

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-Q**

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

**For the Quarterly Period Ended June 30, 2019**

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**

**98-1141328**

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

**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:

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

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically, every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§223.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes  No

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

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

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes  No

On June 30, 2019, 168,049,131 shares of Registrant's common stock were outstanding.

**Pentair plc and Subsidiaries**

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**PART I FINANCIAL INFORMATION**
**ITEM 1. FINANCIAL STATEMENTS**

**Pentair plc and Subsidiaries**  
**Condensed Consolidated Statements of Operations and Comprehensive Income (Unaudited)**

<i>In millions, except per-share data</i>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Net sales	\$ 799.5	\$ 780.6	\$ 1,488.4	\$ 1,513.2
Cost of goods sold	512.8	498.0	966.1	977.3
Gross profit	286.7	282.6	522.3	535.9
Selling, general and administrative expenses	132.2	140.9	279.5	282.7
Research and development expenses	20.7	19.1	41.4	37.9
Operating income	133.8	122.6	201.4	215.3
<b>Other (income) expense:</b>				
Loss (gain) on sale of business	0.1	0.9	(3.4)	6.2
Loss on early extinguishment of debt	—	17.1	—	17.1
Net interest expense	9.4	10.1	16.7	23.6
Other income	(12.9)	(4.2)	(12.3)	(3.8)
Income from continuing operations before income taxes	137.2	98.7	200.4	172.2
Provision for income taxes	22.1	20.8	32.9	35.9
<b>Net income from continuing operations</b>	<b>115.1</b>	<b>77.9</b>	<b>167.5</b>	<b>136.3</b>
(Loss) income from discontinued operations, net of tax	(0.8)	(36.4)	(1.9)	8.1
<b>Net income</b>	<b>\$ 114.3</b>	<b>\$ 41.5</b>	<b>\$ 165.6</b>	<b>\$ 144.4</b>
<b>Comprehensive income, net of tax</b>				
Net income	\$ 114.3	\$ 41.5	\$ 165.6	\$ 144.4
Changes in cumulative translation adjustment	(0.9)	22.8	(2.5)	25.2
Changes in market value of derivative financial instruments, net of tax	(3.4)	4.1	0.9	0.3
<b>Comprehensive income</b>	<b>\$ 110.0</b>	<b>\$ 68.4</b>	<b>\$ 164.0</b>	<b>\$ 169.9</b>
<b>Earnings (loss) per ordinary share</b>				
<b>Basic</b>				
Continuing operations	\$ 0.68	\$ 0.44	\$ 0.98	\$ 0.77
Discontinued operations	(0.01)	(0.21)	(0.01)	0.04
Basic earnings per ordinary share	\$ 0.67	\$ 0.23	\$ 0.97	\$ 0.81
<b>Diluted</b>				
Continuing operations	\$ 0.68	\$ 0.44	\$ 0.98	\$ 0.76
Discontinued operations	(0.01)	(0.21)	(0.01)	0.04
Diluted earnings per ordinary share	\$ 0.67	\$ 0.23	\$ 0.97	\$ 0.80
<b>Weighted average ordinary shares outstanding</b>				
Basic	169.8	176.9	170.6	178.1
Diluted	170.5	178.6	171.4	179.9

*See accompanying notes to condensed consolidated financial statements.*

**Pentair plc and Subsidiaries**  
**Condensed Consolidated Balance Sheets (Unaudited)**

<i>In millions, except per-share data</i>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
<b>Assets</b>		
<b>Current assets</b>		
Cash and cash equivalents	\$ 80.5	\$ 74.3
Accounts and notes receivable, net of allowances of \$13.7 and \$14.0, respectively	459.6	488.2
Inventories	396.7	387.5
Other current assets	104.7	89.4
<b>Total current assets</b>	<b>1,041.5</b>	<b>1,039.4</b>
<b>Property, plant and equipment, net</b>	<b>280.3</b>	<b>272.6</b>
<b>Other assets</b>		
Goodwill	2,287.5	2,072.7
Intangibles, net	354.2	276.3
Other non-current assets	206.5	145.5
<b>Total other assets</b>	<b>2,848.2</b>	<b>2,494.5</b>
<b>Total assets</b>	<b>\$ 4,170.0</b>	<b>\$ 3,806.5</b>
<b>Liabilities and Equity</b>		
<b>Current liabilities</b>		
Accounts payable	\$ 261.7	\$ 378.6
Employee compensation and benefits	68.7	111.7
Other current liabilities	379.8	328.4
<b>Total current liabilities</b>	<b>710.2</b>	<b>818.7</b>
<b>Other liabilities</b>		
Long-term debt	1,215.1	787.6
Pension and other post-retirement compensation and benefits	89.2	90.0
Deferred tax liabilities	119.8	105.9
Other non-current liabilities	229.1	168.2
<b>Total liabilities</b>	<b>2,363.4</b>	<b>1,970.4</b>
<b>Equity</b>		
Ordinary shares \$0.01 par value, 426.0 authorized, 168.0 and 171.4 issued at June 30, 2019 and December 31, 2018, respectively	1.7	1.7
Additional paid-in capital	1,761.7	1,893.8
Retained earnings	273.4	169.2
Accumulated other comprehensive loss	(230.2)	(228.6)
<b>Total equity</b>	<b>1,806.6</b>	<b>1,836.1</b>
<b>Total liabilities and equity</b>	<b>\$ 4,170.0</b>	<b>\$ 3,806.5</b>

*See accompanying notes to condensed consolidated financial statements.*

**Pentair plc and Subsidiaries**  
**Condensed Consolidated Statements of Cash Flows (Unaudited)**

<i>In millions</i>	Six months ended	
	June 30, 2019	June 30, 2018
<b>Operating activities</b>		
Net income	\$ 165.6	\$ 144.4
Loss (income) from discontinued operations, net of tax	1.9	(8.1)
<b>Adjustments to reconcile net income from continuing operations to net cash provided by (used for) operating activities of continuing operations</b>		
Equity income of unconsolidated subsidiaries	(2.5)	(5.8)
Depreciation	24.4	24.9
Amortization	16.5	18.4
Deferred income taxes	(9.6)	10.1
(Gain) loss on sale of business	(3.4)	6.2
Share-based compensation	10.7	11.3
Trade name and other impairment	18.2	6.0
Loss on early extinguishment of debt	—	17.1
Pension settlement gain	(12.2)	—
Pension and other post-retirement plan contribution	(10.7)	—
<b>Changes in assets and liabilities, net of effects of business acquisitions</b>		
Accounts and notes receivable	32.2	52.7
Inventories	3.1	(15.4)
Other current assets	(18.8)	(10.8)
Accounts payable	(123.1)	(45.9)
Employee compensation and benefits	(22.5)	(32.2)
Other current liabilities	28.5	3.5
Other non-current assets and liabilities	0.9	1.4
Net cash provided by operating activities of continuing operations	99.2	177.8
Net cash used for operating activities of discontinued operations	(2.5)	(5.9)
Net cash provided by operating activities	96.7	171.9
<b>Investing activities</b>		
Capital expenditures	(29.8)	(20.3)
Proceeds from sale of property and equipment	0.4	(0.5)
Proceeds from (payments due to) the sale of businesses, net	0.7	(12.8)
Acquisitions, net of cash acquired	(284.5)	(0.9)
Other	(1.5)	—
Net cash used for investing activities of continuing operations	(314.7)	(34.5)
Net cash used for investing activities of discontinued operations	—	(7.1)
Net cash used for investing activities	(314.7)	(41.6)
<b>Financing activities</b>		
Net receipts of commercial paper and revolving long-term debt	32.9	30.2
Proceeds from long-term debt	400.0	—
Repayments of long-term debt	—	(675.1)
Debt issuance costs	(5.7)	—
Premium paid on early extinguishment of debt	—	(16.0)
Transfer of cash to nVent	—	(74.2)
Distribution of cash from nVent	—	993.6
Shares issued to employees, net of shares withheld	7.2	6.3
Repurchases of ordinary shares	(150.0)	(300.0)
Dividends paid	(62.0)	(125.9)
Net cash provided by (used for) financing activities	222.4	(161.1)
<b>Change in cash held for sale</b>	—	27.0
<b>Effect of exchange rate changes on cash and cash equivalents</b>	1.8	(3.8)
<b>Change in cash and cash equivalents</b>	6.2	(7.6)
Cash and cash equivalents, beginning of period	74.3	86.3
<b>Cash and cash equivalents, end of period</b>	<b>\$ 80.5</b>	<b>\$ 78.7</b>

*See accompanying notes to condensed consolidated financial statements.*

**Pentair plc and Subsidiaries**  
**Condensed Consolidated Statements of Changes in Equity (Unaudited)**

<i>In millions</i>	Ordinary shares		Additional paid-in capital	Retained earnings	Accumulated other comprehensive loss	Total
	Number	Amount				
<b>Balance - December 31, 2018</b>	171.4	\$ 1.7	\$ 1,893.8	\$ 169.2	\$ (228.6)	\$ 1,836.1
Net income	—	—	—	51.3	—	51.3
Other comprehensive income, net of tax	—	—	—	—	2.7	2.7
Dividends declared, \$0.18 per share	—	—	—	(31.0)	—	(31.0)
Exercise of options, net of shares tendered for payment	0.3	—	9.1	—	—	9.1
Issuance of restricted shares, net of cancellations	0.2	—	—	—	—	—
Shares surrendered by employees to pay taxes	—	—	(3.2)	—	—	(3.2)
Share-based compensation	—	—	5.4	—	—	5.4
<b>Balance - March 31, 2019</b>	171.9	\$ 1.7	\$ 1,905.1	\$ 189.5	\$ (225.9)	\$ 1,870.4
Net income	—	—	—	114.3	—	114.3
Other comprehensive loss, net of tax	—	—	—	—	(4.3)	(4.3)
Dividends declared, \$0.18 per share	—	—	—	(30.4)	—	(30.4)
Share repurchase	(4.0)	—	(150.0)	—	—	(150.0)
Exercise of options, net of shares tendered for payment	0.1	—	2.2	—	—	2.2
Issuance of restricted shares, net of cancellations	0.1	—	—	—	—	—
Shares surrendered by employees to pay taxes	(0.1)	—	(0.9)	—	—	(0.9)
Share-based compensation	—	—	5.3	—	—	5.3
<b>Balance - June 30, 2019</b>	168.0	\$ 1.7	\$ 1,761.7	\$ 273.4	\$ (230.2)	\$ 1,806.6

