

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 December 31, 2020

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission file number 001-11625



Pentair plc

(Exact name of Registrant as specified in its charter)

Ireland

(State or other jurisdiction of
incorporation or organization)

98-1141328

(I.R.S. Employer
Identification number)

Regal House, 70 London Road, Twickenham, London, TW13QS United Kingdom

(Address of principal executive offices)

Registrant's telephone number, including area code: 44-74-9421-6154

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Ordinary Shares, nominal value \$0.01 per share	PNR	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if 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 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 Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the Registrant was required to submit such files). Yes No

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant 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 Act). Yes No

Aggregate market value of voting and non-voting common equity held by non-affiliates of the Registrant, based on the closing price of \$37.99 per share as reported on the New York Stock Exchange on June 30, 2020 (the last business day of Registrant's most recently completed second quarter): \$6,245,419,948.

The number of shares outstanding of Registrant's only class of common stock on December 31, 2020 was 166,063,551.

DOCUMENTS INCORPORATED BY REFERENCE

Parts of the Registrant's definitive proxy statement for its annual general meeting to be held on May 4, 2021, are incorporated by reference in this Form 10-K in response to Part III, ITEM 10, 11, 12, 13 and 14.



Pentair plc
Annual Report on Form 10-K
For the Year Ended December 31, 2020

	Page
PART I	
ITEM 1. Business	1
ITEM 1A. Risk Factors	5
ITEM 1B. Unresolved Staff Comments	18
ITEM 2. Properties	18
ITEM 3. Legal Proceedings	18
ITEM 4. Mine Safety Disclosures	18
PART II	
ITEM 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	20
ITEM 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations	22
ITEM 7A. Quantitative and Qualitative Disclosures about Market Risk	39
ITEM 8. Financial Statements and Supplementary Data	41
ITEM 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	80
ITEM 9A. Controls and Procedures	80
ITEM 9B. Other Information	80
PART III	
ITEM 10. Directors, Executive Officers and Corporate Governance	81
ITEM 11. Executive Compensation	81
ITEM 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	82
ITEM 13. Certain Relationships and Related Transactions and Director Independence	82
ITEM 14. Principal Accounting Fees and Services	82
PART IV	
ITEM 15. Exhibits and Financial Statement Schedules	83
ITEM 16. Form 10-K Summary	87
Signatures	88

PART I

ITEM 1. BUSINESS

Unless the context otherwise indicates, references herein to “Pentair,” the “Company,” and such words as “we,” “us,” and “our” include Pentair plc and its consolidated subsidiaries.

GENERAL

Pentair makes the most of life’s essential resources. From our residential and business solutions that help people move, improve and enjoy their water, to our sustainable innovations and applications, we deliver smart, sustainable solutions for life.

Pentair strategy

Our vision is to be the leading residential and commercial water treatment company. As a pure play water company, we are:

- Focused on strategies to advance pool growth and accelerate residential and commercial water treatment;
- Accelerated by innovation and digital transformation; and
- Grounded in Win Right values and utilizing the Pentair Integrated Management System (“PIMS”) consisting of lean enterprise, growth and talent management to drive sustained and consistent performance.

HISTORY AND DEVELOPMENT

We are an Irish public limited company that was formed in 2014. We are the successor to Pentair Ltd., a Swiss corporation formed in 2012, and Pentair, Inc., a Minnesota corporation formed in 1966 and our wholly-owned subsidiary, under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Although our jurisdiction of organization is Ireland, we manage our affairs so that we are centrally managed and controlled in the United Kingdom (the “U.K.”) and therefore have our tax residency in the U.K.

On April 30, 2018, Pentair completed the separation of its Electrical business from the rest of Pentair (the “Separation”) by means of a dividend in specie of the Electrical business, which was effected by the transfer of the Electrical business from Pentair to nVent Electric plc (“nVent”) and the issuance by nVent of ordinary shares directly to Pentair shareholders (the “Distribution”). On May 1, 2018, following the Separation and Distribution, nVent became an independent publicly traded company, trading on the New York Stock Exchange under the symbol “NVT.” The Company did not retain any equity interest in nVent. nVent’s historical financial results are reflected in the Company’s consolidated financial statements as a discontinued operation. Refer to Note 2 for further discussion.

Our registered principal office is located at Regal House, 70 London Road, Twickenham, London, TW13QS United Kingdom. Our management office in the United States (“U.S.”) is located at 5500 Wayzata Boulevard, Suite 900, Golden Valley, Minnesota.

BUSINESS AND PRODUCTS

Pentair is comprised of two reportable business segments: Consumer Solutions and Industrial & Flow Technologies. The following is a brief description of each of the Company’s reportable segments and business activities.

Consumer Solutions

The Consumer Solutions segment designs, manufactures and sells energy-efficient residential and commercial pool equipment and accessories, and commercial and residential water treatment products and systems. Residential and commercial pool equipment and accessories include pumps, filters, heaters, lights, automatic controls, automatic cleaners, maintenance equipment and pool accessories. Water treatment products and systems include pressure tanks, control valves, activated carbon products, conventional filtration products, and point-of-entry and point-of-use systems. Applications for our pool business’s products include residential and commercial pool maintenance, repair, renovation, service and construction. Our water treatment products and systems are used in residential whole home water filtration, drinking water filtration and water softening solutions in addition to commercial total water management and filtration in food service operations. The primary focus of this segment is business-to-consumer.

For the fiscal year ended December 31, 2020, our pool business comprised 60% of the Consumer Solutions sales. The pool business is a leader in North American pool equipment, serving a market that is primarily replacement. The other 40% of sales were from the water treatment businesses, which sell residential and commercial components, residential systems and commercial systems.

Consumer Solutions brand names include Everpure, Kreepy Krauly, Pelican, Pentair Water Solutions, RainSoft and Sta-Rite.

Customers

Consumer Solutions customers include businesses engaged in wholesale and retail distribution in the residential & commercial verticals. Customers also include end-users, consumers and original equipment manufacturers.

One customer of the Consumer Solutions segment, Pool Corporation, represented approximately 15% of our consolidated net sales in 2020 and 2019.

Seasonality

We experience seasonal demand with several end customers and end-users within Consumer Solutions. End-user demand for pool equipment follows warm weather trends and is at seasonal highs from April to August. The magnitude of the sales increase is mitigated by employing some advance sale “early buy” programs (generally including extended payment terms and/or additional discounts).

Competition

Consumer Solutions faces numerous domestic and international competitors, some of which have substantially greater resources directed to the verticals in which we compete. Competition focuses on brand names, product performance (including energy-efficient offerings and required specifications), quality, service and price. We compete by offering a wide variety of innovative and high-quality products, which are competitively priced. We believe our distribution channels and reputation for quality also provide us a competitive advantage.

Industrial & Flow Technologies

The Industrial & Flow Technologies segment manufactures and sells a variety of fluid treatment products (advanced membrane filtration, separation systems, membrane bioreactors), pumps (water supply pumps, water disposal pumps, solid handling pumps, fluid transfer pumps, turbine pumps), valves, and spray nozzles as well as systems combining these products (process filtration systems, gas recovery solutions). These products and systems serve the global residential, commercial, industrial, agricultural and infrastructure verticals. They are used in a range of applications, food and beverage, fluid separation technologies (oil and gas and other industries), water and wastewater treatment, water wells, pressure boosting, fire suppression, flood control, agricultural irrigation, crop spray and fluid circulation and transfer. The primary focus of this segment is business-to-business.

For the fiscal year ended December 31, 2020, our residential and irrigation flow businesses comprised 40% of the Industrial & Flow Technologies sales. The residential and irrigation flow businesses sell pumps focused on residential and agriculture. Another 30% of sales were from the commercial & infrastructure flow businesses, which sell larger pumps focused on fire suppression, waste water and flood control. The remaining 30% of sales were from the industrial filtration business, comprised of applications focused on industrial process filtration and sustainable gas.

Industrial & Flow Technologies brand names include Pentair, Aurora, Berkeley, Codeline, Fairbanks-Nijhuis, Haffmans, Hydromatic, Hypro, Jung Pumpen, Myers, Sta-Rite, Shurflo, Südmo and X-Flow.

Customers

Industrial & Flow Technologies customers include businesses engaged with end users, and wholesale and retail distribution in the residential, commercial, food & beverage and industrial verticals.

Seasonality

We experience increased demand for residential water supply and irrigation pumps following weather trends, which are at seasonal highs from April to August. Seasonal effects may vary from year to year and are impacted by weather patterns, particularly by temperatures, heavy flooding and droughts.

Competition

Industrial & Flow Technologies faces numerous domestic and international competitors, some of which have substantially greater resources directed to the verticals in which we compete. Competition focuses on brand names, product performance (including energy-efficient offerings and required specifications), quality, service and price. We compete by offering a wide variety of innovative and high-quality products, which are competitively priced.

INFORMATION REGARDING ALL REPORTABLE SEGMENTS**Research and development**

We conduct research and development activities primarily in our own facilities. These efforts consist primarily of the development of new products, product applications and manufacturing processes.

Raw materials

The principal materials we use in manufacturing our products are electric motors, mild steel, stainless steel, electronic components, plastics (resins, fiberglass, epoxies), copper and paint (powder and liquid). In addition to the purchase of raw materials, we purchase some finished goods for distribution through our sales channels.

We purchase the materials we use in various manufacturing processes on the open market, and the majority are available through multiple sources which are in adequate supply. We have not experienced any significant work stoppages to date due to shortages of materials. We have certain long-term commitments, principally price commitments, for the purchase of various component parts and raw materials and believe that it is unlikely that any of these agreements would be terminated prematurely. Alternate sources of supply at competitive prices are available for most materials for which long-term commitments exist, and we believe that the termination of any of these commitments would not have a material adverse effect on our financial position, results of operations or cash flows.

Certain commodities, such as metals and resin, are subject to market and duty-driven price fluctuations. We manage these fluctuations through several mechanisms, including long-term agreements with price adjustment clauses for significant commodity market movements in certain circumstances. Prices for raw materials, such as metals and resins, may trend higher in the future.

Intellectual property

Patents, non-compete agreements, proprietary technologies, customer relationships, trademarks, trade names and brand names are important to our business. However, we do not regard our business as being materially dependent upon any single patent, non-compete agreement, proprietary technology, customer relationship, trademark, trade name or brand name.

Patents, patent applications and license agreements will expire or terminate over time by operation of law, in accordance with their terms or otherwise. We do not expect the termination of patents, patent applications or license agreements to have a material adverse effect on our financial position, results of operations or cash flows.

Human capital resources

We believe our success depends on our ability to attract, develop and retain strong employees. We believe a deep-rooted culture energizes our employees to make a difference within and beyond the workplace. We strive to be the destination for top talent, and work hard to develop and retain high performers throughout their career. We also believe our Win Right values, positive culture and commitment to inclusion and diversity foster innovation and curiosity, which, in turn, contribute to us being an industry leader.

As of December 31, 2020, we had approximately 9,750 employees worldwide, of which approximately 52% are located in the U.S. A small portion of our U.S. employees are unionized, while outside the U.S., we have employees in certain countries, particularly in Europe, that are represented by an employee representative organization, such as a union, works council or employee association.

Refer to "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 we have taken in response to the COVID-19 pandemic.

Employee engagement and development

Engaging our employees and developing their careers is important to our long-term success and ties directly to our Win Right culture and values. We engage with our employees and gather feedback about our employee programs, practices and policies through various approaches that include: town hall meetings where Pentair leaders share strategies and perspectives; quarterly leadership webcasts to help ensure our results and expectations are clearly communicated; an annual global leadership meeting to help drive growth and productivity initiatives and share best practices; and a feedback feature on our employee intranet.

Training and development

To support employees in their career journey, we have developed and shared through our employee intranet a number of new tools and resources. These resources include: live training sessions; on-demand eLearning and virtual classrooms; and downloadable materials.

Our talent development efforts span across all levels of our organization, including our Leadership Development Program, a 36-month program in which future leaders participate in cross-functional rotations intended to develop their capabilities throughout organization-wide exposure.

Inclusion and diversity

Our commitment to inclusion and diversity is part of living our Win Right values. Our success also depends on our ability to attract, engage and retain a diverse group of employees. We believe an inclusive and diverse workforce contributes different perspectives and innovative ideas that enable us to improve every day. We believe that every employee should be provided the same opportunity to be heard, respected, have a sense of belonging and contribute to our mission. Race, gender, ethnicity, country of origin, age, personal style, sexual orientation, physical ability, religion, life experiences and many more factors contribute to this diversity.

Our statistics are a measure of our performance, and we are committed to advancing a diverse workplace. The following sets forth information regarding the diversity of our workforce as of December 31, 2020:

	Percent of workforce	Percent of leadership roles***
Minorities*	41.5%	24.8%
Women**	31.4%	27.6%

* Inclusive of the following racial minority groups: Black/African American, Hispanic/Latino, American Indian/Alaskan Native, Asian, Native Hawaiian/Other Pacific Islander. Data for U.S. employee population only.

** Global data.

*** Leadership roles are those of employees who are director level and above.

We take an integrated approach to supporting and promoting workplace inclusion and diversity including: ensuring leadership involvement and ownership; attracting and retaining diverse talent at all levels; fostering a globally aware, inclusive culture; and ensuring our practices are fair and nondiscriminatory. In addition, we promote an inclusive and diverse workplace through: a training called the “The Power of Inclusion”; business resource groups led by employees; Pentair’s Code of Business Conduct and Ethics; and an Inclusion and Diversity Hub on our employee intranet.

Health, safety and wellness

We are committed to providing a safe workplace for all of our employees. We encourage employees to “Stop Work” anytime there is a potential concern regarding worker safety, and promote an open door policy so that all of our employees feel free to speak to their manager if there are any potential health, safety, compliance or sustainability concerns. Additionally, each site maintains a confidential reporting process, and we encourage the use of the Ethics Hotline for employees to report anonymously potential safety concerns. All locations, enterprise wide, must meet and/or exceed regulatory agency standards as applicable to each plant’s location.

Compensation and benefits

In the U.S., all non-union full-time employees are eligible to receive the following benefits: short-term and long-term disability insurance; flexible and health savings accounts and wellness programs; health insurance (medical, pharmacy, dental); eight weeks paid parental leave for birth, adoptive and foster parents; two weeks paid caregiver leave; legal services; retirement provision; stock ownership; tuition reimbursement; holidays; vacation and sick time. Union employee benefits vary by contract.

ESG Activities

As a leading provider of water treatment and sustainable solutions and with a foundation of Win Right values, we recognize that the work we do and the products and services we provide improve lives and the environment around the world. Pentair strives to be a positive influence on the social and environmental issues of today. As we progress, we are committed to building on our Win Right values and culture by further contributing to the development of a sustainable and responsible society that we believe will also drive our future growth. We are focused on further integrating our environmental, social and governance (“ESG”) goals throughout our business by creating broad accountability for our social responsibility strategy and creating shared commitments and targets. In 2020, Pentair completed a formal ESG assessment to identify ESG topics of importance to our shareholders, customers, suppliers, employees and communities. Through engagement with these stakeholders, internal business leaders and subject matter experts, we identified ESG goals designed to culminate into targets to further our commitment to social responsibility.

We have published an annual corporate responsibility that has reported on our ESG activities and accomplishments, which can be found on our corporate website, and which is not incorporated by reference into this Annual Report on Form 10-K. In addition, we have established a formal social responsibility program to further advance our social responsibility goals.

Environmental Matters

See ITEM 1A “Risk Factors - We are exposed to potential environmental laws, liabilities and litigation.”

Captive insurance subsidiary

A portion of our property and casualty insurance program is insured through our regulated wholly-owned captive insurance subsidiary, Penwald Insurance Company (“Penwald”). Reserves for policy claims are established based on actuarial projections of ultimate losses. Accruals with respect to liabilities insured by third parties, such as liabilities arising from acquired businesses, pre-Penwald liabilities and those of certain non-U.S. operations are established.

Matters pertaining to Penwald are discussed in ITEM 8, Note 1 of the Notes to Consolidated Financial Statements – Insurance subsidiary, included in this Form 10-K.

Available information

We make available free of charge (other than an investor’s own Internet access charges) through our Internet website (<http://www.pentair.com>) our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and if applicable, amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission (the “SEC”). Reports of beneficial ownership filed by our directors and executive officers pursuant to Section 16(a) of the Exchange Act are also available on our website. We are not including the information contained on our website as part of or incorporating it by reference into, this Annual Report on Form 10-K.

ITEM 1A. RISK FACTORS

You should carefully consider all of the information in this document and the following risk factors before making an investment decision regarding our securities. Any of the following risks could materially and adversely affect our business, financial condition, results of operations, cash flows and the actual outcome of matters as to which forward-looking statements are made in this document.

Risks Relating to the COVID-19 Pandemic

The COVID-19 pandemic is expected to have a material negative impact on our business, financial condition, results of operations and cash flows.

Our business and financial results have been and are expected to continue to be negatively impacted by the COVID-19 pandemic. The severity, magnitude and duration of the current COVID-19 pandemic is uncertain, rapidly changing and hard to predict. In 2020, the COVID-19 pandemic significantly impacted economic activity and markets around the world and our business, and it is expected to negatively impact our business in numerous ways, including but not limited to those outlined below:

- The COVID-19 pandemic has caused a global economic slowdown that may last for a potentially extended duration, and it is possible that it could cause a global recession. Deteriorating economic and political conditions caused by the COVID-19 pandemic, such as increased unemployment, decreases in capital spending, declines in consumer confidence, or economic slowdowns or recessions, could cause a decrease in demand for our products.
- Due to the impacts of the COVID-19 pandemic, we have experienced and expect to continue to experience reductions in customer demand for certain of our products and in several of our end-markets, including commercial filtration, commercial flow, industrial filtration and food and beverage.
- The COVID-19 pandemic is adversely affecting, and is expected to continue to adversely affect, certain elements of our business (including certain elements of our operations, supply chains and distribution systems), including as a result of impacts associated with required, preventive and precautionary measures that we, other businesses, our communities and governments are taking. These impacts include requiring employees to work from home or not go into their offices or facilities, limiting the number of employees attending meetings, reducing the number of people in our sites at any one time, reducing employee travel and adopting other employee safety measures. These measures also may impact our ability to meet production demands or requests and may delay our new product introductions depending on employee attendance or ability to continue to work. In addition, we have experienced disruptions at some of our facilities with higher absenteeism due to the COVID-19 pandemic.
- If the COVID-19 pandemic continues and economic conditions worsen, we expect to experience additional adverse impacts on our operational and commercial activities, customer orders and our collections of accounts receivable, which may be material, and it remains uncertain the impact on future operational and commercial activities, customer orders, and collections even if economic conditions begin to improve.
- Government or regulatory responses to the COVID-19 pandemic have and are likely to continue to negatively impact our business. During the first and second quarters of 2020, mandatory lockdowns or other restrictions on operations in

some countries temporarily disrupted our ability to manufacture or distribute our products in some of these markets. A reoccurrence of these disruptions could materially adversely impact our operations and results. In addition, the current resurgence of the COVID-19 pandemic and government restrictions related thereto in the fourth quarter of 2020 and first quarter of 2021 may negatively impact demand in certain of our commercial and industrial businesses. In addition to existing travel restrictions, jurisdictions may continue to close borders, impose prolonged quarantines and further restrict travel and business activity, and other related supply chain delays may develop, which could significantly impact our ability to support our operations and customers, meet demand, develop new products, ship our backlog and also impact the ability of our employees to get to their workplaces to produce products and services, or significantly hamper our products from moving through the supply chain.

- The impacts of the COVID-19 pandemic may limit our ability to reduce our overall operating costs. We have experienced increased costs relating to our efforts to mitigate the impact of the COVID-19 pandemic through, among other things, enhanced sanitization procedures and social-distancing measures we have enacted and will likely continue to enact at our locations around the world in an effort to protect our employees' health and well-being.
- The COVID-19 pandemic has disrupted and is expected to continue to disrupt our operations, global supply chain and routes to market or those of our suppliers or their suppliers. These disruptions or our failure to effectively respond to them have increased and may continue to increase product, distribution or labor costs or cause delays in delivering our backlog or may cause an inability to deliver products to our customers or meet customer demand.
- While we have experienced high demand in our pool business as consumers sheltered-in-place and have spent more time at home as a result of the COVID-19 pandemic that contributed to growth in our sales during 2020, such growth may not be sustainable and may not be repeated in future periods. Furthermore, even if growth in demand continues, we may not be able to meet that demand due to production and capacity challenges.
- Disruptions or uncertainties related to the COVID-19 pandemic for a sustained period of time could result in delays or modifications to some of our strategic plans and initiatives and hinder our ability to achieve our growth targets.
- The COVID-19 pandemic has increased volatility and pricing in and disrupted the capital markets and commercial paper markets, and volatility is likely to continue. We might not be able to continue to access preferred sources of liquidity when we would like, and our borrowing costs could increase.
- Actions we have taken or may take, or decisions we have made or may make, as a consequence of the COVID-19 pandemic, may result in legal investigations or claims, regulatory actions, or litigation against us.

We might not be able to predict or respond to all impacts of the COVID-19 pandemic on a timely basis to prevent near- or long-term adverse impacts to our results. Due to the speed with which the COVID-19 situation continues to develop, the global breadth of its spread and the range of governmental and community reactions thereto, there is uncertainty around its duration and ultimate impact and uncertainty regarding the availability and distribution of vaccines to address the COVID-19 virus; therefore, any negative impact on our business, financial condition (including without limitation our liquidity), results of operations and cash flows cannot be reasonably estimated at this time, but the COVID-19 pandemic could lead to extended disruption of economic activity and the impact on our business, financial condition, results of operations and cash flows could be material. The ultimate impact of these disruptions also depends on events beyond our knowledge or control, including the duration and severity of the COVID-19 pandemic and actions taken by parties other than us to respond to them. The foregoing and other impacts of the COVID-19 pandemic could have the effect of heightening many of the other risks described below and any of these impacts could materially adversely affect our business, financial condition, results of operations and cash flows.

Risks Relating to Our Business

General global economic and business conditions affect demand for our products.

We compete in various geographic regions and product markets around the world. Among these, the most significant are global industrial, commercial, and residential markets. We have experienced, and expect to continue to experience, fluctuations in revenues and results of operations due to economic and business cycles. Important factors for our businesses and the businesses of our customers include the overall strength of the global economy and various regional economies and our customers' confidence in these economies, industrial and governmental capital spending, the strength of residential and commercial real estate markets, residential housing markets, the commercial business climate, unemployment rates, availability of consumer and commercial financing, interest rates, and energy and commodity prices. The businesses of many of our industrial customers are to varying degrees cyclical and have experienced periodic downturns. While we attempt to minimize our exposure to economic or market fluctuations by serving a balanced mix of end markets and geographic regions, any of the above factors, individually or in the aggregate, or a significant or sustained downturn in a specific end market or geographic region could reduce demand

for our products and services, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We compete in attractive markets with a high level of competition, which may result in pressure on our profit margins and limit our ability to maintain or increase the market share of our products.

The markets for our products and services are geographically diverse and highly competitive. We compete against large and well-established national and global companies, as well as regional and local companies and lower cost manufacturers. Competition may also result from new entrants into the markets we serve, offering products and/or services that compete with us. We compete based on technical expertise, intellectual property, reputation for quality and reliability, timeliness of delivery, previous installation history, contractual terms, service offerings, customer experience and service, and price. Competition may also result from new entrants into the markets we serve, offering products and/or services that compete with ours. Some of our competitors attempt to compete based primarily on price, localized expertise and local relationships, especially with respect to products and applications that do not require a great deal of engineering or technical expertise. In addition, during economic downturns, average selling prices tend to decrease as market participants compete more aggressively on price. Moreover, demand for our products, which impacts profit margins, is affected by changes in customer order patterns, such as changes in the levels of inventory maintained by customers and the timing of customer purchases, adoption of new technology and connected products, and changes in customers' preferences for our products, including the success of products offered by our competitors. Customer purchasing behavior may also shift by product mix in the market or result in a shift to new distribution channels, including e-commerce, which is a rapidly developing area. If we are unable to continue to differentiate our products, services and solutions or adapt to changes in customer purchasing behavior or shifts in distribution channels, or if we are forced to cut prices or to incur additional costs to remain competitive, it could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Volatility in currency exchange rates could have a material adverse effect on our financial condition, results of operations and cash flows.

Sales outside of the U.S. for the year ended December 31, 2020 accounted for 33% of our net sales. Our financial statements reflect translation of items denominated in non-U.S. currencies to U.S. dollars. Therefore, if the U.S. dollar strengthens in relation to the principal non-U.S. currencies from which we derive revenue as compared to a prior period, our U.S. dollar reported revenue and income will effectively be decreased to the extent of the change in currency valuations, and vice-versa. Fluctuations in foreign currency exchange rates, most notably the strengthening of the U.S. dollar against the euro, could have a material adverse effect on our reported revenue in future periods. In addition, currency variations could have a material adverse effect on margins on sales of our products in countries outside of the U.S. and margins on sales of products that include components obtained from suppliers located outside of the U.S.

Our future growth is dependent upon our ability to transform and adapt our products, services, solutions, and organization to meet the demands of local markets in both developed and emerging economies and by developing or acquiring new technologies that achieve market acceptance with acceptable margins.

We operate in global markets that are characterized by customer demand that is often global in scope but localized in delivery. We compete with thousands of smaller regional and local companies that may be positioned to offer products produced at lower cost than ours, or to capitalize on highly localized relationships and knowledge that are difficult for us to replicate. Also, in several emerging markets, potential customers prefer local suppliers, in some cases because of existing relationships and in other cases because of local legal restrictions or incentives that favor local businesses. In addition, we need to be flexible to adapt our products to ever changing customer preferences, including those relating to regulatory, climate change and social responsibility matters. Accordingly, our future success depends upon a number of factors, including our ability to transform and adapt our products, services, solutions, organization, workforce and sales strategies to fit localities throughout the world, particularly in high growth emerging markets; identify emerging technological and other trends in our target end markets; and develop or acquire competitive technologies, products, services, and solutions and bring them to market quickly and cost-effectively. The failure to effectively adapt our products, services, or solutions could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We may not be able to identify, finance and complete suitable acquisitions and investments, and any completed acquisitions and investments may be unsuccessful or consume significant resources.

Our business strategy includes acquiring businesses and making investments that complement our existing businesses. We continue to analyze and evaluate the acquisition of strategic businesses or product lines with the potential to strengthen our industry position or enhance our existing set of product, service, and solution offerings. We may not be able to identify suitable acquisition candidates, obtain financing or have sufficient cash necessary for acquisitions or successfully complete acquisitions in the future. Acquisitions and investments may involve significant cash expenditures, debt incurrences, equity issuances, operating losses and expenses. Acquisitions involve numerous other risks, including:

- diversion of management time and attention from daily operations;
- difficulties integrating acquired businesses, technologies and personnel into our business;
- difficulties in obtaining and verifying the financial statements and other business information of acquired businesses;
- inability to obtain required regulatory approvals;
- potential loss of key employees, key contractual relationships or key customers of acquired companies or of ours;
- assumption of the liabilities and exposure to unforeseen liabilities of acquired companies; and
- dilution of interests of holders of our shares through the issuance of equity securities or equity-linked securities.

Any acquisitions or investments may not be successful or realize the intended benefits and may ultimately result in impairment charges or have a material adverse effect on our business, financial condition, results of operations and cash flows.

We may not achieve some or all of the expected benefits of our business initiatives.

During 2020, 2019 and 2018, we initiated and continued execution of certain business initiatives aimed at reducing our fixed cost structure and realigning our business. As a result, we have incurred substantial expense, including restructuring charges. We may not be able to achieve the operating efficiencies to reduce costs or realize benefits that were anticipated in connection with these initiatives. If we are unable to execute these initiatives as planned, we may not realize all or any of the anticipated benefits, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We are exposed to political, regulatory, economic, trade, and other risks that arise from operating a multinational business.

Sales outside of the U.S. for the year ended December 31, 2020 accounted for 33% of our net sales. Further, most of our businesses obtain some products, components and raw materials from non-U.S. suppliers. Accordingly, our business is subject to the political, regulatory, economic, trade, and other risks that are inherent in operating in and purchasing from, numerous countries. These risks include:

- changes in general economic and political conditions in countries where we operate, particularly in emerging markets;
- relatively more severe economic conditions in some international markets than in the U.S.;
- the imposition of tariffs, duties, exchange controls or other trade restrictions;
- changes in tax treaties, laws or rulings that could have a material adverse impact on our effective tax rate;
- the difficulty of enforcing agreements and collecting receivables through non-U.S. legal systems;
- the difficulty of communicating and monitoring evolving standards and directives across our product lines, services, and global facilities;
- the difficulty of ensuring that products and services meet ever-changing regional regulations and requirements;
- trade protection measures and import or export licensing requirements and restrictions;
- the possibility of terrorist action affecting us or our operations;
- the threat of nationalization and expropriation;
- the difficulty in staffing and managing widespread operations in non-U.S. labor markets;
- limitations on repatriation of earnings or other regionally-imposed capital requirements;

- the difficulty of protecting intellectual property in non-U.S. countries; and
- changes in and required compliance with a variety of non-U.S. laws and regulations.

In 2016, the United Kingdom held a referendum in which voters approved an exit from the European Union (“Brexit”). The United Kingdom subsequently withdrew from the European Union effective on January 31, 2020, subject to a transition period that ended on December 31, 2020. Since January 1, 2021, the European Union - United Kingdom Trade and Cooperative Agreement has provisionally been in effect. Given the lack of comparable precedent, the implications of Brexit, or how such implications might affect our company, continue to remain unclear at this time. Brexit could, among other impacts, disrupt trade and the movement of goods, services and people between the United Kingdom and the European Union or other countries as well as create legal and global economic uncertainty.

Our success depends in part on our ability to anticipate and effectively manage these and other risks. We cannot assure that these and other factors will not have a material adverse effect on our international operations or on our business as a whole.

Changes in U.S. or foreign government administrative policy, including changes to existing trade agreements, could have a material adverse effect on us.

As a result of changes to U.S. or foreign government administrative policy, there may be changes to existing trade agreements, like the U.S.-Mexico-Canada Agreement (“USMCA”); greater restrictions on free trade generally; significant increases in tariffs on goods imported into the U.S., particularly tariffs on products manufactured in Mexico, China, or other countries where we purchase from, have operations or manufacture or sell products; prohibitions or restrictions on doing business with certain companies, including those with certain relationships with China; and adverse responses by foreign governments to U.S. trade policy, among other possible changes. It remains unclear what the U.S. administration or foreign governments, including China, will or will not do with respect to tariffs, USMCA or other international trade agreements and policies. A trade war; other governmental action related to tariffs or international trade agreements, including USMCA; changes in U.S. social, political, regulatory and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment in the territories and countries where we currently purchase, manufacture and sell products; and any resulting negative sentiments towards the U.S. as a result of such changes, could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We may experience cost and other inflation.

In the past, we have experienced material cost and other inflation in a number of our businesses. We strive for productivity improvements and implement increases in selling prices to help mitigate cost increases in raw materials (especially metals and resins), energy and other costs including wages, pension, health care and insurance. We continue to implement operational initiatives in order to mitigate the impacts of this inflation and continuously reduce our costs. However, these actions may not be successful in managing our costs or increasing our productivity and we anticipate inflation to continue with respect to materials (especially resins, copper, steel and stainless steel) as well as labor. Continued cost inflation or failure of our initiatives to generate cost savings or improve productivity could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Intellectual property challenges may hinder our ability to develop, engineer and market our products.

Patents, non-compete agreements, proprietary technologies, customer relationships, trademarks, trade names and brand names are important to our business. Intellectual property protection, however, may not preclude competitors from developing products similar to ours or from challenging our names or products. Our pending patent applications, and our pending copyright and trademark registration applications, may not be allowed, or competitors may challenge the validity or scope of our patents, copyrights or trademarks. In addition, our patents, copyrights, trademarks and other intellectual property rights may not provide us a significant competitive advantage. Furthermore, our business strategy also includes expanding our smart products and Internet of Things offerings and there are many other companies that hold patents in this space. Over the past few years, we have noticed an increasing tendency for participants in our markets to use challenges to intellectual property as a means to compete. Patent and trademark challenges increase our costs to develop, engineer and market our products. We may need to spend significant resources monitoring, enforcing and defending our intellectual property rights, and we may or may not be able to detect infringement by third parties. If we fail to successfully enforce our intellectual property rights or register new patents, our competitive position could suffer, which could have a material adverse effect on our business, financial condition, results of operations and cash flows.

We have significant goodwill and intangible assets and future impairment of our goodwill and intangible assets could have a material adverse effect on our results of operations.

We test goodwill and other indefinite-lived intangible assets for impairment on at least an annual basis, and more frequently if circumstances warrant. As of December 31, 2020 our goodwill and intangible assets were \$2,718 million and represented 65% of our total assets. Declines in fair market value could result in future goodwill and intangible asset impairment charges.

A loss of, or material cancellation, reduction, or delay in purchases by, one or more of our largest customers could harm our business.

Our net sales to our largest customer represented approximately 15% of our consolidated net sales in 2020. While we do not have any other customers that accounted for 10% or more of our consolidated net sales in 2020, we have other customers that are key to the success of our business. Our concentration of sales to a relatively small number of larger customers makes our relationship with each of these customers important to our business. Our success is dependent on retaining these customers, which requires us to successfully manage relationships and anticipate the needs of our customers in the channels in which we sell our products. Our customers also may be impacted by economic conditions in the industries of those customers, which could result in reduced demand for our products. We cannot provide assurance that we will be able to retain our largest customers. In addition, some of our customers may shift their purchases to our competitors in the future. The loss of one or more of our largest customers, any material cancellation, reduction, or delay in purchases by these customers, or our inability to successfully develop relationships with additional customers could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Catastrophic and other events beyond our control may disrupt operations at our manufacturing facilities and those of our suppliers, which could cause us to be unable to meet customer demands or increase our costs, or reduce customer spending.

If operations at any of our manufacturing facilities or those of our suppliers were to be disrupted as a result of significant equipment failures, natural disasters, earthquakes, power outages, fires, explosions, terrorism, adverse weather conditions, labor disputes, public health epidemics (including the COVID-19 pandemic) or other catastrophic events or disruptions outside of our control, we may be unable to fill customer orders and otherwise meet customer demand for our products. In particular, our pool business operations in North Carolina and California are in areas that are more susceptible to natural disasters such as hurricanes, wildfires, and earthquakes. In addition, these types of events may negatively impact residential, commercial and industrial spending in impacted regions or, depending on the severity, globally. As a result, any of such events could have a material adverse effect on our business, financial condition, results of operations and cash flows. We maintain property insurance that we believe to be adequate to provide for reconstruction of facilities and equipment, and to cover business interruption losses resulting from any 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 have a material adverse effect on our business, financial condition, results of operations and cash flows.

Seasonality of sales and weather conditions could have a material adverse effect on our financial results.

We experience seasonal demand with end-customers and end-users within each of our business segments. Demand for pool equipment in the pool business; water treatment solutions in our water treatment and industrial filtration businesses; and residential water supply, infrastructure and agricultural products in the businesses within the Industrial & Flow Technologies segment follows warm weather trends and is at seasonal highs from April to August. While we attempt to mitigate the magnitude of the sales spike in the pool business and in the businesses within the Industrial & Flow Technologies segment by employing some advance sale “early buy” programs (generally including extended payment terms and/or additional discounts), we cannot provide any assurance that such programs will be successful. In addition, seasonal effects in the pool business and in the businesses within the Industrial & Flow Technologies segment may vary from year to year and be impacted by weather patterns, particularly by temperature, heavy flooding and droughts. Moreover, adverse weather conditions, such as cold or wet weather, may negatively impact demand for, and sales of, pool equipment in the pool business and residential water supply, commercial, infrastructure and agricultural products in the businesses within the Industrial & Flow Technologies segment.

Our focus on consumer solutions for residential and commercial water treatment as a strategic priority exposes us to certain risks that could have a material adverse impact on our revenue and profitability as well as our reputation.

As we introduce residential and commercial water treatment solutions, we may have limited experience in markets we choose to enter, and our customers may not like our value propositions. New initiatives we test through trials and pilots may not scale or grow effectively or as we expected, which could limit our growth and negatively affect our operating results. Designing, marketing and executing these solutions is subject to incremental risks. These risks include, for example:

- increased labor expense to fulfill our customer promises, which may be higher than the related revenue;
- the requirement to recruit, train and retain qualified personnel;
- increased risk of errors or omissions in the sales or fulfillment of solutions or services;
- unpredictable extended warranty failure rates and related expenses;
- employees in transit using company vehicles to visit customer locations and employees being present in customer homes, which may increase our scope of liability;

- the potential for increased scope of liability relating to our consumer products, services and solutions and related business model;
- the engagement of third parties to assist with sales, installation or servicing of our products and solutions, and the potential responsibility for the actions they take; and
- increased risk of non-compliance with new laws and regulations applicable to these solutions.

These expanded risks increase the complexity of our business and place significant responsibility on our management, employees, operations, systems, technical expertise, financial resources, and internal controls and compliance functions.

Interruption of our supply chain could affect our ability to produce or deliver our products and could negatively impact our business and profitability.

Any material interruption in our supply chain, such as material interruption of the supply of raw materials and components due to the casualty loss of any of our manufacturing plants, interruptions in service by our third-party logistic service providers or common carriers that ship goods within our distribution channels, unexpected delays in shipping or processing through customs of goods, trade restrictions, such as increased tariffs or quotas, embargoes or customs restrictions, or other unexpected or uncontrollable events that cause a material interruption in our supply chain such as pandemics, social or labor unrest, natural disasters or political disputes and military conflicts, could have a negative material impact on our business and our profitability.

Additionally, our raw materials and components are sourced from a wide variety of domestic and international business partners. We rely on these suppliers to provide high quality products and to comply with applicable laws. Our ability to find qualified suppliers who meet our standards and supply products in a timely and efficient manner may be a challenge, especially with respect to raw materials and components sourced from outside the U.S. and from countries or regions with diminished infrastructure, developing or failing economies or which are experiencing political instability or social unrest. For certain products, we may rely on one or very few suppliers. A supplier's failure to meet our standards, provide products in a timely and efficient manner, or comply with applicable laws is beyond our control. These issues could have a material adverse effect on our business, financial condition, results of operations and cash flows.

Risks Relating to Our Debt and Financial Markets

Covenants in our debt instruments may adversely affect us.

Our credit agreements and indentures contain customary financial covenants, including those that limit the amount of our debt, which may restrict the operations of our business and our ability to incur additional debt to finance acquisitions. Our ability to meet the financial covenants may be affected by events beyond our control, and we cannot provide assurance that we will meet those tests. A breach of any of these covenants could result in a default under our credit agreements or indentures. Upon the occurrence of an event of default under any of our credit facilities or indentures, the lenders or trustees could elect to declare all amounts outstanding thereunder to be immediately due and payable and, in the case of credit facility lenders, terminate all commitments to extend further credit. If the lenders or trustees accelerate the repayment of borrowings, we cannot provide assurance that we will have sufficient assets to repay our credit facilities and our other indebtedness. Furthermore, acceleration of any obligation under any of our material debt instruments will permit the holders of our other material debt to accelerate their obligations, which could have a material adverse effect on our financial condition.

We may increase our debt or raise additional capital, our credit ratings may be downgraded in the future, or our interest rates may increase, each of which could affect our financial condition, and may decrease our profitability.

As of December 31, 2020, we had \$839.6 million of total debt outstanding. We may increase our debt or raise additional capital in the future, subject to restrictions in our debt agreements. If our cash flow from operations is less than we anticipate, if our cash requirements are more than we expect, or if we intend to finance acquisitions, we may require more financing. However, debt or equity financing may not be available to us on acceptable terms, if at all. If we incur additional debt or raise equity through the issuance of additional capital shares, the terms of the debt or capital shares issued may give the holders rights, preferences and privileges senior to those of holders of our ordinary shares, particularly in the event of liquidation. The terms of the debt may also impose additional and more stringent restrictions on our operations than we currently have. If we raise funds through the issuance of additional equity, the percentage ownership of existing shareholders in our company would decline. If we are unable to raise additional capital when needed, our financial condition could be adversely affected.

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 may become restricted. Additionally, our credit agreements generally include an increase in interest rates if the ratings for our debt are downgraded. In addition, borrowings under our revolving credit facility and term loans bear interest at a rate equal to an adjusted base rate or the London Interbank Offered Rate ("LIBOR"), plus, in each case, an applicable margin. The U.K. Financial Conduct Authority, which regulates LIBOR, has announced it intends to phase out

LIBOR by the end of 2021. The credit agreement governing our revolving credit facility and term loans provides procedures for determining a replacement or alternative base rate in the event that LIBOR is discontinued; however, any calculation of interest based upon such replacement or alternative base rate may result in higher interest rates. To the extent that our interest rates increase, our interest expense will increase, which could adversely affect our financial condition, results of operations and cash flows.

Our leverage could have a material adverse effect on our business, financial condition or results of operations.

Our ability to make payments on and to refinance our indebtedness, including our existing debt as well as any future debt that we may incur, will depend on our ability to generate cash in the future from operations, financings or asset sales. Our ability to generate cash is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control. If we are not able to repay or refinance our debt as it becomes due, we may be forced to sell assets or take other disadvantageous actions, including (i) reducing financing in the future for working capital, capital expenditures and general corporate purposes or (ii) dedicating an unsustainable level of our cash flow from operations to the payment of principal and interest on our indebtedness. The lenders who hold such debt could also accelerate amounts due, which could potentially trigger a default or acceleration of any of our other debt.

Disruptions in the financial markets could adversely affect us, our customers and our suppliers by increasing funding costs or reducing availability of credit.

In the normal course of our business, we may access credit markets for general corporate purposes, which may include repayment of indebtedness, acquisitions, additions to working capital, repurchase of shares, capital expenditures and investments in our subsidiaries. Although we expect to have sufficient liquidity to meet our foreseeable needs, our access to and the cost of capital could be negatively impacted by disruptions in the credit markets, which have occurred in the past and made financing terms for borrowers unattractive or unavailable. For example, during 2020, the commercial paper market began to experience high levels of volatility due to uncertainty related to the COVID-19 pandemic that impacted both market access to and pricing of commercial paper and we withdrew our credit ratings to access the commercial paper market. These factors may make it more difficult or expensive for us to access credit markets if the need arises. In addition, these factors may make it more difficult for our suppliers to meet demand for products or for customers to purchase products or commence new projects, as suppliers and customers may experience increased costs of debt financing or difficulties in obtaining debt financing. Disruptions in the financial markets have had adverse effects on other areas of the economy and have led to a slowdown in general economic activity that may continue to adversely affect our businesses. One or more of these factors could adversely affect our business, financial condition, results of operations or cash flows.

Risks Relating to Legal, Regulatory and Compliance Matters

Violations of the U.S. Foreign Corrupt Practices Act, U.K. Bribery Act, and other anti-corruption laws outside the U.S. could have a material adverse effect on us.

The U.S. Foreign Corrupt Practices Act (“FCPA”), U.K. Bribery Act, and other anti-corruption 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 the U.S. Department of Justice and the SEC, increased enforcement activity by 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 in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices. Because many of our customers and end users are involved in infrastructure construction and energy production, they are often subject to increased regulations and scrutiny by regulators. We cannot assure that our internal control policies and procedures will always protect us from negligent, 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, customers, or agents have or may have violated applicable anti-corruption laws, including the FCPA, we may be required to investigate the relevant facts and circumstances, which can be expensive and require significant time and attention from senior management. Violations of these laws may require self-disclosure to government agencies and 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.

Our failure to satisfy international trade compliance regulations, and changes in U.S. government sanctions, could have a material adverse effect on us.

Our global operations require importing and exporting goods and technology across international borders on a regular basis. Certain of the products we sell are “dual use” products, which are products that may have both civil and military applications, or may otherwise be involved in weapons proliferation, and are often subject to more stringent export controls. From time to time, we obtain or receive information alleging improper activity in connection with imports or exports. Our policy mandates strict compliance with U.S. and non-U.S. trade laws applicable to our products. However, even when we are in strict compliance with law and our policies, we may suffer reputational damage if certain of our products are sold through various intermediaries to sanctioned entities or to entities operating in sanctioned countries. When we receive information alleging improper activity, our policy is to investigate that information and respond appropriately, including, if warranted, reporting our findings to relevant governmental authorities. Nonetheless, our policies and procedures may not always protect us from actions that would violate U.S. and/or non-U.S. laws. Any improper actions could subject us to civil or criminal penalties, including material monetary fines, or other adverse actions including denial of import or export privileges, and could damage our reputation and business prospects.

We are exposed to environmental laws, liabilities and litigation.

We are subject to U.S. federal, state, local and non-U.S. laws and regulations governing our environmental practices, public and worker health and safety, and the indoor and outdoor environment. Compliance with these environmental, health and safety regulations could require us to satisfy environmental liabilities, increase the cost of manufacturing our products or otherwise have a material adverse effect on our business, financial condition, results of operations and cash flows. Any violations of these laws by us could cause us to incur unanticipated liabilities. We are also required to comply with various environmental laws and maintain permits, many of which are subject to renewal from time to time, for many of our businesses, and we could suffer if we are unable to renew existing permits or to obtain any additional permits that may be required. Compliance with environmental requirements also could require significant operating or capital expenditures or result in significant operational restrictions. We cannot assure you that we have been or will be at all times in compliance with environmental and health and safety laws. If we violate these laws, we could be fined, criminally charged or otherwise sanctioned by regulators.

We have been named as a defendant, target or a potentially responsible party (“PRP”) in a number of environmental matters relating to our current or former businesses. We have disposed of a number of businesses and in certain cases, we have retained responsibility and potential liability for certain environmental obligations. We have received claims for indemnification from certain purchasers of businesses from us. We may be named as a PRP at other sites in the future for existing business units, as well as both divested and acquired businesses. In addition to clean-up actions brought by governmental authorities, private parties could bring individual or class-action claims due to the presence of, or exposure to, hazardous substances.

Certain environmental laws impose liability on current or previous owners or operators of real property for the cost of removal or remediation of hazardous substances at their properties or at properties at which they have disposed of hazardous substances. We have projects underway at several current and former manufacturing facilities to investigate and remediate environmental contamination resulting from our past operations or by the operations of divested or acquired businesses or other businesses that previously owned or used the properties. The cost of remediation and other environmental liabilities can be difficult to accurately predict. In addition, environmental requirements change and tend to become more stringent over time. Our eventual environmental remediation costs and liabilities could exceed the amount of our current reserves.

Our subsidiaries are party to asbestos-related product litigation that could adversely affect our financial condition, results of operations and cash flows.

