tax assets and liabilities as a result of Swiss tax reform, the tax impact of an impairment charge and tax rate differentials.

For fiscal 2019, the effective rate for continuing operations was below the statutory rate primarily due to tax audit reserve adjustments, the income tax effects of mark-to-market adjustments, a tax indemnification reserve release, the tax benefits of an asset held for sale impairment charge and continuing global tax planning initiatives, partially offset by valuation allowance adjustments as a result of tax law changes, a discrete tax charge related to newly enacted regulations related to U.S. Tax Reform and tax rate differentials.

For fiscal 2018, the effective rate for continuing operations was above the statutory rate primarily due to the discrete net impacts of U.S. Tax Reform, the final income tax effects of the completed divestiture of the Scott Safety business, and valuation allowance adjustments, partially offset by tax audit closures, tax benefits due to changes in entity tax status, the benefits of continuing global tax planning initiatives and tax rate differentials.

Valuation Allowances

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

In the fourth quarter of fiscal 2020, the Company performed an analysis related to the realizability of its worldwide deferred tax assets. As a result, and after considering feasible tax planning initiatives and other positive and negative evidence, the Company determined that it was more likely than not that certain deferred tax assets primarily within the U.S. would not be realized, and it is more likely than not that certain deferred tax assets of Canada would be realized. The valuation allowance adjustments resulted in a $26 million net benefit to income tax expense in the three month period ended September 30, 2020.

In the fourth quarter of fiscal 2019, the Company performed an analysis related to the realizability of its worldwide deferred tax assets. As a result, and after considering feasible tax planning initiatives and other positive and negative evidence, the Company determined that it was more likely than not that certain deferred tax assets primarily within the U.S., Belgium, Japan and the United Kingdom would not be realized, and it is more likely than not that certain deferred tax assets of the U.S. and France will be realized. The valuation allowance adjustments resulted in an immaterial net impact to income tax expense for the three-month period ended September 30, 2019.

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

In the fourth quarter of fiscal 2018, the Company performed an analysis related to the realizability of its worldwide deferred tax assets. As a result, and after considering feasible tax planning initiatives and other positive and negative evidence, the Company determined that it was more likely than not that certain deferred tax assets primarily within Germany would not be realized. Therefore, the Company recorded $56 million of valuation allowances as income tax expense in the three-month period ended September 30, 2018.

Uncertain Tax Positions

The Company is subject to income taxes in the U.S. and numerous foreign jurisdictions. Judgment is required in determining its worldwide provision for income taxes and recording the related assets and liabilities. In the ordinary course of the Company's business, there are many transactions and calculations where the ultimate tax determination is uncertain. The Company is regularly under audit by tax authorities.

At September 30, 2020, the Company had gross tax effected unrecognized tax benefits for continuing operations of $2,528 million of which $2,132 million, if recognized, would impact the effective tax rate. Total net accrued interest at September 30, 2020 was approximately $205 million (net of tax benefit).

At September 30, 2019, the Company had gross tax effected unrecognized tax benefits for continuing operations of $2,451 million of which $2,121 million, if recognized, would impact the effective tax rate. Total net accrued interest at September 30, 2019 was approximately $181 million (net of tax benefit).

At September 30, 2018, the Company had gross tax effected unrecognized tax benefits for continuing operations of $2,358 million of which $2,225 million, if recognized, would impact the effective tax rate. Total net accrued interest at September 30, 2018 was approximately $119 million (net of tax benefit).

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in millions):

	Year Ended September 30,		
	2020	2019	2018
Beginning balance, October 1	$ 2,451	$ 2,358	$ 2,161
Additions for tax positions related to the current year	128	433	435
Additions for tax positions of prior years	129	347	7
Reductions for tax positions of prior years	(27)	(88)	(201)
Settlements with taxing authorities	(54)	—	(19)
Statute closings and audit resolutions	(99)	(599)	(25)
Ending balance, September 30	$ 2,528	$ 2,451	$ 2,358

During fiscal 2020, tax audit resolutions resulted in a $44 million net benefit to income tax expense.

During fiscal 2019, the Company settled tax examinations impacting fiscal years 2015 to 2016 and adjusted various tax audit reserves which resulted in a $586 million net benefit to income tax expense in the fourth quarter. In the third quarter of fiscal 2019, the Company recorded a discrete charge related to newly enacted regulations related to U.S. Tax Reform and a discrete charge related to non-U.S. tax examinations which impacted the Company's reserves for uncertain tax positions resulting in a $226 million net charge to income tax expense.

During fiscal 2018, the Company settled tax examinations impacting fiscal years 2010 to fiscal 2012 which resulted in a $25 million net benefit to income tax expense.

In the U.S., fiscal years 2017 through 2018 are currently under exam by the Internal Revenue Service ("IRS") for certain legal entities. 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 - 2019
China	2019
Germany	2007 - 2018
Luxembourg	2017 - 2018
Mexico	2016 - 2017, 2019
Taiwan	2019
United Kingdom	2014 - 2015, 2017

It is reasonably possible that certain tax examinations and/or tax litigation will conclude within the next twelve months, which could impact tax expense.

Other Tax Matters

During fiscal 2020, the Company incurred charges for restructuring and impairment costs for continuing operations of $783 million. Refer to Note 7, "Goodwill and Other Intangible Assets," Note 16, "Significant Restructuring and Impairment Costs," and Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for additional information. These costs generated tax benefits of $48 million, which reflects the Company's current tax position in these jurisdictions.

During fiscal 2020, 2019, and 2018, the Company recorded transaction and integration costs for continuing operations of $135 million, $317 million and $226 million, respectively. These costs generated tax benefits of $18 million, $35 million and $27 million, respectively, which reflects the Company's current tax position in these jurisdictions.

During fiscal 2020, 2019 and 2018, the Company recorded mark-to-market gains (losses) of $(274) million, $(618) million and $24 million, respectively. These gains (losses) generated tax expense (benefit) of $(65) million, $(130) million and $1 million, respectively, which reflects the Company's current tax position in these jurisdictions.

During fiscal 2019, the Company recorded a $235 million impairment charge related to assets held for sale. Refer to Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for further information regarding the impairment charge. The impairment charge generated a $53 million tax benefit. Also during fiscal 2019, the Company released a $226 million tax indemnification reserve, which was recorded within selling, general and administrative expenses in the consolidated statements of income. The reserve release generated no income tax expense.

During fiscal 2018, the Company incurred charges for restructuring and impairment costs for continuing operations of $255 million. Refer to Note 16, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. These costs generated tax benefits of $36 million, which reflects the Company's current tax position in these jurisdictions.