<i>In millions</i>	Ordinary shares		Additional paid-in capital	Retained earnings	Accumulated other comprehensive loss	Total
	Number	Amount				
<b>Balance - December 31, 2017</b>	180.3	\$ 1.8	\$ 2,797.7	\$ 2,481.7	\$ (243.4)	\$ 5,037.8
Net income	—	—	—	102.9	—	102.9
Cumulative effect of accounting changes	—	—	—	(214.0)	—	(214.0)
Other comprehensive loss, net of tax	—	—	—	—	(1.4)	(1.4)
Dividends declared, \$0.35 per share	—	—	—	(62.6)	—	(62.6)
Share repurchase	(2.2)	—	(150.0)	—	—	(150.0)
Exercise of options, net of shares tendered for payment	0.1	—	5.8	—	—	5.8
Issuance of restricted shares, net of cancellations	0.3	—	—	—	—	—
Shares surrendered by employees to pay taxes	(0.1)	—	(4.8)	—	—	(4.8)
Share-based compensation	—	—	6.0	—	—	6.0
<b>Balance - March 31, 2018</b>	178.4	\$ 1.8	\$ 2,654.7	\$ 2,308.0	\$ (244.8)	\$ 4,719.7
Net income	—	—	—	41.5	—	41.5
Other comprehensive income, net of tax	—	—	—	—	74.8	74.8
Distribution to nVent	—	—	(438.2)	(2,290.7)	(47.9)	(2,776.8)
Dividends declared, \$0.175 per share	—	—	—	(30.9)	—	(30.9)
Share repurchase	(3.3)	—	(150.0)	—	—	(150.0)
Exercise of options, net of shares tendered for payment	0.3	—	6.3	—	—	6.3
Issuance of restricted shares, net of cancellations	(0.1)	—	—	—	—	—
Shares surrendered by employees to pay taxes	0.1	—	(1.0)	—	—	(1.0)
Share-based compensation	—	—	5.3	—	—	5.3
<b>Balance - June 30, 2018</b>	175.4	\$ 1.8	\$ 2,077.1	\$ 27.9	\$ (217.9)	\$ 1,888.9

*See accompanying notes to condensed consolidated financial statements.*

**Pentair plc and Subsidiaries**

**Notes to condensed consolidated financial statements (unaudited)**

**1. Basis of Presentation and Responsibility for Interim Financial Statements**

The accompanying unaudited condensed consolidated financial statements of Pentair plc and its subsidiaries (“we,” “us,” “our,” “Pentair,” or the “Company”) have been prepared following the requirements of the U.S. Securities and Exchange Commission (“SEC”) for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by accounting principles generally accepted in the United States of America (“GAAP”) can be condensed or omitted.

We are responsible for the unaudited condensed consolidated financial statements included in this document. The financial statements include all normal recurring adjustments that are considered necessary for the fair presentation of our financial position and operating results. As these are condensed financial statements, one should also read our consolidated financial statements and notes thereto, which are included in our Annual Report on Form 10-K for the year ended December 31, 2018.

Revenues, expenses, cash flows, assets and liabilities can and do vary during each quarter of the year. Therefore, the results and trends in these interim financial statements may not be indicative of those for a full year.

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

**Adoption of new accounting standards**

On January 1, 2019, we adopted ASU No. 2016-02, “Leases” (“the new lease standard” or “ASC 842”) using the transition method of adoption. Under the transition method of adoption, comparative information has not been restated and continues to be reported under the standards in effect for those periods. In addition, we elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed us to carry forward the historical lease classification. We also elected the practical expedient to not separate non-lease components from the lease components to which they relate, and instead account for each separate lease and non-lease component associated with that lease component as 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 impact of adopting the new standard primarily relates to the recognition of a lease right-of-use (“ROU”) asset and current and non-current lease liability on the consolidated balance sheet. ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. 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 as determined at commencement date in determining the present value of lease payments. The ROU asset also excludes any accrued lease payments and unamortized lease incentives.

As of June 30, 2019, \$78.7 million was included in *Other non-current assets*, \$19.8 million in *Other current liabilities* and \$62.1 million in *Other non-current liabilities*, on the Condensed Consolidated Balance Sheets as a result of the new lease standard. There was no impact on our Condensed Consolidated Statements of Operations and Comprehensive Income or Condensed Consolidated Statements of Cash Flows.

Refer to Note 15 for further discussion.

**Pentair plc and Subsidiaries**

**Notes to condensed consolidated financial statements (unaudited)**

**2. Revenue**

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>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
U.S.	\$ 511.1	\$ 504.2	\$ 937.1	\$ 956.6
Western Europe	106.9	103.8	211.2	214.1
Developing <sup>(1)</sup>	129.0	115.4	237.9	228.4
Other Developed <sup>(2)</sup>	52.5	57.2	102.2	114.1
Consolidated net sales	\$ 799.5	\$ 780.6	\$ 1,488.4	\$ 1,513.2

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

<sup>(2)</sup> Other Developed includes Australia, Canada and Japan.

Vertical net sales information was as follows:

<i>In millions</i>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Residential	\$ 451.0	\$ 437.5	\$ 834.6	\$ 849.7
Commercial	170.7	167.8	321.4	319.6
Industrial	177.8	175.3	332.4	343.9
Consolidated net sales	\$ 799.5	\$ 780.6	\$ 1,488.4	\$ 1,513.2

**Performance obligations**

On June 30, 2019, we had \$59.8 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.

**Contract assets and liabilities**

Contract assets and liabilities consisted of the following:

<i>In millions</i>	June 30, 2019	December 31, 2018	\$ Change	% Change
Contract assets	\$ 43.5	\$ 36.5	\$ 7.0	19.2 %
Contract liabilities	32.1	32.8	(0.7)	(2.1)%
Net contract assets	\$ 11.4	\$ 3.7	\$ 7.7	208.1 %

The \$7.7 million increase in net contract assets from December 31, 2018 to June 30, 2019 was primarily the result of timing of milestone payments. Approximately 70% of our contract liabilities at December 31, 2018 were recognized in revenue in the first half of 2019. There were no impairment losses recognized on our contract assets for the three months or six months ended June 30, 2019.

**Pentair plc and Subsidiaries****Notes to condensed consolidated financial statements (unaudited)****3. Acquisitions and Discontinued Operations****Acquisitions**

In February 2019, as part of Filtration 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.

For Aquion, the excess of purchase price over tangible net assets and identified intangible assets acquired has been preliminarily allocated to goodwill in the amount of \$93.9 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 preliminarily allocated to goodwill in the amount of \$121.0 million, \$7.6 million of which is expected to be deductible for income tax purposes.

The preliminary purchase price allocation for these acquisitions is subject to further refinement and may require significant adjustments to arrive at the final purchase price allocation. These changes will primarily relate to impacts associated with income taxes and other accruals.

The proforma impact of these acquisitions is not material.

**Discontinued Operation — Electrical Separation**

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 Electric plc (“nVent”) and the issuance by nVent of ordinary shares directly to Pentair shareholders (the “Distribution”). The results of the Electrical business have been presented as discontinued operations. The Electrical business had been previously disclosed as a stand-alone reporting segment. Separation costs related to the Separation and Distribution were \$55.3 million and \$79.9 million for the three and six months ended June 30, 2018, respectively. These costs are reported in discontinued operations as they represent a cost directly related to the Separation and Distribution and are included within *(Loss) income from discontinued operations, net of tax* presented below.

Operating results of the discontinued operation is summarized below:

<i>In millions</i>	<b>Three months ended</b>		<b>Six months ended</b>	
	<b>June 30, 2019</b>	<b>June 30, 2018</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
Net sales	\$ —	\$ 155.0	\$ —	\$ 693.9
Cost of goods sold	—	93.8	—	424.0
Gross profit	—	61.2	—	269.9
Selling, general and administrative expenses	0.5	93.1	0.8	231.0
Research and development expenses	—	3.4	—	14.6
Operating (loss) income	\$ (0.5)	\$ (35.3)	\$ (0.8)	\$ 24.3
(Loss) income from discontinued operations before income taxes	\$ (0.4)	\$ (37.9)	\$ (1.2)	\$ 19.8
Income tax provision (benefit)	0.4	(1.5)	0.7	11.7
(Loss) income from discontinued operations, net of tax	\$ (0.8)	\$ (36.4)	\$ (1.9)	\$ 8.1

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**
**4. Share Plans**

Total share-based compensation expense for the three and six months ended June 30, 2019 and 2018 was as follows:

<i>In millions</i>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Restricted stock units	\$ 2.9	\$ 1.9	\$ 5.7	\$ 4.3
Stock options	1.1	1.0	2.5	2.2
Performance share units	1.3	2.4	2.5	4.8
Total share-based compensation expense	\$ 5.3	\$ 5.3	\$ 10.7	\$ 11.3

Of the total share-based compensation expense noted above, \$1.3 million and \$3.4 million were reported as part of *(Loss) income from discontinued operations, net of tax* for the three and six months ended June 30, 2018, respectively.

In the first quarter of 2019, we issued our annual share-based compensation grants under the Pentair plc 2012 Stock and Incentive Plan to eligible employees. The total number of awards issued was approximately 0.8 million, of which 0.3 million were restricted stock units (“RSUs”), 0.4 million were stock options and 0.1 million were performance share units (“PSUs”). The weighted-average grant date fair value of the RSUs, stock options and PSUs issued was \$40.84, \$8.84, and \$38.47, respectively.

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:

	2019 Annual Grant
Risk-free interest rate	2.89%
Expected dividend yield	1.78%
Expected share price volatility	23.3%
Expected term (years)	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 share price volatility, we considered a rolling average of historical volatility measured over a period approximately equal to the expected option term. The risk-free interest 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.

**5. Restructuring**

During the six months ended June 30, 2019 and the year ended December 31, 2018, we initiated and continued execution of certain business restructuring initiatives aimed at reducing our fixed cost structure and realigning our business. These initiatives included the reduction in hourly and salaried headcount of approximately 300 employees during both the six months ended June 30, 2019 and the year ended December 31, 2018.