Our subsidiaries, along with numerous other companies, are named as defendants in a substantial number of lawsuits based on alleged exposure to asbestos-containing materials, substantially all of which relate to our discontinued operations. 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 attached to or used with asbestos-containing components manufactured by third parties. Each case typically names a large number of product manufacturers, service providers and premises owners. Historically, our subsidiaries have been identified as defendants in asbestos-related claims. Our strategy has been, and continues to be, to mount a vigorous defense aimed at having unsubstantiated suits dismissed, and settling claims before trial only where appropriate. As of December 31, 2020, there were approximately 630 claims pending against our subsidiaries, substantially all of which relate to our discontinued operations. 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. In addition, most of the asbestos claims against us are covered by liability insurance policies from many years ago. As our insurers resolve claims relating to past policy periods, the aggregate coverage provided by those policies erodes. If we exhaust our coverage under those policies, we will be exposed to potential uninsured losses.

Failure to comply with the broad range of standards, laws and regulations in the jurisdictions in which we operate may result in exposure to substantial disruptions, costs and liabilities.

Both our products and the operation of our manufacturing facilities are subject to certain statutory and regulatory requirements. These laws and regulations impose on us increasingly complex, stringent and costly compliance activities, including but not limited to environmental, health, and safety protection standards and permitting, labeling and other requirements regarding (among other things) pump efficiency, air quality and emissions, and wastewater discharges; the use, handling, and disposal of hazardous or toxic materials; remediation of environmental contamination; and working conditions for and compensation of our employees. We may also be affected by future standards, laws or regulations, including those imposed in response to energy, climate change, product functionality, geopolitical, corporate social responsibility, or similar concerns. These standards, laws, or regulations may impact our costs of operation, the sourcing of raw materials, and the manufacture and distribution of our products and place restrictions and other requirements or impediments on the products and solutions we can sell in certain geographical locations or on the willingness of certain investors to own our shares.

We are exposed to certain regulatory, financial and other risks related to climate change and other sustainability matters.

Climate change is receiving ever increasing attention worldwide. Many scientists, legislators and others attribute global warming to increased levels of greenhouse gases, which has led to significant legislative and regulatory efforts to limit greenhouse gas emissions. The U.S. Environmental Protection Agency (“EPA”) has published findings that emissions of carbon dioxide, methane, and other greenhouse gases (“GHGs”) present an endangerment to public health and the environment because emissions of such gases are, according to the EPA, contributing to the warming of the earth’s atmosphere and other climate changes. Based on these findings, the EPA has implemented regulations that require reporting of GHG emissions, or that limit emissions of GHGs from certain mobile or stationary sources. In addition, the U.S. Congress and federal and state regulatory agencies have considered other legislation and regulatory proposals to reduce emissions of GHGs, and many states have already taken legal measures to reduce emissions of GHGs, primarily through the development of GHG inventories, GHG permitting and/or regional GHG cap-and-trade programs. It is uncertain whether, when and in what form a federal mandatory carbon dioxide emissions reduction program, or other state programs, may be adopted. Similarly, certain countries have adopted the Kyoto Protocol and/or the Paris Accord, and these and other existing international initiatives and regulations or those under consideration could affect our international operations. To the extent our customers, particularly our energy and industrial customers, are subject to any of these or other similar proposed or newly enacted laws and regulations, we are exposed to risks that the additional costs by customers to comply with such laws and regulations could impact their ability or desire to continue to operate at similar levels in certain jurisdictions as historically seen or as currently anticipated, which could negatively impact their demand for our products and services. As customers become increasingly concerned about the environmental impact of their purchases, if we fail to keep up with changing regulations or innovate or operate in ways that minimize the energy use of our products or operations, customers may choose more energy efficient or sustainable alternatives. These actions could also increase costs associated with our operations, including costs for raw materials and transportation. It is uncertain what laws will be enacted and therefore we cannot predict the potential impact of such laws on our future financial condition, results of operations and cash flows.

In addition, as part of our strategy regarding environmental, climate change and sustainability matters, we may set targets aimed at reducing our impact on the environment and climate change or targets relating to other sustainability matters. It is possible that we may not be able to achieve such targets or our desired impact, which may cause us to suffer from reputational damage or our business or financial condition could be adversely affected. It is also possible that failure to achieve such targets or actions we take to achieve our strategy or targets would result in increased costs to our operations. In addition, investors and stakeholders are increasingly focused on ESG matters, and as stakeholder ESG expectations and standards are evolving, this may cause us to suffer from reputational damage and our business or financial condition could be adversely affected.

Increased information technology security threats and computer crime pose a risk to our systems, networks, products and services, and we are exposed to potential regulatory, financial and reputational risks relating to the protection of our data.

We rely upon information technology systems and networks in connection with a variety of business activities, some of which are managed by third parties. As our business increasingly interfaces with employees, customers, dealers and suppliers using information technology systems and networks, we are subject to an increased risk to the secure operation of these systems and networks. Our evolution into smart products, Internet of Things, business-to-consumer, and e-commerce subjects us to increased cyber and technology risks. The secure operation of our information technology systems and networks is critical to our business operations and strategy. Information technology security threats from user error to attacks designed to gain unauthorized access to our systems, networks and data are increasing in frequency and sophistication. These threats pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of the data we process and maintain. Establishing systems and processes to address these threats may increase our costs. We have experienced data breaches, and, although we have determined such data breaches to be immaterial and such data breaches have not had a material adverse effect on our financial condition, results of operations or cash flows, there can be no assurance of similar results in the future. Should future attacks succeed in the theft of assets, exporting sensitive data or financial information or controlling sensitive systems or networks, it could expose us and our employees, customers, dealers and suppliers to the theft of assets, misuse of information or systems, compromising of confidential information, manipulation and destruction of data, defective products, production downtimes and operations disruptions. The occurrence of any of these events could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows. In addition, such breaches in security could result in litigation, regulatory action and potential liability and the costs and operational consequences of implementing further data protection measures.

Changes in data privacy laws and our ability to comply with them could have a material adverse effect on us.

We collect and store data that is sensitive to us and our employees, customers, dealers and suppliers. A variety of state, national, foreign and international laws and regulations apply to the collection, use, retention, protection, security, disclosure, transfer and other processing of personal and other data. Many foreign data privacy regulations, including the General Data Protection Regulation (the “GDPR”) in the European Union, are more stringent than federal regulations in the United States. Within the United States, many states are considering adopting, or have already adopted privacy regulations, including, for example, the California Consumer Privacy Act. The applicability of these laws to our business has increased due to our focus on expanding business-to-consumer and e-commerce offerings. These laws and regulations are rapidly evolving and changing, and could have an adverse effect on our operations. Companies’ obligations and requirements under these laws and regulations are subject to uncertainty in how they may be interpreted by courts and governmental authorities. The costs of compliance with, and the other burdens imposed by, these and other laws or regulatory actions may increase our operational costs, and/or result in interruptions or delays in the availability of systems. In the case of non-compliance with these laws, including the GDPR, regulators have the authority to levy significant fines. In addition, if there is a breach of privacy, we may be required to make notifications under data privacy regulations. The occurrence of any of these events could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

We may be negatively impacted by litigation and other claims.

We are currently, and may in the future, become subject to litigation and other claims. These legal proceedings are typically claims that relate to our products or services or to the conduct of our business and include, without limitation, claims relating to commercial or contractual disputes with suppliers, customers or parties to acquisitions and divestitures; intellectual property matters; environmental, safety and health matters; product liability; the use or installation of our products; consumer protection matters; and employment and labor matters. The outcome of such legal proceedings cannot be predicted with certainty and some may be disposed of unfavorably to us. We also may not have insurance that covers such claims. While we currently maintain what we believe to be suitable product liability insurance, we may not be able to maintain this insurance on acceptable terms, and this insurance may not provide adequate protection against potential or previously existing liabilities. In addition, we self-insure a portion of product liability claims and must satisfy deductibles on other insured claims. Further, some of our business involves the sale of our products to customers that are constructing large and complex systems, facilities or other capital projects, and while we generally try to limit our exposure to liquidated damages, consequential damages and other potential damages in the contracts for these projects, we could be exposed to significant monetary damages and other liabilities in connection with the sale of our products for these projects for a variety of reasons. In addition, some of our businesses, customers, and dealers are subject to various laws and regulations regarding consumer protection and advertising and sales practices, and we have been named, and may be named in the future, as a defendant in litigation, some of which are or may be class action complaints, arising from alleged violation of these laws and regulations. Successful claims or litigation against us for significant amounts could have a material adverse effect on our reputation, business, financial condition, results of operations and cash flows.

Risks Relating to Our Jurisdiction of Incorporation in Ireland and Tax Residency in the U.K.

We are subject to changes in law and other factors that may not allow us to maintain a worldwide effective corporate tax rate that is competitive in our industry.

While we believe that we should be able to maintain a worldwide effective corporate tax rate that is competitive in our industry, we cannot give any assurance as to what our effective tax rate will be in the future because of, among other things, uncertainty regarding tax policies of the jurisdictions where we operate. Also, the tax laws and treaties of the U.S., the U.K., Ireland and other jurisdictions could change in the future, and such changes could cause a material change in our worldwide effective corporate tax rate. In addition, legislative action could be taken by the U.S., the U.K., Ireland or the European Union that could override tax treaties or modify tax statutes or regulations upon which we expect to rely and adversely affect our effective tax rate. We cannot predict the outcome of any specific legislative proposals. If proposals were enacted that had the effect of disregarding our incorporation in Ireland or limiting our ability as an Irish company to maintain tax residency in the U.K., we could be subject to increased taxation, which could materially adversely affect our financial condition, results of operations, cash flows or our effective tax rate in future reporting periods.

A change in our tax residency could have a negative effect on our future profitability, and may trigger taxes on dividends or exit charges.

Under current Irish legislation, a company is regarded as resident for tax purposes in Ireland if it is incorporated in Ireland. Under current U.K. legislation, a company that is centrally managed and controlled in the U.K. is regarded as resident in the U.K. for taxation purposes unless it is treated as resident in another jurisdiction pursuant to any appropriate double tax treaty with the U.K. Other jurisdictions may also seek to assert taxing jurisdiction over us.

The Organization for Economic Co-operation and Development proposed a number of measures relating to the tax treatment of multinationals, some of which are implemented by amending double tax treaties through the multilateral convention to implement tax treaty related measures to prevent base erosion and profit shifting (the “MLI”). The MLI has now entered into force for a number of countries, including Ireland and the U.K. Under the Double Tax Convention between Ireland and the U.K., as amended by the MLI, the residence tie-breaker provides that a company will remain dual resident unless there is a determination otherwise by the tax authorities of the two contracting states.

We have obtained a determination from the Competent Authorities of the Irish Revenue Commissioners and the U.K. HM Revenue & Customs which states that we are resident for tax purposes only in the U.K.

It is possible that in the future, whether as a result of a change in law or the practice of any relevant tax authority or as a result of any change in the conduct of our affairs, we could become, or be regarded as having become, resident in a jurisdiction other than the U.K. If we cease to be resident in the U.K. and become a resident in another jurisdiction, we may be subject to U.K. exit charges, and could become liable for additional tax charges in the other jurisdiction (including dividend withholding taxes or corporate income tax charges). If we were to be treated as resident in more than one jurisdiction, we could be subject to taxation in multiple jurisdictions. If, for example, we were considered to be a tax resident of Ireland, we could become liable for Irish corporation tax, and any dividends paid by us could be subject to Irish dividend withholding tax.

Irish law differs from the laws in effect in the United States 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.

As an Irish company, we are governed by the Irish Companies Act, which differs 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 our 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 our ordinary shares may be subject to Irish stamp duty.

Transfers of our ordinary shares effected by means of the transfer of book entry interests in the Depository Trust Company (“DTC”) will not be subject to Irish stamp duty. However, if you hold your ordinary shares directly rather than beneficially through DTC, any transfer of your ordinary shares could be subject to Irish stamp duty (currently at the rate of 1 percent of the higher of the price paid or the market value of the shares acquired). Payment of Irish stamp duty is generally a legal obligation of the transferee.

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 we may, in our absolute discretion, pay or cause one of our affiliates to pay any stamp duty. Our articles of association provide that, in the event of any such payment, we (i) may seek reimbursement from the buyer, (ii) will have a lien against the 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 our shares has been paid unless one or both of such parties is otherwise notified by us.

Our ordinary shares, received by means of a gift or inheritance could be subject to Irish capital acquisitions tax.

Irish capital acquisitions tax (“CAT”) could apply to a gift or inheritance of our ordinary shares irrespective of the place of residence, ordinary residence or domicile of the parties. This is because our shares will be regarded as property situated in Ireland. The person who receives the gift or inheritance has primary liability for CAT. Gifts and inheritances passing between spouses are exempt from CAT. Children have a tax-free threshold of €335,000 per lifetime in respect of taxable gifts or inheritances received from their parents for periods on or after October 9, 2019.

General Risk Factors

Our share price may fluctuate significantly.

We cannot predict the prices at which our shares may trade. The market price of our shares may fluctuate widely, depending on many factors, some of which may be beyond our control, including:

- actual or anticipated fluctuations in our results of operations due to factors related to our business;
- success or failure of our business strategy;
- our quarterly or annual earnings, or those of other companies in our industry;
- our ability to obtain third-party financing as needed;
- announcements by us or our competitors of significant acquisitions or dispositions;
- changes in accounting standards, policies, guidance, interpretations or principles;
- changes in earnings estimates or guidance by us or securities analysts or our ability to meet those estimates or guidance;
- the operating and share price performance of other comparable companies;
- investor perception of us;
- effect of certain events or occurrences on our reputation;
- overall market fluctuations;
- results from any material litigation or governmental investigation or environmental liabilities;
- natural or other environmental disasters;
- changes in laws and regulations affecting our business; and
- general economic conditions and other external factors.

Stock markets in general have experienced volatility that has often been unrelated to the operating performance of a particular company. These broad market fluctuations could have a material adverse effect on our share price.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Our principal office is located in leased premises in London, U.K., and our management office in the U.S. is located in leased premises in Golden Valley, Minnesota.

Our operations are conducted in facilities throughout the world. These facilities house manufacturing and distribution operations, as well as sales and marketing, engineering and administrative offices. The following is a summary of our principal properties as of December 31, 2020, including manufacturing, distribution, sales offices and service centers:

	Location	No. of Facilities			
		Manufacturing	Distribution	Sales and Corporate Offices	Service Centers
Consumer Solutions	U.S. and 6 foreign countries	16	8	7	10
Industrial & Flow Technologies	U.S. and 15 foreign countries	20	15	6	7
Corporate	U.S. and 3 foreign countries	—	—	5	—
Total		36	23	18	17

We believe that our production facilities as well as the related machinery and equipment, are well maintained and suitable for their purpose and are adequate to support our businesses.

ITEM 3. LEGAL PROCEEDINGS

We have been, and in the future may be, made parties to a number of actions filed or have been, and in the future may be, given notice of potential claims relating to the conduct of our business, including those relating to commercial, contractual or regulatory disputes with suppliers, customers, authorities or parties to acquisitions and divestiture; intellectual property matters; environmental, asbestos, safety and health matters; product liability; the use or installation of our products; consumer matters; and employment and labor matters. Refer to “*Legal proceedings*” and “*Environmental Matters*” within [Note 15 “Commitments and Contingencies”](#), of the consolidated financial statements included in ITEM 8 of Part II of this Form 10-K for information regarding legal and regulatory proceedings we are involved in. In addition, see [Item 1A “Risk Factors - Our subsidiaries are party to asbestos-related product litigation that could adversely affect our financial condition, results of operations and cash flows”](#) related to asbestos matters.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Current executive officers of Pentair plc, their ages, current position and their business experience during at least the past five years are as follows:

<u>Name</u>	<u>Age</u>	<u>Current Position and Business Experience</u>
John L. Stauch	56	President and Chief Executive Officer since 2018; Executive Vice President and Chief Financial Officer 2007 - 2018; Chief Financial Officer of the Automation and Control Systems unit of Honeywell International Inc. 2005 - 2007; Vice President, Finance and Chief Financial Officer of the Sensing and Controls unit of Honeywell International Inc. 2004 - 2005; Vice President, Finance and Chief Financial Officer of the Automation & Control Products unit of Honeywell International Inc. 2002 - 2004; Chief Financial Officer and IT Director of PerkinElmer Optoelectronics, a unit of PerkinElmer, Inc., 2000 - 2002.
Kelly A. Baker	51	Executive Vice President and Chief Human Resources Officer since 2018; Chief Human Resources Officer, Water segment, 2017 - 2018; Chief Human Resources Officer of Patterson Companies, Inc. (a dental and animal health industry product and technology distributor) 2016 - 2017; Vice President of Human Resources, North America Retail and Marketing Function of General Mills (a multinational manufacturer and marketer of branded consumer foods) 2014 - 2016; Vice President of Human Resources, Corporate & Global Business Solutions of General Mills 2009 - 2014; Vice President of Diversity & Inclusion of General Mills 2005 - 2009.
Mario R. D'Ovidio	51	Executive Vice President and President, Consumer Solutions since 2020; Senior Vice President of Sales and Ownership Solutions - North America of Electrolux AB (a manufacturer of large and small household appliances) 2017 - 2020; Global Vice President Sales and Service - Husqvarna AB (a manufacturer of innovative outdoor power products) 2016 - 2017; Vice President Global Product Management and Development of Husqvarna AB 2014 - 2016.
Robert P. Fishman	57	Executive Vice President, Chief Financial Officer and Chief Accounting Officer since 2020; Executive Vice President and Chief Financial Officer of NCR Corporation (a global provider of omni-channel technology solutions) 2016 - 2018; Senior Vice President and Chief Financial Officer of NCR Corporation 2010 - 2016; Vice President and Corporate Controller of NCR Corporation 2007 - 2009.
John H. Jacko	63	Executive Vice President and Chief Growth Officer since 2018; Senior Vice President and Chief Marketing Officer 2017 - 2018; Vice President and Chief Marketing Officer of Kennametal Inc. (a global supplier of tooling, engineered components and advanced materials) 2007 - 2016; Senior Vice President and Chief Marketing Officer of Flowserve Corporation, 2002 - 2007; Vice President of Marketing and Customer Management of Flowserve Corporation 2001 - 2002.
Jerome O. Pedretti	50	Executive Vice President and President, Industrial & Flow Technologies since 2020. Senior Vice President of Pentair's former Aquatic Systems reporting segment 2016 - 2019; Vice President of Pentair's former Valves & Controls business 2014 - 2016; Vice President Growth Strategy 2010 - 2014; Various business leadership positions of Pentair 2005 - 2014; Consultant at Bain & Co 2002 - 2005.
Stephen J. Pilla	57	Executive Vice President and Chief Supply Chain Officer since 2020; Vice President and Chief Supply Chain Officer of Red Wing Shoe Co. (a manufacturer of personal protection equipment and footwear) 2017 - 2020; Vice President and General Manager of Pentair's former Enclosure Division 2015 - 2017; Vice President of Pentair's Global Operations and Supply Chain 2014 - 2016; Vice President, Global Supply of Pentair 2009 - 2012; Various other business leadership positions of Pentair 2002 - 2009.
Karla C. Robertson	50	Executive Vice President, General Counsel, Secretary and Chief Social Responsibility Officer since 2020; Executive Vice President, General Counsel and Secretary 2018-2020; General Counsel, Water segment 2017 - 2018; Executive Vice President, General Counsel and Corporate Secretary of SUPERVALU Inc. (a wholesaler and retailer of grocery products) 2013 - 2017; Vice President, Employment, Compensation and Benefits Law of SUPERVALU Inc. 2012 - 2013; Director, Employment Law of SUPERVALU Inc. 2011 - 2012; Senior Counsel, Employment Law of SUPERVALU Inc. 2009 - 2011; Senior Employee Relations Counsel of Target Corporation 2006 - 2008; Associate, Faegre & Benson LLP 2000 - 2005; Judicial Clerk, United States District Court for the Southern District of Iowa 1998 - 2000.
Philip M. Rolchigo	59	Executive Vice President and Chief Technology Officer since 2018; Chief Technology Officer 2017 - 2018; Vice President of Technology 2015 - 2017; Vice President of Engineering 2007 - 2015; Business Development Director of Water Technologies business of GE Global Research Center 2006 - 2007; Director of Technology of GE Water & Process Technologies 2003 - 2006; Chief Technology Officer of Osmonics 2000 - 2003; Vice President of Research & Development of Osmonics 1998 - 2000.

PART II

ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our ordinary shares are listed for trading on the New York Stock Exchange (“NYSE”) under the symbol “PNR.” As of December 31, 2020, there were 13,931 shareholders of record.

Pentair has paid 180 consecutive quarterly cash dividends, including most recently a dividend of \$0.19 per share in the fourth quarter of 2020. On December 8, 2020, Pentair’s Board of Directors approved a 5 percent increase in the Company’s regular quarterly cash dividend rate (from \$0.19 per share to \$0.20 per share) that was paid on February 5, 2021 to shareholders of record at the close of business on January 22, 2021. 2021 marks the 45th consecutive year that Pentair has increased its dividend.

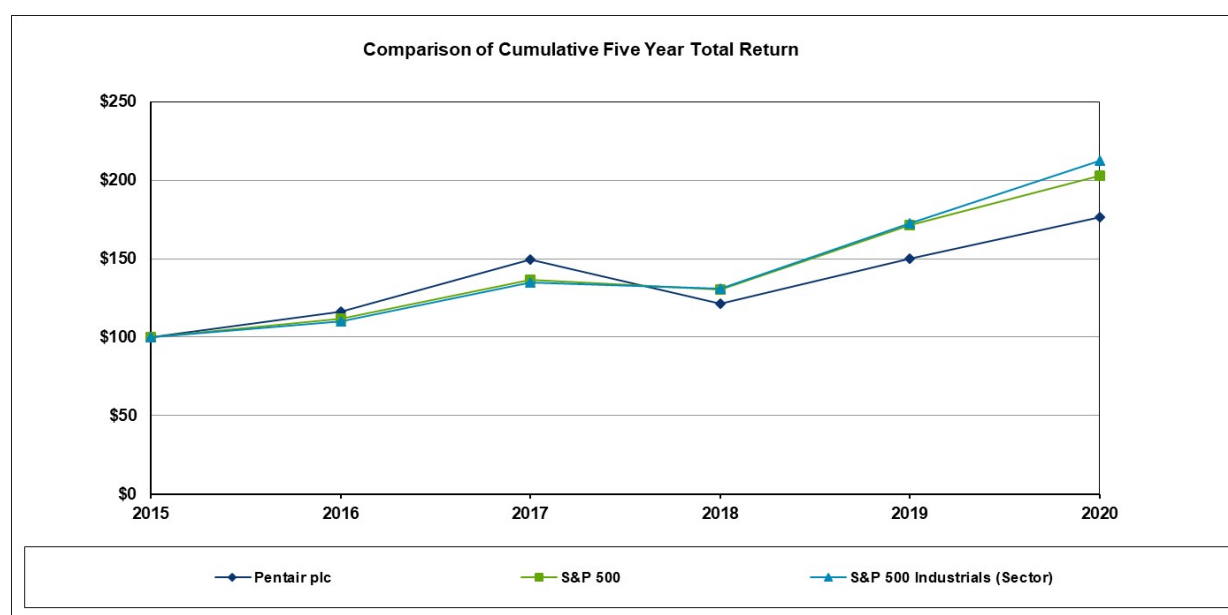
The timing, declaration and payment of future dividends to holders of our ordinary shares will depend upon many factors, including our financial condition and results of operations, the capital requirements of our businesses, industry practice and any other relevant factors.

Share Performance Graph

The following information under the caption “Share Performance Graph” in this ITEM 5 of this Annual Report on Form 10-K 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, as amended (the “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, as amended, or the Exchange Act, except to the extent we specifically incorporate it by reference into such a filing.

The following graph sets forth the cumulative total shareholder return on our ordinary shares for the last five years, assuming the investment of \$100 on December 31, 2015 and the reinvestment of all dividends since that date to December 31, 2020. The graph also contains for comparison purposes the S&P 500 Index and the S&P 500 Industrials Index, assuming the same investment level and reinvestment of dividends.

By virtue of our market capitalization, we are a component of the S&P 500 Index. On the basis of our size and diversity of businesses, we believe the S&P 500 Industrials Index is an appropriate published industry index for comparison purposes.



Company / Index	Base Period December		INDEXED RETURNS Years ended December 31			
	2015	2016	2017	2018	2019	2020
Pentair plc	\$ 100	\$ 116.00	\$ 149.25	\$ 121.10	\$ 149.78	\$ 176.57
S&P 500 Index	100	111.96	136.40	130.42	171.49	203.04
S&P 500 Industrials Index	100	110.12	134.97	130.86	172.69	212.71

Purchases of Equity Securities

The following table provides information with respect to purchases we made of our ordinary shares during the fourth quarter of 2020:

	(a) Total number of shares purchased	(b) Average price paid per share	(c) Total number of shares purchased as part of publicly announced plans or programs	(d) Dollar value of shares that may yet be purchased under the plans or programs
October 1 – October 24	714	\$ 47.02	—	\$ 134,718,028
October 25 – November 21	689,880	51.97	672,797	99,718,419
November 22 – December 31	68	53.09	—	849,718,419
Total	690,662		672,797	

- (a) The purchases in this column include 714 shares for the period October 1 – October 24, 17,083 shares for the period October 25 – November 21, and 68 shares for the period November 22 – December 31 deemed surrendered to us by participants in our equity incentive plans to satisfy the exercise price or withholding of tax obligations related to the exercise of stock options and vesting of restricted and performance shares.
- (b) The average price paid in this column includes shares repurchased as part of our publicly announced plans and shares deemed surrendered to us by participants in the Plans to satisfy the exercise price for the exercise price of stock options and withholding tax obligations due upon stock option exercises and vesting of restricted and performance shares.
- (c) The number of shares in this column represents the number of shares repurchased as part of our publicly announced plans to repurchase our ordinary shares up to a maximum dollar limit authorized by the Board of Directors, discussed below.
- (d) In May 2018, the Board of Directors authorized the repurchase of our ordinary shares up to a maximum dollar limit of \$750.0 million (the “2018 Authorization”). The 2018 Authorization expires on May 31, 2021. On December 8, 2020, the Board of Directors authorized the repurchase of our ordinary shares up to a maximum dollar limit of \$750.0 million (the “2020 Authorization”). The 2020 Authorization expires on December 31, 2025. The 2020 Authorization supplements the 2018 Authorization. We have \$99.7 million and \$750.0 million remaining availability for repurchases under the 2018 Authorization and 2020 Authorization, respectively. From time to time, we may enter into a Rule 10b5-1 trading plan for the purpose of repurchasing shares under this authorization.

ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-looking statements

This report contains statements that we believe to be “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. All statements, other than statements of historical fact are forward-looking statements. Without limitation, any statements preceded or followed by or that include the words “targets,” “plans,” “believes,” “expects,” “intends,” “will,” “likely,” “may,” “anticipates,” “estimates,” “projects,” “should,” “would,” “could,” “positioned,” “strategy,” “future” or words, phrases or terms of similar substance or the negative thereof, are forward-looking statements. These forward-looking statements are not guarantees of future performance and are subject to risks, uncertainties, assumptions and other factors, some of which are beyond our control, which could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These factors include the overall impact of the COVID-19 pandemic on our business; the duration and severity of the COVID-19 pandemic; actions that may be taken by us, other businesses and governments to address or otherwise mitigate the impact of the COVID-19 pandemic, including those that may impact our ability to operate our facilities, meet production demands, and deliver products to our customers; the negative impacts of the COVID-19 pandemic on the global economy, our customers and suppliers, and customer demand; overall global economic and business conditions impacting our business, including the strength of housing and related markets; demand, competition and pricing pressures in the markets we serve; volatility in currency exchange rates; failure of markets to accept new product introductions and enhancements; the ability to successfully identify, finance, complete and integrate acquisitions; the ability to achieve the benefits of our restructuring plans and cost reduction initiatives; risks associated with operating foreign businesses; the impact of material cost and other inflation; the impact of seasonality of sales and weather conditions; our ability to comply with laws and regulations; the impact of changes in laws, regulations and administrative policy, including those that limit U.S. tax benefits or impact trade agreements and tariffs; the outcome of litigation and governmental proceedings; and the ability to achieve our long-term strategic operating goals. Additional information concerning these and other factors is contained in our filings with the U.S. Securities and Exchange Commission (the “SEC”), including this Annual Report on Form 10-K. All forward-looking statements speak only as of the date of this report. Pentair assumes no obligation, and disclaims any obligation, to update the information contained in this report.

Overview

Pentair plc and its consolidated subsidiaries (“we,” “us,” “our,” “Pentair” or the “Company”) is a pure play water industrial manufacturing company comprised of two reporting segments: Consumer Solutions and Industrial & Flow Technologies. We classify our operations into business segments based primarily on types of products offered and markets served. For the year ended December 31, 2020, the Consumer Solutions and Industrial & Flow Technologies segments represented approximately 58% and 42% of total revenues, respectively.

Although our jurisdiction of organization is Ireland, we manage our affairs so that we are centrally managed and controlled in the United Kingdom (the “U.K.”) and therefore have our tax residency in the U.K.

On April 30, 2018, we completed the separation of our Electrical business from the rest of Pentair (the “Separation”) by means of a dividend in specie of the Electrical business, which was effected by the transfer of the Electrical business from Pentair to nVent and the issuance by nVent of nVent ordinary shares directly to Pentair shareholders (the “Distribution”). We did not retain an equity interest in nVent. The results of the Electrical business have been presented as discontinued operations for all periods presented. The Electrical business was previously disclosed as a stand-alone reporting segment.

In February 2019, as part of Consumer Solutions, we completed the acquisitions of Aquion, Inc. (“Aquion”) and Pelican Water Systems (“Pelican”) for \$163.4 million and \$121.1 million, respectively, in cash, net of cash acquired and final working capital true-ups. Aquion offers a diverse line of water conditioners, water filters, drinking-water purifiers, ozone and ultraviolet disinfection systems, reverse osmosis systems and acid neutralizers for the residential and commercial water treatment industry. Pelican provides residential whole home water treatment systems.

COVID-19 Pandemic

In March 2020, the World Health Organization declared the COVID-19 outbreak a pandemic. The COVID-19 pandemic continues to spread throughout the United States (“U.S.”) and the world, with the continued potential for significant impact. The COVID-19 pandemic has resulted in governments around the world implementing increasingly stringent measures to help control the spread of the virus, including quarantines, “shelter-in-place” and “stay-at-home” orders, travel restrictions, business curtailments, limits on gatherings, and other measures. In addition, governments and central banks in several parts of the world have enacted fiscal and monetary stimulus measures to counteract the economic impacts of the COVID-19 pandemic. The effects of the COVID-19 pandemic have had and may continue to have an unfavorable impact on certain parts of our business.

Health and safety

From the earliest signs of the outbreak, we have taken proactive action to protect the health and safety of our employees, customers, and suppliers. We have enacted rigorous safety measures in our sites, including implementing social distancing protocols, implementing working from home arrangements for those employees who do not need to be physically present on the manufacturing floor and do not provide manufacturing-support activities, suspending travel, extensively and frequently disinfecting our workspaces, conducting temperature monitoring at our facilities, and providing or accommodating the wearing of facial coverings to those employees who must be physically present in their workplace and where facial coverings are required by local government orders. We expect to continue to implement these measures until we determine that the COVID-19 pandemic is adequately contained for purposes of our business, and we may take further actions as government authorities require or recommend or as we determine to be in the best interests of our employees, customers, and suppliers. For the year ended December 31, 2020, we incurred \$10.4 million of costs related to providing for the health and safety of our employees specific to the COVID-19 pandemic.

Operations

We have important manufacturing operations in the U.S. and around the world that have been affected by the COVID-19 pandemic, and we have taken certain actions to help curb its spread. Government-mandated measures providing for business curtailments or shutdowns generally exclude certain essential businesses and services, including businesses that manufacture and sell products that are considered essential to daily lives or otherwise operate in essential or critical sectors. While substantially all of our manufacturing facilities are considered essential and have remained operational, we have experienced intermittent partial or full factory closures at certain facilities as a result of these measures or the need to sanitize the facilities and address employee well-being. We also experienced brief interruptions in operations due to government-mandated shutdowns at our sites in India, Italy, and New Zealand during the year ended December 31, 2020. While sanitation-related closures or governmental shutdowns may occur again in the future, all of our manufacturing facilities currently remain operational. In addition, we have experienced disruptions at some of our facilities with higher absenteeism due to the COVID-19 pandemic.

Supply

The COVID-19 pandemic has impacted our factory productivity and supply chain. Certain of our suppliers, particularly in our pool and flow businesses, faced difficulties maintaining operations in light of manufacturing shutdowns and interruptions due to the COVID-19 pandemic, which negatively impacted our production and contributed to an increase in backlog. During the third quarter of 2020, we identified second source suppliers and increased supply for key items in our pool business to reduce the production and capacity challenges we encountered in the second quarter of 2020 as a result of supply chain issues and increased demand. These supply chain and capacity challenges have led to higher transportation and labor costs in order to timely deliver finished goods to our customers. Restrictions or disruptions of transportation, such as reduced availability of air transport, port closures and increased border controls or closures, have in certain cases resulted, and may continue to result, in higher costs and delays, both for obtaining raw materials and components and shipping finished goods to customers, which could harm our profitability, make our products less competitive, or cause our customers to seek alternative suppliers. Although we regularly monitor the financial health and operations of companies in our supply chain, and use alternative suppliers when necessary and available, financial hardship or government restrictions on our suppliers or sub-suppliers caused by the COVID-19 pandemic could cause a disruption in our ability to obtain raw materials or components required to manufacture our products and adversely affect our operations.

Demand

The COVID-19 pandemic has significantly increased economic and demand uncertainty. We have experienced and expect to continue to experience reductions in customer demand in several of our end-markets.

Within our Consumer Solutions segment, the COVID-19 pandemic has impacted demand in each of our businesses. Our pool business has experienced high demand as consumers sheltered-in-place and have spent more time at home. While shelter-in-place orders impacted our ability to reach our customers in our residential water treatment business at the beginning of the second quarter of 2020, we started to see stabilization in demand in this business towards the end of the second quarter and then saw demand rebound in the second half of 2020 as consumers became more comfortable allowing dealers back into their homes to test their water and install new systems. Our commercial filtration business was negatively impacted by restaurant and hospitality industry closures or operations at limited capacity across North America and Europe in the second quarter and to a lesser extent in the second half of 2020. New or extended government-mandated shutdowns could impact demand for our Consumer Solutions products in the future.

Within our Industrial & Flow Technologies segment, demand for our residential flow products was initially negatively impacted due to store closures as a result of state-wide orders in the U.S. However, sell through improved throughout the year driven by pent up demand from the earlier closures. Demand continued to remain soft in our commercial and infrastructure flow businesses, but stabilized in the third quarter of 2020. In our industrial filtration business, demand is mostly driven by customer capital spending, which was reduced and/or delayed beginning in the second quarter of 2020 across most industries served. In addition, lower asset utilization drove down demand in industrial filtration aftermarket sales. Furthermore, many of our commercial customers have been negatively impacted due to worldwide lockdowns as a result of the COVID-19 pandemic. While we are preparing for this business to remain under pressure in the near term, we expect long-term demand drivers for this business not to be significantly changed.

The current COVID-19 pandemic or continued spread of COVID-19 has caused a global economic slowdown, and a possibility of a global recession. In the event of a recession, demand for our products would decline and our business and results of operations would be adversely affected.

Cost mitigation actions

With the continuing uncertainty in light of the COVID-19 pandemic, we have taken steps across our organization to align costs with lower sales volumes. These steps include renegotiation with suppliers to reduce input costs, driving manufacturing direct labor reductions in line with volume drop, delaying, reducing or eliminating purchased services and travel and, where appropriate, temporary furloughs and hiring freezes. Additionally, we are proactively managing our working capital and reviewing our capital spending plan, but have not deferred strategic ongoing initiatives. We also continue to monitor government economic stabilization efforts and have participated in certain legislative provisions, such as deferring estimated tax payments, and may apply for job retention credits.

We continue to monitor the rapidly evolving situation including the development of vaccines and their distribution to address the COVID-19 virus and guidance from international and domestic authorities, including federal, state and local public health authorities, and may take additional actions based on their requirements and recommendations. In these circumstances, there may be developments outside our control requiring us to adjust our operating plan. As such, given the dynamic nature of this situation, we cannot reasonably estimate the impacts of the COVID-19 pandemic on our financial condition, results of operations or cash flows in the future. In addition, see [Part I—ITEM 1A, “Risk Factors,”](#) included herein for our risk factors regarding risks associated with the COVID-19 pandemic.

Key Trends and Uncertainties Regarding Our Existing Business

The following trends and uncertainties affected our financial performance in 2020, and will likely impact our results in the future:

- There are many uncertainties regarding the COVID-19 pandemic, including the anticipated duration and severity of the pandemic, the extent of worldwide social, political and economic disruption it may continue to cause and the development and distribution of vaccines to address the COVID-19 virus. The broader implications of the COVID-19 pandemic on our business, financial condition, results of operations and cash flows cannot be determined at this time, and ultimately will be affected by a number of evolving factors including the length of time that the pandemic continues and the impact of vaccines on it, its effect on the demand for our products and services, our supply chain, and our manufacturing capacity, as well as the impact of governmental regulations imposed in response to the pandemic. See further discussion above under “*COVID-19 Pandemic*” for key trends and uncertainties with regard to the COVID-19 pandemic.
- During 2020, we executed certain business restructuring initiatives unrelated to the COVID-19 pandemic aimed at reducing our fixed cost structure and realigning our business. We expect these actions to continue into 2021 and to drive margin growth.
- We have identified specific product and geographic market opportunities that we find attractive and continue to pursue, both within and outside the U.S. We are reinforcing that our businesses more effectively address these opportunities through research and development and additional sales and marketing resources. Unless we successfully penetrate these markets, our core sales growth will likely be limited or may decline.
- We have experienced material and other cost inflation. We strive for productivity improvements, and we implement increases in selling prices to help mitigate this inflation. We expect the current economic environment will result in continuing price volatility for many of our raw materials, and we are uncertain as to the timing and impact of these market changes.

In 2021, our operating objectives remain to focus on delivering our core while continuing to build out our future. We expect to execute these objectives by:

- Delivering revenue growth in our core businesses;
- Delivering income and cash by managing price/cost inflation, prioritization of growth investments and addressing the cost structures as necessary;
- Continued focus on capital allocation through:
 - Commitment to maintain our investment grade rating;
 - Return cash to shareholders through dividends and buybacks; and
 - Supplement our business with strategically-aligned mergers and acquisitions.
- Focused growth initiatives that accelerate our investments in digital, technology and services expansion; and
- Building a high performance growth culture and delivering on our commitments while living our Win Right values.

CONSOLIDATED RESULTS OF OPERATIONS

The consolidated results of operations were as follows:

<i>In millions</i>	Years ended December 31			% / point change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Net sales	\$ 3,017.8	\$ 2,957.2	\$ 2,965.1	2.0 %	(0.3) %
Cost of goods sold	1,960.2	1,905.7	1,917.4	2.9 %	(0.6) %
Gross profit	1,057.6	1,051.5	1,047.7	0.6 %	0.4 %
<i>% of net sales</i>	35.0 %	35.6 %	35.3 %	(0.6) pts	0.3 pts
Selling, general and administrative	520.5	540.1	534.3	(3.6) %	1.1 %
<i>% of net sales</i>	17.2 %	18.3 %	18.0 %	(1.1) pts	0.3 pts
Research and development	75.7	78.9	76.7	(4.1) %	2.9 %
<i>% of net sales</i>	2.5 %	2.7 %	2.6 %	(0.2) pts	0.1 pts
Operating income	461.4	432.5	436.7	6.7 %	(1.0) %
<i>% of net sales</i>	15.3 %	14.6 %	14.7 %	0.7 pts	(0.1) pts
Loss (gain) on sale of businesses	0.1	(2.2)	7.3	N.M.	N.M.
Loss on early extinguishment of debt	—	—	17.1	N.M.	N.M.
Net interest expense	23.9	30.1	32.6	(20.6) %	(7.7) %
Other expense (income)	5.3	(2.9)	(0.1)	N.M.	N.M.
Income from continuing operations before income taxes	432.1	407.5	379.8	6.0 %	7.3 %
Provision for income taxes	75.0	45.8	58.1	63.8 %	(21.2) %
<i>Effective tax rate</i>	17.4 %	11.2 %	15.3 %	6.2 pts	(4.1) pts

N.M. Not Meaningful

Net sales

The components of the consolidated net sales change were as follows:

	2020 vs 2019	2019 vs 2018
Volume	0.4 %	(3.9)%
Price	0.9	2.6
Core growth	1.3	(1.3)
Acquisition	0.5	2.5
Currency	0.2	(1.5)
Total	2.0 %	(0.3)%

The 2.0 percent increase in consolidated net sales in 2020 from 2019 was primarily the result of:

- selective increases in selling prices to mitigate inflationary cost increases;
- increased sales due to the Aquion and Pelican acquisitions in February 2019 and other small acquisitions in our Consumer Solutions segment in the fourth quarter of 2019 and first half of 2020;
- volume increase in our Consumer Solutions segment mainly driven by our pool business;
- volume increase in our residential and irrigation flow businesses in our Industrial & Flow Technologies segment; and
- favorable foreign currency effects in 2020 compared to the prior year.

This increase was partially offset by:

- sales volume declines in certain businesses within our Industrial & Flow Technologies segment due to the impacts of the COVID-19 pandemic.

Gross profit

The 0.6 percentage point decrease in gross profit as a percentage of net sales in 2020 from 2019 was primarily the result of:

- unfavorable mix within the pool and commercial and infrastructure flow businesses;
- lower volumes within our commercial water supply, water disposal, industrial filtration and food and beverage businesses;
- higher transportation and labor costs due to increased demand in our pool business;
- costs related to providing for the health and safety of our employees specific to the COVID-19 pandemic of \$8.6 million for the year ended December 31, 2020; and
- inflationary increases related to certain raw materials.

This decrease was partially offset by:

- increased productivity due to higher volumes in our pool business;
- selective increases in selling prices to mitigate impacts of inflation; and
- increased productivity due to cost actions such as temporary furloughs and hiring freezes in response to the COVID-19 pandemic driving manufacturing efficiencies and lower operating expenses.

Selling, general and administrative (“SG&A”)

The 1.1 percentage point decrease in SG&A expense as a percentage of net sales in 2020 from 2019 was driven by:

- asset impairment charges of \$21.2 million in 2019;
- reduction in travel and entertainment, trade show and advertising expenses due to the COVID-19 pandemic; and
- restructuring and other costs of \$15.4 million in 2020, compared to \$21.0 million in 2019.

This decrease was partially offset by:

- higher employee compensation incentive expense compared to the prior year.

Net interest expense

The 20.6 percent decrease in net interest expense in 2020 from 2019 was the result of:

- cross currency swaps entered into in June 2019 and December 2019 resulting in more interest income in 2020 than in the prior period;
- lower interest rate revolving credit facilities replacing higher interest rate fixed rate debt that matured during the second half of 2019; and
- strong cash flows in 2020 leading to lower overall debt levels.

Provision for income taxes

The 6.2 percentage point increase in the effective tax rate in 2020 from 2019 was primarily due to:

- the unfavorable impact of discrete items, including items related to the CARES Act, and items related to final regulations as part of the Tax Cuts and Jobs Act of 2017 that place limitations on the deductibility of certain interest expense for U.S. tax purposes.

2019 Comparison with 2018

A discussion of changes in our consolidated results of operations and liquidity and capital resources from the year ended December 31, 2019 to December 31, 2018 can be found in Part II, ITEM 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations of our Annual Report on Form 10-K for the year ended December 31, 2019, which was filed with the SEC on February 25, 2020. However, such discussion is not incorporated by reference into, and does not constitute a part of, this Annual Report on Form 10-K.

SEGMENT RESULTS OF OPERATIONS

The summary that follows provides a discussion of the results of operations of our two reportable segments (Consumer Solutions and Industrial & Flow Technologies). Each of these segments is comprised of various product offerings that serve multiple end users.

We evaluate performance based on net sales and segment income and use a variety of ratios to measure performance of our reporting segments. Segment income represents equity income of unconsolidated subsidiaries and operating income exclusive of intangible amortization, certain acquisition related expenses, costs of restructuring activities, impairments and other unusual non-operating items.

Consumer Solutions

The net sales and segment income for Consumer Solutions were as follows:

<i>In millions</i>	Years ended December 31			% / point change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Net sales	\$ 1,742.9	\$ 1,611.7	\$ 1,578.4	8.1 %	2.1 %
Segment income	419.1	379.6	392.9	10.4 %	(3.4) %
<i>% of net sales</i>	24.0 %	23.6 %	24.9 %	0.4 pts	(1.3) pts

Net sales

The components of the change in Consumer Solutions net sales were as follows:

	2020 vs 2019	2019 vs 2018
Volume	6.3 %	(6.2)%
Price	0.8	3.3
Core growth	7.1	(2.9)
Acquisition	1.0	5.8
Currency	—	(0.8)
Total	8.1 %	2.1 %

The 8.1 percent increase in net sales for Consumer Solutions in 2020 from 2019 was primarily the result of:

- increased sales volume across several of the product lines in our pool business due to consumers' desire to invest in their pools and backyards while sheltering-in-place due to the COVID-19 pandemic;
- higher sales volumes in our residential filtration product lines in North America and China during the second half of 2020;
- selective increases in selling prices to mitigate impacts of inflation; and
- increased sales due to the Aquion and Pelican acquisitions that occurred in February 2019 and other small acquisitions in the fourth quarter of 2019 and during 2020.

This increase was partially offset by:

- sales decreases for 2020 due to lower demand in the water treatment business as government-mandated shutdown and shelter-in-place orders and commercial closures due to the COVID-19 pandemic impacting the ability to reach customers; and
- higher-than-usual rebate activity that lowered price due to sales growth in our pool business.

The 2.1 percent increase in net sales for Consumer Solutions in 2019 from 2018 was primarily the result of:

- increased sales due to the acquisitions of Aquion and Pelican in the first quarter of 2019; and
- selective increases in selling prices to mitigate inflationary cost increases.

This increase was partially offset by:

- sales volume declines in our pool business due to cold, wet weather during the first half of 2019 in key markets;
- higher than anticipated inventory levels in some of our key distribution channels impacting our pool business during the first nine months of 2019;
- sales volume declines in our residential and commercial components business; and
- unfavorable foreign currency effects compared to the same period of the prior year.