In the fourth quarter of fiscal 2018, the Company recorded a tax benefit of $139 million due to changes in entity tax status.

In the first quarter of fiscal 2018, the Company completed the sale of its Scott Safety business to 3M Company. In connection with the sale, the Company recorded a pre-tax gain of $114 million and income tax expense of $30 million. Refer to Note 2, "Acquisitions and Divestitures," of the notes to consolidated financial statements for additional information.

Impacts of Tax Legislation and Change in Statutory Tax Rates

On March 27, 2020, in response to the COVID-19 pandemic, the "Coronavirus Aid, Relief and Economic Security Act" ("CARES") was signed into law by the President of the United States. The CARES Act includes, among other things, U.S. corporate income tax provisions related to net operating loss carryback periods, alternative minimum tax credits, modifications to interest deduction limitations and technical corrections on tax depreciation methods for qualified improvement property. A majority of non-U.S. countries have also introduced various COVID-19 related corporate income tax relief provisions. The Company does not expect either the U.S. or non-U.S. corporate income tax provisions to have a material effect on its financial statements.

In the first quarter of fiscal 2020, the Company recorded a noncash discrete tax charge of $30 million due to the remeasurement of deferred tax assets and liabilities related to Switzerland and the canton of Schaffhausen. On September 28, 2018, the Swiss Parliament approved the Federal Act on Tax Reform and AHV Financing ("TRAF"), which was subsequently approved by the Swiss electorate on May 19, 2019. During the fourth quarter of fiscal 2019, the Swiss Federal Council enacted TRAF which became effective for the Company on January 1, 2020. The impacts of the federal enactment did not have a material impact to the Company's financial statements. TRAF also provides for parameters which enable the Swiss cantons to adjust tax rates and establish new regulations for companies. As of September 30, 2019, the canton of Schaffhausen had not concluded its public referendum; however, the enactment did occur during the first quarter of fiscal 2020.

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

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

During the fiscal years ended 2020, 2019 and 2018, other tax legislation was adopted in various jurisdictions. These law changes did not have a material impact on the Company's consolidated financial statements.

Continuing Operations

Components of the provision (benefit) for income taxes on continuing operations were as follows (in millions):

	Year Ended September 30,		
	2020	2019	2018
Current			
U.S. federal	$ 309	$ (1,025)	$ 476
U.S. state	72	(33)	26
Non-U.S.	264	213	434
	645	(845)	936
Deferred			
U.S. federal	(382)	412	(372)
U.S. state	(43)	84	(10)
Non-U.S.	(112)	116	(357)
	(537)	612	(739)
Income tax provision (benefit)	$ 108	$ (233)	$ 197

Consolidated U.S. income (loss) from continuing operations before income taxes and noncontrolling interests for the fiscal years ended September 30, 2020, 2019 and 2018 was $(385) million, $(259) million and $261 million, respectively. Consolidated non-U.S. income from continuing operations before income taxes and noncontrolling interests for the fiscal years ended September 30, 2020, 2019 and 2018 was $1,288 million, $1,315 million and $1,285 million, respectively.

Continuing operations income taxes paid (refunded) for the fiscal years ended September 30, 2020, 2019 and 2018 were $(386) million, $377 million and $81 million, respectively. At September 30, 2020 and 2019, the Company recorded within the continuing operations consolidated statements of financial position in other current assets approximately $252 million and $1,069 million, respectively, of income tax assets. At September 30, 2020 and 2019, the Company recorded within the continuing operations consolidated statements of financial position in other current liabilities approximately $243 million and $159 million, respectively, of accrued income tax liabilities.

The Company has not provided U.S. or non-U.S. income taxes on approximately $22.0 billion of outside basis differences of consolidated subsidiaries of Johnson Controls International plc. The Company is indefinitely reinvested in these basis differences. The reduction of the outside basis differences via the sale or liquidation of these subsidiaries and/or distributions could create taxable income. The Company's intent is to reduce the outside basis differences only when it would be tax efficient. Given the numerous ways in which the basis differences may be reduced, it is not practicable to estimate the amount of unrecognized withholding taxes and deferred tax liability on the outside basis differences.

Deferred taxes were classified in the consolidated statements of financial position as follows (in millions):

	September 30,	
	2020	2019
Other noncurrent assets	$ 862	$ 552
Other noncurrent liabilities	(385)	(588)
Net deferred tax asset (liability)	$ 477	$ (36)

Temporary differences and carryforwards which gave rise to deferred tax assets and liabilities included (in millions):

	September 30,	
	2020	2019
Deferred tax assets		
Accrued expenses and reserves	$ 474	$ 437
Employee and retiree benefits	286	265
Property, plant and equipment	182	—
Net operating loss and other credit carryforwards	6,306	5,664
Research and development	112	106
Other, net	99	—
	7,459	6,472
Valuation allowances	(5,518)	(5,068)
	1,941	1,404
Deferred tax liabilities		
Property, plant and equipment	—	139
Subsidiaries, joint ventures and partnerships	730	499
Intangible assets	734	759
Other, net	—	43
	1,464	1,440
Net deferred tax asset (liability)	$ 477	$ (36)

At September 30, 2020, the Company had available net operating loss carryforwards of approximately $25.0 billion, of which $15.1 billion will expire at various dates between 2021 and 2040, and the remainder has an indefinite carryforward period. The Company had available U.S. foreign tax credit carryforwards at September 30, 2020 of $35 million which will expire in 2030. The valuation allowance, generally, is for loss and credit carryforwards for which realization is uncertain because it is unlikely that the losses and/or credits will be realized given the lack of sustained profitability and/or limited carryforward periods in certain countries.

19. SEGMENT INFORMATION

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

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

Building Solutions EMEA/LA: Building Solutions EMEA/LA designs, sells, installs, and services HVAC, controls, refrigeration, integrated electronic security, integrated fire detection and suppression systems, and provides technical services, 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, 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 and produces heating and air conditioning for residential and commercial applications, and markets products and refrigeration systems to replacement and new construction market customers globally. The Global Products business also designs, manufactures and sells fire protection and security products, including intrusion security, anti-theft devices, and access control and video management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. Global Products also includes the Johnson Controls-Hitachi joint venture.

On October 1, 2018, the Company adopted ASU No. 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." The new standard requires the mark-to-market of marketable securities investments previously recorded within accumulated other comprehensive income on the statement of financial position be recorded in the statement of income on a prospective basis beginning as of the adoption date. As these restricted investments do not relate to the underlying operating performance of its business, the Company's definition of segment earnings excludes the mark-to-market adjustments in fiscal 2020 and 2019.