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

<i>In millions</i>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Severance and related costs	\$ 6.4	\$ 4.6	\$ 7.5	\$ 10.0
Other	0.3	20.4	0.3	20.6
Total restructuring costs	\$ 6.7	\$ 25.0	\$ 7.8	\$ 30.6

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

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>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Aquatic Systems	\$ 2.0	\$ 1.2	\$ 2.9	\$ 3.0
Filtration Solutions	1.2	11.5	1.6	13.5
Flow Technologies	2.4	6.3	2.1	8.0
Other	1.1	6.0	1.2	6.1
Consolidated	\$ 6.7	\$ 25.0	\$ 7.8	\$ 30.6

Activity related to accrued severance and related costs recorded in *Other current liabilities* in the Condensed Consolidated Balance Sheets is summarized as follows for the six months ended June 30, 2019:

<i>In millions</i>	June 30, 2019
Beginning balance	\$ 27.1
Costs incurred	7.5
Cash payments and other	(14.3)
Ending balance	\$ 20.3

**6. Earnings Per Share**

Basic and diluted earnings per share were calculated as follows:

<i>In millions, except per-share data</i>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
<b>Net income</b>	\$ 114.3	\$ 41.5	\$ 165.6	\$ 144.4
<b>Net income from continuing operations</b>	\$ 115.1	\$ 77.9	\$ 167.5	\$ 136.3
<b>Weighted average ordinary shares outstanding</b>				
Basic	169.8	176.9	170.6	178.1
Dilutive impact of stock options, restricted stock units and performance share units	0.7	1.7	0.8	1.8
Diluted	170.5	178.6	171.4	179.9
<b>Earnings (loss) per ordinary share</b>				
<b>Basic</b>				
Continuing operations	\$ 0.68	\$ 0.44	\$ 0.98	\$ 0.77
Discontinued operations	(0.01)	(0.21)	(0.01)	0.04
Basic earnings per ordinary share	\$ 0.67	\$ 0.23	\$ 0.97	\$ 0.81
<b>Diluted</b>				
Continuing operations	\$ 0.68	\$ 0.44	\$ 0.98	\$ 0.76
Discontinued operations	(0.01)	(0.21)	(0.01)	0.04
Diluted earnings per ordinary share	\$ 0.67	\$ 0.23	\$ 0.97	\$ 0.80
<b>Anti-dilutive stock options excluded from the calculation of diluted earnings per share</b>	2.3	0.7	1.9	0.5

**Pentair plc and Subsidiaries****Notes to condensed consolidated financial statements (unaudited)****7. Supplemental Balance Sheet Information**

<i>In millions</i>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
<b>Inventories</b>		
Raw materials and supplies	\$ 206.9	\$ 191.3
Work-in-process	66.3	64.0
Finished goods	123.5	132.2
<b>Total inventories</b>	<b>\$ 396.7</b>	<b>\$ 387.5</b>
<b>Other current assets</b>		
Cost in excess of billings	\$ 43.5	\$ 36.5
Prepaid expenses	45.2	36.7
Prepaid income taxes	8.0	8.5
Other current assets	8.0	7.7
<b>Total other current assets</b>	<b>\$ 104.7</b>	<b>\$ 89.4</b>
<b>Property, plant and equipment, net</b>		
Land and land improvements	\$ 33.7	\$ 33.5
Buildings and leasehold improvements	182.4	178.9
Machinery and equipment	608.9	593.8
Construction in progress	44.6	35.7
<b>Total property, plant and equipment</b>	<b>869.6</b>	<b>841.9</b>
Accumulated depreciation and amortization	589.3	569.3
<b>Total property, plant and equipment, net</b>	<b>\$ 280.3</b>	<b>\$ 272.6</b>
<b>Other non-current assets</b>		
Right-of-use lease assets	\$ 78.7	\$ —
Deferred income taxes	26.3	26.2
Deferred compensation plan assets	20.4	20.9
Other non-current assets	81.1	98.4
<b>Total other non-current assets</b>	<b>\$ 206.5</b>	<b>\$ 145.5</b>
<b>Other current liabilities</b>		
Dividends payable	\$ 30.2	\$ 30.8
Accrued warranty	34.2	33.9
Accrued rebates	57.3	55.7
Billings in excess of cost	19.9	21.3
Current lease liability	19.8	—
Income taxes payable	24.2	10.4
Accrued restructuring	20.3	27.1
Other current liabilities	173.9	149.2
<b>Total other current liabilities</b>	<b>\$ 379.8</b>	<b>\$ 328.4</b>
<b>Other non-current liabilities</b>		
Long-term lease liability	\$ 62.1	\$ —
Income taxes payable	46.3	46.8
Self-insurance liabilities	44.0	47.7
Deferred compensation plan liabilities	20.4	20.9
Foreign currency contract liabilities	30.8	30.6
Other non-current liabilities	25.5	22.2
<b>Total other non-current liabilities</b>	<b>\$ 229.1</b>	<b>\$ 168.2</b>

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**
**8. Goodwill and Other Identifiable Intangible Assets**

The changes in the carrying amount of goodwill by reportable segment were as follows:

<i>In millions</i>	December 31, 2018		Acquisitions	Foreign currency translation/other		June 30, 2019
Aquatic Systems	\$	965.9	\$ —	\$	(1.1)	\$ 964.8
Filtration Solutions		643.5			1.1	859.5
Flow Technologies		463.3			(0.1)	463.2
Total goodwill	\$	2,072.7	\$ 214.9	\$	(0.1)	\$ 2,287.5

Identifiable intangible assets consisted of the following:

<i>In millions</i>	June 30, 2019			December 31, 2018		
	Cost	Accumulated amortization	Net	Cost	Accumulated amortization	Net
<b>Definite-life intangibles</b>						
Customer relationships	\$ 422.6	\$ (258.3)	\$ 164.3	\$ 347.1	\$ (247.9)	\$ 99.2
Trade names	—	—	—	0.4	(0.4)	—
Proprietary technology and patents	49.6	(34.8)	14.8	86.2	(68.4)	17.8
Total definite-life intangibles	472.2	(293.1)	179.1	433.7	(316.7)	117.0
<b>Indefinite-life intangibles</b>						
Trade names	175.1	—	175.1	159.3	—	159.3
Total intangibles	\$ 647.3	\$ (293.1)	\$ 354.2	\$ 593.0	\$ (316.7)	\$ 276.3

Identifiable intangible asset amortization expense was \$8.3 million and \$9.1 million for the three months ended June 30, 2019 and 2018, respectively, and \$16.5 million and \$18.4 million for the six months ended June 30, 2019 and 2018, respectively.

Estimated future amortization expense for identifiable intangible assets during the remainder of 2019 and the next five years is as follows:

<i>In millions</i>	Q3-Q4					
	2019	2020	2021	2022	2023	2024
Estimated amortization expense	\$ 16.0	\$ 27.6	\$ 22.5	\$ 15.3	\$ 13.0	\$ 12.4

**Pentair plc and Subsidiaries****Notes to condensed consolidated financial statements (unaudited)****9. Debt**

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

<i>In millions</i>	<b>Average interest rate as of June 30, 2019</b>	<b>Maturity Year</b>	<b>June 30, 2019</b>	<b>December 31, 2018</b>
Commercial paper	2.943%	2023	\$ 130.9	\$ 76.0
Revolving credit facilities	3.498%	2023	4.1	26.2
Senior notes - fixed rate (1)	2.650%	2019	250.0	250.0
Senior notes - fixed rate - Euro (1)	2.450%	2019	155.3	155.1
Senior notes - fixed rate (1)	3.625%	2020	74.0	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	—
Unamortized debt issuance costs and discounts	N/A	N/A	(10.6)	(5.1)
<b>Total debt</b>			<b>\$ 1,215.1</b>	<b>\$ 787.6</b>

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

In June 2019, Pentair, Pentair Finance S.à r.l. (“PFSA”) and Pentair Investments Switzerland GmbH (“PISG”) completed a public offering of \$400.0 million aggregate principal amount of PFSA’s 4.500% Senior Notes due 2029 (the “2029 Notes”). The 2029 Notes are fully and unconditionally guaranteed as to payment of principal and interest by Pentair and PISG. We used the net proceeds of the 2029 Notes to partially repay outstanding commercial paper.

In April 2018, Pentair, PISG, 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. The Senior Credit Facility replaced PFSA’s existing credit facility under that certain Amended and Restated Credit Agreement, dated as of October 3, 2014. 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.

PFSA has the option to request an increase to the Senior Credit Facility up to \$1,100.0 million in the aggregate, subject to customary conditions, including the commitment of participating lenders. 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. As of June 30, 2019, total availability under the Senior Credit Facility was \$765.0 million.

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 \$130.9 million of commercial paper outstanding as of June 30, 2019 and \$76.0 million as of December 31, 2018, 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.

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.

**Pentair plc and Subsidiaries****Notes to condensed consolidated financial statements (unaudited)**

In addition to the Senior Credit Facility, we have various other credit facilities with an aggregate availability of \$21.1 million, of which there were no outstanding borrowings at June 30, 2019. Borrowings under these credit facilities bear interest at variable rates.

We have \$405.3 million aggregate principal amount of fixed rate senior notes maturing in the next twelve months. We classified this debt as long-term as of June 30, 2019 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 June 30, 2019 matures on a calendar year basis as follows:

In millions	Q3-Q4							
	2019	2020	2021	2022	2023	2024	Thereafter	Total
Contractual debt obligation maturities	\$ 405.3	\$ 74.0	\$ 103.8	\$ 88.3	\$ 135.0	\$ —	\$ 419.3	\$ 1,225.7

**10. 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 exchange 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 June 30, 2019 and December 31, 2018, we had outstanding foreign currency derivative contracts with gross notional U.S. dollar equivalent amounts of \$53.7 million and \$47.6 million, respectively. The impact of these contracts on the Condensed Consolidated Statements of Operations and Comprehensive Income was not material for any period presented.

**Cross Currency Swaps**

At June 30, 2019 and December 31, 2018, we had outstanding cross currency swap agreements with a combined notional amount of \$625.3 million and \$283.8 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 June 30, 2019 and December 31, 2018, we had deferred foreign currency losses of \$13.9 million and \$14.5 million, respectively, 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. The remaining €136.6 million of the 2019 Euro Notes have been re-designated as a net investment hedge in our Euro-denominated subsidiaries. The 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 June 30, 2019 and December 31, 2018, we had deferred foreign currency losses of \$1.0 million and \$0.8 million, respectively, in *Accumulated other comprehensive loss* associated with the net investment hedge activity.