Segment income

The components of the change in Consumer Solutions segment income from the prior period were as follows:

	2020	2019
Growth	1.1 pts	(1.4) pts
Acquisition (divestiture)	0.4	(0.4)
Inflation	(1.3)	(2.9)
Productivity/Price	0.2	3.4
Total	0.4 pts	(1.3) pts

The 0.4 percentage point increase in segment income for Consumer Solutions as a percentage of net sales in 2020 from 2019 was primarily the result of:

- increased sales volume in our pool business;
- reduction in travel and entertainment, trade show and advertising expenses due to the COVID-19 pandemic and other cost reduction initiatives;
- impact of Aquion and Pelican acquisitions; and
- selective increases in selling prices to mitigate the impacts of inflation.

This increase was partially offset by:

- lower sales volume in the higher margin commercial filtration business;
- higher sales rebates and employee incentive compensation expense in line with increased sales in our pool business;
- higher transportation and labor costs due to increased demand in our pool business; and
- inflationary increases related to certain raw materials.

The 1.3 percentage point decrease in segment income for Consumer Solutions as a percentage of net sales in 2019 from 2018 was primarily the result of:

- declines in core sales volume in our pool business resulting in unfavorable sales mix;
- increased investment in both research and development and sales and marketing to drive growth; and
- inflationary increases related to raw material and labor costs.

This decrease was partially offset by:

- selective increases in selling prices to mitigate inflationary cost increases; and
- productivity and cost savings generated from PIMS initiatives, including lean and supply management practices.

Industrial & Flow Technologies

The net sales and segment income for Industrial & Flow Technologies were as follows:

In millions	Years ended December 31			% / point change	
	2020	2019	2018	2020 vs 2019	2019 vs 2018
Net sales	\$ 1,273.6	\$ 1,344.1	\$ 1,385.4	(5.2) %	(3.0) %
Segment income	164.6	199.0	198.8	(17.3) %	0.1 %
% of net sales	12.9 %	14.8 %	14.3 %	(1.9) pts	0.5 pts

Net sales

The components of the change in Industrial & Flow Technologies net sales were as follows:

	2020 vs 2019	2019 vs 2018
Volume	(6.5)%	(1.4)%
Price	0.9	1.9
Core growth	(5.6)	0.5
Acquisition (divestiture)	—	(1.3)
Currency	0.4	(2.2)
Total	(5.2)%	(3.0)%

The 5.2 percent decrease in net sales for Industrial & Flow Technologies in 2020 from 2019 was primarily the result of:

- decreased sales volume in our commercial water supply and water disposal, industrial filtration and food and beverage businesses due to less project sales as a result of customers deferring their capital spending and less service and aftermarket revenue driven by reduced consumption and travel restrictions from government-mandated shutdowns and “shelter-in-place” orders due to the COVID-19 pandemic;
- decreased sales volume in our residential and irrigation flow businesses in the first half of 2020 due to market conditions resulting from the COVID-19 pandemic.

This decrease was partially offset by:

- increased sales volume in our residential and irrigation flow businesses in the second half of 2020 due to strong demand in the residential water supply, water disposal and specialty spray product lines;
- sales growth in our infrastructure business as a result of strong backlog entering 2020;
- selective increases in selling prices to mitigate inflationary cost increases; and
- favorable foreign currency effects compared to the same period of the prior year.

The 3.0 percent decrease in net sales for Industrial & Flow Technologies in 2019 from 2018 was primarily the result of:

- decreased sales volume in our agriculture-related business due to cold, wet weather in the first half of 2019;
- unfavorable foreign currency effects compared to the same period of the prior year; and
- the impact of divestitures in our agriculture-related business in Brazil and commercial flow business in Australia.

This decrease was partially offset by:

- increased sales volume in our industrial filtration and food and beverage businesses; and
- selective increases in selling prices to mitigate inflationary cost increases.

Segment income

The components of the change in Industrial & Flow Technologies segment income from the prior period were as follows:

	2020	2019
Growth	(2.5) pts	0.4 pts
Inflation	(1.0)	(2.5)
Productivity/Price	1.6	2.6
Total	(1.9) pts	0.5 pts

The 1.9 percentage point decrease in segment income for Industrial & Flow Technologies as a percentage of net sales in 2020 from 2019 was primarily the result of:

- decreased sales volumes in our residential and irrigation flow business in the first half of 2020 due to the COVID-19 pandemic, which resulted in decreased leverage on fixed operating expenses;

- decreased sales volume in our commercial water supply and water disposal, industrial filtration and food and beverage businesses due to the COVID-19 pandemic along with unfavorable mix within our commercial and infrastructure flow and industrial filtration businesses; and
- inflationary increases related to raw material and labor costs.

This decrease was partially offset by:

- selective increases in selling prices to mitigate inflationary cost increases;
- lower sales incentive expense in line with decreased sales; and
- increased productivity due to cost actions driving manufacturing efficiencies and lower operating expenses.

The 0.5 percentage point increase in segment income for Industrial & Flow Technologies as a percentage of net sales in 2019 from 2018 was primarily the result of:

- selective increases in selling prices to mitigate inflationary cost increases;
- increased productivity; and
- increased volume and favorable mix in our industrial filtration and food and beverage businesses.

This increase was partially offset by:

- inflationary increases related to raw material and labor costs.

BACKLOG OF ORDERS BY SEGMENT

<i>In millions</i>	December 31				
	2020	2019	\$ change	% change	
Consumer Solutions	\$ 459.1	\$ 138.2	\$ 320.9	232.2	%
Industrial & Flow Technologies	288.7	251.2	37.5	14.9	%
Total	\$ 747.8	\$ 389.4	\$ 358.4	92.0	%

A substantial portion of our revenues result from orders received and products delivered in the same month. Our backlog typically has a short manufacturing cycle and products generally ship within 90 days of the date on which a customer places an order. However, a portion of our backlog, particularly from orders for major capital projects, can take more than one year depending on the size and type of order. We record, as part of our backlog, all orders from external customers, which represent firm commitments, and are supported by a purchase order or other legitimate contract. The increase in our backlog at December 31, 2020 compared to 2019 was mainly a result of increased demand in our pool business. We expect the majority of our backlog at December 31, 2020 will be shipped in 2021.

LIQUIDITY AND CAPITAL RESOURCES

We generally fund cash requirements for working capital, capital expenditures, equity investments, acquisitions, debt repayments, dividend payments and share repurchases from cash generated from operations, availability under existing committed revolving credit facilities and in certain instances, public and private debt and equity offerings. Our primary revolving credit facility has generally been adequate for these purposes, although we have negotiated additional credit facilities or completed debt and equity offerings as needed to allow us to complete acquisitions.

We experience seasonal cash flows primarily due to seasonal demand in a number of markets. Consistent with historical trends, we experienced seasonal cash usage in the first quarter of 2020 and drew on our revolving credit facility to repay commercial paper and to fund our operations. This cash usage reversed in the second quarter of 2020 as the seasonality of our businesses peaked. Consistent with historical seasonal patterns, the second quarter of 2020 generated significant cash to fund our operations and we used this cash to significantly reduce the draw on our revolving credit facility. We continued to experience strong cash flow in the second half of 2020, causing our revolving credit facility balance to remain low at December 31, 2020 compared to the prior year end.

End-user demand for pool and certain pumping equipment follows warm weather trends and is at seasonal highs from April to August. The magnitude of the sales spike is partially mitigated by employing some advance sale “early buy” programs

(generally including extended payment terms and/or additional discounts). Demand for residential and agricultural water systems is also impacted by weather patterns, particularly by temperature, heavy flooding and droughts.

We expect to continue to have sufficient cash and borrowing capacity to support working capital needs and capital expenditures, to pay interest and service debt and to pay dividends to shareholders quarterly. We believe our existing liquidity position, coupled with our currently anticipated operating cash flows, will be sufficient to meet our cash needs arising in the ordinary course of business for the next twelve months. Although the impact of the COVID-19 pandemic on our future results is uncertain, we believe we are well-positioned to manage our business and have the ability and sufficient capacity to meet these cash requirements by using available cash, internally generated funds and borrowing under our committed and uncommitted credit facilities. We are committed to maintaining investment grade credit ratings and a solid liquidity position.

Summary of Cash Flows

Cash flows from continuing operations were as follows:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Cash provided by (used for):			
Operating activities	\$574.2	\$345.2	\$458.1
Investing activities	(117.9)	(331.9)	(61.7)
Financing activities	(435.9)	(17.1)	(407.9)

Operating activities

In 2020, net cash provided by operating activities of continuing operations primarily reflects net income from continuing operations of \$432.2 million, net of non-cash depreciation and amortization. Additionally, the Company had a cash inflow of \$109.5 million as a result of changes in net working capital, primarily the result of accounts receivables collections and reduced accounts receivables due to the pool business early buy program shipments with extended payment terms moving from the fourth quarter of 2020 into 2021 due to continued strong demand.

In 2019, net cash provided by operating activities of continuing operations primarily reflects net income from continuing operations of \$462.9 million, net of non-cash depreciation, amortization and asset impairment, partially offset by a cash outflow of \$105.4 million as a result of changes in net working capital and \$20.9 million of pension and other post-retirement plan contributions, including \$11.1 million of contributions made in conjunction with the termination of the Pentair Salaried Plan during 2019.

Investing activities

Net cash used for investing activities of continuing operations in 2020 primarily reflects capital expenditures of \$62.2 million and cash paid for acquisitions of \$58.0 million in our Consumer Solutions reporting segment, net of cash acquired.

Net cash used for investing activities of continuing operations in 2019 primarily reflects capital expenditures of \$58.5 million and cash paid for the Aquion and Pelican acquisitions, partially offset by \$15.3 million of proceeds received from divestitures primarily related to our former aquaculture business.

Financing activities

In 2020, net cash used for financing activities primarily relates to repayment of commercial paper and revolving long-term debt of \$117.5 million, repayment of the 3.625% Senior Notes due in 2020 of \$74.0 million, \$150.2 million of share repurchases and dividend payments of \$127.1 million.

In 2019, net cash used for financing activities primarily relates to repayment of senior notes due in 2019 totaling \$401.5 million, \$150.0 million of share repurchases and payment of dividends of \$122.7 million, partially offset by proceeds from long-term debt of \$600.0 million and net receipts of commercial paper and revolving long-term debt of \$51.5 million.

Free Cash Flow

In addition to measuring our cash flow generation or usage based upon operating, investing and financing classifications included in the Consolidated Statements of Cash Flows, we also measure our free cash flow. We have a long-term goal to consistently generate free cash flow that equals or exceeds 100 percent conversion of net income. Free cash flow is a non-GAAP financial measure that we use to assess our cash flow performance. We believe free cash flow is an important measure of liquidity because it provides us and our investors a measurement of cash generated from operations that is available to pay dividends, repurchase shares and repay debt. In addition, free cash flow is used as a criterion to measure and pay compensation-based incentives. Our measure of free cash flow may not be comparable to similarly titled measures reported by other companies.

The following table is a reconciliation of free cash flow:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Net cash provided by operating activities of continuing operations	\$ 574.2	\$ 345.2	\$ 458.1
Capital expenditures of continuing operations	(62.2)	(58.5)	(48.2)
Proceeds from sale of property and equipment of continuing operations	0.1	0.6	0.2
Free cash flow from continuing operations	\$ 512.1	\$ 287.3	\$ 410.1
Net cash (used for) provided by operating activities of discontinued operations	(0.6)	7.8	(19.0)
Capital expenditures of discontinued operations	—	—	(7.4)
Proceeds from sale of property and equipment of discontinued operations	—	—	2.3
Free cash flow	\$ 511.5	\$ 295.1	\$ 386.0

Debt and Capital

In April 2018, Pentair, Pentair Investments Switzerland GmbH (“PISG”), Pentair Finance S.à r.l (“PFSA”) and Pentair, Inc. entered into a credit agreement, providing for an \$800.0 million senior unsecured revolving credit facility with a term of five years (the “Senior Credit Facility”), with Pentair and PISG as guarantors and PFSA and Pentair, Inc. as borrowers. In June 2020, Pentair assumed the PISG guarantee. The Senior Credit Facility has a maturity date of April 25, 2023. Borrowings under the Senior Credit Facility bear interest at a rate equal to an adjusted base rate or the London Interbank Offered Rate, plus, in each case, an applicable margin. The applicable margin is based on, at PFSA’s election, Pentair’s leverage level or PFSA’s public credit rating. In May 2019, PFSA executed an increase of the Senior Credit Facility by \$100.0 million for a total commitment up to \$900.0 million in the aggregate.

In December 2019, the Senior Credit Facility was amended to provide for the extension of term loans in an aggregate amount of \$200.0 million (the “Term Loans”). The Term Loans are in addition to the Senior Credit Facility commitment. In addition, PFSA has the option to further increase the Senior Credit Facility in an aggregate amount of up to \$300.0 million, through a combination of increases to the total commitment amount of the Senior Credit Facility and/or one or more tranches of term loans in addition to the Term Loans, subject to customary conditions, including the commitment of the participating lenders.

PFSA is authorized to sell short-term commercial paper notes to the extent availability exists under the Senior Credit Facility. PFSA uses the Senior Credit Facility as back-up liquidity to support 100% of commercial paper outstanding. PFSA had no commercial paper outstanding as of December 31, 2020 and \$117.8 million as of December 31, 2019, all of which was classified as long-term debt as we have the intent and the ability to refinance such obligations on a long-term basis under the Senior Credit Facility.

In March 2020, the commercial paper market began to experience high levels of volatility due to uncertainty related to the COVID-19 pandemic. The volatility impacted both market access to and pricing of commercial paper. As a cost mitigation action, we withdrew our credit ratings to access the commercial paper market in the second quarter of 2020 and continued to use the revolving credit facility, along with cash generated from operations, to fund our general operations. As of December 31, 2020, total availability under the Senior Credit Facility was \$863.9 million.

Our debt agreements contain various financial covenants, but the most restrictive covenants are contained in the Senior Credit Facility. The Senior Credit Facility contains covenants requiring us not to permit (i) the ratio of our consolidated debt (net of our consolidated unrestricted cash in excess of \$5.0 million but not to exceed \$250.0 million) to our consolidated net income (excluding, among other things, non-cash gains and losses) before interest, taxes, depreciation, amortization and non-cash share-based compensation expense (“EBITDA”) on the last day of any period of four consecutive fiscal quarters to exceed 3.75 to 1.00 (the “Leverage Ratio”) and (ii) the ratio of our EBITDA to our consolidated interest expense, for the same period to be less than 3.00 to 1.00 as of the end of each fiscal quarter. For purposes of the Leverage Ratio, the Senior Credit Facility provides for the calculation of EBITDA giving pro forma effect to certain acquisitions, divestitures and liquidations during the period to which such calculation relates. Our debt agreements contain various financial covenants. As of December 31, 2020, we were in compliance with all financial covenants in our debt agreements.

In addition to the Senior Credit Facility, we have various other credit facilities with an aggregate availability of \$21.4 million, of which there were no outstanding borrowings at December 31, 2020. Borrowings under these credit facilities bear interest at variable rates.

We have \$103.8 million aggregate principal amount of fixed rate senior notes maturing in the next twelve months. We classified this debt as long-term as of December 31, 2020 as we have the intent and ability to refinance such obligation on a long-term basis under the Senior Credit Facility.

As of December 31, 2020, we had \$56.9 million of cash held in certain countries in which the ability to repatriate is limited due to local regulations or significant potential tax consequences.

We expect to continue to have sufficient cash and borrowing capacity to support working capital needs and capital expenditures, to pay interest and service debt and to pay dividends to shareholders quarterly. We believe we have the ability and sufficient capacity to meet these cash requirements by using available cash and internally generated funds and to borrow under our committed and uncommitted credit facilities.

Authorized shares

Our authorized share capital consists of 426.0 million ordinary shares with a par value of \$0.01 per share.

Share Repurchases

In May 2018, the Board of Directors authorized the repurchase of our ordinary shares up to a maximum dollar limit of \$750.0 million (the “2018 Authorization”). The 2018 Authorization expires on May 31, 2021. On December 8, 2020, the Board of Directors authorized the repurchase of our ordinary shares up to a maximum dollar limit of \$750.0 million (the “2020 Authorization”). The 2020 Authorization expires on December 31, 2025. The 2020 Authorization supplements the 2018 Authorization.

During the year ended December 31, 2019, we repurchased 4.0 million of our ordinary shares for \$150.0 million under the 2018 Authorization.

During the year ended December 31, 2020, we repurchased 3.7 million of our ordinary shares for \$150.2 million under the 2018 Authorization. As of December 31, 2020, we had \$99.7 million and \$750.0 million available for share repurchases under the 2018 Authorization and 2020 Authorization, respectively.

Dividends

On December 8, 2020, the Board of Directors approved a 5 percent increase in the Company’s regular quarterly dividend rate (from \$0.19 per share to \$0.20 per share) that was paid on February 5, 2021 to shareholders of record at the close of business on January 22, 2021. The balance of dividends payable included in *Other current liabilities* on our Consolidated Balance Sheets was \$33.2 million at December 31, 2020. Dividends paid per ordinary share were \$0.76, \$0.72 and \$1.05 for the years ended December 31, 2020, 2019 and 2018, respectively.

Under Irish law, the payment of future cash dividends and repurchases of shares may be paid only out of Pentair plc’s “distributable reserves” on its statutory balance sheet. Pentair plc is not permitted to pay dividends out of share capital, which includes share premiums. Distributable reserves may be created through the earnings of the Irish parent company and through a reduction in share capital approved by the Irish High Court. Distributable reserves are not linked to a GAAP reported amount (e.g., retained earnings). Our distributable reserve balance was \$8.8 billion and \$6.6 billion as of December 31, 2020 and 2019, respectively.

Supplemental guarantor information

Pentair plc (the “Parent Company Guarantor”), fully and unconditionally, guarantees the senior notes of PFSA (the “Subsidiary Issuer”). The Subsidiary Issuer is a Luxembourg private limited liability company and 100 percent-owned subsidiary of the Parent Company Guarantor.

The Parent Company Guarantor is a holding company established to own directly and indirectly substantially all of its operating and other subsidiaries. The Subsidiary Issuer is a holding company formed to own directly and indirectly substantially all of its operating and other subsidiaries and to issue debt securities, including the senior notes. The Parent Company Guarantor’s principal source of cash flow, including cash flow to make payments on the senior notes pursuant to the guarantees, is dividends from its subsidiaries. The Subsidiary Issuer’s principal source of cash flow is interest income from its subsidiaries. None of the subsidiaries of the Parent Company Guarantor or the Subsidiary Issuer is under any direct obligation to pay or otherwise fund amounts due on the senior notes or the guarantees, whether in the form of dividends, distributions, loans or other payments. In addition, there may be statutory and regulatory limitations on the payment of dividends from certain subsidiaries of the Parent Company Guarantor or the Subsidiary Issuer. If such subsidiaries are unable to transfer funds to the Parent Company Guarantor or the Subsidiary Issuer and sufficient cash or liquidity is not otherwise available, the Parent Company Guarantor or the Subsidiary Issuer may not be able to make principal and interest payments on their outstanding debt, including the senior notes or the guarantees.

The following table presents summarized financial information as of December 31, 2020 for the Parent Company Guarantor and Subsidiary Issuer on a combined basis after elimination of (i) intercompany transactions and balances among the guarantors and issuer and (ii) equity in earnings from and investments in any subsidiary that is a non-Guarantor or issuer.

<i>In millions</i>	December 31, 2020
Current assets ⁽¹⁾	\$ 8.2
Noncurrent assets ⁽²⁾	1,040.9
Current liabilities ⁽³⁾	608.3
Noncurrent liabilities ⁽⁴⁾	1,283.0

⁽¹⁾ Includes assets due from non-guarantor subsidiaries of \$2.8 million.

⁽²⁾ Includes assets due from non-guarantor subsidiaries of \$1,028.5 million.

⁽³⁾ Includes liabilities due to non-guarantor subsidiaries of \$556.6 million.

⁽⁴⁾ Includes liabilities due to non-guarantor subsidiaries of \$495.2 million.

The Parent Company Guarantor and Subsidiary Issuer do not have material results of operations on a combined basis.

Contractual obligations

The following summarizes our significant contractual obligations that impact our liquidity:

<i>In millions</i>	Years ended December 31						
	2021	2022	2023	2024	2025	Thereafter	Total
Debt obligations	\$ 103.8	\$ 88.3	\$ 236.1	\$ —	\$ 19.3	\$ 400.0	\$ 847.5
Interest obligations on fixed-rate debt	24.3	21.7	18.9	18.9	18.9	72.0	174.7
Operating lease obligations, net of sublease rentals	26.2	22.9	19.5	14.8	6.0	9.5	98.9
Purchase and marketing obligations	26.9	8.5	4.6	3.8	3.8	6.2	53.8
Pension and other post-retirement plan contributions	8.5	8.6	8.7	8.8	8.6	40.3	83.5
Total contractual obligations, net	\$ 189.7	\$ 150.0	\$ 287.8	\$ 46.3	\$ 56.6	\$ 528.0	\$ 1,258.4

The majority of the purchase obligations represent commitments for raw materials to be utilized in the normal course of business. For purposes of the above table, arrangements are considered purchase obligations if a contract specifies all significant terms, including fixed or minimum quantities to be purchased, a pricing structure and approximate timing of the transaction.

In addition to the summary of significant contractual obligations, we will incur annual interest expense on outstanding variable rate debt. As of December 31, 2020, variable interest rate debt was \$236.1 million at a weighted average interest rate of 1.23%.

The total gross liability for uncertain tax positions at December 31, 2020 was estimated to be \$46.3 million. We record penalties and interest related to unrecognized tax benefits in *Provision for income taxes* and *Net interest expense*, respectively, which is consistent with our past practices. As of December 31, 2020, we had recorded \$0.2 million for the possible payment of penalties and \$4.6 million related to the possible payment of interest.

Off-balance sheet arrangements

At December 31, 2020, we had no off-balance sheet financing arrangements.

COMMITMENTS AND CONTINGENCIES

We have been, and in the future may be, made parties to a number of actions filed or have been, and in the future may be, given notice of potential claims relating to the conduct of our business, including those relating to commercial or contractual disputes with suppliers, customers or parties to acquisitions and divestitures, intellectual property matters, environmental, asbestos, safety and health matters, product liability, the use or installation of our products, consumer matters, and employment and labor matters.

While we believe that a material impact on our consolidated financial position, results of operations or cash flows from any such future claims or potential claims is unlikely, given the inherent uncertainty of litigation, a remote possibility exists that a future adverse ruling or unfavorable development could result in future charges that could have a material impact. We do and will continue to periodically reexamine our estimates of probable liabilities and any associated expenses and receivables and make appropriate adjustments to such estimates based on experience and developments in litigation. As a result, the current estimates of the potential impact on our consolidated financial position, results of operations and cash flows for the proceedings and claims described in ITEM 8, Note 15 of the Notes to Consolidated Financial Statements could change in the future.

Product liability claims

We are subject to various product liability lawsuits and personal injury claims. A substantial number of these lawsuits and claims are insured and accrued for by Penwald, our captive insurance subsidiary. See discussion in ITEM 1 and ITEM 8, Note 1 of the Notes to Consolidated Financial Statements — Insurance subsidiary. Penwald records a liability for these claims based on actuarial projections of ultimate losses. For all other claims, accruals covering the claims are recorded, on an undiscounted basis, when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated based on existing information. The accruals are adjusted periodically as additional information becomes available. We have not experienced significant unfavorable trends in either the severity or frequency of product liability lawsuits or personal injury claims.

Stand-by letters of credit, bank guarantees and bonds

In certain situations, Tyco International Ltd., Pentair Ltd.'s former parent company ("Tyco"), guaranteed performance by the flow control business of Pentair Ltd. ("Flow Control") to third parties or provided financial guarantees for financial commitments of Flow Control. In situations where Flow Control and Tyco were unable to obtain a release from these guarantees in connection with the spin-off of Flow Control from Tyco, we will indemnify Tyco for any losses it suffers as a result of such guarantees.

In the ordinary course of business, we are required to commit to bonds, letters of credit and bank guarantees that require payments to our customers for any non-performance. The outstanding face value of these instruments fluctuates with the value of our projects in process and in our backlog. In addition, we issue financial stand-by letters of credit primarily to secure our performance to third parties under self-insurance programs.

As of December 31, 2020 and 2019, the outstanding value of bonds, letters of credit and bank guarantees totaled \$99.1 million and \$91.3 million, respectively.

NEW ACCOUNTING STANDARDS

See ITEM 8, Note 1 of the Notes to Consolidated Financial Statements, included in this Form 10-K, for information pertaining to recently adopted accounting standards or accounting standards to be adopted in the future.

CRITICAL ACCOUNTING POLICIES

We have adopted various accounting policies to prepare the consolidated financial statements in accordance with GAAP. Our significant accounting policies are more fully described in ITEM 8, Note 1 of the Notes to Consolidated Financial Statements. Certain accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. These judgments are based on our historical experience, terms of existing contracts, our observance of trends in the industry and information available from other outside sources, as appropriate. We consider an accounting estimate to be critical if:

- it requires us to make assumptions about matters that were uncertain at the time we were making the estimate; and
- changes in the estimate or different estimates that we could have selected would have had a material impact on our financial condition or results of operations.

Our critical accounting estimates include the following:

Impairment of goodwill and indefinite-lived intangibles

Goodwill

Goodwill represents the excess of the cost of acquired businesses over the net of the fair value of identifiable tangible net assets and identifiable intangible assets purchased and liabilities assumed.

We test our goodwill for impairment at least annually during the fourth quarter or more frequently if events or changes in circumstances indicate that the asset might be impaired. We perform our annual or interim goodwill impairment test by comparing the fair value of the relevant reporting unit with its carrying amount. We would recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized would not exceed the total amount of goodwill allocated to that reporting unit.

We have the option to perform a qualitative assessment to determine whether it is necessary to perform the quantitative goodwill impairment test. However, we may elect to perform the quantitative goodwill impairment test even if no indications of a potential impairment exist.

During 2020, a quantitative assessment was performed. The fair value of each reporting unit was determined using a discounted cash flow analysis and market approach. Projecting discounted future cash flows requires us to make significant estimates regarding future revenues and expenses, projected capital expenditures, changes in working capital and the appropriate discount rate. Use of the market approach consists of comparisons to comparable publicly-traded companies that are similar in size and industry. The non-recurring fair value measurement is a "Level 3" measurement under the fair value hierarchy. For the 2020 annual impairment test, the estimated fair value exceeded the carrying value in each of our reporting units, therefore, no impairment charge was required.

During 2019, a qualitative assessment was performed. We determined that it was more likely than not that the fair value of the reporting units exceeded their respective carrying values. Factors considered in the analysis included the last discounted cash flow fair value assessment of reporting units and the calculated excess fair value over carrying amount, financial performance, forecasts and trends, market capitalization, regulatory and environmental issues, macro-economic conditions, industry and market considerations, raw material costs and management stability. We also consider the extent to which each of the adverse events and circumstances identified affect the comparison of the respective reporting unit's fair value with its carrying amount. We place more weight on the events and circumstances that most affect the respective reporting unit's fair value or the carrying amount of its net assets. We consider positive and mitigating events and circumstances that may affect its determination of whether it is more likely than not that the fair value exceeds the carrying amount.

Identifiable intangible assets

Our primary identifiable intangible assets include: customer relationships, trade names, proprietary technology and patents. Identifiable intangibles with finite lives are amortized and those identifiable intangibles with indefinite lives are not amortized. Identifiable intangible assets that are subject to amortization are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Identifiable intangible assets not subject to amortization are tested for impairment annually or more frequently if events warrant. We complete our annual impairment test the first day of the fourth quarter each year for those identifiable assets not subject to amortization.

The impairment test for trade names consists of a comparison of the fair value of the trade name with its carrying value. Fair value is measured using the relief-from-royalty method. This method assumes the trade name has value to the extent that the owner is relieved of the obligation to pay royalties for the benefits received from them. This method requires us to estimate the future revenue for the related brands, the appropriate royalty rate and the weighted average cost of capital. The non-recurring fair value measurement is a “Level 3” measurement under the fair value hierarchy.

There was no impairment charge recorded in any of the years presented for identifiable intangible assets.

Pension and other post-retirement plans

We sponsor U.S. and non-U.S. defined-benefit pension and other post-retirement plans. The amounts recognized in our consolidated financial statements related to our defined-benefit pension and other post-retirement plans are determined from actuarial valuations. Inherent in these valuations are assumptions, including: expected return on plan assets, discount rates, rate of increase in future compensation levels and health care cost trend rates. These assumptions are updated annually and are disclosed in ITEM 8, Note 11 to the Notes to Consolidated Financial Statements. Differences in actual experience or changes in assumptions may affect our pension and other post-retirement obligations and future expense.

We recognize changes in the fair value of plan assets and net actuarial gains or losses for pension and other post-retirement benefits annually in the fourth quarter each year (“mark-to-market adjustment”) and, if applicable, in any quarter in which an interim re-measurement is triggered. Net actuarial gains and losses occur when the actual experience differs from any of the various assumptions used to value our pension and other post-retirement plans or when assumptions change as they may each year. The primary factors contributing to actuarial gains and losses each year are (1) changes in the discount rate used to value pension and other post-retirement benefit obligations as of the measurement date and (2) differences between the expected and the actual return on plan assets. This accounting method also results in the potential for volatile and difficult to forecast mark-to-market adjustments. Mark-to-market adjustments resulted in a pre-tax loss of \$6.7 million in 2020, a pre-tax gain of \$3.4 million in 2019 and a pre-tax loss of \$3.6 million in 2018. The remaining components of pension expense, including service and interest costs and the expected return on plan assets, are recorded on a quarterly basis as ongoing pension expense.

Discount rates

The discount rate reflects the current rate at which the pension liabilities could be effectively settled at the end of the year based on our December 31 measurement date. The discount rate was determined by matching our expected benefit payments to payments from a stream of bonds rated AA or higher available in the marketplace. There are no known or anticipated changes in our discount rate assumptions that will impact our pension expense in 2021.

Expected rate of return

The expected rate of return is designed to be a long-term assumption that may be subject to considerable year-to-year variance from actual returns. In developing the expected long-term rate of return, we considered our historical returns, with consideration given to forecasted economic conditions, our asset allocations, input from external consultants and broader long-term market indices.

Loss contingencies

Accruals are recorded for various contingencies including legal proceedings, 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 actuarial determined estimates. Additionally, we record receivables from third party insurers when recovery has been determined to be probable.

Income taxes

In determining taxable income for financial statement purposes, we must make certain estimates and judgments. These estimates and judgments affect the calculation of certain tax liabilities and the determination of the recoverability of certain of the deferred tax assets, which arise from temporary differences between the tax and financial statement recognition of revenue and expense. In evaluating our ability to recover our deferred tax assets we consider all available positive and negative evidence including our past operating results, the existence of cumulative losses in the most recent years and our forecast of future taxable income. In estimating future taxable income, we develop assumptions including the amount of future pre-tax operating income, the reversal of temporary differences and the implementation of feasible and prudent tax planning strategies. These assumptions require significant judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses.

We currently have recorded valuation allowances that we will maintain until when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will be realized. Our income tax expense recorded in the future may be reduced to the extent of decreases in our valuation allowances. The realization of our remaining deferred tax assets is primarily dependent on future taxable income in the appropriate jurisdiction. Any reduction in future taxable income including but not limited to any future restructuring activities may require that we record an additional valuation allowance against our deferred tax assets. An increase in the valuation allowance could result in additional income tax expense in such period and could have a significant impact on our future earnings.

Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. Management records the effect of a tax rate or law change on the Company's deferred tax assets and liabilities in the period of enactment. Future tax rate or law changes could have a material effect on the Company's financial condition, results of operations or cash flows.

In addition, the calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations in a multitude of jurisdictions across our global operations. We perform reviews of our income tax positions on a quarterly basis and accrue for uncertain tax positions. We recognize potential liabilities and record tax liabilities for anticipated tax audit issues in the tax jurisdictions in which we operate based on our estimate of whether, and the extent to which, additional taxes will be due. These tax liabilities are reflected net of related tax loss carryforwards. As events change or resolution occurs, these liabilities are adjusted, such as in the case of audit settlements with taxing authorities. The ultimate resolution may result in a payment that is materially different from our current estimate of the tax liabilities. If our estimate of tax liabilities proves to be less than the ultimate assessment, an additional charge to expense would result. If payment of these amounts ultimately proves to be less than the recorded amounts, the reversal of the liabilities would result in tax benefits being recognized in the period when we determine the liabilities are no longer necessary.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk is the potential economic loss that may result from adverse changes in the fair value of financial instruments. We are exposed to various market risks, including changes in interest rates and foreign currency rates. Periodically, we use derivative financial instruments to manage or reduce the impact of changes in interest rates and foreign currency rates. Counterparties to all derivative contracts are major financial institutions. All instruments are entered into for other than trading purposes. The major accounting policies and utilization of these instruments is described more fully in ITEM 8, Note 1 of the Notes to Consolidated Financial Statements.

Interest rate risk

Our debt portfolio as of December 31, 2020, was comprised of debt predominantly denominated in U.S. dollars. This debt portfolio is comprised of 72% fixed-rate debt and 28% variable-rate debt. Changes in interest rates have different impacts on the fixed and variable-rate portions of our debt portfolio. A change in interest rates on the fixed portion of the debt portfolio impacts the fair value, but has no impact on interest incurred or cash flows. A change in interest rates on the variable portion of the debt portfolio impacts the interest incurred and cash flows but does not impact the net financial instrument position.

Based on the fixed-rate debt included in our debt portfolio, as of December 31, 2020, a 100 basis point increase or decrease in interest rates would result in a \$37.6 million decrease or \$40.9 million increase in fair value, respectively.

Based on the variable-rate debt included in our debt portfolio as of December 31, 2020, a 100 basis point increase or decrease in interest rates would result in a \$2.4 million increase or decrease in interest incurred.

Foreign currency risk

We conduct business in various locations throughout the world and are subject to market risk due to changes in the value of foreign currencies in relation to our reporting currency, the U.S. dollar. Periodically, we use derivative financial instruments to manage these risks. The functional currencies of our foreign operating locations are generally the local currency in the country of domicile. We manage these operating activities at the local level and revenues, costs, assets and liabilities are generally denominated in local currencies, thereby mitigating the risk associated with changes in foreign exchange. However, our results of operations and assets and liabilities are reported in U.S. dollars and thus will fluctuate with changes in exchange rates between such local currencies and the U.S. dollar.

From time to time, we may enter into short duration foreign currency contracts to hedge foreign currency risks. As the majority of our foreign currency contracts have an original maturity date of less than one year, there is no material foreign currency risk. At December 31, 2020, we had outstanding foreign currency derivative contracts with gross notional U.S. dollar equivalent amounts of \$12.4 million. Changes in the fair value of all derivatives are recognized immediately in income unless the derivative qualifies as a hedge of future cash flows. Gains and losses related to a hedge are deferred and recorded in the Consolidated Balance Sheets as a component of *Accumulated other comprehensive loss* and subsequently recognized in the Consolidated Statements of Operations and Comprehensive Income when the hedged item affects earnings.

At December 31, 2020, we had outstanding cross currency swap agreements with a combined notional amount of \$855.1 million. The cross currency swap agreements are accounted for as either cash flow hedges to hedge foreign currency fluctuations on certain intercompany debt, or as net investment hedges to manage our exposure to fluctuations in the Euro-U.S. Dollar exchange rate. The currency risk related to the cross currency swap agreements is measured by estimating the potential impact of a 10% change in the value of the U.S. dollar relative to the Euro. A 10% appreciation of the U.S. dollar relative to the Euro would result in a \$63.7 million net increase in accumulated other comprehensive income. Conversely, a 10% depreciation of the U.S. dollar relative to the Euro would result in an \$57.0 million net decrease in accumulated other comprehensive income. However, these increases and decreases in other comprehensive income would be offset by decreases or increases in the hedged items on our balance sheet.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Management of Pentair plc and its subsidiaries (the "Company") is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Securities Exchange Act of 1934. The Company's internal control over financial reporting is 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. The Company's internal control over financial reporting includes those policies and procedures that (1) pertain to maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of the 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 (3) 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 the effectiveness of internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2020. In making this assessment, management used the criteria for effective internal control over financial reporting described in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management believes that, as of December 31, 2020, the Company's internal control over financial reporting was effective based on those criteria.

Our independent registered public accounting firm, Deloitte & Touche LLP, has issued an attestation report on the Company's internal control over financial reporting as of December 31, 2020. That attestation report is set forth immediately following this management report.

John L. Stauch
President and Chief Executive Officer

Robert P. Fishman
Executive Vice President, Chief Financial Officer and Chief Accounting Officer

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Pentair plc

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Pentair plc and subsidiaries (the “Company”) as of December 31, 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 Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2020, of the Company and our report dated February 16, 2021 expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management’s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

/s/ Deloitte & Touche LLP

Minneapolis, Minnesota
February 16, 2021

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of Pentair plc

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Pentair plc and subsidiaries (the “Company”) as of December 31, 2020 and 2019, the related consolidated statements of operations and comprehensive income, cash flows, and changes in equity, for each of the three years in the period ended December 31, 2020, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company’s internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 16, 2021, expressed an unqualified opinion on the Company’s internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the 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.

Indefinite-lived Trade Names — Valuation — Refer to Notes 1 and 5 to the financial statements

Critical Audit Matter Description

The Company’s evaluation of indefinite-lived trade names for impairment involves the comparison of the estimated fair value of each indefinite-lived trade name to its carrying value. The Company determines the estimated fair value of its trade names using the income approach, more specifically, the relief-from-royalty method. The determination of the estimated fair value using the relief-from-royalty method requires management to make significant estimates and assumptions including selecting appropriate royalty and weighted average cost of capital (“WACC”) rates and forecasting future revenues for the related brands. Changes in these assumptions could have a significant impact on the estimated fair value of indefinite-lived trade names. For certain of the Company’s indefinite-lived trade names, a significant change in estimated fair value could cause a significant impairment.

The indefinite-lived trade names balance was \$180.6 million as of December 31, 2020, of which certain trade names are higher risk for impairment. When identifying the higher risk indefinite-lived trade names, we considered the relationship of their fair value to carrying value. The estimated fair values of these trade names exceeded their carrying values as of the measurement date and, therefore, no impairment was recognized.

Given the level of judgment involved, management uses a third-party fair value specialist to assist in establishing the royalty and WACC rate assumptions. The future trade name revenues are sensitive to changes in demand, and the short-term growth rates have increased uncertainty as a result of the COVID-19 pandemic. Auditing these assumptions involved a high degree of auditor judgment, and an increased extent of audit effort, including the need to involve our fair value specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the forecasts of future trade name revenues and selection of the royalty and WACC rates included the following, among others:

- We tested the effectiveness of controls over indefinite-lived trade names impairment evaluation, including those over management’s review of the trade name revenue forecasts and the selection of the royalty and WACC rates to be used in the valuation.
- We assessed management’s ability to prepare accurate trade name revenue forecasts by performing a retrospective review to compare actual results to management’s historical forecasts.
- We evaluated the reasonableness of management’s trade name revenue forecasts by inquiring of management regarding the forecasts and comparing the forecasts to (1) historical results, (2) internal communications to management and the Board of Directors, (3) forecasted information included in Company press releases, (4) underlying analysis detailing business strategies and growth plans, and (5) current industry, market and economic trends.
- We also performed sensitivity analyses to evaluate the impact that changes in the significant assumptions would have on the fair value of the trade names.
- With the assistance of our fair value specialists, we evaluated the royalty and WACC rates used by management in the valuation, including (1) testing the underlying source information and the mathematical calculations, (2) developing a range of independent estimates and comparing those to the WACC rate selected by management, and (3) comparing the selected royalty rate to market data for comparable licensing agreement rates.

Income Taxes — Completeness of Uncertain Tax Positions — Refer to Notes 1 and 10 to the financial statements

Critical Audit Matter Description

The Company assesses uncertain tax positions (“UTPs”) based upon an evaluation of available information and records a liability when a position taken or expected to be taken in a tax return does not meet certain measurement or recognition criteria. A tax benefit is recognized only if management believes it is more likely than not that the tax position will be sustained upon examination by the relevant tax authority. Determining the completeness of UTPs is complex and significant judgment is involved in identifying which positions may not meet the required measurement or recognition criteria. As of December 31, 2020, the Company’s recorded UTP balance was \$46.3 million.

The UTP analysis is complex as it includes numerous tax jurisdictions and varying applications of tax laws. Given the multiple jurisdictions in which the Company operates and the complexity of tax law, auditing the completeness of UTPs involved a high degree of auditor judgment, and an increased extent of audit effort, including the need to involve our tax specialists.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures to evaluate the completeness of UTPs in material jurisdictions included the following, among others:

- We tested the effectiveness of controls over management’s determination of the existence of UTPs.
- With the assistance of our income tax specialists, we assessed the Company’s determination of the existence of UTPs. In particular, our procedures included:
 - Evaluating the Company’s significant judgments related to completeness of UTPs in material jurisdictions:
 - We performed inquiries of management to assess whether they are aware of any new items or significant changes to the business that would impact the UTP assessment or give rise to new UTPs.

- We evaluated the following: technical merits of existing UTPs, technical merits of potential UTPs, and significant transactions and their tax implications, including the completeness and accuracy of the underlying data supporting the transactions.
- We assessed the appropriateness and consistency of management’s methods and assumptions used in identifying UTPs.
- We evaluated former and ongoing tax audits by tax authorities.
- We considered changes in and assessed the Company’s interpretation of applicable tax laws.
- We inspected the Company’s filed tax returns and the tax provision to obtain an understanding of significant differences. We assessed whether the appropriate UTPs were recorded as well as whether any additional UTPs needed to be considered.
- We evaluated the appropriateness and consistency of the financial statement disclosures, including judgments associated with unrecognized tax benefits that could increase or decrease within 12 months of the reporting date.

/s/ Deloitte & Touche LLP

Minneapolis, Minnesota
February 16, 2021

We have served as the Company’s auditor since 1977.

Pentair plc and Subsidiaries
Consolidated Statements of Operations and Comprehensive Income

<i>In millions, except per-share data</i>	Years ended December 31		
	2020	2019	2018
Net sales	\$ 3,017.8	\$ 2,957.2	\$ 2,965.1
Cost of goods sold	1,960.2	1,905.7	1,917.4
Gross profit	1,057.6	1,051.5	1,047.7
Selling, general and administrative	520.5	540.1	534.3
Research and development	75.7	78.9	76.7
Operating income	461.4	432.5	436.7
Other (income) expense			
Loss (gain) on sale of businesses	0.1	(2.2)	7.3
Loss on early extinguishment of debt	—	—	17.1
Net interest expense	23.9	30.1	32.6
Other expense (income)	5.3	(2.9)	(0.1)
Income from continuing operations before income taxes	432.1	407.5	379.8
Provision for income taxes	75.0	45.8	58.1
Net income from continuing operations	357.1	361.7	321.7
Income (loss) from discontinued operations, net of tax	1.5	(6.0)	25.7
Net income	\$ 358.6	\$ 355.7	\$ 347.4
Comprehensive income, net of tax			
Net income	\$ 358.6	\$ 355.7	\$ 347.4
Changes in cumulative translation adjustment	49.0	(15.3)	10.0
Changes in market value of derivative financial instruments, net of tax	(29.8)	17.4	4.8
Comprehensive income	\$ 377.8	\$ 357.8	\$ 362.2
Earnings (loss) per ordinary share			
Basic			
Continuing operations	\$ 2.14	\$ 2.14	\$ 1.83
Discontinued operations	0.01	(0.04)	0.15
Basic earnings per ordinary share	\$ 2.15	\$ 2.10	\$ 1.98
Diluted			
Continuing operations	\$ 2.13	\$ 2.12	\$ 1.81
Discontinued operations	0.01	(0.03)	0.15
Diluted earnings per ordinary share	\$ 2.14	\$ 2.09	\$ 1.96
Weighted average ordinary shares outstanding			
Basic	166.5	169.4	175.8
Diluted	167.4	170.4	177.3

See accompanying notes to consolidated financial statements.

Pentair plc and Subsidiaries
Consolidated Balance Sheets

<i>In millions, except per-share data</i>	December 31	
	2020	2019
Assets		
Current assets		
Cash and cash equivalents	\$ 82.1	\$ 82.5
Accounts receivable, net of allowances of \$8.4 and \$10.3, respectively	367.5	502.9
Inventories	420.0	377.4
Other current assets	105.5	99.1
Total current assets	975.1	1,061.9
Property, plant and equipment, net	301.2	283.2
Other assets		
Goodwill	2,392.2	2,258.3
Intangibles, net	325.9	339.2
Other non-current assets	202.8	196.9
Total other assets	2,920.9	2,794.4
Total assets	\$ 4,197.2	\$ 4,139.5
Liabilities and Equity		
Current liabilities		
Accounts payable	\$ 245.1	\$ 325.1
Employee compensation and benefits	117.0	71.0
Other current liabilities	410.4	352.9
Total current liabilities	772.5	749.0
Other liabilities		
Long-term debt	839.6	1,029.1
Pension and other post-retirement compensation and benefits	102.0	96.4
Deferred tax liabilities	107.4	104.4
Other non-current liabilities	269.4	206.7
Total liabilities	2,090.9	2,185.6
Commitments and contingencies (Note 15)		
Equity		
Ordinary shares \$0.01 par value, 426.0 authorized, 166.1 and 168.3 issued at December 31, 2020 and 2019, respectively	1.7	1.7
Additional paid-in capital	1,680.7	1,777.7
Retained earnings	631.2	401.0
Accumulated other comprehensive loss	(207.3)	(226.5)
Total equity	2,106.3	1,953.9
Total liabilities and equity	\$ 4,197.2	\$ 4,139.5

See accompanying notes to consolidated financial statements.