Management evaluates the performance of its business segments primarily on segment earnings before interest, taxes and amortization ("EBITA"), which represents income from continuing operations before income taxes and noncontrolling interests, excluding general corporate expenses, intangible asset amortization, net financing charges, restructuring and impairment costs, and 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):

	Year Ended September 30,		
	2020	2019	2018
Net Sales			
Building Solutions North America	$ 8,605	$ 9,031	$ 8,679
Building Solutions EMEA/LA	3,440	3,655	3,696
Building Solutions Asia Pacific	2,403	2,658	2,553
Global Products	7,869	8,624	8,472
Total net sales	$ 22,317	$ 23,968	$ 23,400

	Year Ended September 30,		
	2020	2019	2018
Segment EBITA			
Building Solutions North America (1)	$ 1,157	$ 1,153	$ 1,109
Building Solutions EMEA/LA (2)	338	368	344
Building Solutions Asia Pacific (3)	319	341	347
Global Products (4)	1,134	1,179	1,338
Total segment EBITA	$ 2,948	$ 3,041	$ 3,138
Amortization of intangible assets	(386)	(377)	(376)
Corporate expenses (5)	(371)	(405)	(584)
Net financing charges	(231)	(350)	(401)
Restructuring and impairment costs	(783)	(235)	(255)
Net mark-to-market adjustments	(274)	(618)	24
Income from continuing operations before income taxes	$ 903	$ 1,056	$ 1,546

	September 30,		
	2020	2019	2018
Assets			
Building Solutions North America (6)	$ 15,215	$ 15,562	$ 15,384
Building Solutions EMEA/LA (7)	4,989	4,786	4,997
Building Solutions Asia Pacific (8)	2,720	2,657	2,743
Global Products (9)	13,882	13,945	14,261
	36,806	36,950	37,385
Assets held for sale	147	158	8,203
Unallocated	3,862	5,179	3,209
Total	$ 40,815	$ 42,287	$ 48,797

	Year Ended September 30,		
	2020	2019	2018
Depreciation/Amortization			
Building Solutions North America	$ 233	$ 233	$ 236
Building Solutions EMEA/LA	102	112	110
Building Solutions Asia Pacific	24	23	28
Global Products	414	396	390
	773	764	764
Corporate	49	61	60
Continuing Operations	822	825	824
Discontinued Operations	—	32	261
Total	$ 822	$ 857	$ 1,085

	Year Ended September 30,		
	2020	2019	2018
Capital Expenditures			
Building Solutions North America	$ 93	$ 119	$ 114
Building Solutions EMEA/LA	99	93	73
Building Solutions Asia Pacific	36	26	26
Global Products	191	310	307
	419	548	520
Corporate	24	38	125
Continuing Operations	443	586	645
Discontinued Operations	—	197	385
Total	$ 443	$ 783	$ 1,030

(1) Building Solutions North America segment EBITA for the years ended September 30, 2020 and 2018 excludes $520 million and $20 million, respectively, of restructuring and impairment costs. For the year ended September 30, 2020, Building Solutions North America includes $1 million of equity losses.

(2) Building Solutions EMEA/LA segment EBITA for the years ended September 30, 2020 and 2018 excludes $59 million, and $56 million, respectively, of restructuring and impairment costs. For the years ended September 30, 2020, 2019 and 2018, Building Solutions EMEA/LA segment EBITA includes $6 million, $12 million and $1 million, respectively, of equity income.

(3) Building Solutions Asia Pacific segment EBITA for the years ended September 30, 2020 and 2018 excludes $56 million and $16 million, respectively, of restructuring and impairment costs. For the years ended September 30, 2020, 2019 and 2018, Building Solutions Asia Pacific segment EBITA includes less than $1 million, $1 million and $1 million, respectively, of equity income.

(4) Global Products segment EBITA for the years ended September 30, 2020, 2019 and 2018 excludes $143 million, $235 million and $113 million, respectively, of restructuring and impairment costs. For the years ended September 30, 2020, 2019 and 2018, Global Products segment EBITA includes $166 million, $179 million and $175 million, respectively, of equity income.

(5) Corporate expenses for the years ended September 30, 2020 and 2018 excludes $5 million and $50 million, respectively, of restructuring and impairment costs.

(6) Buildings Solutions North America assets as of September 30, 2020, 2019 and 2018 include $7 million, $8 million and $8 million, respectively, of investments in partially-owned affiliates.

(7) Building Solutions EMEA/LA assets as of September 30, 2020, 2019 and 2018 include $108 million, $109 million and $99 million, respectively, of investments in partially-owned affiliates.

(8) Building Solutions Asia Pacific assets as of September 30, 2020, 2019 and 2018 include $2 million and $6 million, and $1 million, respectively, of investments in partially-owned affiliates.

(9) Global Products assets as of September 30, 2020, 2019 and 2018 include $797 million, $730 million and $740 million, respectively, of investments in partially-owned affiliates.

In fiscal years 2020, 2019 and 2018 no customer exceeded 10% of consolidated net sales.

Geographic Segments

Financial information relating to the Company's operations by geographic area is as follows (in millions):

	Year Ended September 30,		
	2020	2019	2018
Net Sales			
United States	$ 11,007	$ 11,773	$ 11,306
China	1,206	1,424	1,480
Japan	1,789	1,943	1,903
Germany	583	629	616
United Kingdom	980	1,042	1,075
Taiwan	725	612	661
Other foreign	4,113	4,625	4,423
Other European countries	1,914	1,920	1,936
Total	$ 22,317	$ 23,968	$ 23,400
Long-Lived Assets (Year-end)			
United States	$ 1,713	$ 1,824	$ 1,879
China	164	326	332
Japan	204	228	209
Germany	22	20	19
United Kingdom	70	77	73
Taiwan	133	141	154
Other foreign	567	568	464
Other European countries	186	164	170
Total	$ 3,059	$ 3,348	$ 3,300

Net sales attributed to geographic locations are based on the location of the assets producing the sales. Long-lived assets by geographic location consist of net property, plant and equipment.

20. NONCONSOLIDATED PARTIALLY-OWNED AFFILIATES

Investments in the net assets of nonconsolidated partially-owned affiliates are stated in the "Investments in partially-owned affiliates" line in the consolidated statements of financial position as of September 30, 2020 and 2019. Equity in the net income of nonconsolidated partially-owned affiliates is stated in the "Equity income" line in the consolidated statements of income for the years ended September 30, 2020, 2019 and 2018.