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**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 instruments:

- *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, were as follows:

<i>In millions</i>	<b>June 30, 2019</b>		<b>December 31, 2018</b>	
	<b>Recorded Amount</b>	<b>Fair Value</b>	<b>Recorded Amount</b>	<b>Fair Value</b>
Variable rate debt	\$ 135.0	\$ 135.0	\$ 102.2	\$ 102.2
Fixed rate debt	1,090.7	1,121.7	690.5	691.8
<b>Total debt</b>	<b>\$ 1,225.7</b>	<b>\$ 1,256.7</b>	<b>\$ 792.7</b>	<b>\$ 794.0</b>

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

<i>In millions</i>	<b>June 30, 2019</b>				
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>NAV</b>	<b>Total</b>
<b>Recurring fair value measurements</b>					
Foreign currency contract liabilities	\$ —	\$ (30.8)	\$ —	\$ —	\$ (30.8)
Deferred compensation plan assets	12.2	—	—	8.2	20.4
<b>Total recurring fair value measurements</b>	<b>\$ 12.2</b>	<b>\$ (30.8)</b>	<b>\$ —</b>	<b>\$ 8.2</b>	<b>\$ (10.4)</b>

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<i>In millions</i>	December 31, 2018				
	Level 1	Level 2	Level 3	NAV	Total
<b>Recurring fair value measurements</b>					
Foreign currency contract liabilities	\$ —	\$ (30.6)	\$ —	\$ —	\$ (30.6)
Deferred compensation plan assets	17.6	—	—	3.3	20.9
Total recurring fair value measurements	\$ 17.6	\$ (30.6)	\$ —	\$ 3.3	\$ (9.7)

**11. Income Taxes**

We manage our affairs so that we are centrally managed and controlled in the United Kingdom (“U.K.”) and therefore have our tax residency in the U.K. The provision for income taxes consists of provisions for the U.K. and international income taxes. We operate in an international environment with operations in various locations outside the U.K. Accordingly, the consolidated income tax rate is a composite rate reflecting the earnings in the various locations and the applicable rates.

The effective income tax rate for the six months ended June 30, 2019 was 16.4%, compared to 20.8% for the six months ended June 30, 2018. We continue to actively pursue initiatives to reduce our effective tax rate. The tax rate in any quarter can be affected positively or negatively by adjustments that are required to be reported in the specific quarter of resolution.

The liability for uncertain tax positions was \$48.9 million and \$51.4 million at June 30, 2019 and December 31, 2018, respectively. We record penalties and interest related to unrecognized tax benefits in *Provision for income taxes* and *Net interest expense*, respectively, on the Condensed Consolidated Statements of Operations and Comprehensive Income, which is consistent with our past practices.

**12. Benefit Plans**

Components of net periodic benefit cost for our pension plans for the three and six months ended June 30, 2019 and 2018 were as follows:

<i>In millions</i>	Three months ended		Six months ended	
	June 30, 2019	June 30, 2018	June 30, 2019	June 30, 2018
Service cost	\$ 0.7	\$ 1.0	\$ 1.4	\$ 2.1
Interest cost	2.7	3.0	5.4	6.0
Expected return on plan assets	(1.7)	(2.2)	(3.4)	(4.5)
Plan settlement gain	(12.2)	—	(12.2)	—
Net periodic benefit (income) expense	\$ (10.5)	\$ 1.8	\$ (8.8)	\$ 3.6

Components of net periodic benefit (income) expense for our other post-retirement plans for the three and six months ended June 30, 2019 and 2018 were not material.

During the three months ended June 30, 2019, we received all required government approvals to terminate the Pentair Salaried Plan (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. We contributed \$10.7 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 \$12.2 million was recorded for the three and six months ended June 30, 2019 and is reflected within *Plan settlement gain* in the table above.

**13. Shareholders’ Equity**

**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 authorization expires on May 31, 2021. During the six months ended June 30, 2019, we repurchased 4.0 million of our shares for \$150.0 million. As of June 30, 2019, we had \$250.0 million available for share repurchases under this authorization.

**Dividends payable**

On May 6, 2019, the Board of Directors declared a quarterly cash dividend of \$0.18, payable on August 2, 2019 to shareholders of record at the close of business on July 19, 2019. As a result, the balance of dividends payable included in *Other current*

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liabilities on our Condensed Consolidated Balance Sheets was \$30.2 million at June 30, 2019, compared to \$30.8 million at December 31, 2018.

**14. Segment Information**

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 as follows:

<i>In millions</i>	<b>Three months ended</b>		<b>Six months ended</b>	
	<b>June 30, 2019</b>	<b>June 30, 2018</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
<b>Net sales</b>				
Aquatic Systems	\$ 270.6	\$ 276.2	\$ 491.1	\$ 516.6
Filtration Solutions	285.6	262.1	524.9	513.7
Flow Technologies	243.0	241.9	471.7	482.2
Other	0.3	0.4	0.7	0.7
Consolidated	\$ 799.5	\$ 780.6	\$ 1,488.4	\$ 1,513.2
<b>Segment income (loss)</b>				
Aquatic Systems	\$ 76.8	\$ 79.6	\$ 129.2	\$ 139.6
Filtration Solutions	50.0	52.3	83.7	86.0
Flow Technologies	41.9	44.4	72.0	83.1
Other	(14.6)	(12.2)	(32.1)	(27.6)
Consolidated	\$ 154.1	\$ 164.1	\$ 252.8	\$ 281.1

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

<i>In millions</i>	<b>Three months ended</b>		<b>Six months ended</b>	
	<b>June 30, 2019</b>	<b>June 30, 2018</b>	<b>June 30, 2019</b>	<b>June 30, 2018</b>
Segment income	\$ 154.1	\$ 164.1	\$ 252.8	\$ 281.1
Deal-related costs and expenses	—	—	(4.2)	—
Inventory step-up	(0.5)	—	(2.2)	—
Restructuring and other	(6.7)	(19.0)	(7.8)	(24.6)
Intangible amortization	(8.3)	(9.1)	(16.5)	(18.4)
Pension settlement gain	12.2	—	12.2	—
Asset impairment	(2.9)	(6.0)	(18.2)	(6.0)
(Loss) gain on sale of business	(0.1)	(0.9)	3.4	(6.2)
Loss on early extinguishment of debt	—	(17.1)	—	(17.1)
Corporate allocations	—	(2.2)	—	(11.0)
Net interest expense	(9.4)	(10.1)	(16.7)	(23.6)
Other expense	(1.2)	(1.0)	(2.4)	(2.0)
Income from continuing operations before income taxes	\$ 137.2	\$ 98.7	\$ 200.4	\$ 172.2

**Pentair plc and Subsidiaries****Notes to condensed consolidated financial statements (unaudited)****15. Commitments and Contingencies****Leases**

We determine if an arrangement is a lease at inception. 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.

The components of lease cost for the three and six months ended June 30, 2019 were as follows:

<i>In millions</i>	<b>Three months ended</b>		<b>Six months ended</b>	
	<b>June 30, 2019</b>			
Operating lease cost	\$	8.2	\$	16.8
Sublease income		(0.3)		(0.5)
Total lease cost	\$	7.9	\$	16.3

Supplemental cash flow information related to leases for the six months ended June 30, 2019 was as follows:

<i>In millions</i>	<b>June 30, 2019</b>	
Operating cash flows from operating leases	\$	13.2
Right-of-use assets obtained in exchange for lease obligations		84.0

Other information related to leases was as follows:

	<b>June 30, 2019</b>	
Weighted-average remaining lease term of operating leases		5 years
Weighted-average discount rate of operating leases		6.3%

Future minimum lease commitments under non-cancelable operating leases as of June 30, 2019 were as follows:

<i>In millions</i>	<b>Operating Leases</b>	
Q3 through Q4 2019	\$	12.7
2020		21.4
2021		17.0
2022		14.5
2023		12.2
Thereafter		18.9
Total lease payments		96.7
Less: imputed interest		(14.8)
Total	\$	81.9

**Pentair plc and Subsidiaries****Notes to condensed consolidated financial statements (unaudited)**

Future minimum lease commitments under non-cancelable operating leases based on accounting standards applicable as of December 31, 2018 were as follows:

<i>In millions</i>	<b>Operating Leases</b>	
2019	\$	23.2
2020		17.6
2021		13.3
2022		11.1
2023		9.5
Thereafter		13.8
<b>Total</b>	<b>\$</b>	<b>88.5</b>

**Warranties and guarantees**

In connection with our disposition of businesses, product lines and assets, we often provide representations, warranties and indemnities to cover purchasers for various potential liabilities relating to the sold businesses, product lines and assets, such as unknown damage or liabilities relating to the assets and 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 obligations under such indemnifications are not explicitly stated and as a result, the overall amount of these obligations cannot be reasonably estimated due to their inchoate and unknown nature. 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 adverse 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 in 2017, 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 of continuing operations for the six months ended June 30, 2019 were as follows:

<i>In millions</i>	<b>June 30, 2019</b>	
Beginning balance	\$	33.9
Service and product warranty provision		25.0
Payments		(24.7)
Ending balance	\$	34.2

**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.

**Pentair plc and Subsidiaries**

**Notes to condensed consolidated financial statements (unaudited)**

As of June 30, 2019 and December 31, 2018, the outstanding value of bonds, letters of credit and bank guarantees totaled \$117.2 million and \$123.6 million, respectively.

**16. Supplemental Guarantor Information**

Pentair plc (the “Parent Company Guarantor”) and PISG (the “Subsidiary Guarantor”), fully and unconditionally, guarantee the notes of PFSA (the “Subsidiary Issuer”). The Subsidiary Guarantor is a Switzerland limited liability company and 100 percent-owned subsidiary of the Parent Company Guarantor. The Subsidiary Issuer is a Luxembourg private limited liability company and 100 percent-owned subsidiary of the Subsidiary Guarantor. The guarantees provided by the Parent Company Guarantor and Subsidiary Guarantor are joint and several.