Pentair plc and Subsidiaries
Consolidated Statements of Cash Flows

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Operating activities			
Net income	\$ 358.6	\$ 355.7	\$ 347.4
(Income) loss from discontinued operations, net of tax	(1.5)	6.0	(25.7)
Adjustments to reconcile net income from continuing operations to net cash provided by operating activities of continuing operations			
Equity income of unconsolidated subsidiaries	(1.4)	(3.5)	(8.4)
Depreciation	46.7	48.3	49.7
Amortization	28.4	31.7	34.9
Loss (gain) on sale of businesses	0.1	(2.2)	7.3
Deferred income taxes	4.6	(18.4)	(4.1)
Share-based compensation	20.3	21.4	20.9
Asset impairment	—	21.2	12.0
Loss on early extinguishment of debt	—	—	17.1
Pension and other post-retirement expense	12.2	1.9	13.2
Pension and other post-retirement contributions	(8.4)	(20.9)	(8.9)
Changes in assets and liabilities, net of effects of business acquisitions			
Accounts receivable	148.3	(17.5)	(15.3)
Inventories	(29.1)	13.6	(40.1)
Other current assets	(2.3)	(18.4)	31.2
Accounts payable	(81.9)	(63.6)	58.3
Employee compensation and benefits	42.5	(19.1)	(0.6)
Other current liabilities	32.0	(0.4)	(3.3)
Other non-current assets and liabilities	5.1	9.4	(27.5)
Net cash provided by operating activities of continuing operations	574.2	345.2	458.1
Net cash (used for) provided by operating activities of discontinued operations	(0.6)	7.8	(19.0)
Net cash provided by operating activities	573.6	353.0	439.1
Investing activities			
Capital expenditures	(62.2)	(58.5)	(48.2)
Proceeds from sale of property and equipment	0.1	0.6	0.2
Proceeds from (payments due to) sale of businesses	—	15.3	(12.8)
Acquisitions, net of cash acquired	(58.0)	(287.8)	(0.9)
Other	2.2	(1.5)	—
Net cash used for investing activities of continuing operations	(117.9)	(331.9)	(61.7)
Net cash used for investing activities of discontinued operations	—	—	(7.1)
Net cash used for investing activities	(117.9)	(331.9)	(68.8)
Financing activities			
Net (repayments) receipts of commercial paper and revolving long-term debt	(117.5)	51.5	39.7
Proceeds from long-term debt	—	600.0	—
Repayment of long-term debt	(74.0)	(401.5)	(675.1)
Premium paid on early extinguishment of debt	—	—	(16.0)
Distribution of cash from nVent, net of cash transferred	—	—	919.4
Shares issued to employees, net of shares withheld	32.9	12.5	13.3
Repurchases of ordinary shares	(150.2)	(150.0)	(500.0)
Dividends paid	(127.1)	(122.7)	(187.2)
Other	—	(6.9)	(2.0)
Net cash used for financing activities	(435.9)	(17.1)	(407.9)
Change in cash held for sale	—	—	27.0
Effect of exchange rate changes on cash and cash equivalents	(20.2)	4.2	(1.4)
Change in cash and cash equivalents	(0.4)	8.2	(12.0)
Cash and cash equivalents, beginning of year	82.5	74.3	86.3
Cash and cash equivalents, end of year	\$ 82.1	\$ 82.5	\$ 74.3
Supplemental disclosure of cash flow information:			
Cash paid for interest, net	\$ 41.0	\$ 33.7	\$ 43.7
Cash paid for income taxes, net	67.7	59.0	92.9

See accompanying notes to consolidated financial statements.

Pentair plc and Subsidiaries
Consolidated Statements of Changes in Equity

<i>In millions</i>	Ordinary shares		Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss)	Total
	Number	Amount				
Balance - December 31, 2017	180.3	\$ 1.8	\$ 2,797.7	\$ 2,481.7	\$ (243.4)	\$ 5,037.8
Net income	—	—	—	347.4	—	347.4
Cumulative effect of accounting changes	—	—	—	(214.0)	—	(214.0)
Other comprehensive income, net of tax	—	—	—	—	62.6	62.6
Distribution to nVent	—	—	(438.2)	(2,291.0)	(47.8)	(2,777.0)
Dividends declared	—	—	—	(154.9)	—	(154.9)
Share repurchases	(10.2)	(0.1)	(499.9)	—	—	(500.0)
Exercise of options, net of shares tendered for payment	0.9	—	24.3	—	—	24.3
Issuance of restricted shares, net of cancellations	0.5	—	—	—	—	—
Shares surrendered by employees to pay taxes	(0.1)	—	(11.0)	—	—	(11.0)
Share-based compensation	—	—	20.9	—	—	20.9
Balance - December 31, 2018	171.4	\$ 1.7	\$ 1,893.8	\$ 169.2	\$ (228.6)	\$ 1,836.1
Net income	—	—	—	355.7	—	355.7
Other comprehensive income, net of tax	—	—	—	—	2.1	2.1
Dividends declared	—	—	—	(123.9)	—	(123.9)
Share repurchases	(4.0)	—	(150.0)	—	—	(150.0)
Exercise of options, net of shares tendered for payment	0.7	—	17.1	—	—	17.1
Issuance of restricted shares, net of cancellations	0.3	—	—	—	—	—
Shares surrendered by employees to pay taxes	(0.1)	—	(4.6)	—	—	(4.6)
Share-based compensation	—	—	21.4	—	—	21.4
Balance - December 31, 2019	168.3	\$ 1.7	\$ 1,777.7	\$ 401.0	\$ (226.5)	\$ 1,953.9
Net income	—	—	—	358.6	—	358.6
Other comprehensive income, net of tax	—	—	—	—	19.2	19.2
Dividends declared	—	—	—	(128.4)	—	(128.4)
Share repurchases	(3.7)	—	(150.2)	—	—	(150.2)
Exercise of options, net of shares tendered for payment	1.3	—	37.6	—	—	37.6
Issuance of restricted shares, net of cancellations	0.3	—	—	—	—	—
Shares surrendered by employees to pay taxes	(0.1)	—	(4.7)	—	—	(4.7)
Share-based compensation	—	—	20.3	—	—	20.3
Balance - December 31, 2020	166.1	\$ 1.7	\$ 1,680.7	\$ 631.2	\$ (207.3)	\$ 2,106.3

See accompanying notes to consolidated financial statements.

1. Basis of Presentation and Summary of Significant Accounting Policies

Business

Pentair plc and its consolidated subsidiaries (“we,” “us,” “our,” “Pentair” or the “Company”) is a pure play water industrial manufacturing company comprised of two reporting segments: Consumer Solutions and Industrial & Flow Technologies.

Electrical separation

On April 30, 2018, Pentair completed the separation of its Electrical business from the rest of Pentair (the “Separation”) by means of a dividend in specie of the Electrical business, which was effected by the transfer of the Electrical business from Pentair to nVent Electric plc (“nVent”) and the issuance by nVent of ordinary shares directly to Pentair shareholders (the “Distribution”). On May 1, 2018, following the Separation and Distribution, nVent became an independent publicly traded company, trading on the New York Stock Exchange under the symbol “NVT.”

The Company did not retain any equity interest in nVent. nVent’s historical financial results are reflected in the Company’s consolidated financial statements as a discontinued operation. Refer to Note 2 for further discussion.

COVID-19

In March 2020, the World Health Organization declared the novel coronavirus 2019 (“COVID-19”) a global pandemic. The COVID-19 pandemic has had and may continue to have an unfavorable impact on certain parts of our business. The broader implications of the COVID-19 pandemic on our business, financial condition and results of operations remain uncertain and will depend on certain developments, including the duration and severity of the COVID-19 pandemic and the availability and distribution of vaccines to address the COVID-19 virus, its impact on our customers and suppliers and the range of governmental and community reactions to the pandemic. We may continue to experience reduced customer demand or constrained supply that could materially adversely impact our business, financial condition, results of operations, liquidity and cash flows in future periods.

Basis of presentation

The accompanying consolidated financial statements include the accounts of Pentair and all subsidiaries, both the United States (“U.S.”) and non-U.S., which we control. Intercompany accounts and transactions have been eliminated. Investments in companies of which we own 20% to 50% of the voting stock or have the ability to exercise significant influence over operating and financial policies of the investee are accounted for using the equity method of accounting and as a result, our share of the earnings or losses of such equity affiliates is included in the Consolidated Statements of Operations and Comprehensive Income.

The consolidated financial statements have been prepared in U.S. dollars (“USD”) and in accordance with accounting principles generally accepted in the United States of America (“GAAP”).

Fiscal year

Our fiscal year ends on December 31. We report our interim quarterly periods on a calendar quarter basis.

Use of estimates

The preparation of our consolidated financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the amounts reported in these consolidated financial statements and accompanying notes, disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates include our accounting for valuation of goodwill and indefinite lived intangible assets, estimated losses on accounts receivable, estimated realizable value on excess and obsolete inventory, percentage of completion revenue recognition, assets acquired and liabilities assumed in acquisitions, estimated selling proceeds from assets held for sale, contingent liabilities, income taxes and pension and other post-retirement benefits. Actual results could differ from our estimates.

Revenue recognition

Revenue is recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for transferring those goods or providing services. We account for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable.

When determining whether the customer has obtained control of the goods or services, we consider any future performance obligations. Generally, there is no post-shipment obligation on product sold other than warranty obligations in the normal and ordinary course of business. In the event significant post-shipment obligations were to exist, revenue recognition would be deferred until Pentair has substantially accomplished what it must do to be entitled to the benefits represented by the revenue.

Performance obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account for purposes of revenue recognition. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. The majority of our contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and, therefore, not distinct. For contracts with multiple performance obligations, standalone selling price is generally readily observable.

Our performance obligations are satisfied at a point in time or over time as work progresses. Revenue from goods and services transferred to customers at a point in time accounted for 92.2%, 92.0% and 92.5% of our revenue for the years ended December 31, 2020, 2019 and 2018, respectively. Revenue on these contracts is recognized when obligations under the terms of the contract with our customer are satisfied; generally this occurs with the transfer of control upon shipment.

Revenue from products and services transferred to customers over time accounted for 7.8%, 8.0% and 7.5% of our revenue for the years ended December 31, 2020, 2019 and 2018, respectively. For the majority of our revenue recognized over time, we use an input measure to determine progress towards completion. Under this method, sales and gross profit are recognized as work is performed generally based on the relationship between the actual costs incurred and the total estimated costs at completion ("the cost-to-cost method") or based on efforts for measuring progress towards completion in situations in which this approach is more representative of the progress on the contract than the cost-to-cost method. Contract costs include labor, material, overhead and, when appropriate, general and administrative expenses. Changes to the original estimates may be required during the life of the contract, and such estimates are reviewed on a regular basis. Sales and gross profit are adjusted using the cumulative catch-up method for revisions in estimated total contract costs. These reviews have not resulted in adjustments that were significant to our results of operations. For performance obligations related to long term contracts, when estimates of total costs to be incurred on a performance obligation exceed total estimates of revenue to be earned, a provision for the entire loss on the performance obligation is recognized in the period the loss is determined.

On December 31, 2020, we had \$76.7 million of remaining performance obligations on contracts with an original expected duration of one year or more. We expect to recognize the majority of our remaining performance obligations on these contracts within the next 12 to 18 months.

Sales returns

The right of return may exist explicitly or implicitly with our customers. Our return policy allows for customer returns only upon our authorization. Goods returned must be products we continue to market and must be in salable condition. When the right of return exists, we adjust the transaction price for the estimated effect of returns. We estimate the expected returns based on historical sales levels, the timing and magnitude of historical sales return levels as a percent of sales, type of product, type of customer and a projection of this experience into the future.

Pricing and sales incentives

Our contracts may give customers the option to purchase additional goods or services priced at a discount. Options to acquire additional goods or services at a discount can come in many forms, such as customer programs and incentive offerings including pricing arrangements, promotions and other volume-based incentives.

We reduce the transaction price for certain customer programs and incentive offerings including pricing arrangements, promotions and other volume-based incentives that represent variable consideration. Sales incentives given to our customers are recorded using either the expected value method or most likely amount approach for estimating the amount of consideration to which Pentair shall be entitled. The expected value is the sum of probability-weighted amounts in a range of possible consideration amounts. An expected value is an appropriate estimate of the amount of variable consideration when there are a large number of contracts with similar characteristics. The most likely amount is the single most likely amount in a range of possible consideration amounts (that is, the single most likely outcome of the contract). The most likely amount is an appropriate estimate of the amount of variable consideration if the contract has limited possible outcomes (for example, an entity either achieves a performance bonus or does not).

Pricing is established at or prior to the time of sale with our customers, and we record sales at the agreed-upon net selling price. However, one of our businesses allows customers to apply for a refund of a percentage of the original purchase price if they can demonstrate sales to a qualifying end customer. We use the expected value method to estimate the anticipated refund to be paid based on historical experience and reduce sales for the probable cost of the discount. The cost of these refunds is recorded as a reduction of the transaction price.

Volume-based incentives involve rebates that are negotiated at or prior to the time of sale with the customer and are redeemable only if the customer achieves a specified cumulative level of sales or sales increase. Under these incentive programs, at the time of sale, we determine the most likely amount of the rebate to be paid based on forecasted sales levels. These forecasts are updated at least quarterly for each customer, and the transaction price is reduced for the anticipated cost of the rebate. If the forecasted sales for a customer change, the accrual for rebates is adjusted to reflect the new amount of rebates expected to be earned by the customer.

Shipping and handling costs

Amounts billed to customers for shipping and handling activities after the customer obtains control are treated as a promised service performance obligation and recorded in *Net sales* in the accompanying Consolidated Statements of Operations and Comprehensive Income. Shipping and handling costs incurred by Pentair for the delivery of goods to customers are considered a cost to fulfill the contract and are included in *Cost of goods sold* in the accompanying Consolidated Statements of Operations and Comprehensive Income.

Contract assets and liabilities

Contract assets consist of unbilled amounts resulting from sales under long-term contracts when the cost-to-cost method of revenue recognition is utilized and revenue recognized exceeds the amount billed to the customer, such as when the customer retains a small portion of the contract price until completion of the contract. We typically receive interim payments on sales under long-term contracts as work progresses, although for some contracts, we may be entitled to receive an advance payment. Contract liabilities consist of advanced payments, billings in excess of costs incurred and deferred revenue.

Contract assets are recorded within *Other current assets*, and contract liabilities are recorded within *Other current liabilities* in the Consolidated Balance Sheets.

Contract assets and liabilities consisted of the following:

<i>In millions</i>	December 31		\$ Change	% Change
	2020	2019		
Contract assets	\$ 50.1	\$ 41.0	\$ 9.1	22.2 %
Contract liabilities	27.5	32.6	(5.1)	(15.6)%
Net contract assets	\$ 22.6	\$ 8.4	\$ 14.2	169.0 %

The \$14.2 million increase in net contract assets from December 31, 2019 to December 31, 2020 was primarily the result of timing of milestone payments. Approximately 85% of our contract liabilities at December 31, 2019 were recognized in revenue during the twelve months ended December 31, 2020. There were no impairment losses recognized on our contract assets for the twelve months ended December 31, 2020 and December 31, 2019.

Practical expedients and exemptions

We generally expense incremental costs of obtaining a contract when incurred because the amortization period would be less than one year. These costs primarily relate to sales commissions and are recorded in *Selling, general and administrative expense* in the Consolidated Statements of Operations and Comprehensive Income.

We do not disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less. Further, we do not adjust the promised amount of consideration for the effects of a significant financing component if we expect, at contract inception, that the period between when we transfer a promised good or service to a customer and when the customer pays for that good or service will be one year or less.

Revenue by category

We disaggregate our revenue from contracts with customers by segment, geographic location and vertical, as we believe these best depict how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors. Refer to Note 14 for revenue disaggregated by segment.

Geographic net sales information, based on geographic destination of the sale, was as follows:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
U.S.	\$ 2,011.7	\$ 1,866.7	\$ 1,858.1
Western Europe	375.3	401.6	402.7
Developing ⁽¹⁾	427.5	480.6	476.5
Other Developed ⁽²⁾	203.3	208.3	227.8
Consolidated net sales ⁽³⁾	\$ 3,017.8	\$ 2,957.2	\$ 2,965.1

⁽¹⁾ Developing includes China, Eastern Europe, Latin America, the Middle East and Southeast Asia.

⁽²⁾ Other Developed includes Australia, Canada and Japan.

⁽³⁾ Net sales in Ireland, for each of the years presented, were not material.

Vertical net sales information was as follows:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Residential	\$ 1,883.4	\$ 1,668.2	\$ 1,665.9
Commercial	528.6	627.3	630.7
Industrial	605.8	661.7	668.5
Consolidated net sales	\$ 3,017.8	\$ 2,957.2	\$ 2,965.1

Research and development

We conduct research and development (“R&D”) activities primarily in our own facilities, which mostly consist of development of new products, product applications and manufacturing processes. We expense R&D costs as incurred. R&D expenditures during 2020, 2019 and 2018 were \$75.7 million, \$78.9 million and \$76.7 million, respectively.

Cash equivalents

We consider highly liquid investments with original maturities of three months or less at the date of acquisition to be cash equivalents.

Trade receivables and concentration of credit risk

We record an allowance for credit losses, reducing our receivables balance to an amount we estimate is collectible from our customers. Estimates used in determining the allowance for credit losses are based on current trends, aging of accounts receivable, periodic credit evaluations of our customers’ financial condition, and historical collection experience as well as reasonable and supportable forecasts of future economic conditions. We generally do not require collateral.

The following table summarizes the activity in the allowance for credit losses:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Beginning balance	\$ 10.3	\$ 14.0	\$ 14.2
Bad debt (benefit) expense ⁽¹⁾	(0.4)	1.4	1.1
Write-offs, net of recoveries	(1.6)	(4.1)	(0.9)
Other ⁽²⁾	0.1	(1.0)	(0.4)
Ending balance	\$ 8.4	\$ 10.3	\$ 14.0

⁽¹⁾ The bad debt benefit for the year-ended December 31, 2020 includes the positive impact related to the adoption of Accounting Standards Update (“ASU”) No. 2016-13 “Financial Instruments-Credit Losses.”

⁽²⁾ Other amounts are primarily the effects of changes in currency translations and the impact of allowance for credits.

Inventories

Inventories are stated at lower of cost or net realizable value with substantially all inventories recorded using the first-in, first-out (“FIFO”) cost method.

Property, plant and equipment, net

Property, plant and equipment is stated at historical cost. We compute depreciation by the straight-line method based on the following estimated useful lives:

	Years
Land improvements	5 to 20
Buildings and leasehold improvements	5 to 50
Machinery and equipment	3 to 15

Significant improvements that add to productive capacity or extend the lives of properties are capitalized. Costs for repairs and maintenance are charged to expense as incurred. When property is retired or otherwise disposed of, the recorded cost of the assets and their related accumulated depreciation are removed from the Consolidated Balance Sheets and any related gains or losses are included in income.

The following table presents geographic *Property, plant and equipment, net* by region as of December 31:

<i>In millions</i>	2020	2019
U.S.	\$ 183.6	\$ 172.3
Western Europe	76.7	69.7
Developing ⁽¹⁾	30.4	31.1
Other Developed ⁽²⁾	10.5	10.1
Consolidated ⁽³⁾	\$ 301.2	\$ 283.2

⁽¹⁾ Developing includes China, Eastern Europe, Latin America, the Middle East and Southeast Asia.

⁽²⁾ Other Developed includes Australia, Canada and Japan.

⁽³⁾ *Property, plant and equipment, net* in Ireland, for each of the years presented, were not material.

We review the recoverability of long-lived assets to be held and used, such as property, plant and equipment, when events or changes in circumstances occur that indicate the carrying value of the asset or asset group may not be recoverable. The assessment of possible impairment is based on our ability to recover the carrying value of the asset or asset group from the expected future pre-tax cash flows (undiscounted and without interest charges) of the related operations. If these cash flows are less than the carrying value of such asset or asset group, an impairment loss is recognized for the difference between estimated fair value and carrying value. Impairment losses on long-lived assets held for sale are determined in a similar manner, except that fair values are reduced for the cost to dispose of the assets. The measurement of impairment requires us to estimate future cash flows and the fair value of long-lived assets. We recorded no material long-lived asset impairment charges in 2020, 2019, or 2018.

Goodwill and identifiable intangible assets

Goodwill

Goodwill represents the excess of the cost of acquired businesses over the net of the fair value of identifiable tangible net assets and identifiable intangible assets purchased and liabilities assumed.

We test our goodwill for impairment at least annually during the fourth quarter or more frequently if events or changes in circumstances indicate that the asset might be impaired. We perform our annual or interim goodwill impairment test by comparing the fair value of the relevant reporting unit with its carrying amount. We would recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized would not exceed the total amount of goodwill allocated to that reporting unit.

We have the option to perform a qualitative assessment to determine whether it is necessary to perform the quantitative goodwill impairment test. However, we may elect to perform the quantitative goodwill impairment test even if no indications of a potential impairment exist.

During 2020, a quantitative assessment was performed. The fair value of each reporting unit was determined using a discounted cash flow analysis and market approach. Projecting discounted future cash flows requires us to make significant estimates regarding future revenues and expenses, projected capital expenditures, changes in working capital and the appropriate discount rate. Use of the market approach consists of comparisons to comparable publicly-traded companies that are similar in size and industry. The non-recurring fair value measurement is a “Level 3” measurement under the fair value hierarchy. For the 2020 annual impairment test, the estimated fair value exceeded the carrying value in each of our reporting units, therefore, no impairment charge was required.

During 2019, a qualitative assessment was performed. We determined that it was more likely than not that the fair value of the reporting units exceeded their respective carrying values. Factors considered in the analysis included the last discounted cash flow fair value assessment of reporting units and the calculated excess fair value over carrying amount, financial performance, forecasts and trends, market capitalization, regulatory and environmental issues, macro-economic conditions, industry and market considerations, raw material costs and management stability. We also consider the extent to which each of the adverse events and circumstances identified affect the comparison of the respective reporting unit’s fair value with its carrying amount. We place more weight on the events and circumstances that most affect the respective reporting unit’s fair value or the carrying amount of its net assets. We consider positive and mitigating events and circumstances that may affect its determination of whether it is more likely than not that the fair value exceeds the carrying amount. The non-recurring fair value measurement is a “Level 3” measurement under the fair value hierarchy described in Note 9.

Identifiable intangible assets

Our primary identifiable intangible assets include: customer relationships, trade names, proprietary technology and patents. Identifiable intangibles with finite lives are amortized and those identifiable intangibles with indefinite lives are not amortized. Identifiable intangible assets that are subject to amortization are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Identifiable intangible assets not subject to amortization are tested for impairment annually or more frequently if events warrant. We complete our annual impairment test the first day of the fourth quarter each year for those identifiable assets not subject to amortization.

The impairment test for trade names consists of a comparison of the fair value of the trade name with its carrying value. Fair value is measured using the relief-from-royalty method. This method assumes the trade name has value to the extent that the owner is relieved of the obligation to pay royalties for the benefits received from them. This method requires us to estimate the future revenue for the related brands, the appropriate royalty rate and the weighted average cost of capital. The non-recurring fair value measurement is a “Level 3” measurement under the fair value hierarchy described in Note 9.

There were no impairment charges recorded in any of the years presented for identifiable intangible assets.

Income taxes

We use the asset and liability approach to account for income taxes. Under this method, deferred tax assets and liabilities are recognized for the expected future tax consequences of differences between the carrying amounts of assets and liabilities and their respective tax bases using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period when the change is enacted. We maintain valuation allowances unless it is more likely than not that all or a portion of the deferred tax assets will be realized. Changes in valuation allowances from period to period are included in our tax provision in the period of change. We recognize the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs.

Pension and other post-retirement plans

We sponsor U.S. and non-U.S. defined-benefit pension and other post-retirement plans. The pension and other post-retirement benefit costs for company-sponsored benefit plans are determined from actuarial assumptions and methodologies, including discount rates and expected returns on plan assets. These assumptions are updated annually and are disclosed in Note 11.

We recognize changes in the fair value of plan assets and net actuarial gains or losses for pension and other post-retirement benefits annually in the fourth quarter each year (“mark-to-market adjustment”) and, if applicable, in any quarter in which an interim re-measurement is triggered. Net actuarial gains and losses occur when the actual experience differs from any of the various assumptions used to value our pension and other post-retirement plans or when assumptions change, as they may each year. The remaining components of pension expense, including service and interest costs and estimated return on plan assets, are recorded on a quarterly basis. The service costs are recorded within *Operating income* and the interest costs, expected return on plan assets and net actuarial gain/loss components of net periodic pension and other post-retirement benefit costs are recorded within *Other expense (income)*.

Insurance subsidiary

A portion of our property and casualty insurance program is insured through our regulated wholly-owned captive insurance subsidiary, Penwald Insurance Company (“Penwald”). Reserves for policy claims are established based on actuarial projections of ultimate losses. As of December 31, 2020 and 2019, reserves for policy claims were \$55.0 million, of which \$13.0 million was included in *Other current liabilities* and \$42.0 million was included in *Other non-current liabilities*, and \$54.7 million, of which \$13.1 million was included in *Other current liabilities* and \$41.6 million was included in *Other non-current liabilities*, respectively.

Share-based compensation

We account for share-based compensation awards on a fair value basis. The estimated grant date fair value of each option award is recognized in income on an accelerated basis over the requisite service period (generally the vesting period). The estimated fair value of each option award is calculated using the Black-Scholes option-pricing model. From time to time, we have elected to modify the terms of the original grant. These modified grants are accounted for as a new award and measured using the fair value method, resulting in the inclusion of additional compensation expense in our Consolidated Statements of Operations and Comprehensive Income.

Restricted share awards and units (“RSUs”) are recorded as compensation cost over the requisite service periods based on the market value on the date of grant.

Performance share units (“PSUs”) are stock awards where the ultimate number of shares issued will be contingent on the Company’s performance against certain performance goals. The Compensation Committee has the ability to adjust performance goals or modify the manner of measuring or evaluating a performance goal using its discretion. The fair value of each PSU is based on the market value on the date of grant. We recognize expense related to the estimated vesting of our PSUs granted. The estimated vesting of the PSUs is based on the probability of achieving certain performance metrics over the specified performance period.

Earnings per ordinary share

We present two calculations of earnings per ordinary share (“EPS”). Basic EPS equals net income divided by the weighted-average number of ordinary shares outstanding during the period. Diluted EPS is computed by dividing net income by the sum of weighted-average number of ordinary shares outstanding plus dilutive effects of ordinary share equivalents.

Derivative financial instruments

We recognize all derivatives, including those embedded in other contracts, as either assets or liabilities at fair value in our Consolidated Balance Sheets. If the derivative is designated and is effective as a cash-flow hedge, the effective portion of changes in the fair value of the derivative are recorded in *Accumulated other comprehensive income (loss)* (“AOCI”) as a separate component of equity in the Consolidated Balance Sheets and are recognized in the Consolidated Statements of Operations and Comprehensive Income when the hedged item affects earnings. If the underlying hedged transaction ceases to exist or if the hedge becomes ineffective, all changes in fair value of the related derivatives that have not been settled are recognized in current earnings. For a derivative that is not designated as or does not qualify as a hedge, changes in fair value are reported in earnings immediately.

Gains and losses on net investment hedges are included in AOCI as a separate component of equity in the Consolidated Balance Sheets.

We use derivative instruments for the purpose of hedging interest rate and currency exposures, which exist as part of ongoing business operations. We do not hold or issue derivative financial instruments for trading or speculative purposes. Our policy is not to enter into contracts with terms that cannot be designated as normal purchases or sales. From time to time, we may enter into short duration foreign currency contracts to hedge foreign currency risks.

Foreign currency translation

The financial statements of the Company’s non-U.S. dollar functional currency international subsidiaries are measured using the local currency as the functional currency. Assets and liabilities of these subsidiaries are translated at the rates of exchange at the balance sheet date. Income (loss) and expense items are translated at average monthly rates of exchange. The resultant translation adjustments are included in AOCI, a component of equity.

New accounting standards

On March 2, 2020, we early adopted the SEC’s rule titled “Financial Disclosures about Guarantors and Issuers of Guaranteed Securities and Affiliates Whose Securities Collateralize a Registrant’s Securities,” which simplifies the disclosure requirements related to our guaranteed registered securities under Rule 3-10 of Regulation S-X.

On January 1, 2020, we adopted ASU No. 2016-13 “Financial Instruments–Credit Losses” and the related amendments (the “new standard”). The new standard changes the methodology used to measure credit losses for certain financial instruments and financial assets, including trade receivables. The approach utilizes an expected credit loss model that requires consideration of a broader range of information to estimate expected credit losses over the lifetime of an asset, which may result in earlier recognition of credit losses than under the previous accounting standards.

Under the new standard, we record an allowance for credit losses, reducing our trade receivables balance to an amount we estimate is collectible from our customers. The estimates used in determining the allowance for credit losses are based on historical collection experience, including write-offs and recoveries, periodic credit evaluations of our customers’ financial situation, and current circumstances as well as reasonable and supportable forecasts of future economic conditions. The adoption of this new standard did not have a material impact on our consolidated financial statements.

2. Acquisitions and Discontinued Operations

Acquisitions

In February 2019, as part of Consumer Solutions, we completed the acquisitions of Aquion, Inc. (“Aquion”) and Pelican Water Systems (“Pelican”) for \$163.4 million and \$121.1 million, respectively, in cash, net of cash acquired and final working capital true-ups.

For Aquion, the excess of purchase price over tangible net assets and identified intangible assets acquired has been allocated to goodwill in the amount of \$101.9 million, \$4.6 million of which is expected to be deductible for income tax purposes. Identifiable intangible assets acquired as part of the Aquion acquisition include \$15.7 million of indefinite-lived trade name intangible assets and \$78.8 million of definite-lived customer relationships with an estimated useful life of 15 years.

For Pelican, the excess purchase price over tangible net assets acquired has been allocated to goodwill in the amount of \$118.0 million, \$7.6 million of which is expected to be deductible for income tax purposes.

In 2020, our Consumer Solutions reporting segment completed acquisitions with purchase prices totaling \$58.0 million in cash, net of cash acquired.

The pro forma impact of the acquisitions in 2019 and 2020 were not material.

Discontinued Operations

On April 30, 2018, we completed the Separation and Distribution. The results of the Electrical business have been presented as discontinued operations for all periods presented. The Electrical business had been previously disclosed as a stand-alone reporting segment. Separation costs related to the Separation and Distribution were \$84.2 million for the twelve months ended December 31, 2018. These costs are reported in discontinued operations as they represent a cost directly related to the Separation and Distribution and were included within *Income (loss) from discontinued operations, net of tax* presented below.

Operating results of discontinued operations are summarized below:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Net sales	\$ —	\$ —	\$ 693.9
Cost of goods sold	—	—	424.0
Gross profit	—	—	269.9
Selling, general and administrative	(1.2)	7.4	237.8
Research and development	—	—	14.6
Operating income (loss)	\$ 1.2	\$ (7.4)	\$ 17.5
Income (loss) from discontinued operations before income taxes	\$ 1.6	\$ (7.6)	\$ 31.8
Income tax provision (benefit)	0.1	(1.6)	6.1
Income (loss) from discontinued operations, net of tax	\$ 1.5	\$ (6.0)	\$ 25.7

3. Earnings Per Share

Basic and diluted earnings per share were calculated as follows:

<i>In millions, except per share data</i>	Years ended December 31		
	2020	2019	2018
Net income	\$ 358.6	\$ 355.7	\$ 347.4
Net income from continuing operations	\$ 357.1	\$ 361.7	\$ 321.7
Weighted average ordinary shares outstanding			
Basic	166.5	169.4	175.8
Dilutive impact of stock options and restricted stock awards	0.9	1.0	1.5
Diluted	167.4	170.4	177.3
Earnings (loss) per ordinary share			
Basic			
Continuing operations	\$ 2.14	\$ 2.14	\$ 1.83
Discontinued operations	0.01	(0.04)	0.15
Basic earnings per ordinary share	\$ 2.15	\$ 2.10	\$ 1.98
Diluted			
Continuing operations	\$ 2.13	\$ 2.12	\$ 1.81
Discontinued operations	0.01	(0.03)	0.15
Diluted earnings per ordinary share	\$ 2.14	\$ 2.09	\$ 1.96
Anti-dilutive stock options excluded from the calculation of diluted earnings per share	1.7	2.1	1.2

4. Restructuring

During 2020, 2019 and 2018, we initiated and continued execution of certain business restructuring initiatives aimed at reducing our fixed cost structure and realigning our business. Initiatives during the years ended December 31, 2020, 2019 and 2018 included a reduction in hourly and salaried headcount of approximately 175 employees, 375 employees and 300 employees, respectively.

Restructuring related costs included in *Selling, general and administrative* expenses in the Consolidated Statements of Operations and Comprehensive Income included costs for severance and other restructuring costs as follows:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Severance and related costs	\$ 9.7	\$ 11.7	\$ 13.2
Other	4.4	2.3	27.4
Total restructuring costs	\$ 14.1	\$ 14.0	\$ 40.6

Other restructuring costs primarily consist of asset impairment and various contract termination costs.

Restructuring costs by reportable segment were as follows:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Consumer Solutions	\$ 3.6	\$ 6.7	\$ 14.7
Industrial & Flow Technologies	4.7	4.9	24.5
Other	5.8	2.4	1.4
Consolidated	\$ 14.1	\$ 14.0	\$ 40.6

Activity related to accrued severance and related costs recorded in *Other current liabilities* in the Consolidated Balance Sheets is summarized as follows:

<i>In millions</i>	Years ended December 31	
	2020	2019
Beginning balance	\$ 16.2	\$ 27.1
Costs incurred	9.7	11.7
Cash payments and other	(10.7)	(22.6)
Ending balance	\$ 15.2	\$ 16.2

5. Goodwill and Other Identifiable Intangible Assets

The changes in the carrying amount of goodwill for the years ended December 31, 2020 and 2019 by reportable segment were as follows:

<i>In millions</i>	December 31, 2019	Acquisitions/ divestitures	Purchase accounting adjustments	Foreign currency translation	December 31, 2020
Consumer Solutions	\$ 1,501.4	\$ 51.9	\$ 14.4	\$ 12.8	\$ 1,580.5
Industrial & Flow Technologies	756.9	—	—	54.8	811.7
Total goodwill	\$ 2,258.3	\$ 51.9	\$ 14.4	\$ 67.6	\$ 2,392.2

<i>In millions</i>	December 31, 2018	Acquisitions/ divestitures	Foreign currency translation	December 31, 2019
Consumer Solutions	\$ 1,302.8	\$ 201.8	\$ (3.2)	\$ 1,501.4
Industrial & Flow Technologies	769.9	—	(13.0)	756.9
Total goodwill	\$ 2,072.7	\$ 201.8	\$ (16.2)	\$ 2,258.3

There has been no impairment of goodwill for any of the years presented.

Identifiable intangible assets consisted of the following at December 31:

<i>In millions</i>	2020			2019		
	Cost	Accumulated amortization	Net	Cost	Accumulated amortization	Net
Definite-life intangibles						
Customer relationships	\$ 435.9	\$ (308.1)	\$ 127.8	\$ 418.1	\$ (269.1)	\$ 149.0
Proprietary technology and patents	46.9	(29.4)	17.5	42.3	(25.5)	16.8
Total finite-life intangibles	482.8	(337.5)	145.3	460.4	(294.6)	165.8
Indefinite-life intangibles						
Trade names	180.6	—	180.6	173.4	—	173.4
Total intangibles	\$ 663.4	\$ (337.5)	\$ 325.9	\$ 633.8	\$ (294.6)	\$ 339.2

Identifiable intangible asset amortization expense in 2020, 2019 and 2018 was \$28.4 million, \$31.7 million and \$34.9 million, respectively.

There was no impairment charge for intangible assets in any of the years presented.

Estimated future amortization expense for identifiable intangible assets during the next five years is as follows:

<i>In millions</i>	2021	2022	2023	2024	2025
Estimated amortization expense	\$ 23.9	\$ 16.6	\$ 13.9	\$ 13.3	\$ 13.3

6. Supplemental Balance Sheet Information

<i>In millions</i>	December 31	
	2020	2019
Inventories		
Raw materials and supplies	\$ 218.7	\$ 196.2
Work-in-process	67.2	65.2
Finished goods	134.1	116.0
Total inventories	\$ 420.0	\$ 377.4
Other current assets		
Cost in excess of billings	\$ 50.1	\$ 41.0
Prepaid expenses	48.5	48.3
Prepaid income taxes	3.8	5.2
Other current assets	3.1	4.6
Total other current assets	\$ 105.5	\$ 99.1
Property, plant and equipment, net		
Land and land improvements	\$ 35.9	\$ 33.7
Buildings and leasehold improvements	195.4	188.1
Machinery and equipment	589.7	537.2
Capitalized software	79.9	73.5
Construction in progress	47.8	48.1
Total property, plant and equipment	948.7	880.6
Accumulated depreciation and amortization	647.5	597.4
Total property, plant and equipment, net	\$ 301.2	\$ 283.2
Other non-current assets		
Right-of-use lease assets	\$ 83.6	\$ 77.2
Deferred income taxes	27.4	29.6
Deferred compensation plan assets	22.6	21.3
Other non-current assets	69.2	68.8
Total other non-current assets	\$ 202.8	\$ 196.9
Other current liabilities		
Dividends payable	\$ 33.2	\$ 32.0
Accrued warranty	37.0	32.1
Accrued rebates and incentives	122.0	83.5
Billings in excess of cost	22.5	22.5
Current lease liability	22.1	19.0
Income taxes payable	14.6	11.1
Accrued restructuring	15.2	16.2
Other current liabilities	143.8	136.5
Total other current liabilities	\$ 410.4	\$ 352.9
Other non-current liabilities		
Long-term lease liability	\$ 65.1	\$ 61.1
Income taxes payable	44.8	45.4
Self-insurance liabilities	42.0	41.6
Deferred compensation plan liabilities	22.6	21.3
Foreign currency contract liabilities	69.6	11.6
Other non-current liabilities	25.3	25.7
Total other non-current liabilities	\$ 269.4	\$ 206.7

7. Accumulated Other Comprehensive Loss

Components of *Accumulated Other Comprehensive Loss* consist of the following:

<i>In millions</i>	December 31	
	2020	2019
Cumulative translation adjustments	\$ (177.1)	\$ (226.1)
Market value of derivative financial instruments, net of tax	(30.2)	(0.4)
Accumulated other comprehensive loss	\$ (207.3)	\$ (226.5)

8. Debt

Debt and the average interest rates on debt outstanding were as follows:

<i>In millions</i>	Average interest rate at December 31, 2020	Maturity year	December 31	
			2020	2019
Commercial paper	N/A	2023	\$ —	\$ 117.8
Revolving credit facilities	1.244%	2023	36.1	35.8
Term loans	1.224%	2023	200.0	200.0
Senior notes - fixed rate ⁽¹⁾	3.625%	2020	—	74.0
Senior notes - fixed rate ⁽¹⁾	5.000%	2021	103.8	103.8
Senior notes - fixed rate ⁽¹⁾	3.150%	2022	88.3	88.3
Senior notes - fixed rate ⁽¹⁾	4.650%	2025	19.3	19.3
Senior notes - fixed rate ⁽¹⁾	4.500%	2029	400.0	400.0
Unamortized issuance costs and discounts	N/A	N/A	(7.9)	(9.9)
Total debt			\$ 839.6	\$ 1,029.1

⁽¹⁾ Senior notes are guaranteed as to payment by Pentair plc.

In April 2018, Pentair, Pentair Investments Switzerland GmbH (“PISG”), Pentair Finance S.à r.l (“PFSA”) and Pentair, Inc. entered into a credit agreement, providing for an \$800.0 million senior unsecured revolving credit facility with a term of five years (the “Senior Credit Facility”), with Pentair and PISG as guarantors and PFSA and Pentair, Inc. as borrowers. In June 2020, Pentair assumed the PISG guarantee. The Senior Credit Facility has a maturity date of April 25, 2023. Borrowings under the Senior Credit Facility bear interest at a rate equal to an adjusted base rate or the London Interbank Offered Rate, plus, in each case, an applicable margin. The applicable margin is based on, at PFSA’s election, Pentair’s leverage level or PFSA’s public credit rating. In May 2019, PFSA executed an increase of the Senior Credit Facility by \$100.0 million for a total commitment up to \$900.0 million in the aggregate.

In December 2019, the Senior Credit Facility was amended to provide for the extension of term loans in an aggregate amount of \$200.0 million (the “Term Loans”). The Term Loans are in addition to the Senior Credit Facility commitment. In addition, PFSA has the option to further increase the Senior Credit Facility in an aggregate amount of up to \$300.0 million, through a combination of increases to the total commitment amount of the Senior Credit Facility and/or one or more tranches of term loans in addition to the Term Loans, subject to customary conditions, including the commitment of the participating lenders.

PFSA is authorized to sell short-term commercial paper notes to the extent availability exists under the Senior Credit Facility. PFSA uses the Senior Credit Facility as back-up liquidity to support 100% of commercial paper outstanding. PFSA had no commercial paper outstanding as of December 31, 2020 and \$117.8 million as of December 31, 2019, all of which was classified as long-term debt as we have the intent and the ability to refinance such obligations on a long-term basis under the Senior Credit Facility.

In March 2020, the commercial paper market began to experience high levels of volatility due to uncertainty related to the COVID-19 pandemic. The volatility impacted both market access to and pricing of commercial paper. As a cost mitigation action, we withdrew our credit ratings to access the commercial paper market in the second quarter of 2020 and continued to use the revolving credit facility, along with cash generated from operations, to fund our general operations. As of December 31, 2020, total availability under the Senior Credit Facility was \$863.9 million.

Our debt agreements contain various financial covenants, but the most restrictive covenants are contained in the Senior Credit Facility. The Senior Credit Facility contains covenants requiring us not to permit (i) the ratio of our consolidated debt (net of our consolidated unrestricted cash in excess of \$5.0 million but not to exceed \$250.0 million) to our consolidated net income (excluding, among other things, non-cash gains and losses) before interest, taxes, depreciation, amortization and non-cash share-based compensation expense (“EBITDA”) on the last day of any period of four consecutive fiscal quarters to exceed 3.75 to 1.00 (the “Leverage Ratio”) and (ii) the ratio of our EBITDA to our consolidated interest expense, for the same period to be less than 3.00 to 1.00 as of the end of each fiscal quarter. For purposes of the Leverage Ratio, the Senior Credit Facility provides for the calculation of EBITDA giving pro forma effect to certain acquisitions, divestitures and liquidations during the period to which such calculation relates.

In addition to the Senior Credit Facility, we have various other credit facilities with an aggregate availability of \$21.4 million, of which there were no outstanding borrowings at December 31, 2020. Borrowings under these credit facilities bear interest at variable rates.

We have \$103.8 million aggregate principal amount of fixed rate senior notes maturing in the next twelve months. We classified this debt as long-term as of December 31, 2020 as we have the intent and ability to refinance such obligation on a long-term basis under the Senior Credit Facility.

Debt outstanding, excluding unamortized issuance costs and discounts, at December 31, 2020 matures on a calendar year basis as follows:

<i>In millions</i>	2021	2022	2023	2024	2025	Thereafter	Total
Contractual debt obligation maturities	\$ 103.8	\$ 88.3	\$ 236.1	\$ —	\$ 19.3	\$ 400.0	\$ 847.5

9. Derivatives and Financial Instruments

Derivative financial instruments

We are exposed to market risk related to changes in foreign currency exchange rates. To manage the volatility related to this exposure, we periodically enter into a variety of derivative financial instruments. Our objective is to reduce, where it is deemed appropriate to do so, fluctuations in earnings and cash flows associated with changes in foreign currency rates. The derivative contracts contain credit risk to the extent that our bank counterparties may be unable to meet the terms of the agreements. The amount of such credit risk is generally limited to the unrealized gains, if any, in such contracts. Such risk is minimized by limiting those counterparties to major financial institutions of high credit quality.

Foreign currency contracts

We conduct business in various locations throughout the world and are subject to market risk due to changes in the value of foreign currencies in relation to our reporting currency, the U.S. dollar. We manage our economic and transaction exposure to certain market-based risks through the use of foreign currency derivative financial instruments. Our objective in holding these derivatives is to reduce the volatility of net earnings and cash flows associated with changes in foreign currency exchange rates. The majority of our foreign currency contracts have an original maturity date of less than one year.

At December 31, 2020 and 2019, we had outstanding foreign currency derivative contracts with gross notional U.S. dollar equivalent amounts of \$12.4 million and \$17.0 million, respectively. The impact of these contracts on the Consolidated Statements of Operations and Comprehensive Income was not material for any period presented.

Cross Currency Swaps

At December 31, 2020 and 2019, we had outstanding cross currency swap agreements with a combined notional amount of \$855.1 million and \$777.0 million, respectively. The agreements are accounted for as either cash flow hedges, to hedge foreign currency fluctuations on certain intercompany debt, or as net investment hedges to manage our exposure to fluctuations in the Euro-U.S. Dollar exchange rate. As of December 31, 2020 and 2019, we had deferred foreign currency losses of \$32.8 million and \$1.8 million, respectively, recorded in *Accumulated other comprehensive loss* associated with our cross currency swap activity.

Foreign Currency Denominated Debt

In September 2015, we designated the €500 million 2.45% Senior Notes due 2019 (the “2019 Euro Notes”) as a net investment hedge for a portion of our net investment in our Euro denominated subsidiaries. In June 2018, the Company completed a tender offer for €363.4 million of the 2019 Euro Notes. At that time, the remaining €136.6 million of the 2019 Euro Notes were re-designated as a net investment hedge in our Euro denominated subsidiaries. In September 2019, the 2019 Euro Notes matured and were paid in full, terminating the net investment hedge. The historical gains/losses on the 2019 Euro Notes have been included as a component of the cumulative translation adjustment account within *Accumulated other comprehensive loss*. As of December 31, 2020 and December 31, 2019, we had deferred foreign currency gains of \$2.8 million, in *Accumulated other comprehensive loss* associated with the net investment hedge activity.

Fair value measurements

Fair value is defined 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. Assets and liabilities measured at fair value are classified using the following hierarchy, which is based upon the transparency of inputs to the valuation as of the measurement date:

- Level 1:* Valuation is based on observable inputs such as quoted market prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2:* Valuation is based on inputs such as quoted market prices for similar assets or liabilities in active markets or other inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- Level 3:* Valuation is based upon other unobservable inputs that are significant to the fair value measurement.

In making fair value measurements, observable market data must be used when available. 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.

Fair value of financial instruments

The following methods were used to estimate the fair values of each class of financial instrument:

- *short-term financial instruments (cash and cash equivalents, accounts and notes receivable, accounts and notes payable and variable-rate debt)* — recorded amount approximates fair value because of the short maturity period;
- *long-term fixed-rate debt, including current maturities* — fair value is based on market quotes available for issuance of debt with similar terms, which are inputs that are classified as Level 2 in the valuation hierarchy defined by the accounting guidance;
- *foreign currency contract agreements* — fair values are determined through the use of models that consider various assumptions, including time value, yield curves, as well as other relevant economic measures, which are inputs that are classified as Level 2 in the valuation hierarchy defined by the accounting guidance; and
- *deferred compensation plan assets (mutual funds, common/collective trusts and cash equivalents for payment of certain non-qualified benefits for retired, terminated and active employees)* — fair value of mutual funds and cash equivalents are based on quoted market prices in active markets that are classified as Level 1 in the valuation hierarchy defined by the accounting guidance; fair value of common/collective trusts are valued at net asset value (“NAV”), which is based on the fair value of the underlying securities owned by the fund and divided by the number of shares outstanding.