The following table presents aggregated summarized financial data for the Company's nonconsolidated partially-owned affiliates which were considered significant subsidiaries in fiscal 2019 and 2018, but not in fiscal 2020 due to adoption of the SEC Final Rule Release No. 33-10786. The amounts included in the table below represent 100% of the results of continuing operations of such nonconsolidated partially-owned affiliates accounted for under the equity method.

Summarized balance sheet data as of September 30, 2019 is as follows (in millions):

	September 30, 2019
Current assets	$ 2,941
Noncurrent assets	1,020
Total assets	$ 3,961
Current liabilities	$ 2,135
Noncurrent liabilities	157
Noncontrolling interests	67
Shareholders' equity	1,602
Total liabilities and shareholders' equity	$ 3,961

Summarized income statement data for the years ended September 30, 2019 and 2018 is as follows (in millions):

	Year Ended September 30,	
	2019	2018
Net sales	$ 3,882	$ 3,974
Gross profit	1,070	1,049
Net income	411	390
Income attributable to noncontrolling interests	13	10
Net income attributable to the entity	398	380

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 fiscal years ended September 30, 2020 and 2019 were as follows (in millions). Extended warranty for which deferred revenue is recorded is not included in the table below, but rather included within the contract balances table in the Note 4, "Revenue Recognition," of the notes to consolidated financial statements for all periods presented.

	Year Ended September 30,	
	2020	2019
Balance at beginning of period	$ 156	$ 197
Accruals for warranties issued during the period	71	78
Accruals from acquisitions and divestitures	—	1
Accruals related to pre-existing warranties (including changes in estimates)	9	(39)
Settlements made (in cash or in kind) during the period	(71)	(79)
Currency translation	2	(2)
Balance at end of period	$ 167	$ 156

22. COMMITMENTS AND CONTINGENCIES

Environmental Matters

The Company accrues for potential environmental liabilities when it is probable a liability has been incurred and the amount of the liability is reasonably estimable. As of September 30, 2020, reserves for environmental liabilities for continuing operations totaled $130 million, of which $61 million was recorded within other current liabilities and $69 million was recorded within other noncurrent liabilities in the consolidated statements of financial position. Reserves for environmental liabilities for continuing operations totaled $159 million at September 30, 2019, of which $52 million was recorded within other current liabilities and $107 million was recorded within other noncurrent liabilities in the consolidated statements of financial position.

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

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 3, 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. 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.

Tyco Fire Products has been engaged in remediation activities at the Stanton Street Facility since 1990. Its corporate predecessor, Ansul Incorporated ("Ansul") manufactured arsenic-based agricultural herbicides at the Stanton Street Facility, which resulted in significant arsenic contamination of soil and groundwater on the site and in parts of the adjoining Menominee River. In 2009, Ansul entered into an Administrative Consent Order (the "Consent Order") with the U.S. Environmental Protection Agency to address the presence of arsenic at the site. Under this agreement, Tyco Fire Products' principal obligations are to contain the arsenic contamination on the site, pump and treat on-site groundwater, dredge, treat and properly dispose of contaminated sediments in the adjoining river areas, and monitor contamination levels on an ongoing basis. Activities completed under the Consent Order since 2009 include the installation of a subsurface barrier wall around the facility to contain contaminated groundwater, the installation of a groundwater extraction and treatment system and the dredging and offsite disposal of treated river sediment. The increase in the reserve related to the Stanton Street Facility was recorded following a further review of the Consent Order, which resulted in the identification of several structural upgrades needed to preserve the effectiveness of prior remediation efforts. 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. At September 30, 2020 and 2019, the Company recorded conditional asset retirement obligations for continuing operations of $29 million and $30 million, respectively.

Asbestos Matters

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

As of September 30, 2020, the Company's estimated asbestos-related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was $115 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of $483 million, of which $49 million was recorded in other current liabilities and $434 million was recorded in other noncurrent liabilities. The

Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $368 million, of which $39 million was recorded in other current assets and $329 million was recorded in other noncurrent assets. Assets included $9 million of cash and $291 million of investments, which have all been designated as restricted. In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable; the amount of such recoveries recorded at September 30, 2020 was $68 million.

As of September 30, 2019, the Company's estimated asbestos-related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was $141 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of $507 million, of which $50 million was recorded in other current liabilities and $457 million was recorded in other noncurrent liabilities. The Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $366 million, of which $46 million was recorded in other current assets and $320 million was recorded in other noncurrent assets. Assets included $16 million of cash and $273 million of investments, which have all been designated as restricted. In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable; the amount of such recoveries recorded at September 30, 2019 was $77 million.

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

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

Insurable Liabilities

The Company records liabilities for its workers' compensation, product, general and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. At September 30, 2020 and 2019, the insurable liabilities totaled $363 million and $379 million, respectively, of which $83 million and $99 million was recorded within other current liabilities, $22 million and $22 million was recorded within accrued compensation and benefits, and $258 million and $258 million was recorded within other noncurrent liabilities in the consolidated statements of financial position, respectively. The Company records receivables from third party insurers when recovery has been determined to be probable. The amount of such receivables recorded at September 30, 2020 were $21 million, of which $5 million was recorded within other current assets and $16 million was recorded within other noncurrent assets, respectively. The amount of such receivables recorded at September 30, 2019 were $23 million, of which $5 million was recorded within other current assets and

$18 million was recorded within other noncurrent assets, respectively. The Company maintains captive insurance companies to manage its insurable liabilities.

Aqueous Film-Forming Foam ("AFFF") Litigation

Two of the Company's subsidiaries, Chemguard and Tyco Fire Products, have been named, along with other defendant manufacturers, 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 manufactured by defendants contain or break down into the chemicals PFOS and PFOA and/or other PFAS compounds and that the use of these products by others at various airbases, airports and other sites resulted in the release of these chemicals into the environment and ultimately into communities' drinking water supplies neighboring those airports, airbases and other sites. PFOA, PFOS, and other PFAS compounds are being studied by the United States Environmental Protection Agency ("EPA") and other environmental and health agencies and researchers. The EPA has not issued binding regulatory limits, but has 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. Both PFOA and PFOS are types of synthetic chemical compounds that have been present in firefighting foam. However, both are also present in many existing consumer products. According to EPA, PFOA and PFOS have been used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease or stains.

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

In September 2018, Tyco Fire Products and Chemguard filed a Petition for Multidistrict Litigation with the United States Judicial Panel on Multidistrict Litigation ("JPML") seeking to consolidate all existing and future federal cases into one jurisdiction. On December 7, 2018, the JPML issued an order transferring various AFFF cases to 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 30 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 and South Dakota. All but one of these cases has been transferred to the MDL, and it is anticipated that the remaining case will be removed to federal court and transferred following service of the complaint.