The following supplemental financial information sets forth the Company’s Condensed Consolidating Statements of Operations and Comprehensive Income (Loss), Condensed Consolidating Balance Sheets and Condensed Consolidating Statements of Cash Flows by relevant group within the Company: Pentair plc and PISG as the guarantors, PFSA as issuer of the debt and all other non-guarantor subsidiaries. Condensed consolidating financial information for Pentair plc, PISG and PFSA on a stand-alone basis is presented using the equity method of accounting for subsidiaries.

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

**Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)**  
**Three months ended June 30, 2019**

<i>In millions</i>	<b>Parent Company Guarantor</b>	<b>Subsidiary Guarantor</b>	<b>Subsidiary Issuer</b>	<b>Non-guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated Total</b>
Net sales	\$ —	\$ —	\$ —	\$ 799.5	\$ —	\$ 799.5
Cost of goods sold	—	—	—	512.8	—	512.8
Gross profit	—	—	—	286.7	—	286.7
Selling, general and administrative	2.6	0.1	0.4	129.1	—	132.2
Research and development	—	—	—	20.7	—	20.7
Operating (loss) income	(2.6)	(0.1)	(0.4)	136.9	—	133.8
(Earnings) loss from continuing operations of investment in subsidiaries	(117.7)	(118.4)	(118.9)	—	355.0	—
<b>Other (income) expense:</b>						
Loss on sale of business	—	—	—	0.1	—	0.1
Net interest expense	—	0.6	0.1	8.7	—	9.4
Other income	—	—	—	(12.9)	—	(12.9)
Income (loss) from continuing operations before income taxes	115.1	117.7	118.4	141.0	(355.0)	137.2
Provision for income taxes	—	—	—	22.1	—	22.1
<b>Net income (loss) from continuing operations</b>	<b>115.1</b>	<b>117.7</b>	<b>118.4</b>	<b>118.9</b>	<b>(355.0)</b>	<b>115.1</b>
Loss from discontinued operations, net of tax	—	—	—	(0.8)	—	(0.8)
(Loss) earnings from discontinued operations of investment in subsidiaries	(0.8)	(0.8)	(0.8)	—	2.4	—
<b>Net income (loss)</b>	<b>\$ 114.3</b>	<b>\$ 116.9</b>	<b>\$ 117.6</b>	<b>\$ 118.1</b>	<b>\$ (352.6)</b>	<b>\$ 114.3</b>
<b>Comprehensive income (loss), net of tax</b>						
Net income (loss)	\$ 114.3	\$ 116.9	\$ 117.6	\$ 118.1	\$ (352.6)	\$ 114.3
Changes in cumulative translation adjustment	(0.9)	(0.9)	(0.9)	(0.9)	2.7	(0.9)
Changes in market value of derivative financial instruments, net of tax	(3.4)	(3.4)	(3.4)	(3.4)	10.2	(3.4)
<b>Comprehensive income (loss)</b>	<b>\$ 110.0</b>	<b>\$ 112.6</b>	<b>\$ 113.3</b>	<b>\$ 113.8</b>	<b>\$ (339.7)</b>	<b>\$ 110.0</b>

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

**Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)**  
Six months ended June 30, 2019

<i>In millions</i>	<b>Parent Company Guarantor</b>	<b>Subsidiary Guarantor</b>	<b>Subsidiary Issuer</b>	<b>Non-guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated Total</b>
Net sales	\$ —	\$ —	\$ —	\$ 1,488.4	\$ —	\$ 1,488.4
Cost of goods sold	—	—	—	966.1	—	966.1
Gross profit	—	—	—	522.3	—	522.3
Selling, general and administrative expenses	5.7	0.2	0.8	272.8	—	279.5
Research and development expenses	—	—	—	41.4	—	41.4
Operating (loss) income	(5.7)	(0.2)	(0.8)	208.1	—	201.4
(Earnings) loss from continuing operations of investment in subsidiaries	(173.2)	(175.4)	(176.8)	—	525.4	—
<b>Other (income) expense:</b>						
Gain on sale of business	—	—	—	(3.4)	—	(3.4)
Net interest expense	—	2.0	0.6	14.1	—	16.7
Other income	—	—	—	(12.3)	—	(12.3)
Income (loss) from continuing operations before income taxes	167.5	173.2	175.4	209.7	(525.4)	200.4
Provision for income taxes	—	—	—	32.9	—	32.9
<b>Net income (loss) from continuing operations</b>	<b>167.5</b>	<b>173.2</b>	<b>175.4</b>	<b>176.8</b>	<b>(525.4)</b>	<b>167.5</b>
Loss from discontinued operations, net of tax	—	—	—	(1.9)	—	(1.9)
(Loss) earnings from discontinued operations of investment in subsidiaries	(1.9)	(1.9)	(1.9)	—	5.7	—
<b>Net income (loss)</b>	<b>\$ 165.6</b>	<b>\$ 171.3</b>	<b>\$ 173.5</b>	<b>\$ 174.9</b>	<b>\$ (519.7)</b>	<b>\$ 165.6</b>
<b>Comprehensive income (loss), net of tax</b>						
Net income (loss)	\$ 165.6	\$ 171.3	\$ 173.5	\$ 174.9	\$ (519.7)	\$ 165.6
Changes in cumulative translation adjustment	(2.5)	(2.5)	(2.5)	(2.5)	7.5	(2.5)
Changes in market value of derivative financial instruments, net of tax	0.9	0.9	0.9	0.9	(2.7)	0.9
<b>Comprehensive income (loss)</b>	<b>\$ 164.0</b>	<b>\$ 169.7</b>	<b>\$ 171.9</b>	<b>\$ 173.3</b>	<b>\$ (514.9)</b>	<b>\$ 164.0</b>

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

**Condensed Consolidating Balance Sheet**  
**June 30, 2019**

<i>In millions</i>	<b>Parent Company Guarantor</b>	<b>Subsidiary Guarantor</b>	<b>Subsidiary Issuer</b>	<b>Non-guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated Total</b>
<b>Assets</b>						
<b>Current assets</b>						
Cash and cash equivalents	\$ 0.3	\$ —	\$ 0.1	\$ 80.1	\$ —	\$ 80.5
Accounts and notes receivable, net	1.2	—	1.1	458.9	(1.6)	459.6
Inventories	—	—	—	396.7	—	396.7
Other current assets	2.9	—	0.1	101.7	—	104.7
<b>Total current assets</b>	<b>4.4</b>	<b>—</b>	<b>1.3</b>	<b>1,037.4</b>	<b>(1.6)</b>	<b>1,041.5</b>
<b>Property, plant and equipment, net</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>280.3</b>	<b>—</b>	<b>280.3</b>
<b>Other assets</b>						
Investments in subsidiaries	1,969.2	1,968.7	2,719.8	—	(6,657.7)	—
Goodwill	—	—	—	2,287.5	—	2,287.5
Intangibles, net	—	—	—	354.2	—	354.2
Other non-current assets	22.3	1.0	1,591.5	184.2	(1,592.5)	206.5
<b>Total other assets</b>	<b>1,991.5</b>	<b>1,969.7</b>	<b>4,311.3</b>	<b>2,825.9</b>	<b>(8,250.2)</b>	<b>2,848.2</b>
<b>Total assets</b>	<b>\$ 1,995.9</b>	<b>\$ 1,969.7</b>	<b>\$ 4,312.6</b>	<b>\$ 4,143.6</b>	<b>\$ (8,251.8)</b>	<b>\$ 4,170.0</b>
<b>Liabilities and Equity</b>						
<b>Current liabilities</b>						
Accounts payable	\$ 6.1	\$ —	\$ 0.1	\$ 257.1	\$ (1.6)	\$ 261.7
Employee compensation and benefits	0.2	—	—	68.5	—	68.7
Other current liabilities	33.7	0.5	7.7	337.9	—	379.8
<b>Total current liabilities</b>	<b>40.0</b>	<b>0.5</b>	<b>7.8</b>	<b>663.5</b>	<b>(1.6)</b>	<b>710.2</b>
<b>Other liabilities</b>						
Long-term debt	128.8	—	2,336.3	342.5	(1,592.5)	1,215.1
Pension and other post-retirement compensation and benefits	—	—	—	89.2	—	89.2
Deferred tax liabilities	—	—	—	119.8	—	119.8
Other non-current liabilities	20.5	—	—	208.6	—	229.1
<b>Total liabilities</b>	<b>189.3</b>	<b>0.5</b>	<b>2,344.1</b>	<b>1,423.6</b>	<b>(1,594.1)</b>	<b>2,363.4</b>
<b>Equity</b>	<b>1,806.6</b>	<b>1,969.2</b>	<b>1,968.5</b>	<b>2,720.0</b>	<b>(6,657.7)</b>	<b>1,806.6</b>
<b>Total liabilities and equity</b>	<b>\$ 1,995.9</b>	<b>\$ 1,969.7</b>	<b>\$ 4,312.6</b>	<b>\$ 4,143.6</b>	<b>\$ (8,251.8)</b>	<b>\$ 4,170.0</b>

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

**Condensed Consolidating Statement of Cash Flows**  
Six months ended June 30, 2019

<i>In millions</i>	<b>Parent Company Guarantor</b>	<b>Subsidiary Guarantor</b>	<b>Subsidiary Issuer</b>	<b>Non-guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated Total</b>
<b>Operating activities</b>						
Net cash provided by (used for) operating activities	\$ 157.2	\$ 170.4	\$ 179.1	\$ 104.3	\$ (514.3)	\$ 96.7
<b>Investing activities</b>						
Capital expenditures	—	—	—	(29.8)	—	(29.8)
Proceeds from sale of property and equipment	—	—	—	0.4	—	0.4
Proceeds from the sale of businesses	—	—	—	0.7	—	0.7
Acquisitions, net of cash acquired	—	—	—	(284.5)	—	(284.5)
Net intercompany loan activity	—	—	(604.3)	(21.9)	626.2	—
Other	—	—	—	(1.5)	—	(1.5)
Net cash (used for) provided by investing activities	—	—	(604.3)	(336.6)	626.2	(314.7)
<b>Financing activities</b>						
Net receipts (repayments) of commercial paper and revolving long-term debt	—	—	55.0	(22.1)	—	32.9
Proceeds from long-term debt	—	—	400.0	—	—	400.0
Debt issuance costs	—	—	(5.7)	—	—	(5.7)
Net change in advances to subsidiaries	47.8	(170.4)	(24.3)	258.8	(111.9)	—
Shares issued to employees, net of shares withheld	7.2	—	—	—	—	7.2
Repurchases of ordinary shares	(150.0)	—	—	—	—	(150.0)
Dividends paid	(62.0)	—	—	—	—	(62.0)
Net cash (used for) provided by financing activities	(157.0)	(170.4)	425.0	236.7	(111.9)	222.4
<b>Effect of exchange rate changes on cash and cash equivalents</b>	—	—	0.2	1.6	—	1.8
<b>Change in cash and cash equivalents</b>	0.2	—	—	6.0	—	6.2
<b>Cash and cash equivalents, beginning of period</b>	0.1	—	0.1	74.1	—	74.3
<b>Cash and cash equivalents, end of period</b>	\$ 0.3	\$ —	\$ 0.1	\$ 80.1	\$ —	\$ 80.5