The recorded amounts and estimated fair values of total debt, excluding unamortized issuance costs and discounts, at December 31 were as follows:

<i>In millions</i>	2020		2019	
	Recorded Amount	Fair Value	Recorded Amount	Fair Value
Variable rate debt	\$ 236.1	\$ 236.1	\$ 353.6	\$ 353.6
Fixed rate debt	611.4	695.4	685.4	732.2
Total debt	\$ 847.5	\$ 931.5	\$ 1,039.0	\$ 1,085.8

Financial assets and liabilities measured at fair value on a recurring and nonrecurring basis were as follows:

Recurring fair value measurements	December 31, 2020				
	Level 1	Level 2	Level 3	NAV	Total
<i>In millions</i>					
Foreign currency contract liabilities	\$ —	\$ (69.6)	\$ —	\$ —	\$ (69.6)
Deferred compensation plan assets	12.2	—	—	10.4	22.6
Total recurring fair value measurements	\$ 12.2	\$ (69.6)	\$ —	\$ 10.4	\$ (47.0)

Recurring fair value measurements	December 31, 2019				
	Level 1	Level 2	Level 3	NAV	Total
<i>In millions</i>					
Foreign currency contract assets	\$ —	\$ 0.1	\$ —	\$ —	\$ 0.1
Foreign currency contract liabilities	\$ —	\$ (11.6)	\$ —	\$ —	\$ (11.6)
Deferred compensation plan assets	12.5	—	—	8.8	21.3
Total recurring fair value measurements	\$ 12.5	\$ (11.5)	\$ —	\$ 8.8	\$ 9.8

Nonrecurring fair value measurements

During the years ended December 31, 2019 and 2018, we recorded impairment charges for cost method investments in the amount of \$21.2 million and \$12.0 million, respectively. In 2018, a valuation method using prices in active markets was utilized to determine the fair value. In 2019, we determined the value using unobservable inputs and wrote the balance of the cost method investments to zero.

10. Income Taxes

Income from continuing operations before income taxes consisted of the following:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Federal ⁽¹⁾	\$ 7.2	\$ (1.6)	\$ (24.6)
International ⁽²⁾	424.9	409.1	404.4
Income from continuing operations before income taxes	\$ 432.1	\$ 407.5	\$ 379.8

⁽¹⁾ “Federal” reflects United Kingdom (“U.K.”) income (loss) from continuing operations before income taxes.

⁽²⁾ “International” reflects non-U.K. income from continuing operations before income taxes.

The provision for income taxes consisted of the following:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Currently payable (receivable)			
Federal ⁽¹⁾	\$ 0.1	\$ —	\$ (0.1)
International ⁽²⁾	70.3	64.2	62.3
Total current taxes	70.4	64.2	62.2
Deferred			
International ⁽²⁾	4.6	(18.4)	(4.1)
Total deferred taxes	4.6	(18.4)	(4.1)
Total provision for income taxes	\$ 75.0	\$ 45.8	\$ 58.1

⁽¹⁾ “Federal” represents U.K. taxes.

⁽²⁾ “International” represents non-U.K. taxes.

Reconciliations of the federal statutory income tax rate to our effective tax rate were as follows:

<i>Percentages</i>	Years ended December 31		
	2020	2019	2018
U.K. federal statutory income tax rate	19.0 %	19.0 %	19.0 %
Tax effect of international operations ⁽¹⁾	(3.9)	(8.2)	(9.9)
Change in valuation allowances	1.3	1.1	7.9
Excess tax benefits on stock-based compensation	(0.7)	(0.7)	(1.7)
Base erosion and anti-abuse tax	1.7	—	—
Tax effect of U.S. tax reform	—	—	(0.9)
Tax effect of early extinguishment of debt	—	—	0.9
Effective tax rate	17.4 %	11.2 %	15.3 %

⁽¹⁾ The tax effect of international operations consists of non-U.K. jurisdictions.

Reconciliations of the beginning and ending gross unrecognized tax benefits were as follows:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Beginning balance	\$ 47.4	\$ 51.4	\$ 13.8
Gross increases for tax positions in prior periods	0.6	0.4	44.0
Gross decreases for tax positions in prior periods	—	(0.8)	(4.4)
Gross increases based on tax positions related to the current year	0.2	0.4	0.9
Gross decreases related to settlements with taxing authorities	(1.1)	(2.9)	(1.8)
Reductions due to statute expiration	(0.8)	(1.1)	(1.1)
Ending balance	\$ 46.3	\$ 47.4	\$ 51.4

We record gross unrecognized tax benefits in *Other current liabilities* and *Other non-current liabilities* in the Consolidated Balance Sheets. Included in the \$46.3 million of total gross unrecognized tax benefits as of December 31, 2020 was \$45.9 million of tax benefits that, if recognized, would impact the effective tax rate. It is reasonably possible that the gross unrecognized tax benefits as of December 31, 2020 may decrease by a range of zero to \$10.6 million during 2021, primarily as a result of the resolution of non-U.K. examinations, including U.S. state examinations, and the expiration of various statutes of limitations.

Based on the outcome of these examinations, or as a result of the expiration of statute of limitations for specific jurisdictions, it is reasonably possible that certain unrecognized tax benefits for tax positions taken on previously filed tax returns will materially change from those recorded as liabilities in our financial statements. A number of tax periods from 2008 to present are under audit by tax authorities in various jurisdictions, including China, Germany, India, Italy, New Zealand, and the U.S. We anticipate that several of these audits may be concluded in the foreseeable future.

We record penalties and interest related to unrecognized tax benefits in *Provision for income taxes* and *Net interest expense*, respectively, in the Consolidated Statements of Operations and Comprehensive Income. As of December 31, 2020 and 2019, we have liabilities of \$0.2 million and \$0.4 million, respectively, for the possible payment of penalties and \$4.6 million and \$3.7 million, respectively, for the possible payment of interest expense, which are recorded in *Other current liabilities* in the Consolidated Balance Sheets.

Deferred taxes arise because of different treatment between financial statement accounting and tax accounting, known as “temporary differences.” We record the tax effect of these temporary differences as “deferred tax assets” (generally items that can be used as a tax deduction or credit in future periods) and “deferred tax liabilities” (generally items for which we received a tax deduction but the tax impact has not yet been recorded in the Consolidated Statements of Operations and Comprehensive Income).

Deferred taxes were recorded in the Consolidated Balance Sheets as follows:

<i>In millions</i>	December 31	
	2020	2019
Other non-current assets	\$ 27.4	\$ 29.6
Deferred tax liabilities	107.4	104.4
Net deferred tax liabilities	\$ 80.0	\$ 74.8

The tax effects of the major items recorded as deferred tax assets and liabilities were as follows:

<i>In millions</i>	December 31	
	2020	2019
Deferred tax assets		
Accrued liabilities and reserves	\$ 59.4	\$ 41.9
Pension and other post-retirement compensation and benefits	26.2	25.2
Employee compensation and benefits	18.5	19.6
Tax loss and credit carryforwards	744.5	712.0
Interest limitations	49.9	45.0
Total deferred tax assets	898.5	843.7
Valuation allowance	747.3	693.8
Deferred tax assets, net of valuation allowance	151.2	149.9
Deferred tax liabilities		
Property, plant and equipment	5.3	8.5
Goodwill and other intangibles	209.0	200.4
Other liabilities	16.9	15.8
Total deferred tax liabilities	231.2	224.7
Net deferred tax liabilities	\$ 80.0	\$ 74.8

Included in tax loss and credit carryforwards in the table above is a deferred tax asset of \$29.6 million as of December 31, 2020 related to foreign tax credit carryover from the tax period ended December 31, 2017 and related to transition taxes. The entire amount is subject to a valuation allowance. The foreign tax credit is eligible for carryforward until the tax period ending December 31, 2027.

As of December 31, 2020, tax loss carryforwards of \$2,923.5 million were available to offset future income. A valuation allowance of \$716.7 million exists for deferred income tax benefits related to the tax loss carryforwards which may not be realized. We believe sufficient taxable income will be generated in the respective jurisdictions to allow us to fully recover the remainder of the tax losses. The tax losses primarily relate to non-U.S. carryforwards of \$2,824.9 million which are subject to varying expiration periods. Non-U.S. carryforwards of \$1,785.0 million are located in jurisdictions with unlimited tax loss carryforward periods, while the remainder will begin to expire in 2021. In addition, there were \$98.6 million of U.S. state tax loss carryforwards as of December 31, 2020. U.S. state tax losses of \$61.1 million are in jurisdictions with unlimited tax loss carryforward periods, while the remainder will expire in future years through 2040.

Taxes have not been provided on undistributed earnings of subsidiaries where it is our intention to reinvest these earnings permanently or to repatriate the earnings only when it is tax effective to do so. It is not practicable to estimate the amount of tax that might be payable if such earnings were to be remitted.

Impacts of U.S. tax legislation

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (the “Act”) was signed into law making significant changes to the Internal Revenue Code. Changes include, but are not limited to, a corporate tax rate decrease from 35% to 21% effective for tax years beginning after December 31, 2017, the transition of U.S international taxation from a worldwide tax system to a territorial system, and a one-time transition tax on the mandatory deemed repatriation of cumulative foreign earnings as of December 31, 2017. For 2018 and subsequent years, the Company considered in its annual effective tax rate additional provisions of the Act including changes to the deduction for executive compensation and interest expense, a tax on global intangible low-taxed income provisions (“GILTI”), the base erosion anti-abuse tax, and a deduction for foreign-derived intangible income. The Company has elected to treat tax on GILTI income as a period cost and has therefore included it in its annual effective tax rate.

In April 2020, the IRS released final regulations as part of the Act that place limitations on the deductibility of certain interest expense for U.S. tax purposes. These regulations resulted in discrete tax expense of approximately \$14.1 million in 2020, as well as an increase to our 2020 annual effective tax rate of approximately 0.3%.

On March 27, 2020, the U.S. enacted the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”) in response to the COVID-19 pandemic. The CARES Act contains numerous income tax provisions, such as relaxing limitations on the deductibility of interest and the ability to carryback net operating losses arising in taxable years from 2018 through 2020. The CARES Act provides positive cash benefits of approximately \$26.9 million, offset by an increase to our 2020 annual effective tax rate of approximately 1.0% and \$5.1 million in discrete tax items recorded in 2020, mainly attributable to base erosion and anti-abuse tax related to 2019.

11. Benefit Plans

Pension and other post-retirement plans

We sponsor U.S. and non-U.S. defined-benefit pension and other post-retirement plans. Pension benefits are based principally on an employee’s years of service and/or compensation levels near retirement. In addition, we provide certain post-retirement health care and life insurance benefits. Generally, the post-retirement health care and life insurance plans require contributions from retirees.

In 2017, our Board of Directors approved amendments to terminate the Pentair Salaried Plan (the “Salaried Plan”), a U.S. qualified pension plan. The Salaried Plan discontinued accruing benefits on December 31, 2017 and the termination was effective December 31, 2017. The Salaried Plan participants were not adversely affected by the plan termination.

In 2018, participants whose plan benefits were not in pay status as of July 1, 2018 were given the opportunity to elect a lump sum (or monthly annuity) payment during a special election window. Payments of \$171.9 million were made to participants who elected to receive a lump sum during this window.

In 2019, the Company received all required government approvals to complete the termination of the Salaried Plan. In June 2019, we entered into an agreement with an insurance company to purchase from us, through an annuity contract, our remaining obligations under the Salaried Plan. For the year ended December 31, 2019, we contributed \$11.1 million to the Salaried Plan as part of the process to settle our obligations. As a result of these actions, a non-cash pre-tax settlement gain of \$11.8 million was recorded for the year ended December 31, 2019 and is reflected within *Net actuarial loss (gain)* in the Net periodic benefit expense table below.

The information herein relates to defined-benefit pension and other post-retirement plans of our continuing operations only.

Obligations and funded status

The following tables present reconciliations of plan benefit obligations, fair value of plan assets and the funded status of pension plans and other post-retirement plans as of and for the years ended December 31, 2020 and 2019:

<i>In millions</i>	Pension plans		Other post-retirement plans	
	2020	2019	2020	2019
Change in benefit obligations				
Benefit obligation beginning of year	\$ 112.1	\$ 277.9	\$ 14.6	\$ 14.9
Service cost	3.3	2.6	—	—
Interest cost	2.9	7.3	0.4	0.6
Settlements	—	(1.5)	—	—
Actuarial loss	9.3	8.0	0.1	2.0
Foreign currency translation	1.4	0.1	—	—
Benefits paid	(8.2)	(182.3)	(1.3)	(2.9)
Benefit obligation end of year	\$ 120.8	\$ 112.1	\$ 13.8	\$ 14.6
Change in plan assets				
Fair value of plan assets beginning of year	\$ 31.0	\$ 180.7	\$ —	\$ —
Actual return on plan assets	3.0	16.0	—	—
Company contributions	7.1	18.0	1.3	2.9
Settlements	—	(1.5)	—	—
Foreign currency translation	0.8	0.1	—	—
Benefits paid	(8.2)	(182.3)	(1.3)	(2.9)
Fair value of plan assets end of year	\$ 33.7	\$ 31.0	\$ —	\$ —
Funded status				
Benefit obligations in excess of the fair value of plan assets	\$ (87.1)	\$ (81.1)	\$ (13.8)	\$ (14.6)

The actuarial loss in 2020 was primarily due to declines in the discount rates to reflect economic conditions at December 31, 2020.

Amounts recorded in the Consolidated Balance Sheets were as follows:

<i>In millions</i>	Pension plans		Other post-retirement plans	
	2020	2019	2020	2019
Current liabilities	\$ (5.6)	\$ (5.3)	\$ (1.5)	\$ (1.7)
Non-current liabilities	(81.5)	(75.8)	(12.3)	(12.9)
Benefit obligations in excess of the fair value of plan assets	\$ (87.1)	\$ (81.1)	\$ (13.8)	\$ (14.6)

The accumulated benefit obligation for all defined benefit plans was \$119.3 million and \$107.1 million at December 31, 2020 and 2019, respectively.

Information for pension plans with an accumulated benefit obligation or projected benefit obligation in excess of plan assets as of December 31 was as follows:

<i>In millions</i>	Projected benefit obligation exceeds the fair value of plan assets		Accumulated benefit obligation exceeds the fair value of plan assets	
	2020	2019	2020	2019
Projected benefit obligation	\$ 120.8	\$ 111.7	\$ 120.8	\$ 111.7
Fair value of plan assets	33.7	30.4	33.7	30.4
Accumulated benefit obligation	N/A	N/A	119.3	107.1

Components of net periodic benefit expense for our pension plans for the years ended December 31 were as follows:

<i>In millions</i>	2020	2019	2018
Service cost	\$ 3.3	\$ 2.6	\$ 4.1
Interest cost	2.9	7.3	11.5
Expected return on plan assets	(0.8)	(3.9)	(7.6)
Net actuarial loss (gain)	6.8	(4.1)	5.2
Net periodic benefit expense	\$ 12.2	\$ 1.9	\$ 13.2

Components of net periodic benefit expense for our other post-retirement plans for the years ended December 31, 2020, 2019 and 2018, were not material.

Assumptions

The following table provides the weighted-average assumptions used to determine benefit obligations and net periodic benefit cost as they pertain to our pension and other post-retirement plans.

	Pension plans			Other post-retirement plans		
	2020	2019	2018	2020	2019	2018
Benefit obligation assumptions ⁽¹⁾						
Discount rate	1.74 %	2.68 %	3.73 %	1.77 %	2.81 %	3.95 %
Rate of compensation increase	3.62 %	3.68 %	3.77 %	N/A	N/A	N/A
Net periodic benefit expense assumptions						
Discount rate	2.68 %	3.70 %	4.00 %	2.81 %	3.95 %	3.40 %
Expected long-term return on plan assets	3.32 %	4.37 %	4.17 %	N/A	N/A	N/A
Rate of compensation increase	3.68 %	3.72 %	3.96 %	N/A	N/A	N/A

⁽¹⁾ The benefit obligation for the Salaried Plan as of December 31, 2018 was determined using assumptions reflecting the termination of the plan. As a result, the 2018 weighted-average assumptions for the pension plans reflected in the table above do not include the Salaried Plan.

Discount rates

The discount rate reflects the current rate at which the pension liabilities could be effectively settled at the end of the year based on our December 31 measurement date. The discount rate was determined by matching our expected benefit payments to payments from a stream of bonds rated AA or higher available in the marketplace. There are no known or anticipated changes in our discount rate assumptions that will impact our pension expense in 2021.

Expected rates of return

The expected rate of return is designed to be a long-term assumption that may be subject to considerable year-to-year variance from actual returns. In developing the expected long-term rate of return, we considered our historical returns, with consideration given to forecasted economic conditions, our asset allocations, input from external consultants and broader long-term market indices. Pension plan assets yielded returns of 9.68%, 8.85% and (5.60)% in 2020, 2019 and 2018, respectively.

Healthcare cost trend rates

The assumed healthcare cost trend rates for other post-retirement plans as of December 31 were as follows:

	2020	2019
Healthcare cost trend rate assumed for following year	5.4 %	5.8 %
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	4.4 %	4.4 %
Year the cost trend rate reaches the ultimate trend rate	2038	2038

Pension plans assets

Objective

The primary objective of our investment strategy is to meet the pension obligation to our employees at a reasonable cost to us. This is primarily accomplished through growth of capital and safety of the funds invested.

Asset allocation

Our actual overall asset allocation for our pension plans as compared to our investment policy goals as of December 31 was as follows:

	Actual		Target	
	2020	2019	2020	2019
Fixed income	70 %	70 %	71 %	72 %
Alternative	30 %	29 %	29 %	28 %
Cash	— %	1 %	— %	— %

Fair value measurement

The fair values of our pension plan assets and their respective levels in the fair value hierarchy as of December 31, 2020 and December 31, 2019 were as follows:

In millions	December 31, 2020			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 0.1	\$ —	\$ —	0.1
Other investments	—	—	10.0	10.0
Total investments at fair value	\$ 0.1	\$ —	\$ 10.0	10.1
Investments measured at NAV				23.6
Total				\$ 33.7

In millions	December 31, 2019			
	Level 1	Level 2	Level 3	Total
Cash and cash equivalents	\$ 0.4	\$ —	\$ —	0.4
Other investments	—	—	8.9	8.9
Total investments at fair value	\$ 0.4	\$ —	\$ 8.9	9.3
Investments measured at NAV				21.7
Total				\$ 31.0

Valuation methodologies used for investments measured at fair value were as follows:

- **Cash and cash equivalents:** Cash consists of cash held in bank accounts and is considered a Level 1 investment. Cash equivalents consist of investments in commingled funds valued based on observable market data. Such investments are considered a Level 2 investment.
- **Other investments:** Other investments include investments in commingled funds with diversified investment strategies. Investments in commingled funds that were valued based on unobservable inputs due to liquidation restrictions were classified as Level 3.

Activity for our Level 3 pension plan assets held during the years ended December 31, 2020 and 2019 was not material.

Cash flows

Contributions

Pension contributions totaled \$7.1 million and \$18.0 million in 2020 and 2019, respectively. We anticipate our 2021 pension contributions to be approximately \$6.5 million. The 2021 expected contributions will equal or exceed our minimum funding requirements.

Estimated future benefit payments

The following benefit payments, which reflect expected future service or payout from termination, as appropriate, are expected to be paid by the plans in each of the next five fiscal years and in the aggregate for the five fiscal years thereafter are as follows:

<i>In millions</i>	Pension plans	Other post-retirement plans
2021	\$ 7.0	\$ 1.5
2022	7.2	1.4
2023	7.4	1.3
2024	7.6	1.2
2025	7.5	1.1
2026 - 2030	36.0	4.3

Savings plan

We have a 401(k) plan (the “401(k) plan”) with an employee share ownership (“ESOP”) bonus component, which covers certain union and all non-union U.S. employees who met certain age requirements. Under the 401(k) plan, eligible U.S. employees may voluntarily contribute a percentage of their eligible compensation. We match contributions made by employees who met certain eligibility and service requirements. The 401(k) company match contribution is a dollar-for-dollar (100%) matching contribution on up to 5% of employee eligible earnings, contributed as before-tax contributions.

During 2018, in addition to the matching contribution, all employees who met certain service requirements received a discretionary ESOP contribution equal to 1.5% of annual eligible compensation.

Our combined expense for the 401(k) plan and the ESOP was \$15.3 million, \$14.4 million and \$23.4 million in 2020, 2019 and 2018, respectively.

Other retirement compensation

Total other accrued retirement compensation, primarily related to deferred compensation and supplemental retirement plans, was \$30.7 million and \$29.0 million as of December 31, 2020 and 2019, respectively, and is included in *Pension and other post-retirement compensation and benefits* and *Other non-current liabilities* in the Consolidated Balance Sheets.

12. Shareholders’ Equity

Authorized shares

Our authorized share capital consists of 426.0 million ordinary shares with a par value of \$0.01 per share.

Share repurchases

In May 2018, the Board of Directors authorized the repurchase of our ordinary shares up to a maximum dollar limit of \$750.0 million (the “2018 Authorization”). The 2018 Authorization expires on May 31, 2021. On December 8, 2020, the Board of Directors authorized the repurchase of our ordinary shares up to a maximum dollar limit of \$750.0 million (the “2020 Authorization”). The 2020 Authorization expires on December 31, 2025. The 2020 Authorization supplements the 2018 Authorization.

During the year ended December 31, 2019, we repurchased 4.0 million of our ordinary shares for \$150.0 million under the 2018 Authorization.

During the year ended December 31, 2020, we repurchased 3.7 million of our ordinary shares for \$150.2 million under the 2018 Authorization. As of December 31, 2020, we had \$99.7 million and \$750.0 million available for share repurchases under the 2018 Authorization and 2020 Authorization, respectively.

Dividends payable

On December 8, 2020, the Board of Directors approved a 5 percent increase in the Company’s regular quarterly dividend rate (from \$0.19 per share to \$0.20 per share) that was paid on February 5, 2021 to shareholders of record at the close of business on January 22, 2021. The balance of dividends payable included in *Other current liabilities* on our Consolidated Balance Sheets was \$33.2 million at December 31, 2020. Dividends paid per ordinary share were \$0.76, \$0.72 and \$1.05 for the years ended December 31, 2020, 2019 and 2018, respectively.

13. Share Plans

Share-based compensation expense

Total share-based compensation expense for 2020, 2019 and 2018 was as follows:

<i>In millions</i>	December 31		
	2020	2019	2018
Restricted stock units	\$ 12.5	\$ 11.2	\$ 8.9
Stock options	3.0	4.5	4.6
Performance share units	4.8	5.7	7.4
Total share-based compensation expense	\$ 20.3	\$ 21.4	\$ 20.9

Of the total share-based compensation expense noted above, \$3.4 million for the year ended December 31, 2018 was reported as part of *Income (loss) from discontinued operations, net of tax*.

Share incentive plans

In May 2020, the Pentair plc 2020 Share and Incentive Plan (“2020 Share Plan”) was approved during the Annual General Meeting of Shareholders. The Pentair plc 2012 Stock and Incentive Plan (“2012 Stock Plan”) terminated upon the approval of the 2020 Share Plan, although awards outstanding under the 2012 Stock Plan continue in effect. Beginning May 5, 2020, all share-based compensation grants were made under the 2020 Share Plan.

The 2020 Share Plan authorizes the issuance of 3.3 million of our ordinary shares, plus the number of shares reserved under the 2012 Stock Plan that were not the subject of outstanding awards as of the date the 2020 Share Plan became effective, which was 2.5 million shares, plus certain shares that would become available under the 2012 Stock Plan if it had remained in effect. The shares may be issued as new shares or from shares held in treasury. Our practice is to settle equity-based awards by issuing new shares. The 2020 Share Plan terminates on the date all shares reserved for issuance have been issued. The 2020 Share Plan allows for the granting to our employees, consultants and directors of stock options, stock appreciation rights, performance share units, restricted shares, restricted stock units, deferred stock rights, incentive awards, dividend equivalent units and other equity-based awards.

The 2020 Share Plan is administered by our compensation committee (the “Committee”), which is made up of independent members of our Board of Directors. Employees eligible to receive awards under the 2020 Share Plan are managerial, administrative or professional employees. The Committee has the authority to select the recipients of awards, determine the type and size of awards, establish certain terms and conditions of award grants and take certain other actions as permitted under the 2020 Share Plan. The 2020 Share Plan prohibits the Committee from re-pricing awards or canceling and reissuing awards at lower prices.

Non-qualified and incentive stock options

Under the 2020 Share Plan, we may grant stock options to any eligible employee with an exercise price equal to the market value of the shares on the dates the options were granted. Options generally vest one-third each year over a period of three years commencing on the grant date and expire 10 years after the grant date.

Restricted shares and restricted stock units

Under the 2020 Share Plan, eligible employees may be awarded restricted shares or restricted stock units of our common stock. Restricted shares and restricted stock units generally vest one-third each year over a period of three years commencing on the grant date, subject to continuous employment and certain other conditions. Restricted shares and restricted stock units are valued at market value on the date of grant and are expensed over the vesting period.

Stock appreciation rights, performance shares and performance units

Under the 2020 Share Plan, the Committee is permitted to issue these awards which are generally contingent on the achievement of predetermined performance goals over a vesting period of three years. The Committee has the ability to adjust performance goals or modify the manner of measuring or evaluating a performance goal using its discretion. PSUs are granted to certain employees that vest based on the satisfaction of a service period of three years and the achievement of certain performance metrics over that same period. Upon vesting, PSU holders receive dividends that accumulate during the vesting period. The fair value of these PSUs is determined based on the closing market price of the Company’s ordinary shares at the date of grant. Compensation expense is recognized over the period an employee is required to provide service based on the estimated vesting of the PSUs granted. The estimated vesting of the PSUs is based on the probability of achieving certain performance metrics during the vesting period.

Stock options

The following table summarizes stock option activity under all plans for the year ended December 31, 2020:

<i>Shares and intrinsic value in millions</i>	Number of shares	Weighted-average exercise price	Weighted-average remaining contractual life (years)	Aggregate intrinsic value
Outstanding as of January 1, 2020	3.8	\$ 37.29		
Granted	0.4	44.58		
Exercised	(1.1)	30.05		
Forfeited	(0.3)	45.61		
Outstanding as of December 31, 2020	2.8	\$ 40.47	5.6	\$ 35.5
Options exercisable as of December 31, 2020	2.1	\$ 39.72	4.7	\$ 28.6
Options expected to vest as of December 31, 2020	0.7	\$ 42.85	8.4	\$ 6.8

Fair value of options granted

The weighted average grant date fair value of options granted under Pentair plans in 2020, 2019 and 2018 was estimated to be \$9.55, \$8.86 and \$10.92 per share, respectively. The total intrinsic value of options that were exercised during 2020, 2019 and 2018 was \$18.0 million, \$9.5 million and \$18.2 million, respectively. At December 31, 2020, the total unrecognized compensation cost related to stock options was \$3.0 million. This cost is expected to be recognized over a weighted average period of 1.8 years.

We estimated the fair value of each stock option award issued in the annual share-based compensation grant using a Black-Scholes option pricing model, modified for dividends and using the following assumptions:

	December 31		
	2020	2019	2018
Risk-free interest rate	1.61 %	2.89 %	2.58 %
Expected dividend yield	1.80 %	1.78 %	1.56 %
Expected share price volatility	24.10 %	23.30 %	24.80 %
Expected term (years)	6.8	6.1	6.1

These estimates require us to make assumptions based on historical results, observance of trends in our share price, changes in option exercise behavior, future expectations and other relevant factors. If other assumptions had been used, share-based compensation expense, as calculated and recorded under the accounting guidance, could have been affected.

We based the expected life assumption on historical experience as well as the terms and vesting periods of the options granted. For purposes of determining expected volatility, we considered a rolling average of historical volatility measured over a period approximately equal to the expected option term. The risk-free rate for periods that coincide with the expected life of the options is based on the U.S. Treasury Department yield curve in effect at the time of grant.

Cash received from option exercises for the years ended December 31, 2020, 2019 and 2018 was \$30.8 million, \$15.5 million and \$19.5 million, respectively. The actual tax benefit realized for the tax deductions from options exercised totaled \$2.9 million, \$2.8 million and \$5.6 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Restricted stock units

The following table summarizes restricted stock unit activity under all plans for the year ended December 31, 2020:

<i>Shares in millions</i>	Number of shares	Weighted average grant date fair value
Outstanding as of January 1, 2020	0.6	\$ 42.16
Granted	0.4	42.37
Vested	(0.2)	40.85
Forfeited	(0.1)	42.79
Outstanding as of December 31, 2020	0.7	\$ 42.52

As of December 31, 2020, there was \$25.6 million of unrecognized compensation cost related to restricted share compensation arrangements granted under the 2020 Plan and previous plans. That cost is expected to be recognized over a weighted-average period of 1.2 years. The total fair value of shares vested during the years ended December 31, 2020, 2019 and 2018, was \$11.2 million, \$9.3 million and \$24.4 million, respectively. For the year ended December 31, 2020, there was no tax benefit realized. The actual tax benefit realized for the years ended December 31, 2019 and 2018, was \$0.1 million, and \$0.7 million respectively.

Performance share units

The following table summarizes performance share unit activity under all plans for the year ended December 31, 2020:

<i>Shares in millions</i>	Number of shares	Weighted average grant date fair value
Outstanding as of January 1, 2020	0.3	\$ 41.62
Granted	0.2	45.31
Forfeited	(0.1)	43.30
Outstanding as of December 31, 2020	0.4	\$ 42.78

The expense recognized each period is dependent upon our estimate of the number of shares that will ultimately be issued. As of December 31, 2020, there was \$7.5 million of unrecognized compensation cost related to performance share compensation arrangements granted under the 2020 Plan and previous plans. That cost is expected to be recognized over a weighted-average period of 1.2 years. There were \$0.1 million, \$0.2 million, and \$0.2 million of actual tax benefits realized for the years ended December 31, 2020, 2019, and 2018, respectively.

Electrical separation

In connection with the Separation and Distribution, the Company adjusted its outstanding equity awards on May 1, 2018 in accordance with the Employee Matters Agreement between Pentair and nVent. The outstanding awards will continue to vest over the original vesting period, which is generally three years from the grant date.

The RSUs, PSUs, and stock option awards issued before May 9, 2017 (the date of Pentair’s announcement of its intention to separate its Water and Electrical businesses) were converted into awards of both Pentair and nVent regardless of which company the award holder was employed by immediately after the Separation. These awards were converted as follows:

- *Restricted stock units:* For every unvested Pentair RSU award held, the holder received one nVent RSU.
- *Performance share units:* Pentair PSUs were converted to Pentair RSUs immediately after the Distribution. The PSUs granted in 2016 were converted at rate of 125% of target, and the PSUs granted in 2017 were converted at a rate of 100% of target. For every converted RSU, the shareholder also received one nVent RSU. The converted RSUs retain the original vesting schedule of the awarded PSUs.
- *Stock options:* Every holder of unexercised (vested and unvested) Pentair stock options received both adjusted stock options of Pentair and stock options of nVent, with the number of underlying shares and the exercise price adjusted accordingly to preserve the overall intrinsic value of the awards. The number of Pentair stock options was converted based upon the ratio of Pentair’s pre-Distribution stock price divided by the sum of the Pentair and nVent post-Distribution closing prices. The exercise price for the converted Pentair stock options was adjusted based on the Pentair post-Distribution closing price divided by the Pentair pre-Distribution closing price.

The number of new nVent stock options awarded is the same as the converted number of Pentair stock options calculated as described above. The exercise price for the new nVent stock options was calculated based on nVent’s post-Distribution closing price divided by the Pentair pre-Distribution closing price.

Generally, unvested awards issued after May 9, 2017 were converted to awards of the Company that the shareholder was employed by immediately after the Separation, with adjustments to the number of underlying shares as appropriate to preserve the intrinsic value of such awards immediately prior to the Distribution. The adjustment of the underlying shares was based on the ratio of Pentair’s pre-Distribution stock price divided by the post-Distribution closing price of the respective company’s ordinary shares. The exercise prices of the stock options were converted using the inverse ratio in a manner designed to preserve the intrinsic value of such awards.

14. Segment Information

Effective January 1, 2020, we reorganized our business segments to better support our organization with our strategies and to better align with our customer base, resulting in a change to our reporting segments. All prior period amounts related to the segment change have been retrospectively reclassified to conform to the new presentation. As part of this reorganization, the legacy Aquatic Systems, Flow Technologies, and Filtration Solutions segments were realigned into two reportable business segments:

- **Consumer Solutions** - This segment designs, manufactures and sells energy-efficient residential and commercial pool equipment and accessories, and commercial and residential water treatment products and systems. Residential and commercial pool equipment and accessories include pumps, filters, heaters, lights, automatic controls, automatic cleaners, maintenance equipment and pool accessories. Water treatment products and systems include pressure tanks, control valves, activated carbon products, conventional filtration products, and point-of-entry and point-of-use systems. Applications for our pool business's products include residential and commercial pool maintenance, repair, renovation, service and construction. Our water treatment products and systems are used in residential whole home water filtration, drinking water filtration and water softening solutions in addition to commercial total water management and filtration in foodservice operations. The primary focus of this segment is business-to-consumer.
- **Industrial & Flow Technologies** - This segment manufactures and sells a variety of fluid treatment and pump products and systems, including pressure vessels, gas recovery solutions, membrane bioreactors, wastewater reuse systems and advanced membrane filtration, separation systems, water disposal pumps, water supply pumps, fluid transfer pumps, turbine pumps, solid handling pumps, and agricultural spray nozzles, while serving the global residential, commercial and industrial markets. These products and systems are used in a range of applications, fluid delivery, ion exchange, desalination, food and beverage, separation technologies for the oil and gas industry, residential and municipal wells, water treatment, wastewater solids handling, pressure boosting, circulation and transfer, fire suppression, flood control, agricultural irrigation and crop spray. The primary focus of this segment is business-to-business.

We evaluate performance based on net sales and segment income (loss) and use a variety of ratios to measure performance of our reporting segments. These results are not necessarily indicative of the results of operations that would have occurred had each segment been an independent, stand-alone entity during the periods presented. Segment income (loss) represents equity income of unconsolidated subsidiaries and operating income exclusive of intangible amortization, certain acquisition related expenses, costs of restructuring activities, impairments and other unusual non-operating items.

Financial information by reportable segment is included in the following summary:

<i>In millions</i>	2020			2019			2018					
	Net sales						Segment income (loss)					
Consumer Solutions	\$	1,742.9	\$	1,611.7	\$	1,578.4	\$	419.1	\$	379.6	\$	392.9
Industrial & Flow Technologies		1,273.6		1,344.1		1,385.4		164.6		199.0		198.8
Other		1.3		1.4		1.3		(66.1)		(62.3)		(54.9)
Consolidated ⁽¹⁾	\$	3,017.8	\$	2,957.2	\$	2,965.1	\$	517.6	\$	516.3	\$	536.8

⁽¹⁾ One customer in the Consumer Solutions segment, Pool Corporation, represented approximately 15% of our consolidated net sales in 2020, 2019 and 2018.

<i>In millions</i>	2020			2019			2018											
	Identifiable assets ⁽¹⁾			Capital expenditures			Depreciation											
Consumer Solutions	\$	2,327.9	\$	2,329.9	\$	1,952.2	\$	27.4	\$	31.2	\$	22.7	\$	21.4	\$	21.8	\$	20.9
Industrial & Flow Technologies		1,661.7		1,562.8		1,588.0		26.6		20.3		14.8		19.8		21.0		23.5
Other		207.6		246.8		266.3		8.2		7.0		10.7		5.5		5.5		5.3
Consolidated	\$	4,197.2	\$	4,139.5	\$	3,806.5	\$	62.2	\$	58.5	\$	48.2	\$	46.7	\$	48.3	\$	49.7

⁽¹⁾ All cash and cash equivalents and assets held for sale are included in "Other."

The following table presents a reconciliation of consolidated segment income to consolidated income from continuing operations before income taxes:

<i>In millions</i>	2020	2019	2018
Segment income	\$ 517.6	\$ 516.3	\$ 536.8
Restructuring and other	(15.4)	(21.0)	(31.8)
Inventory step-up	—	(2.2)	—
Intangible amortization	(28.4)	(31.7)	(34.9)
Pension and other post-retirement mark-to-market (loss) gain	(6.7)	3.4	(3.6)
Asset impairment	—	(21.2)	(12.0)
(Loss) gain on sale of businesses	(0.1)	2.2	(7.3)
Loss on early extinguishment of debt	—	—	(17.1)
Interest expense, net	(23.9)	(30.1)	(32.6)
Corporate allocations	—	—	(11.0)
Deal related costs and expenses	(0.6)	(4.2)	(2.0)
COVID-19 related costs and expenses	(10.4)	—	—
Other expense	—	(4.0)	(4.7)
Income from continuing operations before income taxes	\$ 432.1	\$ 407.5	\$ 379.8

15. Commitments and Contingencies

Legal proceedings

We have been, and in the future may be, made parties to a number of actions filed or have been, and in the future may be, given notice of potential claims relating to the conduct of our business, including those relating to commercial regulatory or contractual disputes with suppliers, authorities, customers or parties to acquisitions and divestitures, intellectual property matters, environmental, asbestos, safety and health matters, product liability, the use or installation of our products, consumer matters, and employment and labor matters.

While we believe that a material impact on our consolidated financial position, results of operations or cash flows from any such future claims or potential claims is unlikely, given the inherent uncertainty of litigation, a remote possibility exists that a future adverse ruling or unfavorable development could result in future charges that could have a material adverse impact. We do and will continue to periodically reexamine our estimates of probable liabilities and any associated expenses and receivables and make appropriate adjustments to such estimates based on experience and developments in litigation. As a result, the current estimates of the potential impact on our consolidated financial position, results of operations and cash flows for the proceedings and claims described in the notes to our consolidated financial statements could change in the future.

Environmental matters

We have been named as defendant, target or a potentially responsible party in a number of environmental clean-ups relating to our current or former business units. Accruals for environmental matters are recorded on a site-by-site basis when it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, based on current law and existing technologies. It can be difficult to estimate reliably the final costs of investigation and remediation due to various factors. In our opinion, the amounts accrued are appropriate based on facts and circumstances as currently known. As of December 31, 2020, our recorded reserves for environmental matters were not material.

Leases

Our lease portfolio principally consists of operating leases related to facilities, machinery, equipment and vehicles. Our lease terms do not include options to extend or terminate the lease until we are reasonably certain that we will exercise that option. Operating lease cost for lease payments is recognized on a straight-line basis over the lease term and principally consists of fixed payments for base rent.

These operating lease right-of-use (“ROU”) assets are included in *Other non-current assets* on Consolidated Balance Sheets, and represent our right to use the underlying asset for the lease term. Our obligation to make lease payments arising from the lease are included in *Other current liabilities* and *Other non-current liabilities* on the Consolidated Balance Sheets. Lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As we cannot readily determine the rate implicit in the lease, we use our incremental borrowing rate, determined by country of lease origin, based on the anticipated lease term at the commencement date in determining the present value of lease payments. The ROU asset also excludes any accrued lease payments and unamortized lease incentives.

For measurement and classification of lease agreements, we group lease and non-lease components into a single lease component for all underlying asset classes. Accordingly, all costs associated with a lease contract are accounted for as one lease cost.

The components of lease cost was as follows:

<i>In millions</i>	December 31, 2020	December 31, 2019
Operating lease cost	\$ 32.5	\$ 32.5
Sublease income	(1.0)	(1.0)
Total lease cost	\$ 31.5	\$ 31.5

Supplemental cash flow information related to leases was as follows:

<i>In millions</i>	December 31, 2020	December 31, 2019
Operating cash flows from operating leases	\$ 28.5	\$ 26.8
Right-of-use assets obtained in exchange for lease obligations	\$ 13.6	\$ 91.1

Other information related to leases was as follows:

	December 31, 2020	December 31, 2019
Weighted-average remaining lease term of operating leases (years)	4.7	5.2
Weighted-average discount rate of operating leases	5.5 %	6.3 %

Future minimum lease commitments under non-cancelable operating leases as of December 31, 2020 were as follows:

<i>In millions</i>		
2021	\$	26.2
2022		22.9
2023		19.5
2024		14.8
2025		6.0
Thereafter		9.5
Total lease payments		98.9
Less: imputed interest		(11.7)
Total	\$	87.2

Warranties and guarantees

In connection with the disposition of our businesses or product lines, we may agree to indemnify purchasers for various potential liabilities relating to the sold business, such as pre-closing tax, product liability, warranty, environmental, or other obligations. The subject matter, amounts and duration of any such indemnification obligations vary for each type of liability indemnified and may vary widely from transaction to transaction.

Generally, the maximum obligation under such indemnifications is not explicitly stated and as a result, the overall amount of these obligations cannot be reasonably estimated. Historically, we have not made significant payments for these indemnifications. We believe that if we were to incur a loss in any of these matters, the loss would not have a material effect on our financial position, results of operations or cash flows.

We recognize, at the inception of a guarantee, a liability for the fair value of the obligation undertaken in issuing the guarantee. In connection with the disposition of the Valves & Controls business, we agreed to indemnify Emerson Electric Co. for certain pre-closing tax liabilities. We have recorded a liability representing the fair value of our expected future obligation for this matter.

We provide service and warranty policies on our products. Liability under service and warranty policies is based upon a review of historical warranty and service claim experience. Adjustments are made to accruals as claim data and historical experience warrant.

The changes in the carrying amount of service and product warranties for the years ended December 31, 2020, 2019 and 2018 were as follows:

<i>In millions</i>	Years ended December 31		
	2020	2019	2018
Beginning balance	\$ 32.1	\$ 33.9	\$ 38.1
Service and product warranty provision	55.5	53.8	50.8
Payments	(51.1)	(55.5)	(54.6)
Foreign currency translation	0.5	(0.1)	(0.4)
Ending balance	\$ 37.0	\$ 32.1	\$ 33.9

Stand-by letters of credit, bank guarantees and bonds

In certain situations, Tyco International Ltd., Pentair Ltd.'s former parent company ("Tyco"), guaranteed performance by the flow control business of Pentair Ltd. ("Flow Control") to third parties or provided financial guarantees for financial commitments of Flow Control. In situations where Flow Control and Tyco were unable to obtain a release from these guarantees in connection with the spin-off of Flow Control from Tyco, we will indemnify Tyco for any losses it suffers as a result of such guarantees.

In the ordinary course of business, we are required to commit to bonds, letters of credit and bank guarantees that require payments to our customers for any non-performance. The outstanding face value of these instruments fluctuates with the value of our projects in process and in our backlog. In addition, we issue financial stand-by letters of credit primarily to secure our performance to third parties under self-insurance programs.

As of December 31, 2020 and 2019, the outstanding value of bonds, letters of credit and bank guarantees totaled \$99.1 million and \$91.3 million, respectively.

16. Selected Quarterly Data (Unaudited)

The following tables present 2020 and 2019 quarterly financial information:

<i>In millions, except per-share data</i>	2020				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
Net sales	\$ 710.0	\$ 713.3	\$ 798.5	\$ 796.0	\$ 3,017.8
Gross profit	251.6	245.1	277.4	283.5	1,057.6
Operating income	100.7	111.1	128.1	121.5	461.4
Net income from continuing operations	72.7	73.8	110.8	99.8	357.1
(Loss) income from discontinued operations, net of tax	—	(1.7)	—	3.2	1.5
Net income	72.7	72.1	110.8	103.0	358.6
Earnings (loss) per ordinary share ⁽¹⁾					
Basic					
Continuing operations	\$ 0.43	\$ 0.44	\$ 0.67	\$ 0.60	\$ 2.14
Discontinued operations	—	(0.01)	—	0.02	0.01
Basic earnings per ordinary share	\$ 0.43	\$ 0.43	\$ 0.67	\$ 0.62	\$ 2.15
Diluted					
Continuing operations	\$ 0.43	\$ 0.44	\$ 0.66	\$ 0.60	\$ 2.13
Discontinued operations	—	(0.01)	—	0.01	0.01
Diluted earnings per ordinary share	\$ 0.43	\$ 0.43	\$ 0.66	\$ 0.61	\$ 2.14

⁽¹⁾ Amounts may not total to annual earnings because each quarter and year are calculated separately based on basic and diluted weighted-average ordinary shares outstanding during that period.

<i>In millions, except per-share data</i>	2019				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
Net sales	\$ 688.9	\$ 799.5	\$ 713.6	\$ 755.2	\$ 2,957.2
Gross profit	235.6	286.7	255.0	274.2	1,051.5
Operating income	67.6	133.8	108.8	122.3	432.5
Net income from continuing operations	52.4	115.1	91.3	102.9	361.7
(Loss) income from discontinued operations, net of tax	(1.1)	(0.8)	1.0	(5.1)	(6.0)
Net income	51.3	114.3	92.3	97.8	355.7
Earnings (loss) per ordinary share ⁽¹⁾					
Basic					
Continuing operations	\$ 0.31	\$ 0.68	\$ 0.54	\$ 0.61	\$ 2.14
Discontinued operations	(0.01)	(0.01)	0.01	(0.03)	(0.04)
Basic earnings per ordinary share	\$ 0.30	\$ 0.67	\$ 0.55	\$ 0.58	\$ 2.10
Diluted					
Continuing operations	\$ 0.30	\$ 0.68	\$ 0.54	\$ 0.61	\$ 2.12
Discontinued operations	—	(0.01)	0.01	(0.03)	(0.03)
Diluted earnings per ordinary share	\$ 0.30	\$ 0.67	\$ 0.55	\$ 0.58	\$ 2.09

⁽¹⁾ Amounts may not total to annual earnings because each quarter and year are calculated separately based on basic and diluted weighted-average ordinary shares outstanding during that period.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the year ended December 31, 2020, pursuant to Rule 13a-15(b) of the Securities Exchange Act of 1934 (“the Exchange Act”). Based upon their evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective as of the year ended December 31, 2020 to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission’s rules and forms and to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosures.

Management’s Annual Report on Internal Control Over Financial Reporting

The report of management required under this ITEM 9A is contained in ITEM 8 of this Annual Report on Form 10-K under the caption “Management’s Report on Internal Control Over Financial Reporting.”

Attestation Report of Independent Registered Public Accounting Firm

The attestation report required under this ITEM 9A is contained in ITEM 8 of this Annual Report on Form 10-K under the caption “Report of Independent Registered Public Accounting Firm.”

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the quarter ended December 31, 2020 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required under this item with respect to directors is contained in our Proxy Statement for our 2021 annual general meeting of shareholders under the captions “Corporate Governance Matters” and “Proposal 1 Re-elect Director Nominees” and is incorporated herein by reference.

Information required under this item with respect to executive officers is contained in Part I of this Form 10-K under the caption “Information About Our Executive Officers.”

Our Board of Directors has adopted Pentair’s Code of Business Conduct and Ethics and designated it as the code of ethics for the Company’s Chief Executive Officer and senior financial officers. The Code of Business Conduct and Ethics also applies to all employees and directors in accordance with New York Stock Exchange Listing Standards. We have posted a copy of Pentair’s Code of Business Conduct and Ethics on our website at <http://pentair.com/en/about-us/leadership/corporate-governance>. We intend to satisfy the disclosure requirements under Item 5.05 of Form 8-K regarding amendments to or waivers from, Pentair’s Code of Business Conduct and Ethics by posting such information on our website at <http://pentair.com/en/about-us/leadership/corporate-governance>.