AFFF Individual or Mass Actions

There are approximately 746 individual or "mass" actions pending that were filed in state or federal court in California (5 cases), Colorado (41 cases), New York (4 cases), Pennsylvania (15 cases), New Mexico (2 cases), Missouri (1 case), Arizona (1 case), and South Carolina (677 cases direct filed from various U.S. jurisdictions) 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 five plaintiffs in California, approximately 7,000 plaintiffs in Colorado, approximately 126 plaintiffs in New York, 15 plaintiffs in Pennsylvania, two plaintiffs in New Mexico, one plaintiff in Missouri, two plaintiffs in Arizona, and more than 500 plaintiffs from various states who direct-filed complaints in South Carolina. All but six of these matters have been transferred to or directly-filed in the MDL, and it is anticipated that the remaining cases will be transferred to the MDL. Many of the additional filed actions were directly filed in South Carolina by plaintiffs who were among the 660 plaintiffs the Company had previously disclosed to have made filings in Pennsylvania state court. The Company anticipates that the remainder of the possible individual product liability claims filed in Pennsylvania state court will either soon be filed in the MDL (and that all such claims in state court will be dismissed accordingly) or will be dismissed in Pennsylvania without a corresponding filing in South Carolina.

AFFF Municipal Cases

Chemguard and Tyco Fire Products are also defendants in 58 cases in federal and state courts involving municipal or water provider plaintiffs in Alaska, Arizona, California, Colorado, Florida, Massachusetts, New Jersey, New York, Maryland, Ohio, Pennsylvania, Washington, the District of Columbia and several municipalities or water providers from various states who direct-filed complaints in South Carolina. All but three 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. Since the beginning of fiscal year 2021, two municipal actions have been filed against the Company.

In May 2018, the Company was also notified by the Widefield Water and Sanitation District in Colorado Springs, Colorado that it may assert claims regarding its remediation costs in connection with PFOS and PFOA contamination allegedly resulting from the use of those products at the Peterson Air Force Base. In May 2020, the Company was also notified by the Lakewood Water District in Pierce County, Washington that it may assert claims regarding remediation in connection with PFOA, PFOS, and other PFAS contamination allegedly resulting from the use of those products at Joint Base Lewis-McChord.

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 tagged for transfer to the MDL.

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

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

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.

Other PFAS Related Matters

In April 2020, the Weirton Area Water Board in West Virginia filed a lawsuit in the Circuit Court of Brooke County, West Virginia against a number of PFAS chemical manufacturers, including Chemguard, with respect to PFAS contamination. This case has been removed to the United States District Court for the Northern District of West Virginia.

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.

Bosch Litigation

On March 15, 2019, a German subsidiary of the Company received a complaint from Robert Bosch GmbH ("Bosch"), filed in a German court. The complaint related to an automotive starter batteries joint venture in which the Company and Bosch were 80/20 parties to this joint venture. At the time the complaint was filed, JCI's ownership interest in the joint venture was to be transferred to entities controlled by the Purchaser upon consummation of the sale of the Company's Power Solutions business. The complaint alleged that certain internal Company reorganization transactions were not in compliance with the arrangements relating to such joint venture.

On August 8, 2019, Bosch entered into an agreement with Purchaser pursuant to which Purchaser would purchase Bosch's interest in the joint venture. Simultaneously with this agreement, the Company and Bosch executed an agreement to dismiss the proceedings between the parties upon the completion of Purchaser's acquisition of Bosch's interest. In the first quarter of fiscal

2020, following the completion of Purchaser's acquisition of Bosch's interest in the joint venture, the Company and Bosch made filings with the German court terminating the litigation.

Pursuant to the Company's obligations to Purchaser in connection with the divestiture of the Company's Power Solutions business, the Company reimbursed Purchaser a portion of its costs in connection with its acquisition of Bosch's interests in the joint venture, which was reflected as a cash outflow for discontinued operations.

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 years ended September 30, 2020, 2019, and 2018 (in millions):

	Year Ended September 30,		
	2020	2019	2018
Net sales to related parties	$ 194	$ 217	$ 220
Purchases from related parties	85	66	63

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

	September 30,	
	2020	2019
Receivable from related parties	$ 48	$ 34
Payable to related parties	11	6

JOHNSON CONTROLS INTERNATIONAL PLC AND SUBSIDIARIES
SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS
(In millions)

Year Ended September 30,	2020	2019	2018
Accounts Receivable - Allowance for Doubtful Accounts			
Balance at beginning of period	$ 173	$ 169	$ 172
Provision charged to costs and expenses	20	37	14
Accounts charged off, net of recoveries	(21)	(21)	(17)
Acquisition (divestiture) of businesses	—	(10)	—
Currency translation	1	(2)	—
Balance at end of period	$ 173	$ 173	$ 169
Deferred Tax Assets - Valuation Allowance			
Balance at beginning of period	$ 5,068	$ 5,088	$ 3,735
Allowance provision for new operating and other loss carryforwards	624	195	1,639
Allowance provision (benefits)	(174)	(215)	(286)
Balance at end of period	$ 5,518	$ 5,068	$ 5,088

ITEM 9 CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this report. Based on such evaluations, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company's disclosure controls and procedures are effective in recording, processing, summarizing, and reporting, on a timely basis, information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act, and that information is accumulated and communicated to the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f). The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's internal control over financial reporting based on the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, the Company's management has concluded that, as of September 30, 2020, the Company's internal control over financial reporting was effective.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, has audited the Company's consolidated financial statements and the effectiveness of internal control over financial reporting as of September 30, 2020 as stated in its report which is included in Item 8 of this Form 10-K and is incorporated by reference herein.

Changes in Internal Control Over Financial Reporting

There have been no changes in the Company's internal control over financial reporting during the quarter ended September 30, 2020, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

ITEM 9B OTHER INFORMATION

CFO Succession

As previously disclosed in the Company's Current Report on Form 8-K filed on August 18, 2020, Olivier Leonetti will succeed Brian Stief as the Company's Chief Financial Officer and Principal Financial Officer on the date immediately following the date of the filing of this Annual Report on Form 10-K. Mr. Stief will remain in the role of Vice Chairman until his retirement.

PART III

In response to Part III, Items 10, 11, 12, 13 and 14, parts of the Company's definitive proxy statement (to be filed pursuant to Regulation 14A within 120 days after Registrant's fiscal year-end of September 30, 2020) for its annual meeting to be held on March 10, 2021, are incorporated by reference in this Form 10-K.