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

**Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)**  
**Three months ended June 30, 2018**

<i>In millions</i>	<b>Parent Company Guarantor</b>	<b>Subsidiary Guarantor</b>	<b>Subsidiary Issuer</b>	<b>Non-guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated Total</b>
Net sales	\$ —	\$ —	\$ —	\$ 780.6	\$ —	\$ 780.6
Cost of goods sold	—	—	—	498.0	—	498.0
Gross profit	—	—	—	282.6	—	282.6
Selling, general and administrative expenses	8.1	—	0.4	132.4	—	140.9
Research and development expenses	—	—	—	19.1	—	19.1
Operating (loss) income	(8.1)	—	(0.4)	131.1	—	122.6
(Earnings) loss from continuing operations of investment in subsidiaries	(88.5)	(88.1)	(138.1)	—	314.7	—
<b>Other (income) expense:</b>						
Loss on sale of business	—	—	—	0.9	—	0.9
Loss on early extinguishment of debt	—	—	17.1	—	—	17.1
Net interest (income) expense	—	(0.4)	7.3	3.2	—	10.1
Other income	—	—	—	(4.2)	—	(4.2)
Income (loss) from continuing operations before income taxes	80.4	88.5	113.3	131.2	(314.7)	98.7
Provision for income taxes	2.5	—	—	18.3	—	20.8
<b>Net income (loss) from continuing operations</b>	<b>77.9</b>	<b>88.5</b>	<b>113.3</b>	<b>112.9</b>	<b>(314.7)</b>	<b>77.9</b>
Loss from discontinued operations, net of tax	—	—	—	(36.4)	—	(36.4)
(Loss) earnings from discontinued operations of investment in subsidiaries	(36.4)	(36.4)	(36.4)	—	109.2	—
<b>Net income (loss)</b>	<b>\$ 41.5</b>	<b>\$ 52.1</b>	<b>\$ 76.9</b>	<b>\$ 76.5</b>	<b>\$ (205.5)</b>	<b>\$ 41.5</b>
<b>Comprehensive income (loss), net of tax</b>						
Net income (loss)	\$ 41.5	\$ 52.1	\$ 76.9	\$ 76.5	\$ (205.5)	\$ 41.5
Changes in cumulative translation adjustment	22.8	22.8	22.8	22.8	(68.4)	22.8
Changes in market value of derivative financial instruments, net of tax	4.1	4.1	4.1	4.1	(12.3)	4.1
<b>Comprehensive income (loss)</b>	<b>\$ 68.4</b>	<b>\$ 79.0</b>	<b>\$ 103.8</b>	<b>\$ 103.4</b>	<b>\$ (286.2)</b>	<b>\$ 68.4</b>

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

**Condensed Consolidating Statement of Operations and Comprehensive Income (Loss)**  
Six months ended June 30, 2018

<i>In millions</i>	Parent Company Guarantor	Subsidiary Guarantor	Subsidiary Issuer	Non-guarantor Subsidiaries	Eliminations	Consolidated Total
Net sales	\$ —	\$ —	\$ —	\$ 1,513.2	\$ —	\$ 1,513.2
Cost of goods sold	—	—	—	977.3	—	977.3
Gross profit	—	—	—	535.9	—	535.9
Selling, general and administrative	13.5	—	0.5	268.7	—	282.7
Research and development	—	—	—	37.9	—	37.9
Operating (loss) income	(13.5)	—	(0.5)	229.3	—	215.3
(Earnings) loss from continuing operations of investment in subsidiaries	(152.3)	(151.6)	(189.1)	—	493.0	—
<b>Other (income) expense:</b>						
Loss on sale of business	—	—	—	6.2	—	6.2
Loss on early extinguishment of debt	—	—	17.1	—	—	17.1
Net interest (income) expense	—	(0.7)	19.9	4.4	—	23.6
Other income	—	—	—	(3.8)	—	(3.8)
Income (loss) from continuing operations before income taxes	138.8	152.3	151.6	222.5	(493.0)	172.2
Provision for income taxes	2.5	—	—	33.4	—	35.9
<b>Net income (loss) from continuing operations</b>	<b>136.3</b>	<b>152.3</b>	<b>151.6</b>	<b>189.1</b>	<b>(493.0)</b>	<b>136.3</b>
Income from discontinued operations, net of tax	—	—	—	8.1	—	8.1
Earnings (loss) from discontinued operations of investment in subsidiaries	8.1	8.1	8.1	—	(24.3)	—
<b>Net income (loss)</b>	<b>\$ 144.4</b>	<b>\$ 160.4</b>	<b>\$ 159.7</b>	<b>\$ 197.2</b>	<b>\$ (517.3)</b>	<b>\$ 144.4</b>
<b>Comprehensive income (loss), net of tax</b>						
Net income (loss)	\$ 144.4	\$ 160.4	\$ 159.7	\$ 197.2	\$ (517.3)	\$ 144.4
Changes in cumulative translation adjustment	25.2	25.2	25.2	25.2	(75.6)	25.2
Changes in market value of derivative financial instruments, net of tax	0.3	0.3	0.3	0.3	(0.9)	0.3
<b>Comprehensive income (loss)</b>	<b>\$ 169.9</b>	<b>\$ 185.9</b>	<b>\$ 185.2</b>	<b>\$ 222.7</b>	<b>\$ (593.8)</b>	<b>\$ 169.9</b>

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**
**Condensed Consolidating Balance Sheet  
December 31, 2018**

<i>In millions</i>	<b>Parent Company Guarantor</b>	<b>Subsidiary Guarantor</b>	<b>Subsidiary Issuer</b>	<b>Non-guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated Total</b>
<b>Assets</b>						
<b>Current assets</b>						
Cash and cash equivalents	\$ 0.1	\$ —	\$ 0.1	\$ 74.1	\$ —	\$ 74.3
Accounts and notes receivable, net	4.6	—	—	483.6	—	488.2
Inventories	—	—	—	387.5	—	387.5
Other current assets	3.4	—	2.2	99.2	(15.4)	89.4
<b>Total current assets</b>	<b>8.1</b>	<b>—</b>	<b>2.3</b>	<b>1,044.4</b>	<b>(15.4)</b>	<b>1,039.4</b>
<b>Property, plant and equipment, net</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>272.6</b>	<b>—</b>	<b>272.6</b>
<b>Other assets</b>						
Investments in subsidiaries	1,903.8	2,036.1	2,675.7	—	(6,615.6)	—
Goodwill	—	—	—	2,072.7	—	2,072.7
Intangibles, net	—	—	—	276.3	—	276.3
Other non-current assets	23.3	—	696.1	729.7	(1,303.6)	145.5
<b>Total other assets</b>	<b>1,927.1</b>	<b>2,036.1</b>	<b>3,371.8</b>	<b>3,078.7</b>	<b>(7,919.2)</b>	<b>2,494.5</b>
<b>Total assets</b>	<b>\$ 1,935.2</b>	<b>\$ 2,036.1</b>	<b>\$ 3,374.1</b>	<b>\$ 4,395.7</b>	<b>\$ (7,934.6)</b>	<b>\$ 3,806.5</b>
<b>Liabilities and Equity</b>						
<b>Current liabilities</b>						
Accounts payable	\$ 0.9	\$ —	\$ —	\$ 377.7	\$ —	\$ 378.6
Employee compensation and benefits	0.2	—	—	111.5	—	111.7
Other current liabilities	47.6	1.5	4.4	290.3	(15.4)	328.4
<b>Total current liabilities</b>	<b>48.7</b>	<b>1.5</b>	<b>4.4</b>	<b>779.5</b>	<b>(15.4)</b>	<b>818.7</b>
<b>Other liabilities</b>						
Long-term debt	29.9	130.8	1,333.9	596.6	(1,303.6)	787.6
Pension and other post-retirement compensation and benefits	—	—	—	90.0	—	90.0
Deferred tax liabilities	—	—	—	105.9	—	105.9
Other non-current liabilities	20.5	—	—	147.7	—	168.2
<b>Total liabilities</b>	<b>99.1</b>	<b>132.3</b>	<b>1,338.3</b>	<b>1,719.7</b>	<b>(1,319.0)</b>	<b>1,970.4</b>
<b>Equity</b>	<b>1,836.1</b>	<b>1,903.8</b>	<b>2,035.8</b>	<b>2,676.0</b>	<b>(6,615.6)</b>	<b>1,836.1</b>
<b>Total liabilities and equity</b>	<b>\$ 1,935.2</b>	<b>\$ 2,036.1</b>	<b>\$ 3,374.1</b>	<b>\$ 4,395.7</b>	<b>\$ (7,934.6)</b>	<b>\$ 3,806.5</b>