We are not including the information contained on our website as part of, or incorporating it by reference into, this report.

ITEM 11. EXECUTIVE COMPENSATION

Information required under this item is contained in our Proxy Statement for our 2021 annual general meeting of shareholders under the captions “Compensation Discussion and Analysis,” “Compensation Committee Report,” “Executive Compensation Tables” and “Corporate Governance Matters - Director Compensation” and is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required under this item with respect to security ownership is contained in our Proxy Statement for our 2021 annual general meeting of shareholders under the caption “Security Ownership” and is incorporated herein by reference.

The following table summarizes, as of December 31, 2020, information about compensation plans under which our equity securities are authorized for issuance:

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders:			
2020 Share and Incentive Plan	86,233 ⁽¹⁾	\$ — ⁽²⁾	5,497,519 ⁽³⁾
2012 Stock and Incentive Plan	4,006,791 ⁽⁴⁾	40.47 ⁽²⁾	400,997 ⁽⁵⁾
2008 Omnibus Stock Incentive Plan	15,616 ⁽⁶⁾	24.27 ⁽²⁾	— ⁽⁷⁾
Total	4,108,640	\$ 40.39 ⁽²⁾	5,898,516

⁽¹⁾ Consists of 86,233 shares subject to restricted stock units.

⁽²⁾ Represents the weighted average exercise price of outstanding stock options and does not take into account outstanding restricted stock units or performance share units.

⁽³⁾ Represents securities remaining available for issuance under the 2020 Share and Incentive Plan.

⁽⁴⁾ Consists of 3,059,184 shares subject to stock options, 588,399 shares subject to restricted stock units, and 359,208 shares subject to performance share awards.

⁽⁵⁾ The 2012 Stock and Incentive Plan was terminated in 2020. Stock options, restricted stock units and performance share awards previously granted under the 2012 Stock and Incentive Plan remain outstanding, but no further options or shares may be granted under this plan.

⁽⁶⁾ Consists of 15,616 shares subject to stock options.

⁽⁷⁾ The 2008 Omnibus Stock Incentive Plan was terminated in 2012. Stock options previously granted under the 2008 Omnibus Stock Incentive Plan remain outstanding, but no further options or shares may be granted under this plan.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information required under this item is contained in our Proxy Statement for our 2021 annual general meeting of shareholders under the captions “Proposal 1 Re-elect Director Nominees - Director Independence” and “Corporate Governance Matters - The Board’s Role and Responsibilities - Policies and Procedures Regarding Related Person Transactions” and is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information required under this item is contained in our Proxy Statement for our 2021 annual general meeting of shareholders under the caption “Proposal 3 Ratify, by Nonbinding, Advisory Vote, the Appointment of Deloitte & Touche LLP as the Independent Auditor of Pentair plc and to Authorize, by Binding Vote, the Audit and Finance Committee of the Board of Directors to Set the Auditor’s Remuneration” and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) List of documents filed as part of this report:

(1) Financial Statements

Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2020, 2019 and 2018

Consolidated Balance Sheets as of December 31, 2020 and 2019

Consolidated Statements of Cash Flows for the years ended December 31, 2020, 2019 and 2018

Consolidated Statements of Changes in Equity for the years ended December 31, 2020, 2019 and 2018

Notes to Consolidated Financial Statements

(2) Financial Statement Schedule

None.

All other schedules for which provision is made in the applicable accounting regulations of the Securities and Exchange Commission have been omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

(3) Exhibits

The exhibits of this Annual Report on Form 10-K included herein are set forth below.

Exhibit Number	Exhibit
<u>3.1</u>	Amended and Restated Memorandum and Articles of Association of Pentair plc (Incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K of Pentair plc filed with the Commission on May 9, 2017 (File No. 001-11625)).
<u>4.1</u>	Indenture, dated as of September 24, 2012, among Pentair Finance S.A. (formerly Tyco Flow Control International Finance S.A.) (as Issuer), Pentair Ltd. (as Guarantor) and Wells Fargo Bank, National Association (as Trustee) (Incorporated by reference to Exhibit 4.1 in the Current Report on Form 8-K of Pentair Ltd. filed with the Commission on September 28, 2012 (File No. 001-11625)).
<u>4.2</u>	Second Supplemental Indenture, dated as of September 24, 2012, among Pentair Finance S.A. (formerly Tyco Flow Control International Finance S.A.) (as Issuer), Pentair Ltd. (as Guarantor), Pentair, Inc. and Wells Fargo Bank, National Association (as Trustee) (Incorporated by reference to Exhibit 4.3 in the Current Report on Form 8-K of Pentair Ltd. filed with the Commission on September 28, 2012 (File No. 001-11625)).
<u>4.3</u>	Fifth Supplemental Indenture, dated as of December 18, 2012, among Pentair Finance S.A. (as Issuer), Pentair Ltd. (as Guarantor) and Wells Fargo Bank, National Association (as Trustee) (Incorporated by reference to Exhibit 4.1 in the Current Report on Form 8-K of Pentair Ltd. filed with the Commission on December 18, 2012 (File No. 001-11625)).
<u>4.4</u>	Sixth Supplemental Indenture, dated as of May 20, 2014, among Pentair Finance S.A., Pentair Ltd., Pentair Investments Switzerland GmbH, Pentair plc and Wells Fargo Bank, National Association, as trustee (Incorporated by reference to Exhibit 4.3 in the Current Report on Form 8-K of Pentair plc filed with the Commission on May 20, 2014 (File No. 001-11625)).
<u>4.5</u>	Seventh Supplemental Indenture, dated as of May 26, 2017, among Pentair Finance S.A., Pentair plc, Pentair Investments Switzerland GmbH and Wells Fargo Bank, National Association as trustee (Incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of Pentair plc filed with the Commission on May 31, 2017 (File No. 001-11625)).
<u>4.6</u>	Senior Indenture, dated May 2, 2011 by and among Pentair, Inc. and Wells Fargo Bank, National Association (Incorporated by reference to Exhibit 4.5 to Pentair, Inc.'s Registration Statement on Form S-3 (Registration 333-173829)).

- [4.7](#) First Supplemental Indenture, dated as of May 9, 2011, among Pentair, Inc., the guarantors named therein and Wells Fargo Bank, National Association (Incorporated by reference to Exhibit 4.2 in the Current Report on Form 8-K of Pentair, Inc. filed with the Commission on May 9, 2011 (File No. 000-04689)).
- [4.8](#) Third Supplemental Indenture, dated October 1, 2012, among Pentair Ltd., Pentair, Inc. and Wells Fargo Bank, National Association, as trustee (Incorporated by reference to Exhibit 4.1 in the Current Report on Form 8-K of Pentair Ltd. filed with the Commission on October 1, 2012 (File No. 001-11625)).
- [4.9](#) Fourth Supplemental Indenture, dated as of December 17, 2012, among Pentair, Inc. (as Issuer), Pentair Ltd. (as Guarantor) and Wells Fargo Bank, National Association (as Trustee) (Incorporated by reference to Exhibit 4.2 in the Current Report on Form 8-K of Pentair Ltd. filed with the Commission on December 18, 2012 (File No. 001-11625)).
- [4.10](#) Fifth Supplemental Indenture, dated as of May 20, 2014, among Pentair, Inc., Pentair Ltd., Pentair Investments Switzerland GmbH, Pentair plc and Wells Fargo Bank, National Association, as trustee (Incorporated by reference to Exhibit 4.2 in the Current Report on Form 8-K of Pentair plc filed with the Commission on May 20, 2014 (File No. 001-11625)).
- [4.11](#) Sixth Supplemental Indenture, dated as of May 26, 2017, among Pentair, Inc., Pentair plc, Pentair Investments Switzerland GmbH and Wells Fargo Bank, National Association, as trustee (Incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of Pentair plc filed with the Commission on May 31, 2017 (File No. 001-11625)).
- [4.12](#) Credit Agreement, dated as of April 25, 2018, among Pentair plc, Pentair Investments Switzerland GmbH, Pentair Finance S.à r.l., Pentair, Inc. and the lenders and agents party thereto (Incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of Pentair plc filed with the Commission on April 30, 2018) (File No. 001-11625)).
- [4.13](#) Amendment No. 1, dated as of December 2, 2019, to Credit Agreement, dated as of April 15, 2018, among Pentair plc, Pentair Investments Switzerland GmbH, Pentair Finance S.à r.l., Pentair, Inc. and the lenders and agents party thereto (Incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of Pentair plc filed with the Commission on December 6, 2019) (File No. 001-11625)).
- [4.14](#) Indenture, dated as of September 16, 2015, among Pentair Finance S.A. (as Issuer), Pentair plc (as Parent and Guarantor), Pentair Investments Switzerland GmbH (as Guarantor) and U.S. Bank National Association (as Trustee) (Incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K of Pentair plc filed with the Commission on September 16, 2015 (File No. 001-11625)).
- [4.15](#) Third Supplemental Indenture, dated as of September 16, 2015, among Pentair Finance S.A. (as Issuer), Pentair plc (as Parent and Guarantor), Pentair Investments Switzerland GmbH (as Guarantor) and U.S. Bank National Association (as Trustee) (Incorporated by reference to Exhibit 4.4 to the Current Report on Form 8-K of Pentair plc filed with the Commission on September 16, 2015 (File No. 001-11625)).
- [4.16](#) Fifth Supplemental Indenture, dated as of May 26, 2017, among Pentair Finance S.A., Pentair plc, Pentair Investments Switzerland GmbH and U.S. Bank National Association, as trustee (Incorporated by reference to Exhibit 4.3 to the Current Report on Form 8-K of Pentair plc filed with the Commission on May 31, 2017 (File No. 001-11625)).
- [4.17](#) Sixth Supplemental Indenture, dated as of June 21, 2019, among Pentair Finance S.à r.l. (as Issuer), Pentair plc (as Parent and Guarantor), Pentair Investments Switzerland GmbH (as Guarantor) and U.S. Bank National Association (as Trustee) (Incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K of Pentair plc filed with the Commission on June 21, 2019 (File No. 001-11625)).
- [4.18](#) Seventh Supplemental Indenture, dated as of June 22, 2020, among Pentair Finance S.à r.l. (as Issuer), Pentair plc (as Parent and Guarantor), Pentair Investments Switzerland GmbH (as Guarantor) and U.S. Bank National Association (as Trustee) (Incorporated by reference to Exhibit 4.2 to the Quarterly Report on Form 10-Q of Pentair plc filed with the Commission on July 23, 2020 (File No. 001-11625)).
- [4.19](#) Eighth Supplemental Indenture, dated as of June 22, 2020, among Pentair Finance S.à r.l. (as Issuer), Pentair plc (as Successor Parent Guarantor), Pentair Investments Switzerland GmbH (as Guarantor) and Wells Fargo Bank National Association (as Trustee) (Incorporated by reference to Exhibit 4.1 to the Quarterly Report on Form 10-Q of Pentair plc filed with the Commission on July 23, 2020 (File No. 001-11625)).
- [4.20](#) Description of Securities.
- [10.1](#) Tax Matters Agreement, dated as of April 27, 2018, by and between Pentair plc and nVent Electric plc (Incorporated by reference to Exhibit 2.2 to the Current Report on Form 8-K of Pentair plc filed with the Commission on April 30, 2018 (File No. 001-11625)).

- [10.2](#) Pentair plc 2012 Stock and Incentive Plan, as amended and restated effective as of January 1, 2017. (Incorporated by reference to Exhibit 10.2 to the Annual Report on Form 10-K of Pentair plc for the year ended December 31, 2016 (File No. 001-11625)).*
- [10.3](#) Form of Executive Officer Stock Option Grant Agreement for grants made prior to January 1, 2017 (Incorporated by reference to Exhibit 10.7 in the Current Report on Form 8-K of Pentair plc filed with the Commission on June 3, 2014 (File No. 001-11625)).*
- [10.4](#) Form of Non-Employee Director Stock Option Grant Agreement (Incorporated by reference to Exhibit 10.10 in the Current Report on Form 8-K of Pentair plc filed with the Commission on June 3, 2014 (File No. 001-11625)).*
- [10.5](#) Pentair plc 2008 Omnibus Stock Incentive Plan, as amended and restated effective as of January 1, 2017 (Incorporated by reference to Exhibit 10.9 to the Annual Report on Form 10-K of Pentair plc for the year ended December 31, 2016 (File No. 001-11625)).*
- [10.6](#) Form of Assignment and Assumption Agreement, among Pentair, Inc., Pentair Ltd. and the executive officers of Pentair Ltd. relating to Key Executive Employment and Severance Agreement (Incorporated by reference to Exhibit 10.12 in the Current Report on Form 8-K of Pentair Ltd. filed with the Commission on October 1, 2012 (File No. 001-11625)).*
- [10.7](#) Form of Key Executive Employment and Severance Agreement for John L. Stauch (Incorporated by reference to Exhibit 10.1 in the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended June 30, 2018 (File No. 001-11625)).*
- [10.8](#) Form of Key Executive Employment and Severance Agreement for John H. Jacko (Incorporated by reference to Exhibit 10.2 in the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended June 30, 2018 (File No. 001-11625)).*
- [10.9](#) Form of Key Executive Employment and Severance Agreement for Karla C. Robertson, Kelly A. Baker, Philip M. Rolchigo, Robert P. Fishman, Jerome O. Pedretti, Mario R. D'Ovidio and Stephen J. Pilla (Incorporated by reference to Exhibit 10.3 in the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended June 30, 2018 (File No. 001-11625)).*
- [10.10](#) Pentair plc Compensation Plan for Non-Employee Directors, as amended and restated (Incorporated by reference to Exhibit 10.6 in the Current Report on Form 8-K of Pentair plc filed with the Commission on June 3, 2014 (File No. 001-11625)).*
- [10.11](#) Pentair plc Employee Stock Purchase and Bonus Plan, as amended and restated effective as of January 1, 2021.
- [10.12](#) Pentair, Inc. Non-Qualified Deferred Compensation Plan, as amended and restated (Incorporated by reference to Exhibit 10.17 to the Annual Report on Form 10-K of Pentair plc for the year ended December 31, 2018 (File No. 001-11625)).*
- [10.13](#) Trust Agreement for Pentair, Inc. Non-Qualified Deferred Compensation Plan between Pentair, Inc. and Fidelity Management Trust Company (Incorporated by reference to Exhibit 10.18 contained in the Annual Report on Form 10-K of Pentair, Inc. for the year ended December 31, 1995 (File No. 000-04689)).*
- [10.14](#) Pentair, Inc. Supplemental Executive Retirement Plan effective January 1, 2009, as amended and restated (Incorporated by reference to Exhibit 10.13 in the Current Report on Form 8-K of Pentair plc filed with the Commission on June 3, 2014 (File No. 001-11625)).*
- [10.15](#) Pentair, Inc. Restoration Plan effective January 1, 2009, as amended and restated (Incorporated by reference to Exhibit 10.14 in the Current Report on Form 8-K of Pentair plc filed with the Commission on June 3, 2014 (File No. 001-11625)).*
- [10.16](#) Form of Deed of Indemnification for directors and executive officers of Pentair plc (Incorporated by reference to Exhibit 10.15 in the Current Report on Form 8-K of Pentair plc filed with the Commission on June 3, 2014 (File No. 001-11625)).*
- [10.17](#) Form of Indemnification Agreement for directors and executive officers of Pentair plc (Incorporated by reference to Exhibit 10.16 in the Current Report on Form 8-K of Pentair plc filed with the Commission on June 3, 2014 (File No. 001-11625)).*
- [10.18](#) Form of Executive Officer Key Talent Award Agreement for grants made prior to May 5, 2020 (Incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended March 31, 2018 (File No. 001-11625)).*
- [10.19](#) Form of Executive Officer Stock Option Grant Agreement for grants made on or after January 1, 2017 and prior to February 26, 2018 (Incorporated by reference to Exhibit 10.31 to the Annual Report on Form 10-K of Pentair plc for the year ended December 31, 2016 (File No. 001-11625)).*

- [10.20](#) Form of Executive Officer Restricted Stock Unit Award Agreement for grants made on or after February 26, 2018 and prior to May 5, 2020 (Incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended March 31, 2018 (File No. 001-11625)).*
- [10.21](#) Form of Executive Officer Stock Option Award Agreement for grants made on or after February 26, 2018 and prior to May 5, 2020 (Incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended March 31, 2018 (File No. 001-11625)).*
- [10.22](#) Form of Executive Officer Performance Stock Unit Award Agreement for grants made on or after February 26, 2018 and prior to January 1, 2019 (Incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended March 31, 2018 (File No. 001-11625)).*
- [10.23](#) Form of Executive Officer Performance Stock Unit Award Agreement for grants made on or after January 1, 2019 and prior to May 5, 2020 (Incorporated by reference to Exhibit 10.32 to the Annual Report on Form 10-K of Pentair plc for the year ended December 31, 2018 (File No. 001-11625)).*
- [10.24](#) Pentair plc 2020 Share and Incentive Plan, effective as of May 5, 2020 (Incorporated by reference to Appendix B to the Definitive Proxy Statement on Schedule 14A of Pentair plc filed on March 20, 2020 (File No. 001-11625)).*
- [10.25](#) Form of Employee Restricted Stock Unit Award Agreement under the Pentair plc 2020 Share and Incentive Plan (Incorporated by reference to Exhibit 99.1 to the Registration Statement on Form S-8 of Pentair plc (Reg. No. 333-238544)).*
- [10.26](#) Form of Non-Employee Director Restricted Stock Unit Award Agreement under the Pentair plc 2020 Share and Incentive Plan (Incorporated by reference to Exhibit 99.2 to the Registration Statement on Form S-8 of Pentair plc (Reg. No. 333-238544)).*
- [10.27](#) Form of Key Talent Award Agreement under the Pentair plc 2020 Share and Incentive Plan (Incorporated by reference to Exhibit 99.3 to the Registration Statement on Form S-8 of Pentair plc (Reg. No. 333-238544)).*
- [10.28](#) Form of Stock Option Award Agreement under the Pentair plc 2020 Share and Incentive Plan (Incorporated by reference to Exhibit 99.4 to the Registration Statement on Form S-8 of Pentair plc (Reg. No. 333-238544)).*
- [10.29](#) Form of Performance Share Unit Award Agreement under the Pentair plc 2020 Share and Incentive Plan (Incorporated by reference to Exhibit 99.5 to the Registration Statement on Form S-8 of Pentair plc (Reg. No. 333-238544)).*
- [10.30](#) Pentair plc Executive Officer Severance Plan.*
- [10.31](#) Amendment No. 1 to the Pentair plc 2020 Share and Incentive Plan.*
- [10.32](#) Amendment to Key Executive Employment and Severance Agreement, as of January 1, 2021, for John L. Stauch, John H. Jacko, Karla C. Robertson, Kelly A. Baker, Philip M. Rolchigo, Robert P. Fishman, Jerome O. Pedretti, Mario R. D’Ovidio and Stephen J. Pilla.*
- [10.33](#) Separation Agreement, effective December 31, 2020, between Karl Frykman and Pentair Water Pool and Spa, Inc.*
- [21](#) List of Pentair plc subsidiaries.
- [22](#) List of Guarantors and Subsidiary Issuers of Guaranteed Securities. (Incorporated by reference to Exhibit 22 to the Quarterly Report on Form 10-Q of Pentair plc for the quarter ended September 30, 2020 (File No. 001-11625)).
- [23](#) Consent of Independent Registered Public Accounting Firm — Deloitte & Touche LLP.
- [24](#) Power of attorney.
- [31.1](#) Certification of Chief Executive Officer.
- [31.2](#) Certification of Chief Financial Officer.
- [32.1](#) Certification of Chief Executive Officer, Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- [32.2](#) Certification of Chief Financial Officer, Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

- 101** The following materials from Pentair plc's Annual Report on Form 10-K for the year ended December 31, 2020 are filed herewith, formatted in iXBRL (Inline Extensible Business Reporting Language): (i) the Consolidated Statements of Operations and Comprehensive Income for the years ended December 31, 2020, 2019 and 2018, (ii) the Consolidated Balance Sheets as of December 31, 2020 and 2019, (iii) the Consolidated Statements of Cash Flows for the years ended December 31, 2020, 2019 and 2018, (iv) the Consolidated Statements of Changes in Equity for the years ended December 31, 2020, 2019 and 2018 and (v) the Notes to the Consolidated Financial Statements. The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL document.
- 104** Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).
-

* Denotes a management contract or compensatory plan or arrangement.

ITEM 16. FORM 10-K SUMMARY

None.

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, on February 16, 2021.

PENTAIR PLC

By /s/ Robert P. Fishman

Robert P. Fishman
Executive Vice President, Chief Financial Officer and
Chief Accounting Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities indicated, on February 16, 2021.

<u>Signature</u>	<u>Title</u>
_____ /s/ John L. Stauch John L. Stauch	President and Chief Executive Officer, Director
_____ /s/ Robert P. Fishman Robert P. Fishman	Executive Vice President, Chief Financial Officer and Chief Accounting Officer
_____ *	Director
_____ Mona Abutaleb Stephenson	
_____ *	Director
_____ Glynis A. Bryan	
_____ *	Director
_____ T. Michael Glenn	
_____ *	Director
_____ Theodore L. Harris	
_____ *	Director
_____ David A. Jones	
_____ *	Director
_____ Gregory E. Knight	
_____ *	Director
_____ Michael T. Speetzen	
_____ *	Director
_____ Billie I. Williamson	
*By _____ /s/ Karla C. Robertson Karla C. Robertson Attorney-in-fact	

DESCRIPTION OF ORDINARY SHARES

The following description of the material terms of ordinary shares of Pentair plc (“Pentair”) is based on the provisions of the Pentair articles of association (the “Pentair Articles”). This description is not complete and is subject to the applicable provisions of Irish law and the Pentair Articles, which are filed as an exhibit to this Annual Report on Form 10-K.

Capital Structure

The current authorized share capital of Pentair is €40,000 and \$4,260,000 divided into 40,000 ordinary shares with a nominal value of €1.00 per share and 426,000,000 ordinary shares with a nominal value of \$0.01 per share. The authorized share capital includes 40,000 shares with a nominal value of €1 per share, which was required on incorporation in order to satisfy statutory requirements for all Irish public limited companies commencing operations.

Pentair may issue shares subject to the maximum authorized share capital contained in the Pentair Articles. The authorized share capital may be increased by a resolution approved by a two-thirds majority of the votes of Pentair’s shareholders cast at a general meeting (referred to as a “variation resolution”) or reduced by a resolution approved by a simple majority of the votes of Pentair’s shareholders cast at a general meeting (referred to under Irish law as an “ordinary resolution”). The shares comprising the authorized share capital of Pentair may be divided into shares of such nominal value as the resolution shall prescribe. As a matter of Irish company law, the directors of a company may issue new ordinary shares without shareholder approval once authorized to do so by the articles of association or by an ordinary resolution adopted by the shareholders at a general meeting. In accordance with current customary practice in Ireland, Pentair sought, and received, shareholder approval at Pentair’s 2020 annual general meeting of shareholders to authorize the board of directors to issue up to a maximum of 33% of Pentair’s issued ordinary share capital as of March 6, 2020 (an aggregate nominal amount of \$553,194 or 55,319,480 shares), for a period to expire 18 months from the approval, or November 6, 2021.

The rights and restrictions to which the ordinary shares are subject are prescribed in the Pentair Articles.

Preemption Rights

Under Irish law certain statutory preemption rights apply automatically in favor of shareholders where shares are to be issued for cash. However, Pentair initially opted out of these preemption rights in the Pentair Articles as permitted under Irish company law. Because Irish law requires this opt-out to be renewed at least every five years by a resolution approved by not less than 75% of the votes of the shareholders of Pentair cast at a general meeting (referred to under Irish law as a “special resolution”), the Pentair Articles provide that this opt-out must be so renewed. If the opt-out is not renewed, shares issued for cash must be offered to existing shareholders of Pentair on a pro rata basis to their existing shareholding before the shares can be issued to any new shareholders. The statutory preemption rights do not apply where shares are issued for non-cash consideration (such as in a stock-for-stock acquisition) and do not apply to the issue of non-equity shares (that is, shares that have the right to participate only up to a specified amount in any income or capital distribution) or where shares are issued pursuant to an employee option or similar equity plan. In accordance with current customary practice in Ireland, Pentair sought, and received, shareholder approval at Pentair’s 2020 annual general meeting of shareholders to authorize Pentair to opt out of preemption rights with respect to the allotment of equity securities up to a maximum of 10% of Pentair’s issued ordinary share capital as of March 6, 2020 (an aggregate nominal amount of \$167,634 or 16,763,478 shares), provided that any amount above 5% of Pentair’s issued ordinary share capital as of March 6, 2020 (an aggregate nominal amount of \$83,817 or 8,381,739 shares) is to be used only for the purpose of an acquisition or a specific capital investment. This approval will expire 18 months from the date of the approval, or November 6, 2021.

Dividends

Under Irish law, dividends and distributions may only be made from distributable reserves. Distributable reserves generally means accumulated realized profits less accumulated realized losses and includes reserves created by way of capital reduction. In addition, no distribution or dividend may be made unless the net assets of Pentair are equal to, or in excess of, the aggregate of Pentair’s called up share capital plus undistributable reserves and the distribution does not reduce Pentair’s net assets below such aggregate. Undistributable reserves include undenominated capital and the amount by which Pentair’s accumulated unrealized profits, so far as not previously utilized by any capitalization, exceed Pentair’s accumulated unrealized losses, so far as not previously written off in a reduction or reorganization of capital.

The determination as to whether or not Pentair has sufficient distributable reserves to fund a dividend must be made by reference to “relevant financial statements” of Pentair. The “relevant financial statements” will be either the last set of unconsolidated annual audited financial statements or other financial statements properly prepared in accordance with the Companies Act, which give a “true and fair view” of Pentair’s unconsolidated financial position and accord with accepted accounting practice. The relevant financial statements must be filed in the Companies Registration Office (the official public registry for companies in Ireland).

The Pentair Articles authorize the directors to declare dividends to the extent they appear justified by profits without shareholder approval. The Pentair board of directors may also recommend a dividend to be approved and declared by the Pentair shareholders at a general meeting. The Pentair board of directors may direct that the payment be made by distribution of assets, shares or cash and no dividend issued may exceed the amount recommended by the directors. Dividends may be declared and paid in the form of cash or non-cash assets and may be paid in U.S. dollars or any other currency. All holders of ordinary shares of Pentair will participate pro rata in respect of any dividend which may be declared in respect of ordinary shares by Pentair.

The directors of Pentair may deduct from any dividend payable to any shareholder any amounts payable by such shareholder to Pentair in relation to the ordinary shares of Pentair.

Bonus Shares

The Pentair Articles authorize the Pentair board of directors to capitalize any amount credited to any reserve, including undenominated capital, or credited to the profit and loss account, and use such amount for the issuance to shareholders of shares as fully paid bonus shares on the same basis of entitlement as would apply in respect of a dividend distribution.

Share Repurchases, Redemptions and Conversions

Overview

The Pentair Articles provide that unless the Board specifically elects to treat such acquisition as a purchase for the purposes of the Irish Companies Act 2014 (as amended) (the “Companies Act”), any ordinary shares which Pentair has agreed to acquire shall be deemed to be a redeemable share on, and from the time of, existence or creation of an agreement, transaction, or trade between Pentair and any third party pursuant to which Pentair acquires, or will acquire, ordinary shares, or an interest in ordinary shares, from such third party. Accordingly, for Irish company law purposes, the repurchase of ordinary shares by Pentair will technically be effected as a redemption of those shares as described below under “Repurchases and Redemptions by Pentair”. If the Pentair Articles did not contain such provision, all repurchases by Pentair would be subject to many of the same rules that apply to purchases of Pentair ordinary shares by subsidiaries described below under “Purchases by Subsidiaries of Pentair” including the shareholder approval requirements described below and the requirement that any on-market purchases be effected on a “recognized stock exchange”. Neither Irish law nor any constituent document of Pentair places limitations on the right of nonresident or foreign owners to vote or hold Pentair ordinary shares. Except where otherwise noted, references elsewhere in this document to repurchasing or buying back ordinary shares of Pentair refer to the redemption of ordinary shares by Pentair or the purchase of ordinary shares of Pentair by a subsidiary of Pentair, in each case in accordance with the Pentair Articles and Irish company law as described below.

Repurchases and Redemptions by Pentair

Under Irish law, a company may issue redeemable shares and redeem them out of distributable reserves or the proceeds of a new issue of shares for that purpose. Pentair may only issue redeemable shares if the nominal value of the issued share capital that is not redeemable is not less than 10% of the nominal value of the total issued share capital of Pentair. All redeemable shares must also be fully-paid and the terms of redemption of the shares must provide for payment on redemption. Redeemable shares may, upon redemption, be canceled or held in treasury. Based on the provision of the Pentair Articles described above, shareholder approval will not be required to redeem Pentair ordinary shares.

Pentair may also be given an additional general authority by its shareholders to purchase its own shares on-market which would take effect on the same terms and be subject to the same conditions as applicable to purchases by Pentair’s subsidiaries as described below.

Repurchased and redeemed shares may be canceled or held as treasury shares. The nominal value of treasury shares held by Pentair at any time must not exceed 10% of the nominal value of the issued share capital of Pentair. Pentair may not exercise any voting rights in respect of any shares held as treasury shares. Treasury shares may be canceled by Pentair or re-issued subject to certain conditions.

Purchases by Subsidiaries of Pentair

Under Irish law, an Irish or non-Irish subsidiary may purchase Pentair ordinary shares either as overseas market purchases or off-market purchases. For a subsidiary of Pentair to make overseas market purchases of Pentair ordinary shares, the shareholders of Pentair must provide general authorization for such purchase by way of ordinary resolution. However, as long as this general authority has been granted, no specific shareholder authority for a particular overseas market purchase by a subsidiary of Pentair ordinary shares is required. For an off-market purchase by a subsidiary of Pentair, the proposed purchase contract must be authorized by special resolution of the shareholders before the contract is entered into. The person whose Pentair ordinary shares are to be bought back

cannot vote in favor of the special resolution and, for at least 21 days prior to the special resolution being passed, the purchase contract must be on display or must be available for inspection by shareholders at the registered office of Pentair.

In order for a subsidiary of Pentair to make an overseas market purchase of Pentair ordinary shares, such shares must be purchased on a “recognized stock exchange”. The New York Stock Exchange, on which the shares of Pentair are listed, is specified as a recognized stock exchange for this purpose by Irish company law.

The number of Pentair ordinary shares acquired and held by the subsidiaries of Pentair at any time will count as treasury shares and will be included in any calculation of the permitted treasury share threshold of 10% of the nominal value of the issued share capital of Pentair. While a subsidiary holds Pentair ordinary shares, it cannot exercise any voting rights in respect of those shares. The acquisition of Pentair ordinary shares by a subsidiary must be funded out of distributable reserves of the subsidiary.

Lien on Shares, Calls on Shares and Forfeiture of Shares

The Pentair Articles provide that Pentair will have a first and paramount lien on every share that is not a fully paid up share for all moneys payable at a fixed time or called in respect of that share, whether presently due or not in respect of such Pentair ordinary shares. Subject to the terms of their allotment, directors may call for any unpaid amounts in respect of any Pentair ordinary shares to be paid, and if payment is not made, the shares may be forfeited. These provisions are standard inclusions in the articles of association of an Irish public company limited by shares such as Pentair and will only be applicable to Pentair ordinary shares that have not been fully paid up.

Consolidation and Division; Subdivision

Under the Pentair Articles, Pentair may, by ordinary resolution, consolidate and divide all or any of its share capital into shares of larger nominal value than its existing shares or subdivide its shares into smaller amounts than is fixed by the Pentair Articles.

Reduction of Share Capital

Pentair may, by special resolution, reduce its authorized share capital in any way. Pentair also may, by special resolution and subject to confirmation by the Irish High Court, reduce or cancel its issued share capital in any manner permitted by the Companies Act.

Extraordinary General Meetings of Shareholders

Extraordinary general meetings of Pentair may be convened (i) by the Pentair board of directors, (ii) on requisition of the shareholders holding not less than 10% of the paid up share capital of Pentair carrying voting rights, or (iii) on requisition of Pentair’s auditors. Extraordinary general meetings are generally held for the purposes of approving shareholder resolutions as may be required from time to time. At any extraordinary general meeting only such business shall be conducted as is set forth in the notice thereof.

Voting

Each ordinary share is entitled to one vote on each matter properly brought before the shareholders. At any meeting of Pentair, all resolutions will be decided on a poll.

Treasury shares or Pentair ordinary shares that are held by subsidiaries of Pentair are not entitled to be voted at general meetings of shareholders.

Irish company law requires special resolutions of the shareholders at a general meeting to approve certain matters. Examples of matters requiring special resolutions include:

- amending the Pentair Articles;
- approving a change of name of Pentair;
- authorizing the entering into of a guarantee or provision of security in connection with a loan, quasi-loan or credit transaction to a director or connected person;
- opting out of preemption rights on the issuance of new shares;
- re-registration of Pentair from a public limited company to a private company;
- variation of class rights attaching to classes of shares (where the Pentair Articles do not provide otherwise);

- purchase of Pentair shares off-market;
- reduction of issued share capital;
- sanctioning a compromise/scheme of arrangement;
- resolving that Pentair be wound up by the Irish courts;
- resolving in favor of a shareholders' voluntary winding-up;
- re-designation of shares into different share classes;
- setting the re-issue price of treasury shares; and
- a cross-border merger pursuant to Directive (EU) 2017/1132 of 14 June 2017 relating to certain aspects of company law.

Variation of Rights Attaching to a Class or Series of Shares

Under the Pentair Articles and the Companies Act, any variation of class rights attaching to the issued shares of Pentair must be approved in writing by holders of three-quarters of the issued shares in that class or with the sanction of a special resolution passed at a separate general meeting of the holders of the shares of that class, provided that, if the relevant class of holders has only one holder, that person present in person or by proxy shall constitute the necessary quorum.

Acquisitions

An Irish public limited company may be acquired in a number of ways, including:

- a court-approved scheme of arrangement under the Companies Act. A scheme of arrangement with shareholders requires a court order from the Irish High Court and the approval of a majority in number representing 75% in value of the shareholders present and voting in person or by proxy at a meeting called to approve the scheme;
- through a tender or takeover offer by a third party for all of the shares of Pentair. Where the holders of 80% or more of Pentair's ordinary shares have accepted an offer for their shares in Pentair, the remaining shareholders may also be statutorily required to transfer their shares. If the bidder does not exercise its "squeeze out" right, then the non-accepting shareholders also have a statutory right to require the bidder to acquire their shares on the same terms. If shares of Pentair were to be listed on the Irish Stock Exchange or another regulated stock exchange in the European Union, this threshold would be increased to 90%; and
- it is also possible for Pentair to be acquired by way of a transaction with an EU-incorporated company under Directive (EU) 2017/1132 of 14 June 2017 relating to certain aspects of company law. Such a transaction must be approved by a special resolution. If Pentair is being merged with another EU company under Directive (EU) 2017/1132 and the consideration payable to Pentair shareholders is not all in the form of cash, Pentair shareholders may be entitled to require their shares to be acquired at fair value.

Disclosure of Interests in Shares

Under the Companies Act, Pentair shareholders must notify Pentair if, as a result of a transaction, the shareholder will become interested in 3% or more of the shares of Pentair; or if as a result of a transaction a shareholder who was interested in more than 3% of the shares of Pentair ceases to be so interested. Where a shareholder is interested in more than 3% of the shares of Pentair, the shareholder must notify Pentair of any alteration of his or her interest that brings his or her total holding through the nearest whole percentage number, whether an increase or a reduction. The relevant percentage figure is calculated by reference to the aggregate nominal value of the shares in which the shareholder is interested as a proportion of the entire nominal value of the issued share capital of Pentair (or any such class of share capital in issue). Where the percentage level of the shareholder's interest does not amount to a whole percentage this figure may be rounded down to the next whole number. Pentair must be notified within five business days of the transaction or alteration of the shareholder's interests that gave rise to the notification requirement. If a shareholder fails to comply with these notification requirements, the shareholder's rights in respect of any Pentair ordinary shares it holds will not be enforceable, either directly or indirectly. However, such person may apply to the court to have the rights attaching to such shares reinstated.

In addition to these disclosure requirements, Pentair, under the Companies Act, may, by notice in writing, require a person whom Pentair knows or has reasonable cause to believe to be, or at any time during the three years immediately preceding the date on which such notice is issued to have been, interested in shares comprised in Pentair's relevant share capital to: (i) indicate whether or not it is the case and (ii) where such person holds or has during that time held an interest in the shares of Pentair, to provide additional information, including the person's own past or present interests in shares of Pentair. If the recipient of the notice fails to respond within the reasonable time period specified in the notice, Pentair may apply to court for an order directing that the affected shares be subject to certain restrictions, as prescribed by the Companies Act, as follows:

- any transfer of those shares, or in the case of unissued shares any transfer of the right to be issued with shares and any issue of shares, shall be void;
- no voting rights shall be exercisable in respect of those shares;
- no further shares shall be issued in right of those shares or in pursuance of any offer made to the holder of those shares; and
- no payment shall be made of any sums due from Pentair on those shares, whether in respect of capital or otherwise.

The court may also order that shares subject to any of these restrictions be sold with the restrictions terminating upon the completion of the sale.

In the event Pentair is in an offer period pursuant to the Irish Takeover Rules (as defined below), accelerated disclosure provisions apply for persons holding an interest in Pentair securities of 1% or more.

Anti-Takeover Provisions

Irish Takeover Rules and Substantial Acquisition Rules

A transaction in which a third party seeks to acquire 30% or more of the voting rights of Pentair will be governed by the Irish Takeover Panel Act 1997 and the Irish Takeover Rules 2007 (as amended) (the "Irish Takeover Rules") made thereunder and will be regulated by the Irish Takeover Panel (the "Panel"). The "General Principles" of the Irish Takeover Rules and certain important aspects of the Irish Takeover Rules are described below.

General Principles

The Irish Takeover Rules are built on the following General Principles which will apply to any transaction regulated by the Panel:

- in the event of an offer, all holders of security of the target company should be afforded equivalent treatment and, if a person acquires control of a company, the other holders of securities must be protected;
- the holders of the securities in the target company must have sufficient time and information to enable them to reach a properly informed decision on the offer; where it advises the holders of securities, the board of the target company must give its views on the effects of implementation of the offer on employment, conditions of employment and the locations of the target company's places of business;
- the board of the target company must act in the interests of the company as a whole and must not deny the holders of securities the opportunity to decide on the merits of the offer;
- false markets must not be created in the securities of the target company, the bidder or of any other company concerned by the offer in such a way that the rise or fall of the prices of the securities becomes artificial and the normal functioning of the markets is distorted;
- a bidder must announce an offer only after ensuring that he or she can fulfill in full, any cash consideration, if such is offered, and after taking all reasonable measures to secure the implementation of any other type of consideration;
- a target company must not be hindered in the conduct of its affairs for longer than is reasonable by an offer for its securities; and
- a "substantial acquisition" of securities (whether such acquisition is to be effected by one transaction or a series of transactions) shall take place only at an acceptable speed and shall be subject to adequate and timely disclosure.

Mandatory Bid

Under certain circumstances, a person who acquires shares or other voting rights in Pentair may be required under the Takeover Rules to make a mandatory cash offer for the remaining outstanding shares in Pentair at a price not less than the highest price paid for the shares by the acquirer (or any parties acting in concert with the acquirer) during the previous 12 months. This mandatory bid requirement is triggered if an acquisition of shares would increase the aggregate holding of an acquirer (including the holdings of any parties acting in concert with the acquirer) to shares representing 30% or more of the voting rights in Pentair, unless the Panel otherwise consents. An acquisition of shares by a person holding (together with its concert parties) shares representing between 30% and 50% of the voting rights in Pentair would also trigger the mandatory bid requirement if, after giving effect to the acquisition, the percentage of the voting rights held by that person (together with its concert parties) would increase by 0.05% within a 12-month period. Any person (excluding any parties acting in concert with the holder) holding shares representing more than 50% of the voting rights of a company is not subject to these mandatory offer requirements in purchasing additional securities.

Voluntary Bid; Requirements to Make a Cash Offer and Minimum Price Requirements

If a person makes a voluntary offer to acquire outstanding Pentair ordinary shares, the offer price must be no less than the highest price paid for Pentair ordinary shares by the bidder or its concert parties during the three-month period prior to the commencement of the offer period. The Panel has the power to extend the “look back” period to 12 months if the Panel, taking into account the General Principles, believes it is appropriate to do so.

If the bidder or any of its concert parties has acquired Pentair ordinary shares (i) during the period of 12 months prior to the commencement of the offer period which represent more than 10% of the total Pentair ordinary shares or (ii) at any time after the commencement of the offer period, the offer must be in cash (or accompanied by a full cash alternative) and the price per Pentair ordinary shares must not be less than the highest price paid by the bidder or its concert parties during, in the case of (i), the 12-month period prior to the commencement of the offer period and, in the case of (ii), the offer period. The Panel may apply this rule to a bidder who, together with its concert parties, has acquired less than 10% of the total Pentair ordinary shares in the 12-month period prior to the commencement of the offer period if the Panel, taking into account the General Principles, considers it just and proper to do so.

An offer period will generally commence from the date of the first announcement of the offer or proposed offer.

Substantial Acquisition Rules

The Irish Takeover Rules also contain rules governing substantial acquisitions of shares which restrict the speed at which a person may increase his or her holding of shares and rights over shares to an aggregate of between 15% and 30% of the voting rights of Pentair. Except in certain circumstances, an acquisition or series of acquisitions of shares or rights over shares representing 10% or more of the voting rights of Pentair is prohibited, if such acquisition(s), when aggregated with shares or rights already held, would result in the acquirer holding 15% or more but less than 30% of the voting rights of Pentair and such acquisitions are made within a period of seven days. These rules also require accelerated disclosure of acquisitions of shares or rights over shares relating to such holdings.

Frustrating Action

Under the Irish Takeover Rules, the Pentair board of directors is not permitted to take any action which might frustrate an offer for the shares of Pentair once the Pentair board of directors has received an approach which may lead to an offer or has reason to believe an offer is imminent, subject to certain exceptions. Potentially frustrating actions such as (i) the issue of shares, options or convertible securities, (ii) material acquisitions or disposals, (iii) entering into contracts other than in the ordinary course of business or (iv) any action, other than seeking alternative offers, which may result in frustration of an offer, are prohibited during the course of an offer or at any time during which the Pentair board of directors has reason to believe an offer is imminent. Exceptions to this prohibition are available where:

- the action is approved by Pentair’s shareholders at a general meeting; or
- the Panel has given its consent, where:
- it is satisfied the action would not constitute frustrating action;
- Pentair shareholders that hold 50% of the voting rights state in writing that they approve the proposed action and would vote in favor of it at a general meeting;
- the action is taken in accordance with a contract entered into prior to the announcement of the offer; or

- the decision to take such action was made before the announcement of the offer and either has been at least partially implemented or is in the ordinary course of business.

Certain other provisions of Irish law or the Pentair Articles may be considered to have anti-takeover effects, including those described under the following captions in this “Description of Ordinary Shares”: “Capital Structure”, “Preemption Rights”, and “Disclosure of Interests in Shares”.

Duration; Dissolution; Rights Upon Liquidation

Pentair’s duration will be unlimited. Pentair may be dissolved and wound up at any time by way of a shareholders’ voluntary winding up or a creditors’ winding up. In the case of a shareholders’ voluntary winding-up, a special resolution of shareholders is required. Pentair may also be dissolved by way of court order on the application of a creditor, or by the Companies Registration Office as an enforcement measure where Pentair has failed to file certain returns.

The rights of the shareholders to a return of Pentair’s assets on dissolution or winding up, following the settlement of all claims of creditors, may be prescribed in the Pentair Articles. If the Pentair Articles contain no specific provisions in respect of dissolution or winding up then, subject to the priorities of any creditors, the assets will be distributed to shareholders in proportion to the paid-up nominal value of the shares held. The Pentair Articles provide that the ordinary shareholders of Pentair are entitled to participate pro rata in a winding up.

No Sinking Fund

The Pentair ordinary shares have no sinking fund provisions.

No Liability for Further Calls or Assessments

When the ordinary shares offered hereby are issued, they will be duly and validly issued, fully paid and nonassessable.

Transfer and Registration of Shares

The transfer agent for Pentair maintains the share register, registration in which is determinative of membership in Pentair. A shareholder of Pentair who holds shares beneficially is not the holder of record of such shares. Instead, the depository or other nominee is the holder of record of those shares. Accordingly, a transfer of shares from a person who holds such shares beneficially to a person who also holds such shares beneficially through a depository or other nominee is not registered in Pentair’s official share register, as the depository or other nominee remains the record holder of any such shares.

A written instrument of transfer is required under Irish law to register on Pentair’s official share register any transfer of shares (i) from a person who holds such shares directly to any other person, (ii) from a person who holds such shares beneficially to a person who holds such shares directly or (iii) from a person who holds such shares beneficially to another person who holds such shares beneficially where the transfer involves a change in the depository or other nominee that is the record owner of the transferred shares. An instrument of transfer is also required for a shareholder who directly holds shares to transfer those shares into his or her own broker account (or vice versa). Such instruments of transfer may give rise to Irish stamp duty, which must be paid prior to registration of the transfer on Pentair’s official Irish share register. However, a shareholder who directly holds shares may transfer those shares into his or her own broker account (or vice versa) without giving rise to Irish stamp duty, provided that the shareholder has confirmed to Pentair’s transfer agent that there is no change in the ultimate beneficial ownership of the shares as a result of the transfer and the transfer is not made in contemplation of a sale of the shares.

Any transfer of Pentair ordinary shares that is subject to Irish stamp duty is not registered in the name of the buyer unless an instrument of transfer was duly stamped and provided to the transfer agent. The Pentair Articles allow Pentair, in its absolute discretion, to create an instrument of transfer and pay (or procure the payment of) any stamp duty, which is the legal obligation of a buyer. In the event of any such payment, Pentair is (on behalf of itself or its affiliates) entitled to (i) seek reimbursement from the buyer or seller (at its discretion), (ii) set-off the amount of the stamp duty against future dividends payable to the buyer or seller (at its discretion) and (iii) claim a lien against the Pentair ordinary shares on which it has paid stamp duty. Parties to a share transfer may assume that any stamp duty arising in respect of a transaction in Pentair ordinary shares has been paid unless one or both of such parties is otherwise notified by Pentair.