ITEM 10 DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information relating to directors and nominees of Johnson Controls is set forth under the caption "Proposal Number One" in Johnson Controls' proxy statement for its annual meeting of shareholders to be held on March 10, 2021 (the "Johnson Controls Proxy Statement") and is incorporated by reference herein. Information about executive officers is included in Part I, Item 4 of this Annual Report on Form 10-K. The information required by Items 405, 407(c)(3), (d)(4) and (d)(5) of Regulation S-K is contained under the captions "Governance of the Company - Nomination of Directors and Board Diversity," "Governance of the Company - Board Committees", and "Committees of the Board - Audit Committee" of the Johnson Controls Proxy Statement and such information is incorporated by reference herein.

Code of Ethics

Johnson Controls has adopted a code of ethics for directors, officers (including the Company's principal executive officer, principal financial officer and principal accounting officer) and employees, known as Values First, The Johnson Controls Code of Ethics. The Code of Ethics is available on the Company's website at www.valuesfirst.johnsoncontrols.com. The Company posts any amendments to or waivers of its Code of Ethics (to the extent applicable to the Company's directors or executive officers) at the same location on the Company's website. In addition, copies of the Code of Ethics may be obtained in print without charge upon written request by any stockholder to the office of the Company at One Albert Quay, Cork, Ireland.

ITEM 11 EXECUTIVE COMPENSATION

The information required by Item 402 of Regulation S-K is contained under the captions "Compensation Discussion & Analysis" (excluding the information under the caption "Compensation Committee Report on Executive Compensation"), "Executive Compensation Tables" and "Compensation of Non-Employee Directors" of the Johnson Controls Proxy Statement. Such information is incorporated by reference.

The information required by Items 407(e)(4) and (e)(5) of Regulation S-K is contained under the captions "Committees of the Board - Compensation Committee Interlocks and Insider Participation" and "Compensation Discussion & Analysis - Compensation Committee Report on Executive Compensation" of the Johnson Controls Proxy Statement. Such information (other than the Compensation Committee Report on Executive Compensation, which shall not be deemed to be "filed") is incorporated by reference.

ITEM 12 SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information in the Johnson Controls Proxy Statement set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" is incorporated herein by reference.

The following table provides information about the Company's equity compensation plans as of September 30, 2020:

	(a) Number of Securities to be Issued upon Exercise of Outstanding Options, Warrants and Rights	(b) Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights	(c) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column (a))
Plan Category			
Equity compensation plans approved by shareholders	10,114,905	$ 37.14	26,553,821
Equity compensation plans not approved by shareholders	—	—	—
Total	10,114,905	$ 37.14	26,553,821

ITEM 13 CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information in the Johnson Controls Proxy Statement set forth under the captions “Committees of the Board,” “Governance of the Company - Director Independence,” and “Governance of the Company - Other Directorships, Conflicts and Related Party Transactions,” is incorporated herein by reference.

ITEM 14 PRINCIPAL ACCOUNTING FEES AND SERVICES

The information in the Johnson Controls Proxy Statement set forth under “Proposal Number Two” related to the appointment of auditors is incorporated herein by reference.

PART IV

ITEM 15 EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(3) Exhibits

Reference is made to the separate exhibit index contained on page 117 filed herewith.

All other schedules are omitted because they are not applicable, or the required information is shown in the financial statements or notes thereto.

Financial statements of 50% or less-owned companies have been omitted because the proportionate share of their profit before income taxes and total assets are individually less than 20% of the respective consolidated amounts, and investments in such companies are less than 20% of consolidated total assets. Refer to Note 20, "Non-Consolidated Partially-Owned Affiliates" of the notes to consolidated financial statements for the summarized financial data for the Company's nonconsolidated partially-owned affiliates for fiscal 2019 and 2018. In the fourth quarter of fiscal 2020, the Company early adopted SEC Release No 33 – 10786 which, among other things, modified the significance test required in SEC Regulation S-X, Rule 1-02(w) by changing the income test to use the lower measure of significance based on income from continuing operations before taxes or revenue. Under the modified income test, none of the Company's non-consolidated partially-owned affiliates, either individually or in the aggregate, are considered significant subsidiaries.

ITEM 16 FORM 10-K SUMMARY

Not applicable.

Johnson Controls International plc
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(a) (1) and (2) Financial Statements and Supplementary Data - See Item 8
(b) Exhibit Index:

Exhibit	Title
2.1	Separation and Distribution Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 2.1 to the registrant’s Current Report on Form 8-K filed September 9, 2016)
2.2	Agreement and Plan of Merger by and among Johnson Controls, Inc., Johnson Controls International plc (formerly Tyco International plc) and Jagara Merger Sub LLC, dated as of January 24, 2016 (incorporated by reference to Exhibit 2.1 to the registrant’s Current Report on Form 8-K filed January 27, 2016)
2.3	Merger Agreement, dated as of May 30, 2014, between Tyco International Ltd., and Johnson Controls International plc (formerly Tyco International plc) (incorporated by reference to Exhibit 2.1 to the registrant’s Current Report on Form 8-K filed on June 4, 2014)
3.1	Memorandum and Articles of Association of Johnson Controls International plc, as amended by special resolutions dated September 8, 2014, August 17, 2016 and March 7, 2018 (incorporated by reference to Exhibit 3.1 to the registrant’s Quarterly Report on Form 10-Q filed on May 3, 2018)
4.1	Assumption and Accession Agreement, dated as of November 17, 2014, by Johnson Controls International plc (formerly Tyco International plc) (incorporated by reference to Exhibit 4.1 to the registrant’s current report on Form 8-K filed on November 17, 2014)
4.2	Indenture, dated December 28, 2016, between Johnson Controls International plc and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to the registrant’s current report on Form 8-K filed on December 28, 2016)
4.3	First Supplemental Indenture, dated December 28, 2016, between Johnson Controls International plc, and U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, UK Branch, as paying agent for the New Euro Notes attaching forms of 2.355% Senior Notes due 2017 (retired; no longer outstanding), 7.125% Senior Notes due 2017 (retired; no longer outstanding), 1.400% Senior Notes due 2017 (retired, no longer outstanding as of November 2, 2017), 3.750% Notes due 2018 (retired; no longer outstanding), 5.000% Senior Notes due 2020 (retired; no longer outstanding), 4.25% Senior Notes due 2021, 3.750% Senior Notes due 2021, 3.625% Senior Notes due 2024, 6.000% Notes due 2036, 5.70% Senior Notes due 2041, 5.250% Senior Notes due 2041, 4.625% Senior Notes due 2044, 6.950% Debentures due December 1, 2045, 4.950% Senior Notes due 2064, 4.625% Notes due 2023, 1.375% Notes due 2025, 3.900% Notes due 2026, and 5.125% Notes due 2045 (incorporated by reference to Exhibit 4.2 to the registrant’s current report on Form 8-K filed on December 28, 2016)
4.4	Second Supplemental Indenture, dated February 7, 2017, between Johnson Controls International plc and U.S. Bank National Association, as trustee, attaching form of 4.500% Senior Notes due 2047 (incorporated by reference to Exhibit 4.2 to the registrant’s Current Report on Form 8-K filed on February 7, 2017)
4.5	Third Supplemental Indenture, dated March 15, 2017, among Johnson Controls International plc, U.S. Bank National Association, as trustee and Elavon Financial Services DAC, UK Branch, as paying agent, attaching form of 1.000% Senior Notes due 2023 (incorporated by reference to Exhibit 4.2 to the registrant’s Current Report on Form 8-K filed on March 15, 2017)
4.6	Fifth Supplemental Indenture, dated September 11, 2020, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A. and U.S. Bank National Association, as trustee, attaching form of the 1.750% Senior Notes due 2030 (incorporated by reference to Exhibit 4.2 to the registrant’s Current Report on Form 8-K filed on September 11, 2020).
4.7	Sixth Supplemental Indenture, dated September 15, 2020, among Johnson Controls International plc, Tyco Fire & Security Finance S.C.A., U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, as paying agent, attaching forms of the 0.375% Senior Notes due 2027 and the 1.000% Senior Notes due 2032 (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on September 15, 2020).