**Pentair plc and Subsidiaries**
**Notes to condensed consolidated financial statements (unaudited)**

**Condensed Consolidating Statement of Cash Flows**  
Six months ended June 30, 2018

<i>In millions</i>	<b>Parent Company Guarantor</b>	<b>Subsidiary Guarantor</b>	<b>Subsidiary Issuer</b>	<b>Non-guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated Total</b>
<b>Operating activities</b>						
Net cash provided by (used for) operating activities	\$ 101.1	\$ 162.2	\$ 177.5	\$ 272.6	\$ (541.5)	171.9
<b>Investing activities</b>						
Capital expenditures	—	—	—	(20.3)	—	(20.3)
Proceeds from sale of property and equipment	—	—	—	(0.5)	—	(0.5)
Payments due to sale of businesses, net	—	—	—	(12.8)	—	(12.8)
Acquisitions, net of cash acquired	—	—	—	(0.9)	—	(0.9)
Net intercompany loan activity	30.8	59.9	22.5	490.6	(603.8)	—
Net cash provided by (used for) investing activities of continuing operations	30.8	59.9	22.5	456.1	(603.8)	(34.5)
Net cash used for investing activities of discontinued operations	—	—	—	(7.1)	—	(7.1)
Net cash provided by (used for) investing activities	30.8	59.9	22.5	449.0	(603.8)	(41.6)
<b>Financing activities</b>						
Net receipts (repayments) of commercial paper and revolving long-term debt	—	—	43.8	(13.6)	—	30.2
Repayments of long-term debt	—	—	(675.1)	—	—	(675.1)
Premium paid on early extinguishment of debt	—	—	(16.0)	—	—	(16.0)
Transfer of cash to nVent	—	—	—	(74.2)	—	(74.2)
Distribution from nVent spin-off	—	—	993.6	—	—	993.6
Net change in advances to subsidiaries	287.8	(222.1)	(517.0)	(694.0)	1,145.3	—
Shares issued to employees, net of shares withheld	6.3	—	—	—	—	6.3
Repurchases of ordinary shares	(300.0)	—	—	—	—	(300.0)
Dividends paid	(125.9)	—	—	—	—	(125.9)
Net cash (used for) provided by financing activities	(131.8)	(222.1)	(170.7)	(781.8)	1,145.3	(161.1)
<b>Change in cash held for sale</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>27.0</b>	<b>—</b>	<b>27.0</b>
<b>Effect of exchange rate changes on cash and cash equivalents</b>	<b>—</b>	<b>—</b>	<b>(26.1)</b>	<b>22.3</b>	<b>—</b>	<b>(3.8)</b>
<b>Change in cash and cash equivalents</b>	<b>0.1</b>	<b>—</b>	<b>3.2</b>	<b>(10.9)</b>	<b>—</b>	<b>(7.6)</b>
<b>Cash and cash equivalents, beginning of period</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>86.3</b>	<b>—</b>	<b>86.3</b>
<b>Cash and cash equivalents, end of period</b>	<b>\$ 0.1</b>	<b>\$ —</b>	<b>\$ 3.2</b>	<b>\$ 75.4</b>	<b>\$ —</b>	<b>78.7</b>

## ITEM 2. 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,” “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 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 successfully integrate the Aquion, Inc. (“Aquion”) and Pelican Water Systems (“Pelican”) 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; the ability to realize the anticipated benefits from the Separation (as defined below); 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 Quarterly Report on Form 10-Q. 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*

The terms “us,” “we,” “our” or “Pentair” refer to Pentair plc and its consolidated subsidiaries. At Pentair, we believe the health of our world depends on reliable access to clean water. We deliver a comprehensive range of smart, sustainable water solutions to homes, business and industry around the world. Our industry leading and proven portfolio of solutions enables our customers to access clean, safe water, reduce water consumption, and recover and reuse it. Whether it's improving, moving or helping people enjoy water, we help manage the world's most precious resource. We are comprised of three reporting segments: Aquatic Systems, Filtration Solutions and Flow Technologies. For the first six months of 2019, the Aquatic Systems, Filtration Solutions and Flow Technologies segments represented approximately 33%, 35% and 32% of total revenues, respectively. We classify our operations into business segments based primarily on types of products offered and markets served:

- **Aquatic Systems** — This segment manufactures and sells a complete line of energy-efficient residential and commercial pool equipment and accessories including pumps, filters, heaters, lights, automatic controls, automatic cleaners, maintenance equipment and pool accessories. Applications for our Aquatic Systems products include residential and commercial pool maintenance, pool repair, renovation, service and construction and aquaculture solutions.
- **Filtration Solutions** — This segment manufactures and sells water and fluid treatment products and systems, including pressure tanks and vessels, control valves, activated carbon products, conventional filtration products, point-of-entry and point-of-use systems, gas recovery solutions, membrane bioreactors, wastewater reuse systems and advanced membrane filtration and separation systems into the global residential, industrial and commercial markets. These products are used in a range of applications, including use in fluid filtration, ion exchange, desalination, food and beverage, food service and separation technologies for the oil and gas industry.
- **Flow Technologies** — This segment manufactures and sells products ranging from light-duty diaphragm pumps to high-flow turbine pumps and solid handling pumps while serving the global residential, commercial and industrial markets. These pumps are used in a range of applications, including residential and municipal wells, water treatment, wastewater solids handling, pressure boosting, fluid delivery, circulation and transfer, fire suppression, flood control, agricultural irrigation and crop spray.

On April 30, 2018, we completed the previously announced 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 Filtration Solutions, we completed the acquisitions of Aquion and Pelican for \$163.4 million and \$121.1 million in cash, net of cash acquired, respectively. 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.

***Key Trends and Uncertainties Regarding Our Existing Business***

The following trends and uncertainties affected our financial performance in the first six months of 2019 and may impact our results in the future:

- Wet and cold weather continued to delay pool construction activity in several key markets during the second quarter of 2019. As a result of slower sell-through during the first half of 2019, inventory levels were not reduced to the levels we anticipated. We expect the financial results of Aquatic Systems for the second half of 2019 to be negatively impacted as a result.
- 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 our businesses to 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.
- Proposed regulations as part of the Tax Cuts and Jobs Act, enacted in the U.S. in December 2017, may place limitations on the deductibility of certain interest expense for U.S. tax purposes. These proposed regulations could materially adversely affect our financial condition, results of operations, cash flows or our effective tax rate in future reporting periods when enacted.

In 2019, our operating objectives include the following:

- Accelerating the Pentair Integrated Management System (“PIMS”), with specific focus on the area of commercial excellence and acquisition integrations;
- Delivering our growth priorities through new products and global and market expansion, specifically in the areas of pool and residential and commercial water treatment especially through acquisitions and focus on China and Southeast Asia;
- Optimizing our technological capabilities to increasingly generate innovative new products and advance digital transformation; and
- Building a growth culture and delivering on our commitments while living our Win Right values.

**CONSOLIDATED RESULTS OF OPERATIONS**

The consolidated results of operations for the three months ended June 30, 2019 and 2018 were as follows:

<i>In millions</i>	<b>Three months ended</b>			
	<b>June 30, 2019</b>	<b>June 30, 2018</b>	<b>\$ Change</b>	<b>% / Point Change</b>
Net sales	\$ 799.5	\$ 780.6	\$ 18.9	2.4 %
Cost of goods sold	512.8	498.0	14.8	3.0 %
Gross profit	286.7	282.6	4.1	1.5 %
<i>% of net sales</i>	35.9%	36.2%		(0.3) pts
Selling, general and administrative	132.2	140.9	(8.7)	(6.2)%
<i>% of net sales</i>	16.5%	18.1%		(1.6) pts
Research and development	20.7	19.1	1.6	8.4 %
<i>% of net sales</i>	2.6%	2.4%		0.2 pts
Operating income	133.8	122.6	11.2	9.1 %
<i>% of net sales</i>	16.7%	15.7%		1.0 pts
Loss on sale of business	0.1	0.9	(0.8)	(88.9)%
Loss on early extinguishment of debt	—	17.1	(17.1)	N.M.
Other income	(12.9)	(4.2)	(8.7)	N.M.
Net interest expense	9.4	10.1	(0.7)	(6.9)%
Income from continuing operations before income taxes	137.2	98.7	38.5	39.0 %
Provision for income taxes	22.1	20.8	1.3	6.3 %
<i>Effective tax rate</i>	16.1%	21.1%		(5.0) pts

N.M. Not Meaningful

## CONSOLIDATED RESULTS OF OPERATIONS

The consolidated results of operations for the six months ended June 30, 2019 and June 30, 2018 were as follows:

<i>In millions</i>	Six months ended			
	June 30, 2019	June 30, 2018	\$ Change	% / Point Change
Net sales	\$ 1,488.4	\$ 1,513.2	\$ (24.8)	(1.6)%
Cost of goods sold	966.1	977.3	(11.2)	(1.1)%
Gross profit	522.3	535.9	(13.6)	(2.5)%
<i>% of net sales</i>	35.1%	35.4%		(0.3) pts
Selling, general and administrative expenses	279.5	282.7	(3.2)	(1.1)%
<i>% of net sales</i>	18.8%	18.7%		0.1 pts
Research and development expenses	41.4	37.9	3.5	9.2 %
<i>% of net sales</i>	2.8%	2.5%		0.3 pts
Operating income	201.4	215.3	(13.9)	(6.5)%
<i>% of net sales</i>	13.5%	14.2%		(0.7) pts
(Gain) loss on sale of business	(3.4)	6.2	(9.6)	N.M.
Loss on early extinguishment of debt	—	17.1	(17.1)	N.M.
Other income	(12.3)	(3.8)	(8.5)	N.M.
Net interest expense	16.7	23.6	(6.9)	(29.2)%
Income from continuing operations before income taxes	200.4	172.2	28.2	16.4 %
Provision for income taxes	32.9	35.9	(3.0)	(8.4)%
<i>Effective tax rate</i>	16.4%	20.8%		(4.4) pts

N.M. Not Meaningful

### Net sales

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

	Three months ended June 30, 2019 over the prior year period	Six months ended June 30, 2019 over the prior year period
Volume	(2.0)%	(3.9)%
Price	3.3	2.6
Core growth	1.3	(1.3)
Acquisition (divestiture)	2.7	1.7
Currency	(1.6)	(2.0)
Total	2.4 %	(1.6)%

The 2.4 percentage point increase in net sales in the second quarter of 2019 from 2018 was primarily driven by:

- selective increases in selling prices to mitigate inflationary cost increases; and
- the impact of the Aquion and Pelican acquisitions.

This increase was partially offset by:

- decreased sales volume in our Aquatic Systems segment due to higher than anticipated inventory levels in some of our key distribution channels; and
- unfavorable foreign currency effects.

The 1.6 percentage point decrease in net sales in the first half of 2019 from 2018 was primarily driven by:

- decreased sales volume in our Aquatic Systems segment and agriculture-related business in our Flow Technologies segment due to cold and wet weather and higher than anticipated inventory levels in some of our key distribution channels; and
- unfavorable foreign currency effects.