The Pentair Articles delegate to Pentair’s secretary or assistant secretary (or their nominees) the authority to execute an instrument of transfer on behalf of a transferring party.

In order to help ensure that the official share register is regularly updated to reflect trading of Pentair ordinary shares occurring through normal electronic systems, Pentair intends to regularly produce any required instruments of transfer in connection

with any transactions for which it pays stamp duty (subject to the reimbursement and set-off rights described above). In the event that Pentair notifies one or both of the parties to a share transfer that it believes stamp duty is required to be paid in connection with the transfer and that it will not pay the stamp duty, the parties may either themselves arrange for the execution of the required instrument of transfer (and may request a form of instrument of transfer from Pentair for this purpose) or request that Pentair execute an instrument of transfer on behalf of the transferring party in a form determined by Pentair. In either event, if the parties to the share transfer have the instrument of transfer duly stamped (to the extent required) and then provide it to Pentair's transfer agent, the buyer will be registered as the legal owner of the relevant shares on Pentair's official Irish share register (subject to the matters described below).

The directors may suspend registration of transfers from time to time, not exceeding 30 days in aggregate each year.

PENTAIR PLC
EMPLOYEE STOCK PURCHASE AND BONUS PLAN
Amended and Restated Effective as of January 1, 2021

SECTION 1
HISTORY AND BACKGROUND

In connection with the merger of Pentair, Inc. with and into a wholly-owned subsidiary of Tyco Flow Control International Ltd. (to be renamed Pentair Ltd., and referred to herein as the “Company”), which occurred on September 28, 2012 (the “Merger”), the Company adopted this Employee Stock Purchase and Bonus Plan (the “Plan”), effective September 28, 2012, to provide to employees of the Company and its designated divisions and subsidiaries the opportunity to purchase shares of the Company’s common stock after the Merger. The Plan is also considered a successor plan to the following pre-Merger plans: the Pentair, Inc. Employee Stock Purchase and Bonus Plan (effective March 1, 1977).

The Plan was amended and restated effective May 1, 2013, to reflect certain administrative changes made to the operation of the Plan.

The Plan was further amended and restated effective as of the consummation of the merger of Pentair Ltd. with and into Pentair plc to reflect the assumption of this Plan by Pentair plc and the applicability of the Plan to ordinary shares of Pentair plc, rather than common shares of Pentair Ltd., following such merger.

The Plan was further amended and restated effective as of November 17, 2017 to reflect certain administrative changes made to the Plan.

The Plan was further amended and restated effective as of January 1, 2019 to suspend the International Stock Purchase and Bonus Plan (which was previously attached to the Plan as Appendix A) and to make certain other administrative changes.

The Plan is now amended and restated effective January 1, 2021 to modify the time period for which the contribution limits under the Plan apply and, subject to the approval of the Plan by the Pentair plc shareholders at the 2021 Annual General Meeting of Shareholders, to extend the term of the Plan until the 10th anniversary of such approval.

The following sections of the Plan shall apply to the U.S. and Canadian employees of the Company and its participating divisions and subsidiaries.

SECTION 2
DEFINITIONS

Unless the context clearly requires otherwise, when capitalized the terms listed below shall have the following meanings when used in this Section or other parts of the Plan.

(1) **“Account”** is an account established with the Plan Agent and into which Stock purchased with accumulated Participant contributions, employer matching contributions made on behalf of a Participant, and cash dividends paid with respect to such Stock (as applicable), are held on behalf of each Participant under the Plan. A Participant’s rights with respect to his or her Account shall be subject to the terms and conditions established by the Plan Agent from time to time.

(2) **“Affiliated Company”** is (a) any corporation or business located in and organized under the laws of one of the United States which is a member of a controlled group of corporations or businesses (within the meaning of Code section 414(b) or (c)) that includes the Company, but only during the periods such affiliation exists, or (b) any other entity in which the Company may have a significant ownership interest, and which the Plan Administrator determines shall be an Affiliated Company for purposes of the Plan.

(3) **“Code”** is the Internal Revenue Code of 1986, as amended.

(4) **“Company”** is Pentair plc, an Irish company.

(5) **“Compensation”** is a Participant’s base wages or salary (i.e., exclusive of overtime or bonus payments) or the equivalent thereof, including, by way of example, vacation, jury duty or shift differential pay, paid to or on behalf of a Participant for services rendered to the Company or a Participating Employer.

(6) **“Eligible Employee”** is an Employee, except those Employees:

(i) who are included in a unit of Employees covered by a collective bargaining agreement between Employee representatives and a Participating Employer, unless and to the extent such agreement provides that such Employees shall be covered by the Plan, or the Participating Employer and the Plan Administrator have otherwise agreed to extend coverage under the Plan to such Employees;

(ii) who, as determined by the Plan Administrator in its sole discretion, are not regular or permanent full- or part-time Employees, including, without limitation interns or other temporary Employees;

(iii) whose Employer is not a Participating Employer; or

(iv) who are not treated as Employees by the Company or a Participating Employer for purposes of the Plan even though they may be so treated or considered under applicable law, including Code section 414(n), the Federal Insurance Contribution Act or the Fair Labor Standards Act (e.g., individuals treated as employees of a third party or as self-employed).

(7) **“Employee”** is an individual who is an employee of the Company or an Affiliated Company.

(8) **“Participant”** is an Eligible Employee who has met the age requirement for Plan participation and properly completed and submitted the authorization form necessary for participation.

(9) **“Participating Employer”** is an Affiliated Company that is making, or has agreed to make, contributions under the Plan with respect to some or all of its Eligible Employees, but only during the period such agreement to contribute remains in effect. The Company must approve each Participating Employer, except that any entity that is considered a Participating Employer under the Plan immediately prior to the Restatement Effective Date automatically shall be considered a Participating Employer hereunder on the Restatement Effective Date without further action by the Company or such employer.

(10) **“Plan”** is the Pentair plc Employee Stock Purchase and Bonus Plan as described in this plan document and as it may be amended from time to time.

(11) **“Plan Administrator”** is the Company, and may include an employee or committee of employees of the Company or any subsidiary thereof that has been appointed by the Company to serve as the plan administrator of the Plan.

(12) **“Plan Agent”** is the financial services firm or other entity duly appointed by the Plan Administrator to (i) receive funds contributed by Participants and Participating Employers, (ii) purchase shares of Stock with funds contributed by Participants and Participating Employers, and (iii) maintain Participant Accounts.

(13) **“Prospectus”** is the prospectus, as in effect from time to time, which describes the Plan and which is delivered to eligible Participants with respect to the purchase of Stock under the Plan.

(14) **“Restatement Effective Date”** is November 17, 2017, the date this amended and restated Plan became effective.

(15) **“Stock”** is the ordinary shares of Pentair plc, nominal value \$0.01 per share.

SECTION 3 ELIGIBILITY

All Eligible Employees of a Participating Employer may elect to participate in the Plan after the Restatement Effective Date upon the attainment of age eighteen (18). Notwithstanding the foregoing, all Participants in the Plan as of the date immediately preceding the Restatement Effective Date automatically shall be considered Participants hereunder on the Restatement Effective Date.

SECTION 4 PARTICIPATION

4.1 **General.** Plan participation is voluntary and Eligible Employees do not automatically become Participants upon meeting the Plan’s eligibility requirements, except as set forth in Section 3.1. An Eligible Employee, who has met the Plan’s eligibility requirements as

described in Section 3, may commence Plan participation after the Restatement Effective Date by delivering an authorization for deductions from such individual's Compensation, in accordance with procedures established by the Plan Administrator. Notwithstanding the foregoing, the deduction authorization in effect for each Participant in the Plan as of the Restatement Effective Date automatically shall be given effect hereunder on and after the Restatement Effective Date.

4.2 **Withdrawal from Participation.** A Participant may elect to cease participation under the Plan at any time, even though he or she remains an Eligible Employee of the Company or a Participating Employer, by giving written notice of withdrawal in accordance with procedures established by the Plan Administrator. Such an individual may elect to resume participation in the Plan at any time in accordance with procedures established by Plan Administrator, provided he or she is an Eligible Employee at the time participation resumes.

SECTION 5 CONTRIBUTIONS

5.1 **Participant Contributions.** A Participant may authorize his or her employer to make a deduction from each paycheck for purposes of purchasing Stock as a percentage of Compensation, in accordance with Section 4.1. The minimum deduction allowed is 0.01% of Compensation per month; the maximum deduction allowed is 15% of such Participant's Compensation (up to a maximum payroll deduction per consecutive 12 month period of US\$9,000 for Participants that are employed in the United States and CA\$11,000 for Participants that are employed in Canada, which may be implemented on an annual, per month or per payroll period basis as determined by the Company). A Participant may change the amount of his or her payroll deduction at any time in accordance with procedures established by the Plan Administrator, and such change shall be effective as soon as practicable thereafter. Until such contributions are transferred to the Plan Agent for purposes of purchasing Stock under the Plan at the time or times determined by the Plan Administrator and in accordance with Section 6, the amounts so collected may be commingled with the general assets of the Company and used for general purposes and no interest shall be paid in connection with such amounts.

5.2 **Employer Bonus Contribution.** At the time or times determined by the Plan Administrator, the Company and Participating Employers shall pay to the Plan Agent on behalf of each Participant employed by such employer an amount equal to twenty-five percent (25%) of the contributions made by such Participant through payroll deductions from Compensation.

5.3 **Dividends.** Cash dividends paid on Stock held in a Participant's Account shall, as elected by the Participant in accordance with procedures established by the Plan Administrator, be used by the Plan Agent to purchase additional shares of Stock on behalf of such Participant or paid directly to the Participant in cash.

SECTION 6 PURCHASE OF STOCK

6.1 **Participant Accounts**. The Plan Agent shall establish for each Participant an Account to hold the Stock purchased on behalf of such Participant. All Stock and other amounts allocated to such Account shall at all times be fully vested and nonforfeitable.

6.2 **Purchasing Stock**. The Plan Agent shall use all Participant and employer contributions, and including cash dividends (if so elected in accordance with Section 5.3), to purchase Stock on the open market. The Plan Agent shall make all such purchases on a single business day or over a number of business days in the month, as agreed to by the Plan Agent and the Plan Administrator. The Stock so purchased shall be allocated to the Participant's Account on behalf of whom purchases were made based on (i) the actual purchase price for such Stock, in such case where the Plan Agent makes a single purchase of Stock under the Plan in one day or (ii) an average purchase price, as determined by the Plan Administrator and the Plan Agent, in the case where multiple purchases are made on one or more than one day. No interest shall be paid on cash amounts (if any) held by the Plan Agent regardless of whether such cash is being held in anticipation of the date on which Stock purchases shall be made or held pending a refund to a terminating Participant.

SECTION 7 ENDING PARTICIPATION

7.1 **General**. A Participant may elect to discontinue Plan participation even though he or she remains an Eligible Employee of the Company or a Participating Employer. In addition, a Participant may cease Plan participation by reason of becoming an Employee of an Affiliated Company that is not a Participating Employer, by joining a group of Employees who are not Eligible Employees, or by qualifying for benefits under a long-term disability plan maintained by the Company or a Participating Employer. At such time as a Participant shall cease employment with the Company and all Affiliated Companies, Plan participation shall cease. In accordance with procedures established by the Plan Administrator, any contributions made by a Participant prior to discontinuing participation in the Plan shall be used to purchase Stock in accordance with Section 6 hereunder.

7.2 **Discontinuing Participation**. An individual may, in accordance with procedures established by the Plan Administrator, elect to cease making contributions under the Plan, even though he or she remains an Eligible Employee of the Company or a Participating Employer. In addition, a Participant who ceases earning Compensation (as determined by the Plan Administrator), for example, a Participant who commences an unpaid leave of absence or other type of leave under which he or she no longer earns compensation that has been determined by the Plan Administrator to be Compensation for purposes under the Plan, shall automatically cease making contributions under the Plan.

7.3 **Ceasing to be an Eligible Employee**. Participants who cease to be Eligible Employees but remain Employees of the Company or an Affiliated Company shall automatically cease making contributions under the Plan effective as soon as administratively feasible.

**SECTION 8
DISPOSITION OF ACCOUNTS**

The Participant shall be eligible to receive a distribution of his or her Account in accordance with procedures established by the Plan Agent.

**SECTION 9
ADMINISTRATION**

9.1 **Term of Plan.** Subject to the approval of the Plan by the shareholders of the Company at the 2021 Annual General Meeting of Shareholders of the Company, this Plan shall terminate on the tenth (10th) anniversary of the date of such meeting, unless the Plan is earlier terminated as provided in Section 10.6.

9.2 **Prospectus.** Upon completing the eligibility requirements described in Section 3, an Eligible Employee shall receive from the Plan Administrator or its delegate a copy of the Prospectus, which describes the Plan.

9.3 **Reporting.** The Plan Agent shall provide to each Participant quarterly, or at such other intervals as may be necessary or appropriate, the following information:

- (a) the total amount contributed to each Participant's Account for such quarter, whether by payroll deduction, or the Participant's employer;
- (b) the number of shares of Stock purchased on behalf of the Participant with all of such contributions; and
- (c) the total number of shares of Stock then allocated to the Participant's Account.

9.4 **Voting of Stock in Accounts.** Participants will not have any voting, dividend or other rights of a shareholder with respect to shares of Stock subject to this Plan until such shares have been delivered to the Participant's Account. Once the Stock is delivered to the Participant's Account, he or she will be entitled to all notices and correspondence provided to any shareholder of record who is not a Participant, including proxy statements. The Plan Agent shall be responsible for soliciting and receiving proxy instructions from each Participant and shall vote the Stock allocated to each Participant's Account in accordance with the instructions, if any, provided by such Participant.

9.5 **Fees and Commissions.** Unless otherwise determined by the Plan Administrator, the Company shall pay commissions, service charges or other costs incurred with respect to the purchase of Stock for purposes of the Plan. Unless otherwise determined by the Plan Administrator, when any such Stock in an Account is sold or the Participant ceases to be an Employee of the Company or an Affiliate Company, the Participant is responsible for payment of any commissions, service charges or other costs incurred on account of such sale or ongoing administration of his or her Account.

**SECTION 10
MISCELLANEOUS**

10.1 **Voluntary Participation.** Participation in the Plan is entirely voluntary, and by maintaining the Plan the Company is not making a recommendation as to whether any Eligible Employee should invest in Stock. Investment in any stock involves risk, and each Eligible Employee must decide whether to accept the risk of investing in Stock.

10.2 **Employee Rights.** The right of the Company or an Affiliated Company to discipline or discharge Employees, or to exercise rights related to the tenure of any individual's employment, shall not be affected in any manner by reason of the existence of the Plan or any action taken pursuant to the Plan.

10.3 **Construction.** The Plan Administrator shall have full power and authority to interpret and construe the Plan, to adopt rules and regulations not inconsistent with the Plan for purposes of administering the Plan with respect to matters not specifically covered in the Plan document and to amend and revoke any rules and regulations so adopted. Except as otherwise provided in the Plan, any interpretation of the Plan and any decision on any matter within the discretion of the Plan Administrator which is made in good faith by the Plan Administrator shall be final and binding.

10.4 **Interpretation.** Section and subsection headings are for convenience of reference and not part of this Plan, and shall not influence its interpretation. Wherever any words are used in the Plan in the singular, masculine, feminine or neuter form, they shall be construed as though they were also used in the plural, feminine, masculine or non-neuter form, respectively, in all cases where such interpretation is reasonable.

10.5 **Plan Amendment.** The Company may, by written resolution of its Board of Directors or through action of the Compensation Committee of such Board (or their delegate), at any time and from time to time, amend the Plan in whole or in part.

10.6 **Plan Termination.** The Company may, by written resolution of its Board of Directors or through action of the Compensation Committee of such Board, terminate the Plan at any time. In the event the Plan terminates, the Participant's Account shall be handled in the same manner as if the Participant had terminated employment with the Company and all Affiliated Companies.

10.7 **Choice of Law.** To the extent not preempted by applicable federal law, the construction and interpretation of the Plan shall be made in accordance with the laws of the State of Minnesota, but without regard to any choice or conflict of laws provisions thereof.

10.8 **Acceptance of Terms.** By electing to participate in the Plan, each Participant shall be deemed to have accepted all of the provisions of the Plan, and the terms and conditions set forth by the Plan Agent, and to have agreed to be fully bound thereby.

10.9 **Computational Errors.** In the event mathematical, accounting, or similar errors are made in maintaining Participant Accounts, the Plan Administrator or the Plan Agent, as

the case may be, may make such equitable adjustments as it deems appropriate to correct such errors.

10.10 **Communications**. The Company, a Participating Employer or the Plan Agent may, unless otherwise prescribed by any applicable state or federal law or regulation, provide the Prospectus and any notices, forms or reports by using either paper or electronic means.

The undersigned, by authority of the Board of Directors of Pentair plc, does hereby execute the foregoing document for and on behalf of Pentair plc effective as of January 1, 2021.

PENTAIR PLC

By /s/ Karla Robertson

Karla Robertson

Executive Vice President

General Counsel, Secretary and

Chief Social Responsibility Officer

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

**PENTAIR plc
EXECUTIVE OFFICER SEVERANCE PLAN
AND
SUMMARY PLAN DESCRIPTION**

(As amended and restated February 15, 2021)

**PENTAIR plc
EXECUTIVE OFFICER SEVERANCE PLAN
(As amended and restated February 15, 2021)**

(Originally Effective January 1, 2021; Amended and Restated February 15, 2021)

The purpose of this Pentair plc Executive Officer Severance Plan (the “Executive Officer Plan”) is to provide certain Eligible Employees with severance benefits, as set forth in this Executive Officer Plan. It is the intention of Pentair that the Executive Officer Plan comply with the applicable provisions of the Code, including Section 409A (to the extent applicable), and that this Executive Officer Plan is an employee welfare benefit plan for purposes of ERISA.

This document serves as the written “plan document” for the Executive Officer Plan under ERISA. This document also serves as the “summary plan description” of the Executive Officer Plan for purposes of ERISA.

**ARTICLE I.
Definitions**

The following terms used throughout the Executive Officer Plan have a specific meaning when used with initial capital letters.

Section 1.1 Affiliated Company. “Affiliated Company” means:

- (a) any corporation or business located in and organized under the laws of one of the United States which is a member of a controlled group of corporations or businesses (within the meaning of Code section 414(b) or (c)) that includes Pentair, but only during the periods such affiliation exists; or
- (b) any other entity in which Pentair may have a significant ownership interest, and which the Plan Administrator determines shall be an Affiliated Company for purposes of the Executive Officer Plan.

Section 1.2 Annual Base Salary. “Annual Base Salary” means the Participant’s annual base salary rate in effect as of the Participant’s Separation Date.

Section 1.3 Annual Bonus Target Amount. “Annual Bonus Target Amount” means 100% of the Participant’s annual target bonus under the annual incentive plan in which Participant is a participant as of the Participant’s Separation Date; provided that if the Participant’s annual target bonus for the fiscal year in which the Participant’s Separation Date occurs has not yet been established as of such Separation Date, then “Annual Bonus Target Amount” shall mean 100% of the Participant’s annual target bonus under the annual incentive plan in which Participant was a participant for the fiscal year immediately prior to the fiscal year in which the Participant’s Separation Date occurs.

Section 1.4 Board. “Board” means the Board of Directors of Pentair plc.

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

Section 1.5 Cause. “Cause” means the occurrence of any of the following events as determined by the Board in its sole discretion:

- (a) The Eligible Employee’s breach of any written agreement with Pentair or any Affiliated Company, including any Restrictive Covenants Agreement, which is not remedied (if capable of being remedied) by the Eligible Employee within thirty (30) days after the Eligible Employee’s receipt of written notice thereof;
- (b) an act or acts of dishonesty, fraud or breach of fiduciary duty by the Eligible Employee;
- (c) failure by the Eligible Employee to satisfactorily perform the duties of the Eligible Employee’s employment, which failure is demonstrably willful and deliberate on the part of the Eligible Employee and constitutes neglect of duties by the Eligible Employee;
- (d) the Eligible Employee’s violation of any anti-harassment, anti-discrimination, or anti-retaliation policy of Pentair or any Affiliated Company, or the Eligible Employee’s material violation of any other applicable policy of Pentair or any Affiliated Company, including without limitation any such other policy included in any applicable employee handbook or in Pentair’s Code of Business Conduct and Compliance Policies; or
- (e) misconduct by the Eligible Employee, whether related to employment or otherwise, that is detrimental to, or Pentair determines is reasonably likely to be detrimental to, Pentair’s or any Affiliated Company’s reputation or to have an adverse effect on Pentair or any Affiliated Company.

Section 1.6 Change in Control of the Company. “Change in Control of the Company” has the meaning ascribed to such term in the KEESA.

Section 1.7 Code. “Code” means the Internal Revenue Code of 1986, as amended, and the regulations and guidance thereunder. Any reference to a specified provision of the Code shall include any successor provision thereto and the regulations promulgated thereunder.

Section 1.8 Committee. “Committee” means the Compensation Committee of the Board, or such other committee appointed by the Board to assist Pentair in making determinations required under the Executive Officer Plan in accordance with its terms. The “Committee” may delegate all or any portion of its authority under the Executive Officer Plan to an individual or another committee.

Section 1.9 Disability. “Disability” means a continuing condition of the employee that has been determined to meet the criteria set forth in the Employer’s Long-Term Disability Plan, or similar successor plan, to render the Eligible Employee eligible for long-term disability benefits under said plan, whether or not the Eligible Employee is in fact covered by such plan. The

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

determination shall be made by the insurer of the plan or, if an Eligible Employee is not covered by the plan, by the Plan Administrator.

Section 1.10 Eligible Employee. “Eligible Employee” means a U.S.-based, common law employee of Pentair who is an executive officer of Pentair plc and, if applicable, who has satisfied any other criteria established by the Committee to be an Eligible Employee. If an individual is classified by the Employer as other than a common law employee (for example, as an independent contractor or temporary or leased employee), or the individual is not an executive officer of Pentair plc or, if applicable, has not satisfied any other criteria established by the Committee to be an Eligible Employee, such individual will not be an Eligible Employee, regardless of the individual’s correct legal status. For the purpose of this Eligible Employee definition, “U.S.-based” includes any United States citizens on a temporary assignment for Pentair or any Affiliated Company abroad in expatriate status and any U.S. permanent residents or lawful U.S. resident legally authorized to be employed by Pentair or any Affiliated Company with their regular worksite in the United States.

Section 1.11 Employer. “Employer” means, with respect to any Eligible Employee, the entity that employs the Eligible Employee, which may be Pentair plc or another Affiliated Company.

Section 1.12 ERISA. “ERISA” means the Employee Retirement Income Security Act of 1974, as amended. Any reference to a specified provision of ERISA shall include any successor provision thereto and the regulations promulgated thereunder.

Section 1.13 Executive Officer Plan. “Executive Officer Plan” means this “Pentair plc Executive Officer Severance Plan,” as it may be amended from time to time.

Section 1.14 Good Reason. “Good Reason” means the initial occurrence of any of the following actions by Pentair or the Employer without the Eligible Employee’s consent:

- (a) Pentair’s material breach of this Executive Officer Plan or any written employment agreement with the Eligible Employee (if any);
- (b) the removal of the Eligible Employee from, or failure to reappoint or re-elect the Eligible Employee to, any title or position as a corporate officer;
- (c) the material diminution of the Eligible Employee’s authority, powers, functions, duties or responsibilities (provided, however, a change in the Eligible Employee’s title alone shall not constitute such material diminution);
- (d) the material reduction of the Eligible Employee’s annualized base salary (other than such reduction as part of a general and uniformly applied reduction in the base salaries for all executive officers of Pentair); or
- (e) Pentair’s relocation of the Eligible Employee’s principal place of employment to a new location more than 50 miles from the Eligible Employee’s principal place of employment immediately prior to such relocation, (other than a relocation to the company’s management office in the US).

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

Notwithstanding the foregoing, Good Reason shall exist only if the Eligible Employee first gives written notice to Pentair or the Employer within ninety (90) days after the initial occurrence of the condition(s) giving rise to Good Reason, Pentair or the Employer fails to cure such condition(s) within thirty (30) days thereafter, and the Eligible Employee resigns for Good Reason and the Separation Date is effective within six (6) months following the date of the Eligible Employee's written notice hereunder.

Section 1.15 KEESA. "KEESA" means a Key Executive Employment and Severance Agreement, if any, and as amended, in effect between an Eligible Employee and Pentair.

Section 1.16 Participant. A "Participant" is an Eligible Employee who becomes a Participant under Section 2.2 of the Executive Officer Plan and has not ceased to be a Participant under Section 2.3 or under Section 2.5 of the Executive Officer Plan.

Section 1.17 Pentair. "Pentair" means Pentair plc, and any successor to Pentair plc. In addition, unless it is otherwise clear from the context, references to Pentair shall generally include all Affiliated Companies.

Section 1.18 Plan Administrator. The "Plan Administrator" means Pentair plc.

Section 1.19 Qualifying Termination. A "Qualifying Termination" of an Eligible Employee means:

- (a) an Employer-initiated Separation from Service for any reason other than Cause, the Eligible Employee's Disability, or death; or
- (b) an Eligible Employee's Separation from Service as a result of such Eligible Employee's resignation for Good Reason.

In addition, for any Eligible Employee who is a party to a KEESA, the Separation Date must occur while this Executive Officer Plan is in effect and prior to a Change in Control of the Company.

Section 1.20 Restrictive Covenants Agreement. "Restrictive Covenants Agreement" means an agreement by and between an Eligible Employee and Pentair or any Affiliated Company that includes, but may not be limited to, language addressing non-disclosure of confidential information, non-solicitation, non-competition or such other terms as may be determined by Pentair, in a form determined by Pentair and which Pentair or any Affiliated Company requires the employee to sign as a condition of employment, as a condition to an equity-related award or other benefit associated with employment, or as a condition to becoming an Eligible Employee or a Participant.

Section 1.21 Separation Date. "Separation Date" means the date on which a "Separation from Service" has occurred.

Section 1.22 Separation from Service. "Separation from Service" has the meaning given in Code Section 409A(a)(2)(A)(i). A Separation from Service occurs when the facts and circumstances indicate that Pentair and the Eligible Employee reasonably anticipate that no further services will be

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

performed by the Eligible Employee for Pentair or any Affiliated Company after a certain date or that the level of services the Eligible Employee would perform after such date would permanently decrease to no more than 20% of the average level of services performed over the immediately preceding 36-month period. For clarity, a transfer of employment from Pentair to an Affiliated Company, or from one Affiliated Company to another, shall not be considered a Separation from Service.

Section 1.23 Separation and Release Agreement; Release. A “Separation and Release Agreement” is the document, which if signed and returned by an Eligible Employee, satisfies one of the conditions for the Eligible Employee to become a Participant in the Executive Officer Plan as identified in Section 2.2. Pentair will determine the contents of the Separation and Release Agreement, which will include a release of all claims against Pentair and all Affiliated Companies and their respective representatives, and will also include a separate Restrictive Covenants Agreement or provisions addressing return of Pentair property, non-disclosure of confidential information, non-solicitation, non-competition or such other terms as may be determined by Pentair.

Section 1.24 Severance Benefits. “Severance Benefits” means the cash payments and outplacement assistance identified in Section 2.4 that may be provided to a Participant under the Executive Officer Plan in accordance with Article II.

Section 1.25 Severance Multiplier. “Severance Multiplier” means:

- (a) Two (2.0) for Pentair plc’s CEO;
- (b) Two (2.0) for any Eligible Employee (other than Pentair plc’s CEO) who was an executive officer of Pentair plc on January 1, 2021; or
- (c) One and One Half (1.5) for any other Eligible Employee who became an executive officer of Pentair plc on or after January 2, 2021.

ARTICLE II. **Severance Benefits**

Section 2.1 Notice of Eligibility. Each Eligible Employee shall be notified in writing of his or her designation as an Eligible Employee and eligibility to participate in the Executive Officer Plan. Such notice of eligibility shall include a copy of the Summary Executive Officer Plan Description applicable to such Eligible Employee.

Section 2.2 Becoming a Participant. Subject to Section 2.3 and Section 2.5, each Eligible Employee who satisfies all of the following conditions shall be considered a Participant and shall be eligible to receive the Severance Benefits described in the Executive Officer Plan:

- (a) The Eligible Employee experiences a Qualifying Termination;
- (b) If required by the Employer, the Eligible Employee remains employed and continues to adequately perform the Eligible Employee’s job responsibilities through the job-end date specified by the Employer (or, if earlier, through the date that the Employer no longer desires the Eligible Employee’s services); and

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

- (c) the Eligible Employee signs and returns the Separation and Release Agreement to the address directed by the Employer or Pentair within the time period indicated in the Separation and Release Agreement (a Separation and Release Agreement returned after the expiration of the indicated time period will not be accepted and the Eligible Employee will not become a Participant and will not receive any Severance Benefits under the Executive Officer Plan).

If the Plan Administrator determines, in its sole discretion, that the Participant has not fully complied with any of the terms of the Executive Officer Plan and/or the Separation and Release Agreement, Pentair may deny Severance Benefits not yet in pay status or discontinue the payment of the Participant's Severance Benefits and may require the Participant, by providing written notice of such repayment obligation to the Participant, to repay any portion of the Severance Benefits already received under the Executive Officer Plan. If the Plan Administrator notifies a Participant that repayment of all or any portion of the Severance Benefits received under the Executive Officer Plan is required, such amounts shall be repaid within thirty (30) calendar days after the date the written notice is sent. Any remedy under this Section 2.2 shall be in addition to, and not in place of, any other remedy, including injunctive relief, that Pentair or any Affiliated Company may have.

Section 2.3 Termination of Participation. An Eligible Employee shall cease to be a Participant of the Executive Officer Plan on the date the Participant fails to comply with any of the requirements under the Executive Officer Plan (including, but not limited to, not signing or signing and then rescinding the Separation and Release Agreement), if a Participant becomes ineligible for Severance Benefits under any of the circumstances identified in Section 2.5, or whenever the Participant has received the maximum Severance Benefits available to such Participant under the Executive Officer Plan.

Section 2.4 Severance Benefits. Subject to Sections 2.3 and 2.5, a Participant who has experienced a Qualifying Termination will be eligible to receive the following Severance Benefits:

- (a) A total cash payment equal to the amount determined by multiplying: (i) the Severance Multiplier by (ii) the sum of (A) the Participant's Base Salary and (B) the Participant's Annual Bonus Target Amount, less applicable withholdings and payable in substantially equal installments in accordance with Employer's regular payroll cycle during (1) the twenty-four (24) month period immediately following the Separation Date (for any Eligible Employee with a Severance Multiplier of Two (2.0)), or (2) the eighteen (18) month period immediately following the Separation Date (for any Eligible Employee with a Severance Multiplier of One and One Half (1.5)), provided, however, that any installments that otherwise would be payable on the Employer's regular payroll dates between the Separation Date and the expiration of the rescission period applicable to the Separation and Release Agreement will be delayed to an Employer payroll date that is within twenty (20) days after the expiration of the rescission period applicable to the Separation and Release Agreement (but no later than 2-1/2 months after the Separation Date) and included with the installment payable on such payroll date.

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

- (b) If the Participant is enrolled in Employer's group medical and/or dental insurance coverage as of the Separation Date, then Participant will receive an additional cash payment equal to the amount determined by multiplying: (i) the Severance Multiplier by (ii) an amount equal to the Employer's portion of the health insurance premiums to continue such group medical and/or dental insurance coverage, as in place immediately prior to the Separation Date, for twelve (12) months after the Separation Date (based on the health insurance premiums as of the Separation Date), less applicable withholdings and payable in a lump sum on the same date as the first installment identified in Section 2.4(a).
- (c) Pentair shall pay for outplacement services provided for Participant's benefit by a vendor selected by Pentair to the extent such services are actually utilized by Participant within one (1) year following the Separation Date and to the extent the cost does not exceed the Pentair-determined maximum.

Section 2.5 Ineligibility for Severance Benefits. Notwithstanding anything to the contrary, Severance Benefits will not be owed or paid under the Executive Officer Plan (and any Severance Benefits paid to an Eligible Employee under the Executive Officer Plan must be promptly repaid by such Eligible Employee) in any of the following circumstances:

- (a) An Eligible Employee's termination of employment with Pentair for Cause;
- (b) An Eligible Employee retires under Pentair's standard employment policies, regardless of termination date;
- (c) An Eligible Employee voluntarily terminates employment with Pentair for any reason other than Good Reason;
- (d) An Eligible Employee is offered continued employment with Pentair in a new position that Pentair reasonably determines to be a comparable position (subject to an Eligible Employee's right to resign for Good Reason);
- (e) An Eligible Employee begins working in a new position with Pentair within thirty (30) calendar days immediately following the employee's Separation Date;
- (f) An Eligible Employee's employment with Pentair terminates due to death, Disability, or failure to return to work for Pentair following any leave of absence, layoff or any other period of authorized absence from Pentair under Pentair policy or applicable law, including without limitation any approved military leave;
- (g) An Eligible Employee's termination of employment with Pentair does not qualify as a "separation from service" under Code Section 409A;
- (h) An Eligible Employee violates employee's obligations under a Restrictive Covenants Agreement or under a Separation and Release Agreement;

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

- (i) An Eligible Employee refuses to sign the Separation and Release Agreement or Restrictive Covenants Agreement, or rescinds or revokes the Separation and Release Agreement or Restrictive Covenants Agreements before it becomes final (if applicable);
- (j) The individual ceases to be classified as an Eligible Employee by Pentair;
- (k) An Eligible Employee is covered by a written contract or agreement with Pentair or a severance plan (other than the Executive Officer Plan) at the time employment terminates that provides for severance pay or other benefits upon termination of employment, except to the extent the Executive Officer Plan provides greater severance pay or other benefits upon termination (in which case severance pay or other benefits upon termination will be provided under the Executive Officer Plan subject to the Participant waiving any right to receive severance pay or other benefits under any other written contract or agreement with Pentair or severance plan);
- (l) An Eligible Employee's employment terminates as a result of a sale of stock or assets of Employer or Pentair, a merger, a consolidation, the creation of a joint venture or a sale or outsourcing of a business unit or function, or other transaction, and the Eligible Employee accepts employment, or has the opportunity to continue employment in a comparable position (as reasonably determined by Pentair), with the purchaser, joint venture, or other acquiring or outsourcing entity, or a related entity of either Pentair or the acquiring entity; or
- (m) An Eligible Employee was hired or appointed to an executive officer position for a specific term or for a specific project, and such Eligible Employee's employment terminates upon or after the end of such term or at the end of such project.

Section 2.6 Impact upon Other Benefits. Except as provided in Section 2.5 (Ineligibility for Severance Benefits), Severance Benefits under the Executive Officer Plan are not intended to impact other benefits to which a Participant is entitled under the terms and conditions of other plans or programs through which such other benefits are provided. Notwithstanding the previous statement, the Executive Officer Plan is intended to replace and is available in lieu of benefits under any other severance or severance-type benefit plan, formal or informal, sponsored by Pentair which are or previously were available to any Pentair employee, except (a) to the extent such other amounts are deferred compensation subject to Code Section 409A, or (b) to the extent an employee is covered by a written contract or agreement with Pentair or any other plan or program (other than the Executive Officer Plan) at the time employment terminates that provides for severance pay or other benefits upon termination, except to the extent the Executive Officer Plan provides greater severance pay or other benefits upon termination (in which case severance pay or other benefits upon termination will be provided under the Executive Officer Plan subject to the Participant waiving any right to receive severance pay or other benefits under any other written contract or agreement with Pentair or severance plan).

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

Section 2.7 Tax Consequences. Benefit payments made under the Executive Officer Plan shall be included in the Participant's taxable income and are subject to all applicable withholdings to the extent required by law, as determined by Pentair.

Section 2.8 Application of Code Section 409A. It is the intention of Pentair that the Executive Officer Plan, and the Severance Benefits provided hereunder, qualify for certain exceptions from coverage under Code Section 409A (including the current and future regulations or other applicable guidance thereunder), such as the exception for "short-term deferrals," and "involuntary separation pay plan" payments, and the Executive Officer Plan should be interpreted accordingly. To the extent that any provision of the Executive Officer Plan does not qualify for an exception due to changes in the regulations, guidance or interpretation, such provision will be applied in a manner consistent with such requirements, regulations or guidance, notwithstanding any provision of the Executive Officer Plan to the contrary. In addition, to the extent that any amounts payable under the Executive Officer Plan are required to be delayed under Code Section 409A, such amounts are intended to be and should be considered for purposes of Code Section 409A as separate payments from the amounts that are not required to be delayed. Notwithstanding anything herein to the contrary, if any Participant is considered a "specified employee" (as defined in Treasury Regulation Section 1.409A-1(i)) as of the Participant's Separation Date, then no payments of deferred compensation subject to Code Section 409A and payable due to such Participant's separation from service shall be made under the Executive Officer Plan before the first business day that is six (6) months after the Participant's Separation Date (or upon the Participant's death, if earlier) (the "Specified Period"). Any deferred compensation payments that would otherwise be required to be made to a Participant during the Specified Period will be accumulated by Pentair and paid to the Participant on the first day after the end of the Specified Period. The foregoing restriction on the payment of amounts to a Participant during the Specified Period will not apply to the payment of employment taxes.

ARTICLE III. **Administration**

Section 3.1 Plan Administrator

- (a) The Plan Administrator shall be responsible for the general supervision of the Executive Officer Plan. The Plan Administrator shall also be the named fiduciary of the Executive Officer Plan in accordance with Section 402 of ERISA and therefore shall have authority to control and manage the operation and administration of the Executive Officer Plan. The Plan Administrator shall perform any and all acts necessary or appropriate for the proper management and administration of the Executive Officer Plan.
- (b) Unless otherwise specifically provided by the Board, Pentair plc's Chief Human Resources Officer shall act on behalf of Pentair in its capacity as Plan Administrator.

Section 3.2 Powers of Plan Administrator. The Plan Administrator shall have all powers necessary to administer the Executive Officer Plan, including but not limited to authority to interpret the Executive Officer Plan terms, determine eligibility, determine benefits and the authority to contract with service providers.

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

Section 3.3 Expenses. Pentair shall bear all administrative costs of the Executive Officer Plan.

Section 3.4 Reports and Records. The Plan Administrator shall keep a copy of all records relating to the payment of Severance Benefits to Participants and former Participants and all other records necessary for the proper operation of the Executive Officer Plan. All Executive Officer Plan records shall be made available to the Committee, the Board, Pentair and to each Participant for examination during business hours, except that a Participant shall examine only such records as pertain exclusively to the examining Participant or to which the Participant has rights to review under ERISA. The Plan Administrator shall prepare and shall file as required by law or regulation all reports, forms, documents and other items required by ERISA, the Code, and every other relevant statute, each as amended, and all regulations thereunder (except that the Employer, as payor of the Severance Benefits, shall prepare and distribute to the proper recipients all forms relating to withholding of income or wage taxes, Social Security taxes, and other amounts that may be similarly reportable).

Section 3.5 Rule Against Discrimination. The Plan Administrator shall exercise its discretion under the Executive Officer Plan in a uniform manner so that all similarly situated Participants (or their beneficiaries) shall be similarly treated. However, nothing precludes Pentair from offering benefits to a Participant that are in addition to the benefits otherwise available under the Executive Officer Plan, or, with the consent of the Participant, different from the Severance Benefits otherwise available under the Executive Officer Plan.

ARTICLE IV. Amendment and Termination

Section 4.1 Amendment or Suspension. Subject to Section 4.3, Pentair reserves the right in its discretion to amend or suspend the Executive Officer Plan at any time, and from time to time, in whole or in part, and in any manner without the consent or notice to any employee or any other person having any beneficial interest in the Executive Officer Plan. Such amendment will be in writing. Such action may be taken by the Committee or by any other individual or committee to whom such authority has been delegated by the Board.

Section 4.2 Termination. Subject to Section 4.3, Pentair reserves the right in its discretion to terminate the Executive Officer Plan at any time and in any manner. Such action will be in writing. Such action may be taken by the Board or by any other individual or committee to whom such authority has been delegated by the Board. In addition, for any Eligible Employee who is a party to a KEESA, the Executive Officer Plan shall terminate, and any eligibility to receive Severance Benefits (including any additional installments of Severance Benefits that otherwise would be due under this Executive Officer Plan as the result of a Qualifying Termination) shall end, immediately upon the first Change in Control of the Company to occur after the effective date of the Executive Officer Plan; provided, however, a Participant who is a party to a KEESA shall remain eligible to continue to receive Severance Benefits if a Qualifying Termination occurs prior to the first Change in Control of the Company and such Participant is not eligible to receive any severance pay or benefits under the KEESA. For avoidance of doubt, (a) no Eligible Employee who is a party to a KEESA will be entitled to receive any Severance Benefits under the Executive Officer Plan after the first Change in Control of the Company if such Eligible Employee is also eligible to receive any severance pay or

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

benefits under the KEESA, and (b) any Eligible Employee who is not a party to a KEESA will continue to be entitled to receive Severance Benefits under the Executive Officer Plan after a Change in Control of the Company, subject to all terms of the Executive Officer Plan. After termination of the Executive Officer Plan, the rights and obligations of any persons named herein or otherwise affected by the Executive Officer Plan shall be limited to those which have accrued to the date of the Executive Officer Plan termination.

Section 4.3 Exceptions. Changes to the Executive Officer Plan which are administrative or clarify its terms but that are not changes to eligibility requirements or the amount of benefits available to Participants under this Executive Officer Plan may be adopted and approved in writing by the Board or by any other individual or committee to whom such authority has been delegated by the Board, or by Pentair plc's Chief Human Resources Officer or the person performing such functions. Notwithstanding the foregoing, any material change to the Severance Benefits payable to an executive officer of Pentair under the Executive Officer Plan must be approved by the Committee. In addition, notwithstanding the above limitations, the Executive Officer Plan may be amended at any time (and such amendment will be given affect) if such amendment is required to bring the Executive Officer Plan into compliance with applicable law, including but not limited to Code Section 409A.

ARTICLE V. **Miscellaneous**

Section 5.1 Participant Rights. Notwithstanding any provision of the Executive Officer Plan to the contrary, no provision of the Executive Officer Plan shall be construed as giving to any Participant legal or equitable rights against Pentair or any employee thereof, except as otherwise provided under ERISA. Further, the action of Pentair in creating the Executive Officer Plan shall not be construed to constitute and shall not be evidence of any contractual relationship between Pentair and any Participant, or as a right of any Participant to continue in the employment of Pentair, or as a limitation of the right of Pentair to discharge any of its employees, with or without cause. Pentair shall have the absolute right to deal with any employee who may be a Participant hereunder at any time as if the Executive Officer Plan had never been established.

Section 5.2 Indemnification. Subject to the requirements of ERISA, Pentair does hereby indemnify and hold harmless any employee that is deemed to be a fiduciary with respect to the Executive Officer Plan under the terms and provisions of ERISA, the regulations promulgated thereunder or case law which develops under ERISA against any and all losses, claims, damages, expense (including court costs and attorneys' fees) and liability arising from the employee's duties and responsibilities in connection with the Executive Officer Plan unless the same is determined to be due to gross negligence or willful misconduct.

Section 5.3 Applicable Law. The Executive Officer Plan is intended to be construed, and all rights and duties hereunder are to be governed, in accordance with the laws of the State of Minnesota, except to the extent such laws are preempted by the laws of the United States of America.

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

Section 5.4 Alienation or Assignment of Severance Benefits. No Severance Benefits due at any time under the Executive Officer Plan are to be subject in any manner to alienation, sale, transfer, assignment, pledge, attachment or encumbrance of any kind. Participants cannot assign his/her Severance Benefits to anyone else and such Severance Benefits are not subject to attachment by creditors. Pentair will not pay Severance Benefits to anyone other than a Participant (or the Participant's estate if the Participant dies after properly signing and not revoking the Separation and Release Agreement, but before Pentair pays the benefit).

Section 5.5 Interpretation. Whenever used in the Executive Officer Plan, the masculine pronoun shall include the feminine and the singular shall include the plural unless a different meaning is otherwise required by the context.

Section 5.6 Family and Medical Leave Act of 1993. Notwithstanding any provision of the Executive Officer Plan to the contrary, the Executive Officer Plan shall be administered and maintained in a manner consistent with the Family and Medical Leave Act of 1993.

ARTICLE VI. **Additional Information**

Executive Officer Plan Name: Pentair plc Executive Officer Severance Plan.

Plan Administrator & Executive Officer Plan Sponsor

Pentair plc is the "Executive Officer Plan Sponsor" and "Plan Administrator" of the Executive Officer Plan. Communications with Pentair regarding the Executive Officer Plan should be addressed to:

Pentair
Attn: Chief Human Resources Officer
5500 Wayzata Blvd, Suite 900
Minneapolis, MN 55416-1261

As Plan Administrator, Pentair plc has complete discretionary authority to interpret the provisions of the Executive Officer Plan and to determine which employees are eligible for any Severance Benefits under the Executive Officer Plan, the requirements to receive Severance Benefits, and the amount of those Severance Benefits. Pentair also has authority to correct any errors that may occur in the administration of the Executive Officer Plan, including recovering any overpayment of Severance Benefits from the person who received it.

Participating Employers

Participating employers include each employer of an Eligible Employee. Participants may receive a list of all participating employers from the Plan Administrator.

Employer Identification Number (EIN): Pentair plc, 98-1141328.

Type of Administration & Funding

The Executive Officer Plan is administered by Pentair plc. Severance Benefits are paid out of the general assets of Pentair; there is no trust and there are no trustees. No Participant contributions are required or permitted.

Executive Officer Plan Type & Executive Officer Plan Number

The Executive Officer Plan is a welfare benefit plan providing Severance Benefits under certain termination of employment situations. The Executive Officer Plan Number is 502.

Agent for Service of Legal Process

Legal process regarding the Executive Officer Plan may be served on Pentair plc at the address listed above.

Executive Officer Plan Year

January 1 through December 31.

Claims Procedure

Normally, the Plan Administrator will determine an employee's eligibility and benefit amount on its own and without any action on the part of the terminating employee, other than returning the release form.

If the Plan Administrator has not acted on a termination (or if you disagree with a decision made by the Plan Administrator), you or your authorized representative may submit a written claim for benefits. The claim must be submitted to Pentair plc's Chief Human Resources Officer within six (6) months after the date you terminated employment. Claims received after that time will not be considered.

The Plan Administrator will ordinarily respond to the claim within ninety (90) days of receiving it. However, if special circumstances require an extension of the period of time for processing a claim, the 90-day period can be extended for an additional 90 days by giving the claimant written notice of the extension and the reason why the extension is necessary. If the claim is denied in whole or in part, the denial notice shall be in writing and shall explain the specific reason for the denial. The notice to the Participant shall make reference to the specific provisions in the Executive Officer Plan, and suggest steps, if any, necessary to perfect the claim of the Participant.