Johnson Controls International plc
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Exhibit	Title
4.8	Description of the Ordinary Shares of Johnson Controls International plc (filed herewith)
4.9	Description of the Johnson Controls International plc Notes (filed herewith)
4.10	Description of the Johnson Controls International plc and Tyco Fire & Security Finance S.C.A. Notes (filed herewith)
4.11	Miscellaneous long-term debt agreements and financing leases with banks and other creditors and debenture indentures.*
4.12	Miscellaneous industrial development bond long-term debt issues and related loan agreements and leases.*
10.1	Credit Agreement, dated as of December 5, 2019, among Johnson Controls International plc, certain of its subsidiaries party thereto from time to time, the lenders party thereto from time to time, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to the registrant's Current Report filed December 6, 2019)
10.2	364-Day Credit Agreement, dated as of December 5, 2019, among Johnson Controls International plc, certain of its subsidiaries party thereto from time to time, the lenders party thereto from time to time, and JPMorgan Chase Bank, N.A., as administrative agent (incorporated by reference to Exhibit 10.2 to the registrant's Current Report filed December 6, 2019)
10.3	Stock and Asset Purchase Agreement, dated as of November 13, 2018, by and between Johnson Controls International plc and BCP Acquisitions LLC (incorporated by reference to Exhibit 2.1 to the Company's Current Report filed November 13, 2018).
10.4	Tax Matters Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on September 9, 2016)
10.5	Employee Matters Agreement, dated as of September 8, 2016, by and between Johnson Controls International plc and Adient Limited (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on September 9, 2016)
10.6	Tax Sharing Agreement, dated September 28, 2012 by and among Pentair Ltd., Johnson Controls International plc (formerly Tyco International Ltd.), Tyco International Finance S.A. and The ADT Corporation (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.7	Non-Income Tax Sharing Agreement dated September 28, 2012 by and among Johnson Controls International plc (formerly Tyco International Ltd.), Tyco International Finance S.A. and The ADT Corporation (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.8	Trademark Agreement, dated as of September 25, 2012, by and among ADT Services GmbH, ADT US Holdings, Inc., Johnson Controls International plc (formerly Tyco International Ltd.) and The ADT Corporation (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on October 1, 2012) (Commission File No. 1-13836)
10.9	Form of Deed of Indemnification between Johnson Controls International plc (formerly Tyco International plc) and certain of its directors and officers (incorporated by reference to Exhibit 10.4 to the registrant's Current Report on Form 8-K filed on September 6, 2016)

Exhibit	Title
10.10	Form of Indemnification Agreement between Tyco Fire & Security (US) Management, Inc. and certain directors and officers of Johnson Controls International plc (incorporated by reference to Exhibit 10.5 to the registrant's Current Report on Form 8-K filed on September 6, 2016)
10.11	Tyco International plc 2004 Share and Incentive Plan (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on November 17, 2014) (Commission File No. 1-13836)**
10.12	Johnson Controls International plc 2012 Share and Incentive Plan, amended and restated as of March 8, 2017 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on May 4, 2017)**
10.13	Johnson Controls International plc 2007 Stock Option Plan (incorporated by reference to Exhibit 10.7 to the registrant's Current Report on Form 8-K filed on September 6, 2016)**
10.14	Johnson Controls International plc 2012 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.6 to the registrant's Current Report on Form 8-K filed on September 6, 2016)**
10.15	Johnson Controls International plc Severance and Change in Control Policy for Officers, Amended and Restated December 7, 2017 (Incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on December 11, 2017)**
10.16	Johnson Controls International plc Executive Deferred Compensation Plan, as amended and restated effective January 1, 2018 (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on May 3, 2018)**
10.17	Johnson Controls International plc Retirement Restoration Plan, as amended and restated effective January 1, 2018 (incorporated by reference to Exhibit 10.4 to the registrant's Quarterly Report on Form 10-Q filed on May 3, 2018)**
10.18	Tyco Supplemental Savings and Retirement Plan as amended and restated effective January 1, 2018 (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on September 19, 2017) **
10.19	Johnson Controls International plc Executive Compensation Incentive Recoupment Policy effective September 2, 2016 (incorporated by reference to Exhibit 10.24 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 filed on November 23, 2016)**
10.20	Letter Agreement between Johnson Controls International plc and George R. Oliver dated December 8, 2017 (Incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on December 11, 2017).**
10.21	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing December 6, 2018 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed February 1, 2019)**
10.22	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan commencing December 6, 2018 applicable to Mr. Stief (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed February 1, 2019)**
10.23	Form of Option/SAR Award for Executive Officers (incorporated by reference to Exhibit 10.24 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2019 filed on November 21, 2019)**

Johnson Controls International plc
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Exhibit	Title
10.24	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on February 2, 2018)**
10.25	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 applicable to Messrs. Oliver and Stief (incorporated by reference to Exhibit 10.4 to the registrant's Quarterly Report on Form 10-Q filed on February 2, 2018)**
10.26	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing on September 2, 2016 (incorporated by reference to Exhibit 10.33 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 30, 2016 filed on November 23, 2016)**
10.27	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan for periods commencing on September 2, 2016 applicable to Messrs. Molinaroli, Oliver and Stief (incorporated by reference to Exhibit 10.1 to registrant's Quarterly Report on Form 10-Q filed on February 8, 2017)**
10.28	Terms of Unit Award under the Johnson Controls International plc 2012 Share and Incentive Plan for Brian J. Stief dated September 14, 2017 (incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on September 15, 2017)**
10.29	Terms of PSU Award under the Johnson Controls International plc 2012 Share and Incentive Plan for Brian J. Stief dated September 14, 2017 (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on September 15, 2017)**
10.30	Terms of RSU Award under the Johnson Controls International plc 2012 Share and Incentive Plan for Brian J. Stief dated September 14, 2017 (incorporated by reference to Exhibit 10.3 to the registrant's Current Report on Form 8-K filed on September 15, 2017)**
10.31	Letter Agreement dated as of September 14, 2017 between Johnson Controls International plc and Brian J. Stief (incorporated by reference to Exhibit 10.4 to the registrant's Current Report on Form 8-K filed on September 15, 2017)**
10.32	Form of terms and conditions for Option Awards, Restricted Unit Awards, Performance Share Awards under the 2012 Share and Incentive Plan for fiscal 2016 (incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on October 13, 2015)**
10.33	Form of terms and conditions for Option Awards, Restricted Unit Awards, Performance Share Awards under the 2012 Stock and Incentive Plan for fiscal 2015 (incorporated by reference to Exhibit 10.9 to the registrant's Annual Report on Form 10-K for the fiscal year ended September 26, 2014 filed on November 14, 2014) (Commission File No. 1-13836)**
10.34	Form of terms and conditions for Option Awards, Restricted Unit Awards, Performance Share Awards under the 2012 Stock and Incentive Plan for fiscal 2014 (incorporated by reference to Exhibit 10.9 to the registrant's Annual Report on Form 10-K filed on for the year ended September 27, 2013 filed on November 14, 2013) (Commission File No. 1-13836)**
10.35	Form of terms and conditions for Restricted Stock Units for Directors under the Johnson Controls International plc 2012 Share and Incentive Plan for use beginning in 2018 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on May 3, 2018)**

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Index to Exhibits

Exhibit	Title
10.36	Form of terms and conditions for Restricted Stock Units for Directors under the Johnson Controls International plc 2012 Share and Incentive Plan for use in 2019 (incorporated by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q filed on May 3, 2019)**
10.37	Form of stock option or stock appreciation right award agreement for Johnson Controls, Inc. 2007 Stock Option Plan effective September 20, 2011 (incorporated by reference to Exhibit 10.V to Johnson Controls, Inc.'s Annual Report on Form 10-K for the year ended September 30, 2011 filed on November 22, 2011) (Commission File No. 1-5097)**
10.38	Johnson Controls, Inc. 2012 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1(a) to Johnson Controls, Inc.'s Current Report on Form 8-K filed January 28, 2013) (Commission File No. 1-5097)**
10.39	Form of option/stock appreciation right agreement for Johnson Controls, Inc. 2012 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1(c) to Johnson Controls, Inc.'s Current Report on Form 8-K filed November 21, 2013) (Commission File No. 1-5097)**
10.40	Restrictive covenants applicable to equity award agreements beginning December 2019 (incorporated by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q filed on January 31, 2020)
21.1	Subsidiaries of Johnson Controls International plc (filed herewith)
22.1	Co-Issuer of Debt Securities (filed herewith)
23.1	Consent of Independent Public Accounting Firm (filed herewith)
31.1	Certification by the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	Certification by the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.1	Certification by the Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
101	Financial statements from the Annual Report on Form 10-K of Johnson Controls International plc for the fiscal year ended September 30, 2020 formatted in iXBRL (Inline Extensible Business Reporting Language): (i) the Consolidated Statements of Financial Position, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Consolidated Statements of Cash Flow, (v) the Consolidated Statements of Shareholders' Equity Attributable to Johnson Controls Ordinary Shareholders and (vi) Notes to Consolidated Financial Statements (filed herewith)
*	These instruments are not being filed as exhibits herewith because none of the long-term debt instruments authorizes the issuance of debt in excess of 10% of the total assets of Johnson Controls International plc and its subsidiaries on a consolidated basis. Johnson Controls International plc agrees to furnish a copy of each agreement to the Securities and Exchange Commission upon request.
**	Management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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

By /s/ Brian J. Stief
Brian J. Stief
Vice Chairman and
Chief Financial Officer

Date: November 16, 2020

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below as of November 16, 2020, by the following persons on behalf of the registrant and in the capacities indicated:

/s/ George R. Oliver
George R. Oliver
Chairman and Chief Executive Officer
(Principal Executive Officer)

/s/ Brian J. Stief
Brian J. Stief
Vice Chairman and
Chief Financial Officer (Principal Financial Officer)

/s/ Robert M. VanHimbergen
Robert M. VanHimbergen
Vice President and Corporate Controller
(Principal Accounting Officer)

/s/ Jean Blackwell
Jean Blackwell
Director

/s/ Pierre Cohade
Pierre Cohade
Director

/s/ Mike Daniels
Mike Daniels
Director

/s/ Juan Pablo del Valle Perochena
Juan Pablo del Valle Perochena
Director

/s/ Roy Dunbar
Roy Dunbar
Director

/s/ Gretchen R. Haggerty
Gretchen R. Haggerty
Director

/s/ Simone Menne
Simone Menne
Director

/s/ Jürgen Tinggren
Jürgen Tinggren
Director

/s/ Mark P. Vergnano
Mark P. Vergnano
Director

/s/ David Yost
David Yost
Director

/s/ John D. Young
John D. Young
Director

EXHIBIT 31.1

CERTIFICATIONS

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

1. I have reviewed this annual report on Form 10-K 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: November 16, 2020

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATIONS

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

1. I have reviewed this annual report on Form 10-K 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: November 16, 2020

/s/ Brian J. Stief

Brian J. Stief
Vice Chairman and
Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION OF PERIODIC FINANCIAL REPORTS

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

1. the Annual Report on Form 10-K for the year ended September 30, 2020 (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: November 16, 2020

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

/s/ Brian J. Stief

Brian J. Stief
Vice Chairman and Chief Financial Officer