Appeals. If you disagree with the initial claim determination, you or your authorized representative can request that the decision be reviewed by filing a written request for review with Pentair plc's Chief Human Resources Officer within 60 days after receiving notice that the claim has been denied. You or your representative may present written statements or other documentation supporting your claim. Upon request, you may review all documents relevant to your claim. (You may also receive copies of these documents free of charge.)

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

Generally, the decision will be reviewed within 60 days after the Plan Administrator receives a request for review. However, if special circumstances require a delay, the review may take up to 120 days. (If a decision cannot be made within the 60-day period, you will be notified of this fact in writing.) You will receive a written notice of the decision on the appeal, which will explain the reasons for the decision by making specific reference to the Executive Officer Plan provisions on which the decision is based.

If you receive no response by the end of the appeal's initial 60-day appeal period or any extension period, you should consider the appeal denied. You are entitled to a written explanation of the reason for the denial.

If your appeal is denied, in whole or in part, and you disagree with the appeal determination, then you and the Plan Administrator shall engage in good faith resolution efforts, including mediation with a neutral mediator agreeable to you and the Plan Administrator, to resolve the matter. If such resolution efforts are unsuccessful, after reasonable participation by you and the Plan Administrator, then you have the right to file a lawsuit challenging the Plan Administrator's determination. Note that you must follow this claims procedure if you have a claim; the failure to do so may prevent you from challenging an adverse decision in court. In addition, after you have completed the claims and appeal procedures above, if you wish to bring a lawsuit, you must do so within one year of the final denial of your claim. Failure to file a lawsuit within this time period will cause your rights to expire. All lawsuits arising under the Plan or relating to the Plan must be submitted to the United States District Court of the District of Minnesota. By participating in the Plan, or by asserting an entitlement to any right or benefit under the Plan, you consent to the United States District Court of the District of Minnesota's exercise of personal jurisdiction over you, and waive any argument that that forum is not a convenient forum in which to resolve the lawsuit.

ERISA Statement of Rights

As an Eligible Employee under the Executive Officer Plan, you are entitled to certain rights and protections under ERISA. ERISA provides that all Eligible Employees are entitled to:

1. Examine, without charge, at Pentair's Human Resources Department and at other specified locations, such as worksites, all documents governing the Executive Officer Plan and a copy of the latest annual report (Form 5500 Series) filed by the Executive Officer Plan with the U.S. Department of Labor and available at the Public Disclosure Room of the Employee Benefits Security Administration, if required.
2. Obtain, upon written request to Pentair's Human Resources Department, copies of documents governing the operation of the Executive Officer Plan and copies of the latest annual report (Form 5500 Series), if required, and updated summary plan description. Pentair may make a reasonable charge for the copies.
3. Receive a summary of the Executive Officer Plan's annual financial report (if the Executive Officer Plan is required to file such a report). Pentair is required by law to furnish each participant with a copy of this summary financial report.

PENTAIR plc EXECUTIVE OFFICER SEVERANCE PLAN

In addition to creating rights for Executive Officer Plan participants, ERISA imposes duties upon the people who are responsible for the operation of the Executive Officer Plan. The people who operate your plan, called “fiduciaries” of the Executive Officer Plan, have a duty to do so prudently and in the interest of you and the other Executive Officer Plan Participants. No one, including your employer or any other person, may discriminate against you in any way to prevent you from obtaining a benefit or exercising your rights under ERISA. If your claim for a welfare benefit is denied in whole or in part, you must have the right to know why this was done, to obtain copies of documents relating to the decision without charge, and to appeal any denial, all with certain time schedules.

Under ERISA, there are steps you can take to enforce the above rights. For instance, if you request a copy of plan documents or the latest annual report from the Executive Officer Plan and do not receive them within thirty (30) days, you may file suit in a federal court. In such a case, the court may require Pentair to provide the materials and pay you up to \$110 a day until you receive the materials, unless the materials were not sent because of reasons beyond its control. If you have a claim for benefits which is denied or ignored, in whole or in part, and you have exhausted your appeal rights under the Executive Officer Plan’s claims procedure, you may file suit in a state or federal court. If you are discriminated against for asserting your rights, you may seek assistance from the United States Department of Labor, or you may file suit in a federal court. The court will decide who should pay court costs and legal fees. If you are successful, the court may order the person you have sued to pay these costs and fees. If you lose, the court may order you to pay these costs and fees (for example, if it finds your claim is frivolous).

If you have any questions about the Executive Officer Plan, you should contact the Plan Administrator. If you have any questions about this statement or about your rights under ERISA, or if you need assistance in obtaining documents from Pentair, you should contact the nearest office of the Employee Benefits Security Administration, U.S. Department of Labor, listed in your telephone directory, or the Division of Technical Assistance and Inquiries, Employee Benefits Security Administration, U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210. You may also obtain certain publications about your rights and responsibilities under ERISA by calling the publications hotline of the Employee Benefits Security Administration.

**AMENDMENT NO. 1 TO THE
PENTAIR PLC 2020 SHARE AND INCENTIVE PLAN**

Effective January 1, 2021, Section 14(c)(iii) of the Pentair plc 2020 Share and Incentive Plan is amended to read in its entirety as follows:

(iii) All Performance Awards, including Incentive Awards, shall be paid in either unrestricted Shares or cash, as the case may be, following the end of the performance period and based on achievement of the Performance Goals established for such Awards, as if the Participant had not Retired or experienced a Covered Termination; provided that with respect to a Participant who first becomes a Board-appointed corporate officer on or after January 1, 2021, such Performance Awards, if earned based on achievement of the Performance Goals, will be pro-rated based on the number of days in the performance period during which the Participant was employed prior to the time of Retirement or Covered Termination.

AMENDMENT TO
KEY EXECUTIVE EMPLOYMENT AND SEVERANCE AGREEMENT

This Amendment to Key Executive Employment and Severance Agreement (“Amendment”) is made and entered into as of the 1st day of January, 2021, by and between Pentair plc, an Irish corporation limited by shares (hereinafter referred to as the “Company”), and _____ (hereinafter referred to as the “Executive”).

WITNESSETH

WHEREAS, the Executive and the Company are parties to a Key Executive Employment and Severance Agreement made and entered into as of the ___ day of _____, 20__ (the “KEESA”); and

WHEREAS, the Executive and the Company have mutually agreed to amend the KEESA on the terms and conditions set forth in this Amendment.

NOW, THEREFORE, in accordance with Section 19 of the KEESA, and in consideration of the foregoing and of the mutual covenants and agreements hereinafter set forth, the parties hereto mutually covenant and agree as follows:

1. Section 9(a) of the KEESA is hereby deleted in its entirety and replaced with the following language:

(a) Termination Payment. The “Termination Payment” shall be an amount equal to the Annual Cash Compensation times two; provided, however, in the event the Executive’s Termination Date is pursuant to Section 2(b), then the “Termination Payment” shall be an amount equal to the Annual Cash Compensation times two minus any cash amounts received by the Executive under the Pentair plc Executive Officer Severance Plan (if any) as of the date on which a Change in Control of the Company occurs. The Termination Payment shall be paid to the Executive in cash equivalent (i) on the first day of the seventh month following the month in which the Executive’s Separation from Service occurs, without interest thereon, to the extent necessary for compliance with the requirements of Code Section 409A(a)(2)(B) relating to specified employees or (ii) to the extent not so required, within ten (10) business days after the Termination Date. Notwithstanding the foregoing, in the event the Executive’s Termination Date is pursuant to Section 2(b), the Termination Payment shall be paid within ten (10) business days after the date of the Change in Control of the Company (as defined without reference to Section 2(b)), without interest. Such lump sum payment shall not be reduced by any present value or similar factor, and the Executive shall not be required to mitigate the amount of the Termination Payment by securing other employment or otherwise, nor will such Termination Payment be reduced by reason of the Executive securing other employment or for any other reason, except as provided in subsection (b) below. The Termination Payment shall be in lieu of, and acceptance by the Executive of the Termination Payment shall constitute the Executive’s release of any rights of the Executive to, any other cash severance payments under any Company severance policy, practice or agreement.

2. Section 9(c)(ii)(A) of the KEESA is hereby amended to delete the last sentence of Section 9(c)(ii)(A).

3. All capitalized terms not otherwise defined herein shall have the meanings ascribed to such terms in the KEESA.

4. Other than as expressly provided in this Amendment, the KEESA shall continue in full force and effect.

[signature page follows]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

PENTAIR PLC

By: _____

Its:

Attest: _____

Its:

EXECUTIVE:

Address:

CONFIDENTIAL SEPARATION AGREEMENT

This CONFIDENTIAL SEPARATION AGREEMENT (“Agreement”) is made effective this 31st day of December 2020 by and between Karl Frykman (“Employee”) and Pentair Water Pool and Spa, Inc. on behalf of itself, its predecessors, subsidiaries and affiliated entities (collectively, “Company”).

WHEREAS, the Employee's employment will end on December 31, 2020.

WHEREAS, in an effort to ease Employee's transition in connection with the separation of employment, the Company is offering this Agreement to Employee.

WHEREAS, the parties now wish to enter into this Agreement to memorialize their mutual understanding and agreement regarding their respective obligations to one another regarding the terms and conditions of Employee's separation of employment.

WHEREFORE, for good and valuable consideration, the parties hereby agree as follows:

1. Separation Payment and Other Benefits. As consideration for the Employee's execution of, non-revocation of, and compliance with this Agreement and the post-employment restriction in the form attached hereto as Exhibit A, the Company shall pay Employee the total sum of \$2,527,000.00, less applicable withholdings payable as follows:

a. Confidentiality Payment: As consideration for the Employee's reaffirmation of his ongoing and continuous confidentiality obligations set forth in Section 4, Employee shall receive the total amount of \$1,000,000, less any applicable withholdings. This payment shall be paid no later than January 31, 2022 provided that Employee has not revoked or breached this Agreement.

b. Separation and Release Payment: As consideration for the Employee's release set forth in Section 2, and his promises set forth in Sections 5 and 6, Employee shall receive the total amount of \$527,000, less any applicable withholdings. This payment shall be paid no later than January 31, 2021 provided that Employee has not executed his right to rescind the Agreement.

c. Post-Employment Restrictive Covenant Payment: As consideration for the Employee's post-employment restriction covenants set forth in Exhibit A, Employee shall receive the total amount of \$1,000,000, less any applicable withholdings. This sum will be paid in two equal installments, payable no later than January 31, 2021 and January 31, 2022.

Further, provided Employee does not exercise his right of rescission under Section 8, the Company will pay to Employee an additional lump sum of \$28,201.00, less applicable withholdings (the “COBRA Subsidy”), which Employee may use toward the cost of future health insurance premiums or for other purposes. The COBRA Subsidy will be paid to Employee at the same time the Separation and Release Payment is made.

As a participant in the Pentair 2020 Management Incentive Plan (“MIP”), Employee will be eligible to receive a MIP bonus award, subject to the terms and conditions of the MIP, which shall be calculated using Employee’s monthly base salary in effect on the Separation Date. Such bonus award shall be payable at the same time other eligible participants in the MIP receive their payments, on or before March 15, 2021.

The parties acknowledge that Employee will receive pay for his accrued and unused vacation remaining (if any) as of the Separation Date with or without this Agreement. Further, as an inducement for the Company to agree to tender the Separation Payment to Employee, Employee acknowledges and affirms that he has been fully compensated for all hours actually worked and that there are no hours that he actually worked prior to the Separation Date for which he has not already been paid in full. Employee understands and agrees that, except as provided above and in Section 10 below, he has no rights to or claims under any other severance plans, bonus or incentive compensation plans of any type, including, but not limited to, the Pentair Management Incentive Plan, the Omnibus Stock Incentive Plan, the 2008 Omnibus Stock Incentive Plan, the 2012 Stock and Incentive Plan, the Pentair plc Employee Stock Purchase and Bonus Plan, the Pentair, Inc. Supplemental Executive Retirement Plan (together with its predecessors), the Pentair Inc. Restoration Plan (together with its predecessors), the Pentair Inc. Deferred Compensation Plan (referred to as the “Sidekick Plan”) or any plans of employers acquired by the Company with respect to options, restricted stock, restricted stock units or performance units. The Omnibus Stock Incentive Plan, the 2008 Omnibus Stock Incentive Plan, and the 2012 Stock and Incentive Plan are in the aggregate called the “Pentair Equity Plans” and the document(s) establishing the terms and conditions of the grants under the Pentair Equity Plans are called the “Terms & Conditions” in this Agreement.

2. Release of Claims. In exchange for the benefits set forth in Section 1(b) in this Agreement, Employee, on behalf of himself, his agents, representatives, attorneys, assignees, heirs, executors, and administrators, hereby covenants not to sue and hereby releases and forever discharges the Company, and its past and present employees, agents, insurers, officials, officers, directors, divisions, parents (including Pentair plc), subsidiaries, predecessors and successors, and all affiliated entities and persons, and all of their respective past and present employees, agents, insurers, officials, officers, and directors from any and all claims and causes of action of any type arising, or which may have arisen, out of or in connection with his employment or the separation of his employment with the Company, including but not limited to claims, demands or actions arising under the National Labor Relations Act, Title VII of the Civil Rights Act of 1964, the Employee Retirement Income Security Act of 1974, the Age Discrimination in Employment Act of 1967 as amended by the Older Workers Benefit Protection Act, the Equal Pay Act, 42 U.S.C. § 1981, the Sarbanes-Oxley Act, the Dodd–Frank Wall Street Reform and Consumer Protection Act, the Fair Credit Reporting Act, the Vocational Rehabilitation Act, the Family and Medical Leave Act, the Worker Adjustment and Retraining Notification Act, the Fair Labor Standards Act, the Lily Ledbetter Fair Pay Act of 2009, the Americans with Disabilities Act, the Rehabilitation Act of 1973, the Genetic Information Nondiscrimination Act, the Immigration Reform and Control Act of 1986, the Civil Rights Act of 1991, the Occupational Safety and Health Act, the Consumer Credit Protection Act, the American Recovery and Reinvestment Act of 2009, the Asbestos Hazard Emergency Response

Act, Employee Polygraph Protection Act, the Uniformed Services Employment and Reemployment Rights Act, California Fair Employment and Housing Act, the California Family Rights Act, the California Healthy Workplaces Healthy Families Act, the California Wage Theft Prevention Act, the California Equal Pay Act, the California WARN Act, the California Consumer Privacy Rights Act, the California Whistleblower Protection Act, the California Pregnancy Disability Leave Law, the California Paid KinCare Leave Law, the California Minimum Wage Law, the California Consumer Credit Reporting Agencies Act, the California Investigative Consumer Reporting Agencies Act, the California Confidentiality of Medical Information Act, the California Genetic Privacy Law, the California Use and Disclosure of HIV Tests Law, the California Employer Use of Social Media Law, the California Crime Victim Leave Law, the California Domestic Violence and Sexual Assault Victim Leave Law, the California Military and Military Spouse Leave Law, the California Alcohol and Drug Rehabilitation Leave Law, the California Organ and Bone Marrow Donor Leave Law, the California School Activity Leave Law, the California Occupational Safety and Health Law, the California Workers' Compensation Law (excluding claims for benefits), the California Labor Code, the California Constitution, California common law and all other applicable state, county and local ordinances, statutes and regulations. Employee further understands that this discharge of claims extends to, but is not limited to, all claims which he may have as of the date of this Agreement based upon statutory or common law claims for defamation, libel, slander, assault, battery, negligent or intentional infliction of emotional distress, negligent hiring or retention, breach of contract, retaliation, whistleblowing, promissory estoppel, fraud, wrongful discharge, or any other theory, whether legal or equitable, and any and all claims for wages, salary, bonuses, commissions, damages, attorney's fees or costs. Employee acknowledges that this release includes all claims that he is legally permitted to release, and as such, does not apply to any vested rights under the Company's retirement plans, nor does it preclude him from filing an administrative charge with a government agency, though he may not recover any damages or receive any relief from the Company if he does file such a charge.

Waiver of Section 1542. In addition to the foregoing release of claims, Employee expressly waives any and all rights under Section 1542 of the Civil Code of the State of California, which provides that:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS/HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM/HER MUST HAVE MATERIALLY AFFECTED HIS/HER SETTLEMENT WITH THE DEBTOR.

Employee expressly and completely waives and releases any right or benefit which he/she has or may have under this law, or any similar law, pertaining to the claims which he/she is releasing herein. Employee is aware that he/she may later discover claims presently unknown or unsuspected, or facts in addition to or different from those which he/she now knows or believes to be true. Nevertheless, it is Employee's intention to fully, finally and forever settle and release all such matters, and all related claims.

3. Separation from Employment. Employee's employment with the company will end on December 31, 2020 ("Separation Date"), and employee is electing to sign this Agreement after his employment has ended.

4. Confidential and Proprietary Information Acquired During Employment. Employee acknowledges that during his employment he had access to and assisted with the development of confidential and proprietary information. Employee agrees that he will continue to treat, as confidential, proprietary and privileged, any information, data, figures, projections, estimates, marketing plans, customer lists, lists of contract workers, tax records, personnel records, accounting procedures, formulas, contracts, business partners, alliances, ventures and all other confidential information which Employee acquired while working for the Company. Employee agrees that he will not release any such information to any person, firm, corporation or other entity at any time, except as may be required by law, or as agreed to in writing by the Company. Employee acknowledges that this obligation continues even after he has received the Confidentiality Payment set forth in Section 1(a) and applies regardless of whether this Agreement is rescinded, modified or deemed invalid. Employee further acknowledges that this obligation is separate and apart from the obligations provided for in Exhibit A and survives the expiration, termination or rescission of those specific obligations.

Employee acknowledges and agrees that any violation of this non-disclosure provision will result in irreparable injury to the Company and that such harm may not be compensable entirely with monetary damages. The Company reserves all rights to seek any and all remedies and damages permitted under law, including, but not limited to, injunctive relief, equitable relief and compensatory damages. In connection with any suit at law or in equity to enforce the Company's under this provision, the Company shall be entitled to an accounting, and to the repayment of all profits, compensation, commissions, fees, or other remuneration which you or any other entity or person has either directly or indirectly realized on its behalf or on behalf of another and/or may realize, as a result of, growing out of, or in connection with the violation which is the subject of the suit. Further, in the event of Employee's breach of this provision, the Company may recoup the value of the Confidentiality Payment. In addition to the foregoing, the Company shall be entitled to collect from the Employee any reasonable attorney's fees and costs occurred in bringing any action against Employee or otherwise to enforce the terms of this Agreement.

Immunity from Liability: Employee shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence to a federal, state or local government official, either directly or indirectly, or to an attorney, and is made solely for the purpose of reporting or investigating a suspected violation of law. The same immunity will be provided for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the individual's attorney and use the trade secret information in the court proceeding if the individual files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order.

5. Confidentiality of Agreement; No Disparaging Remarks. Employee represents and agrees that he will keep the terms and facts of this Agreement completely confidential, and that he will not disclose any information concerning this Agreement to anyone, except for his counsel, tax accountant, spouse or except as may be required by law or agreed to in writing by the Company or as otherwise required for Employee to enforce or defend his rights hereunder. Further, subject to Section 14 below, Employee shall not make any disparaging remarks of any sort or otherwise communicate any disparaging comments about the Company, its managers,

officers or directors, or about any of the other released persons or entities identified in Section 2 to any other person or entity. However, Employee shall not be held in breach of this provision if he discloses information to a federal, state or local government official, either directly or indirectly, or to an attorney, solely for the purpose of reporting or investigating a suspected violation of law.

6. Cooperation and Certification. At the request of the Company following the Separation Date and subject to Section 14 below, Employee will cooperate with the Company, with Pentair plc and with any affiliate of Pentair plc in any claims or lawsuits where Employee has knowledge of the facts. Employee shall, when requested by Company, provide testimony or other assistance in order to fulfill this obligation; provided, however, that, in connection with such litigation or investigation, Company shall attempt to accommodate Employee's schedule, shall provide Employee with reasonable notice in advance of the times in which Employee's cooperation or assistance is needed, and shall reimburse Employee for any reasonable expenses incurred in connection with such matters. Nothing in this Agreement prevents Employee from testifying at an administrative hearing, arbitration, deposition or in court in response to a lawful and properly served subpoena (provided Employee provides written notice of the service of the subpoena to the Company within twenty-four (24) hours of receipt), nor does it preclude Employee from filing an administrative charge with a government agency or cooperating with a government agency in connection with an administrative charge (though he may not recover damages or receive any relief from the Company if he does file such a charge as noted in Section 2 above). Finally, Employee certifies, warrants and represents that he has faithfully discharged his role with the Company at all times during his employment. Employee further certifies, warrants and represents that he is unaware of any actual or potential violations of law by the Company, Pentair plc, or any affiliate of Pentair plc.

7. No Wrongdoing. Employee and the Company agree and acknowledge that the consideration exchanged herein does not constitute, and shall not be construed as, an admission of liability or wrongdoing on the part of Employee, the Company or any entity or person, and shall not be admissible in any proceeding as evidence of liability or wrongdoing by anyone.

8. Notification of Release and Right to Rescind. This Agreement contains a release of certain legal rights which Employee may have, including rights under the Age Discrimination in Employment Act. Employee is advised that he should consult with an attorney regarding such release and other aspects of this Agreement before signing this Agreement. Employee understands that he may nullify and rescind this entire Agreement at any time within the next seven (7) days of the date of signature below by indicating his desire to do so in writing and delivering that writing to the Company c/o Jill Hughes, Sr. Director, Executive Compensation, Pentair, 5500 Wayzata Blvd., Suite 900, Minneapolis MN 55416, by hand or by certified mail. Employee further understands that if he rescinds this Agreement on a timely basis, the Company will not be bound by the terms of this Agreement, and, in such event, Employee will have no right to receive or right to retain the financial benefits conferred under this Agreement.

9. Outplacement. Provided Employee does not exercise his right of rescission under Section 8, then the Company shall pay for outplacement services provided for Employee's benefit by a vendor selected by the Company to the extent such services are actually utilized by

Employee within one (1) year following the Separation Date and to the extent the cost does not exceed the Company-determined maximum.

10. Restricted Stock Units, Performance Share Units and Stock Options under Pentair Equity Plans. If Employee has outstanding equity awards with respect to Pentair shares and long-term incentive cash awards, then Employee shall be entitled to, and the Company agrees to recognize, the following benefits in accordance with the applicable Terms & Conditions: the Company agrees to treat Employee's unearned restricted stock units, performance share units, and nonqualified stock options under the Pentair Equity Plans as noted below:

- i. Restricted Stock Units (RSUs). The value of the RSUs (settled in stock) will vest in full upon Separation Date and those shares deposited into Employee's brokerage account (reduced by applicable tax withholdings) within one month of the Separation Date. Provided, however, that if Employee is a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) and if the Restricted Stock Units would be considered deferred compensation under Section 409A, then the shares (reduced by applicable withholdings) will be deposited six months following the Separation Date.
- ii. Performance Share Units (PSUs). PSUs will be calculated on the Company's actual performance. The payment will be made in shares of Pentair stock less appropriate shares withheld for taxes. The net shares will be deposited into the employee's brokerage account as soon as administratively possible after the final performance is determined.
- iii. Stock Options. Employee's unvested Nonqualified Stock Options (NSOs) and Incentive Stock Options (ISOs) (collectively, "Outstanding Options") shall remain outstanding and vest in accordance with the terms of the particular grant or award under the Pentair Equity Plans or applicable Terms & Conditions under the earlier of the expiration date of the award or the fifth anniversary of the Separation Date. The Outstanding Options may be exercised by Employee until the earlier of the expiration date of the particular award or within five (5) years after the Separation Date, at the time and in the manner permitted under the terms of the applicable Pentair Equity Plan and the applicable Terms & Conditions. Five (5) years after the Separation Date, all Outstanding Options unexercised by Employee shall be forfeited. Employee's stock options under the Pentair Equity Plans that had vested prior to the Separation Date (the "Previously Vested Options") may be exercised by Employee at any time in accordance with the time and in the manner permitted under the terms of the applicable Pentair Equity Plan without regard to whether he signs this Agreement. The Previously Vested Options shall expire and become non-exercisable in accordance with the terms of the applicable Pentair Equity Plan and the Terms & Conditions without regard to whether Employee signs this Agreement. As for Employee's ISOs, they are eligible for preferential tax treatment if exercised within a period of ninety (90) days following the Separation Date, and if exercised more than ninety (90) days following the Separation Date, they will be taxed as ordinary income upon exercise.

Employee acknowledges that all RSUs, PSUs and Stock Options that are not treated as earned in accordance with the Terms & Conditions of the applicable award will automatically become void and that any and all options that Employee holds that are not exercisable as of the Separation Date are forfeited immediately as of the Separation Date. Employee acknowledges that it is Employee's responsibility to review his personal brokerage account and take action prior to the expiration dates for each grant.

11. Post-Employment Restrictive Covenants. As a condition of the Post-Employment Restrictive Covenant Payment set forth in Section 1(c) of this Agreement, Employee expressly agrees to the terms and conditions in the Non-Competition, and Non-Solicitation and Non-Disparagement Agreement set forth in Exhibit A. The parties agree that this is a material term of this Agreement and the sole reason why the Company has agreed to pay Employee the amount set forth in Section 1(c). In the event a court of competent jurisdiction finds Exhibit A, or any of the provisions therein, to be unenforceable, those provisions shall be severed from the Agreement and any consideration paid to Employee under Section 1(c) shall be returned to the Company and the Company will be relieved of making any remaining payments due under Section 1(c). The severance of Exhibit A, or any portion contained therein, shall not invalidate the rest of the Agreement or otherwise effect its enforceability.

12. Return of Company Property. Employee covenants, warrants and represents that on or before the Separation Date, he will have returned any and all Company property that was ever in his possession or under his control to the Company prior to his signature of this Agreement, and this covenant, warranty and representation expressly extends to (but is not limited to) security card, keys, codes, materials, books, files, cell phones and laptop computer.

13. Minnesota Law, Forum and Merger. The terms of this Agreement shall be governed by the laws of the State of Minnesota, the location of Pentair's main U.S. office, and shall be construed and enforced thereunder. Any dispute arising under this Agreement shall be determined exclusively by a Minnesota court of appropriate jurisdiction, and the parties acknowledge the existence of sufficient contacts to the State of Minnesota to confer exclusive jurisdiction upon courts in that state. This Agreement supersedes and replaces all prior oral and written agreements, understandings, and representations between Employee and the Company. Notwithstanding the foregoing, Employee's Pentair 2012 Stock and Incentive Plan Restricted Stock Unit Award Agreement, and any other surviving agreements or contractual obligations relating to post-employment restrictive covenants shall remain in full force and effect. Further, Employee acknowledges that this release includes all claims that he is legally permitted to release, and as such, does not apply to any vested rights under the Company's retirement plans, nor does it preclude him from filing an administrative charge with a government agency, though he may not recover any damages or receive any relief from the Company if he does file such a charge.

14. Administrative Charges, Investigations, and Proceedings. Nothing in this Agreement prohibits Employee from reporting possible violations of federal or state law or regulation to the government, including but not limited to the EEOC, Department of Justice, Securities and Exchange Commission, Congress, and any agency inspector general, or filing a charge with or participating in an investigation or proceeding conducted by the EEOC or a comparable state or local agency (collectively, any such activity shall be referred to as a

“Government Report”). Employee does not need prior authorization of the Company to make a Government Report and is not required to notify the Company that he has made a Government Report. The restrictions in Sections 5-6 above regarding confidentiality, non-disparagement and cooperation do not apply in connection with a Government Report. Notwithstanding the provisions of this section, Employee’s release of claims in Section 2 above waives any alleged right to recover any monetary damages, receive payment for attorneys’ fees, costs or disbursements or receive any relief from the Company in connection with any matter, including a Government Report, but this Agreement does not limit any right of Employee to receive a reward from the government for providing it information in connection with a Government Report.

15. Construction of this Agreement and Severability. Should this Agreement require judicial interpretation, the court shall not construe the Agreement more strictly against any party, including the party who prepared it. This Agreement is results of negotiations where Employee consulted with counsel. Any portions of this Agreement, except for those provisions set forth in Exhibit A, that are found by a court of competent jurisdiction to be invalid, illegal, overly broad or unenforceable in any respect shall be revised to the minimum amount necessary in order to be valid and enforceable. The court shall not have this authority with respect to Exhibit A but shall instead follow the severance provision contained in Section 10 of this Agreement.

16. Employee Understands the Terms of this Agreement. Other than stated herein, Employee warrants that (a) no promise or inducement has been offered for this Agreement; (b) this Agreement is executed without reliance upon any statement or representation of the Company or its representatives concerning the nature and extent of any claims or liability therefor, if any; (c) Employee is legally competent to execute this Agreement and accepts full responsibility therefor; (d) the Company has advised Employee to consult with an attorney, and Employee has had a sufficient opportunity to consult with an attorney; (e) the Company has allowed Employee 21 days within which to consider this proposed Agreement; and (f) Employee fully understands this Agreement and has been advised by counsel (or has consciously chosen not to seek counsel) of the consequences of signing this Agreement. The parties acknowledge and agree that Employee may not sign this Agreement before Employee’s last day of employment with the Company and if Employee has not signed this proposed Agreement within the 21-day period following Employee’s separation from employment with the Company, then the offer of this Agreement shall expire by its own terms and be of no further force or effect without any further action required on the part of the Company.

17. Miscellaneous. The parties agree that this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, and all of which taken together shall constitute a single instrument. Any words of gender shall include the other genders where appropriate.

EMPLOYEE

Dated: December 31, 2020

/s/ Karl R. Frykman

Dated: February 3, 2021

PENTAIR WATER POOL & SPA, INC.

By /s/ Karla C. Robertson

Its Director

EXHIBIT A

NON-COMPETITION, NON-SOLICITATION AND NON-DISPARAGEMENT AGREEMENT

Throughout his employment with the Pentair Water Pool & Spa, Inc. (the “Company”), Employee held an executive position with global duties and responsibilities on behalf on Pentair, plc and its affiliates and became intimately familiar with trade secrets, know-how, business strategies, marketing strategies, product development, proprietary information and confidential information concerning the operations of the Pentair Entities. As a result of Employee’s intimate familiarity with the proprietary and confidential information regarding the Company, Employee acknowledges and agrees that he would be able to engage in unfair competition vis-à-vis the Pentair Entities in the event he were to: (i) become employed by or otherwise involved in any way with a competitor; (ii) solicit or accept competitive business from customers of the Company; or (iii) solicit employees of the Company. Accordingly, Employee agrees to the narrow post-employment restrictions set forth below.

1. Definitions. For the purpose of this Exhibit A, the following definition shall apply:

The Business. The “Business” means each of the business segments, business units, and subsidiary operations of Pentair plc and its subsidiary entities and affiliates on a global basis. The parties acknowledge that due to Employee’s executive position and global duties and responsibilities on behalf of Pentair plc and the Company: (i) he is familiar with all business segments and business units of Pentair plc; (ii) he has been materially involved in all business segments and business units of Pentair plc on a global basis; and (iii) he has received lucrative financial benefits as a result of his exposure to and involvement in all business segments and business units of Pentair plc on a global basis.

Competitor. “Competitor” means any economic concern, whether an entity or a person, that competes against the Business in any geographic market where the Company, Pentair plc or any of its affiliates does business.

Pentair Entities. “Pentair Entities” includes the Company, Pentair plc, any affiliate of Pentair plc and any entity that is a spin-off from Pentair plc or its subsidiaries

2. Non-Competition. Employee agrees that for a twenty-four (24) month period following the Separation Date, he will not (whether in his individual capacity or as an agent of a third party) directly or indirectly, in whole or in part, provide services, whether as an employee, employer, owner, operator, manager, advisor, consultant, agent, partner, director, stockholder, officer, volunteer, intern, or any other similar capacity, to any entity anywhere in the world engaged in a business that is competitive with the Business of Pentair Entities. Notwithstanding the prior sentence, Employee is not prohibited from providing services to a competing entity if: (i) the duties and services provided by Employee to the competitor are not, in whole or in part,

substantially similar to the duties and services Employee provided to the Company or its affiliates; and (ii) the duties and services provided by Employee to the competitor are not reasonably likely to cause him to reveal trade secrets, know-how, customer lists, customer contracts, customer needs, business strategies, marketing strategies, product development, proprietary information and confidential information concerning the business of the Company or its affiliates. Nothing in this Agreement prohibits Employee from purchasing or owning less than five percent (5%) of the publicly traded securities of any corporation, provided that the ownership represents a passive investment and that Employee is not a controlling person of, or a member of a group that controls, the corporation.

3. Non-Solicitation. Employee agrees that for a twenty-four (24) month period following the Separation Date, he will not, for himself or for any third party, directly or indirectly, (i) solicit or accept business from any customer of the Company or its affiliates, or (ii) solicit any employee of the Company or its affiliates for the purpose of hiring such person or otherwise entice, induce or encourage, directly or indirectly, any such employee to leave their employment.

Employee agree that engaging in any of the following activities will be a violation of the above paragraph: (1) soliciting for a hire or soliciting for retainer as an independent consultant or as contingent worker any employee of the Pentair Entities; (2) participating in the recruitment of any employee of the Pentair Entities; (3) serving as a reference for an employee of the Pentair Entities; (4) offering an opinion regarding the candidacy as a potential employee, independent consultant or contingent worker of an individual employed by the Pentair Entities; (5) assisting or encouraging any third party to pursue an employee of the Pentair Entities for potential employment, independent consulting or contingent worker opportunities; or (6) assisting or encouraging any employee of the Pentair Entities to leave their current position in order to be an employee, independent consultant or contingent worker for a third party.

4. Non-Disparagement. Employee agrees that he will not make disparaging remarks of any sort or otherwise communicate any disparaging comments to any other person or entity, about the Companies and any of its divisions, subsidiaries, predecessors and successors, and any affiliated entities and persons, and all of their respective past and present employees, agents, insurers, officials, officers and directors. However, Employee shall not be held in breach of this provision if he discloses confidential information to a federal, state or local government official, either directly or indirectly, or to an attorney, solely for the purpose of reporting or investigating a suspected violation of law.

5. Reasonableness and Notice. Employee agrees that in light of the money and benefits conferred to him under Section 1 (c) of this Agreement, the restrictive covenants imposed above are reasonable and will not result in any hardship to Employee. Further, Employee acknowledges and agrees that a breach of any obligation under this Agreement will result in irreparable injury to the Company and that such harm may not be compensable entirely with monetary damages. The Company reserves all rights to seek any and all remedies and damages permitted under law, including, but not limited to, injunctive relief, equitable relief and compensatory damages. In connection with any suit at law or in equity under this Agreement, the Company shall be entitled to an accounting, and to the repayment of all profits, compensation, commissions, fees, or other remuneration which you or any other entity or person has either

directly or indirectly realized on its behalf or on behalf of another and/or may realize, as a result of, growing out of, or in connection with the violation which is the subject of the suit. Further, in the event of your breach of the above sections, the Company may recoup the value the Post-Employment Restrictive Covenant Payment. In addition to the foregoing, the Company shall be entitled to collect from the Employee any reasonable attorney's fees and costs occurred in bringing any action against Employee or otherwise to enforce the terms of this Agreement. The parties agree that it is their intent that the restrictions be enforced to the maximum allowable extent or modified to permit enforcement to the maximum allowable extent under the laws of Minnesota as determined by a court of appropriate jurisdiction in Minnesota, and the parties further agree to and acknowledge the sufficiency of the parties' contacts with the State of Minnesota in order to confer exclusive jurisdiction of Minnesota courts applying Minnesota law.

Employee agrees that while the restrictive covenants imposed under this Exhibit A are in effect, Employee shall give written notice to the Company within ten days after accepting any other employment, position, or ownership interest with any entity that has operations which compete with the operations of any of the Pentair Entities. Such written notice shall be delivered to the Company c/o Karla Robertson, Pentair General Counsel & Secretary, Pentair plc, Suite 900, 5500 Wayzata Boulevard, Golden Valley, MN 55416, by hand or by certified mail. Employee agrees that the Company may notify such new employer, company or corporate entity that Employee is bound by this Agreement and, at the Company's election, furnish such employer, company or corporate entity with a copy of Exhibit A of this Agreement.

Pentair plc and subsidiaries as of December 31, 2020

Name of Company	Jurisdiction of Incorporation
Aplex Industries, Inc.	United States
Aqua Membranes, Inc. ⁽¹⁾	United States
Aquion (Xi'an) Water Treatment Equipment Co., Ltd.	China
Aquion Hong Kong Limited	Hong Kong
Aquion, Inc.	United States
Be the Change Labs, Inc.	United States
Century Mfg. Co.	United States
Chansuba Pumps Private Limited ⁽²⁾	India
ClearWater Tech, L.L.C.	United States
Enviro Water Solutions LLC	United States
Epps, Ltd.	Mauritius
ETE Coliban Pty Limited	Australia
Everpure Japan Kabushiki Kaisha	Japan
FARADYNE Motors (Suzhou) Co., Ltd ⁽³⁾	China
Faradyne Motors LLC ⁽³⁾	United States
FilterSoft, LLC	United States
Fleck Controls, Inc.	United States
Goyen Controls Co. Pty. Limited	Australia
Goyen Valve LLC	United States
Greenspan Environmental Technology Pty Ltd	Australia
Haffmans B.V.	Netherlands
Haffmans North America, Inc.	United States
Hawley Group Canada Limited	Canada
Holding Nijhuis Pompen B.V.	Netherlands
Hypro EU Limited	United Kingdom
Infinite Water Solutions Private Limited ⁽³⁾	India
Jung Pumpen GmbH	Germany
Lincoln Automotive Company	United States
McNeil (Ohio) Corporation	United States
MECAIR S.r.L.	Italy
Milperra Developments Pty Limited	Australia
Mobile Pool Builder, Inc.	United States
Moraine Properties, LLC	United States
Nano Terra, Inc. ⁽⁴⁾	United States
Nijhuis Pompen B.V.	Netherlands
Panthro Acquisition Co.	United States
Pelican Holding Corporation	United States
Pentair (NZ) Limited	New Zealand
Pentair Aquatic Eco-Systems, Inc.	United States
Pentair Australia Holdings Pty Limited	Australia
Pentair Canada, Inc.	Canada
Pentair Clean Process Technologies India Private Limited	India
Pentair Denmark Holding ApS	Denmark
Pentair Environmental Systems Limited	United Kingdom
Pentair Epsilon Limited	Bermuda
Pentair Federal Pump, LLC	United States
Pentair Filtration Sales & Service Company, LLC	United States
Pentair Filtration Solutions, LLC	United States
Pentair Finance Group GmbH	Switzerland
Pentair Finance Holding GmbH	Switzerland

Pentair Finance S.a.r.l.	Luxembourg
Pentair Flow Control International Pty Limited	Australia
Pentair Flow Services AG	Switzerland
Pentair Flow Technologies de Mexico, S. de R.L. de C.V.	Mexico
Pentair Flow Technologies Pacific Pty Ltd	Australia
Pentair Flow Technologies, LLC	United States
Pentair France SARL	France
Pentair Germany GmbH	Germany
Pentair Global Holdings B.V.	Netherlands
Pentair Global S.a.r.l.	Luxembourg
Pentair Group (Thailand) Limited ⁽⁵⁾	Thailand
Pentair Holdings S.a.r.l.	Luxembourg
Pentair Holdings, Inc.	United States
Pentair Housing, Inc.	United States
Pentair Housing, LP	United States
Pentair International (UK) Ltd	United Kingdom
Pentair International Holding S.a.r.l.	Luxembourg
Pentair International Sarl	Switzerland
Pentair Investments Switzerland GmbH	Switzerland
Pentair Ireland Limited	Ireland
Pentair Janus Holding LLC	United States
Pentair Janus Holdings	Bermuda
Pentair Kenya Limited	Kenya
Pentair Luxembourg S.a.r.l.	Luxembourg
Pentair Management Company	United States
Pentair Manufacturing Belgium BV	Belgium
Pentair Manufacturing Italy S.r.L.	Italy
Pentair Middle East FZE	United Arab Emirates
Pentair Nanosoft US Holdings, LLC	United States
Pentair Netherlands Euro Finance B.V.	Netherlands
Pentair Netherlands Finance B.V.	Netherlands
Pentair Netherlands Holding B.V.	Netherlands
Pentair Pacific Rim (Water) Limited	Hong Kong
Pentair Pacific Rim, Limited	Hong Kong
Pentair Philippines, Inc. ⁽⁵⁾	Philippines
Pentair Residential Filtration, LLC	United States
Pentair Sales LLC	United States
Pentair Services France S.A.S.	France
Pentair Sudmo GmbH	Germany
Pentair Tamimi LLC ⁽⁶⁾	Saudi Arabia
Pentair Trading (Shanghai) Co., Ltd.	China
Pentair Transport, Inc.	United States
Pentair Tubing Limited	United Kingdom
Pentair UK Group Limited	United Kingdom
Pentair UK Holdings Limited	United Kingdom
Pentair US LLC 1	United States
Pentair US LLC 2	United States
Pentair US LP	United States
Pentair Valves & Controls del Uruguay S.A.	Uruguay
Pentair Water (Suzhou) Company, Ltd.	China
Pentair Water Asia Pacific Pte. Ltd.	Singapore
Pentair Water Australia Pty Ltd	Australia
Pentair Water Belgium BV	Belgium
Pentair Water Brazil LLC	United States
Pentair Water do Brasil Ltda.	Brazil

Pentair Water France SAS	France
Pentair Water Group, Inc.	United States
Pentair Water Holdings, LLC	United States
Pentair Water India Private Limited	India
Pentair Water Italy S.r.l.	Italy
Pentair Water Latinamerica S.A.	Argentina
Pentair Water Operations Australia Pty Ltd	Australia
Pentair Water Polska Sp.zoo	Poland
Pentair Water Pool and Spa, Inc.	United States
Pentair Water Proces Technologie Holding B.V.	Netherlands
Pentair Water Process Technology B.V.	Netherlands
Pentair Water Purification Systems (Shanghai) Co., Ltd.	China
Pentair Water Spain, S.L.	Spain
Pentair Water Treatment (OH) Company	United States
Pentair Water Treatment Company	United States
Pentair Water Treatment Private Limited ⁽⁷⁾	India
Pentair Water, LLC	United States
Pentair Water-Mexico, S. de R.L. de C.V.	Mexico
Pentair, Inc.	United States
Penwald Insurance Company	United States
PES Pty Ltd	Australia
PFAM, Inc.	United States
Plymouth Products, Inc.	United States
Procam Controls, Inc.	United States
PTG Accessories Corp.	United States
Seneca Enterprises Co.	United States
Sta-Rite de Mexico, S.A. de C.V.	Mexico
Sta-Rite de Puerto Rico, Inc.	Puerto Rico
Sta-Rite Industries, LLC	United States
Surface Logix LLC ⁽⁸⁾	United States
Tupelo Real Estate, LLC	United States
Union Engineering (NingBo) Co., Ltd.	China
Union Engineering A/S	Denmark
Union Engineering Holding II A/S	Denmark
Union Engineering Holding LLC	United States
Union Engineering Latam Ltda ⁽⁹⁾	Brazil
Union Engineering North America LLC	United States
Urban Organics Pentair Group, LLC	United States
Urban Organics Schmidt Real Estate Group, LLC	United States
Urban Organics St. Paul, LLC	United States
Voltea Ltd. ⁽¹⁰⁾	United Kingdom
Water Ingenuity Holdings Corp.	United States
Webster Electric Company, LLC	United States
WICOR Industries (Australia) Pty. Ltd.	Australia
X-Flow B.V.	Netherlands

- (1) 10.37% owned
- (2) 47% owned
- (3) 50% owned
- (4) 4.81% owned
- (5) 99.99% owned
- (6) 70% owned
- (7) 76% owned
- (8) 0.03% owned
- (9) 99% owned
- (10) 1.69% owned

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-184150, 333-184151, 333-184152 and 333-238544 on Form S-8 and Registration Statement No. 333-231828 on Form S-3 of our reports dated February 16, 2021, relating to the financial statements of Pentair plc and the effectiveness of Pentair plc's internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended December 31, 2020.

/s/ Deloitte & Touche LLP

Minneapolis, Minnesota
February 16, 2021

Power of Attorney

KNOW ALL MEN BY THESE PRESENTS that the undersigned directors of Pentair plc, an entity organized under the laws of Ireland, hereby constitute and appoint John L. Stauch and Karla C. Robertson, or either of them, his/her attorney-in-fact and agent, with full power of substitution, for the purpose of signing on his/her behalf as a director of Pentair plc the Annual Report on Form 10-K, to be filed with the Securities and Exchange Commission within the next sixty days, and to file the same, with all exhibits thereto and other supporting documents, with the Commission, granting unto such attorney-in-fact, full power and authority to do and perform any and all acts necessary or incidental to the performance and execution of the powers herein expressly granted.

Date: February 16, 2021

<u>Signature</u>	<u>Title</u>
<u>/s/ Mona Abutaleb Stephenson</u> Mona Abutaleb Stephenson	Director
<u>/s/ Glynis A. Bryan</u> Glynis A. Bryan	Director
<u>/s/ T. Michael Glenn</u> T. Michael Glenn	Director
<u>/s/ Theodore L. Harris</u> Theodore L. Harris	Director
<u>/s/ David A. Jones</u> David A. Jones	Director
<u>/s/ Gregory E. Knight</u> Gregory E. Knight	Director
<u>/s/ Michael T. Speetzen</u> Michael T. Speetzen	Director
<u>/s/ Billie I. Williamson</u> Billie I. Williamson	Director

Certification

I, John L. Stauch, certify that:

1. I have reviewed this report on Form 10-K of Pentair 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 the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2021

/s/ John L. Stauch

John L. Stauch

President and Chief Executive Officer

Certification

I, Robert P. Fishman, certify that:

1. I have reviewed this report on Form 10-K of Pentair 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 the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2021

/s/ Robert P. Fishman

Robert P. Fishman

Executive Vice President, Chief Financial Officer and Chief Accounting Officer

**Certification of CEO Pursuant To
18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 Of The Sarbanes-Oxley Act Of 2002**

In connection with the Annual Report of Pentair plc (the "Company") on Form 10-K for the period ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John L. Stauch, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that based on my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 16, 2021

/s/ John L. Stauch

John L. Stauch

President and Chief Executive Officer

**Certification of CFO Pursuant To
18 U.S.C. Section 1350,
As Adopted Pursuant To
Section 906 Of The Sarbanes-Oxley Act Of 2002**

In connection with the Annual Report of Pentair plc (the "Company") on Form 10-K for the period ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Robert P. Fishman, Executive Vice President, Chief Financial Officer and Chief Accounting Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that based on my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 16, 2021

/s/ Robert P. Fishman

Robert P. Fishman
Executive Vice President, Chief Financial Officer and Chief Accounting
Officer