This decrease was partially offset by:

- selective increases in selling prices to mitigate inflationary cost increases; and
- the impact of the Aquion and Pelican acquisitions.

#### **Gross profit**

The 0.3 percentage point decrease in gross profit as a percentage of sales in the second quarter and first half, respectively, of 2019 from 2018 was primarily driven by:

- unfavorable mix as a result of a core growth decrease in the higher margin Aquatic Systems segment; and
- inflationary increases related to labor costs and certain raw materials.

This decrease was partially offset by:

- selective increases in selling prices to mitigate inflationary cost increases; and
- higher contribution margin as a result of savings generated from our PIMS initiatives including lean and supply management practices.

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

The 1.6 percentage point decrease in SG&A as a percentage of sales in the second quarter of 2019 from 2018 was primarily driven by:

- restructuring and other costs of \$6.7 million in the second quarter of 2019 compared to \$19.0 million in the second quarter of 2018; and
- savings generated from restructuring and other lean initiatives.

This decrease was partially offset by:

- increased investment in sales and marketing to drive growth.

The 0.1 percentage point increase in SG&A as a percentage of sales in the first half of 2019 from 2018 was primarily driven by:

- asset impairment of \$18.2 million in the first half of 2019, compared to \$6.0 million in the first half of 2018; and
- increased investment in sales and marketing to drive growth.

This increase was partially offset by:

- restructuring and other costs of \$7.8 million in the first half of 2019, compared to \$24.6 million in the first half of 2018; and
- savings generated from restructuring and other lean initiatives.

#### **Net interest expense**

The 6.9 and 29.2 percent decreases in net interest expense in the second quarter and first half, respectively, of 2019 from 2018 were primarily driven by:

- the impact of lower average outstanding debt levels during the first half of 2019, compared to the same period in 2018. In June 2018, the proceeds from the Separation were utilized to repay the remaining \$255.3 million aggregate principal amount of our 2.9% fixed rate senior notes due 2018 and for the early extinguishment of €363.4 million aggregate principal amount of our 2.45% senior notes due 2019; and,
- favorable foreign currency impact of interest payments made in Euros.

These decreases were partially offset by:

- increased expense due to a higher outstanding commercial paper balance in 2019 compared to 2018, which was primarily used to fund the Aquion and Pelican acquisitions.

**Provision for income taxes**

The 5.0 and 4.4 percentage point decreases in the effective tax rate in the second quarter and first half, respectively, of 2019 from 2018 were primarily driven by:

- the tax impact and timing of losses incurred during the first half of 2019 compared to 2018;
- the mix of global earnings; and
- the impact of lower nondeductible interest expense allocated to continuing operations in 2019 compared to 2018.

**SEGMENT RESULTS OF OPERATIONS**

The summary that follows provides a discussion of the results of operations of each of our three reportable segments (Aquatic Systems, Filtration Solutions and Flow Technologies). Each of these segments is comprised of various product offerings that serve multiple end users.

We evaluate performance based on 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.

**Aquatic Systems**

The net sales and segment income for Aquatic Systems were as follows:

<i>In millions</i>	Three months ended			Six months ended		
	June 30, 2019	June 30, 2018	% / Point Change	June 30, 2019	June 30, 2018	% / Point Change
Net sales	\$ 270.6	\$ 276.2	(2.0)%	\$ 491.1	\$ 516.6	(4.9)%
Segment income	76.8	79.6	(3.5)%	129.2	139.6	(7.4)%
<i>% of net sales</i>	28.4%	28.8%	(0.4) pts	26.3%	27.0%	(0.7) pts

**Net sales**

The components of the change in Aquatic Systems net sales from the prior period were as follows:

	Three months ended June 30, 2019 over the prior year period	Six months ended June 30, 2019 over the prior year period
Volume	(7.2)%	(8.5)%
Price	5.7	4.7
Core growth	(1.5)	(3.8)
Acquisition (divestiture)	(0.1)	(0.6)
Currency	(0.4)	(0.5)
Total	(2.0)%	(4.9)%

The 2.0 and 4.9 percent decreases in net sales for Aquatic Systems in the second quarter and first half, respectively, of 2019 from 2018 were primarily driven by:

- sales volume declines due to cold, wet weather during the first three months of 2019 that continued into the second quarter of 2019 in key markets;
- higher than anticipated inventory levels in some of our key distribution channels impacting our residential and commercial businesses in the first half of 2019; and
- unfavorable foreign currency effects compared to the same periods of the prior year.

These decreases were partially offset by:

- selective increases in selling prices to mitigate impacts of inflation.

### Segment income

The components of the change in Aquatic Systems segment income as a percentage of net sales from the prior period were as follows:

	Three months ended June 30, 2019 over the prior year period	Six months ended June 30, 2019 over the prior year period
Growth	(1.7) pts	(2.1) pts
Inflation	(2.8)	(2.8)
Productivity/Price	4.1	4.2
Total	(0.4) pts	(0.7) pts

The 0.4 and 0.7 percentage point decreases in segment income for Aquatic Systems as a percentage of net sales in the second quarter and first half, respectively, of 2019 from 2018 were primarily driven by:

- inflationary increases related to labor costs and certain raw materials; and
- sales declines in our residential and commercial businesses.

These decreases were partially offset by:

- selective increases in selling prices to mitigate impacts of inflation; and
- increased productivity.

### Filtration Solutions

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

In millions	Three months ended			Six months ended		
	June 30, 2019	June 30, 2018	% / Point Change	June 30, 2019	June 30, 2018	% / Point Change
Net sales	\$ 285.6	\$ 262.1	9.0 %	\$ 524.9	\$ 513.7	2.2 %
Segment income	50.0	52.3	(4.4)%	83.7	86.0	(2.7)%
% of net sales	17.5%	20.0%	(2.5) pts	15.9%	16.7%	(0.8) pts

### Net sales

The components of the change in Filtration Solutions net sales from the prior period were as follows:

	Three months ended June 30, 2019 over the prior year period	Six months ended June 30, 2019 over the prior year period
Volume	(0.1)%	(3.6)%
Price	1.5	1.3
Core growth	1.4	(2.3)
Acquisition (divestiture)	10.3	7.6
Currency	(2.7)	(3.1)
Total	9.0 %	2.2 %

The 9.0 and 2.2 percent increases in net sales for Filtration Solutions in the second quarter and first half, respectively, of 2019 from 2018 were primarily driven by:

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

These increases were partially offset by:

- decreased sales volume in our residential and commercial businesses, partially due to lower component sales as Aquion sales are now considered intercompany; and
- unfavorable foreign currency effects compared to the same periods of the prior year.

### Segment income

The components of the change in Filtration Solutions segment income as a percentage of net sales from the prior period were as follows:

	Three months ended June 30, 2019 over the prior year period	Six months ended June 30, 2019 over the prior year period
Growth	(0.4) pts	(0.4) pts
Inflation	(2.7)	(2.6)
Productivity/Price	0.6	2.2
Total	(2.5) pts	(0.8) pts

The 2.5 and 0.8 percentage point decreases in segment income for Filtration Solutions as a percentage of net sales in the second quarter and first half, respectively, of 2019 from 2018 were primarily driven by:

- decreased sales volume in our residential and commercial businesses; and
- inflationary increases related to labor costs and certain raw materials.

These decreases were partially offset by:

- selective increases in selling prices to mitigate inflationary cost increases; and
- the impact of the Aquion and Pelican acquisitions.

### Flow Technologies

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

In millions	Three months ended			Six months ended		
	June 30, 2019	June 30, 2018	% / Point Change	June 30, 2019	June 30, 2018	% / Point Change
Net sales	\$ 243.0	\$ 241.9	0.5 %	\$ 471.7	\$ 482.2	(2.2)%
Segment income	41.9	44.4	(5.6)%	72.0	83.1	(13.4)%
% of net sales	17.2%	18.4%	(1.2) pts	15.3%	17.2%	(1.9) pts

### Net sales

The components of the change in Flow Technologies net sales from the prior period were as follows:

	Three months ended June 30, 2019 over the prior year period	Six months ended June 30, 2019 over the prior year period
Volume	2.2 %	0.4 %
Price	2.4	1.8
Core growth	4.6	2.2
Acquisition (divestiture)	(2.4)	(2.2)
Currency	(1.7)	(2.2)
Total	0.5 %	(2.2)%

The 0.5 percent increase in net sales for Flow Technologies in the second quarter of 2019 from 2018 was primarily driven by:

- increased sales volume in our commercial and infrastructure businesses; and
- selective increases in selling prices to mitigate inflationary cost increases.

*This increase was partially offset by:*

- decreased sales volume primarily in our seasonal agriculture-related business due to continued wet weather;
- unfavorable foreign currency effects compared to the same period of the prior year; and
- the impact of divestitures.

*The 2.2 percent decrease in net sales for Flow Technologies in the first half of 2019 from 2018 was primarily driven by:*

- unfavorable foreign currency effects compared to the same period of the prior year;
- the impact of divestitures; and
- decreased sales volume primarily in our seasonal agriculture-related business due to cold, wet weather.

*This decrease was partially offset by:*

- increased sales volume in our commercial and infrastructure business; and
- selective increases in selling prices to mitigate inflationary cost increases.

### **Segment income**

The components of the change in Flow Technologies segment income as a percentage of net sales from the prior period were as follows:

	<b>Three months ended June 30, 2019 over the prior year period</b>	<b>Six months ended June 30, 2019 over the prior year period</b>
Growth	1.1 pts	0.3 pts
Inflation	(3.5)	(3.8)
Productivity/Price	1.2	1.6
Total	(1.2) pts	(1.9) pts

*The 1.2 and 1.9 percentage point decreases in segment income for Flow Technologies as a percentage of net sales in the second quarter and first half, respectively, of 2019 from 2018 were primarily driven by:*

- decreased sales volumes in our higher margin Specialty Ag Spray business, which resulted in decreased leverage on operating expenses;
- inflationary increases related to labor costs and certain raw materials;
- the impact of divestitures; and
- decreased sales volume in our residential business.

*These decreases were partially offset by:*

- selective increases in selling prices to mitigate inflationary cost increases; and
- increased productivity.

### **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 facilities have 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 intend to issue commercial paper to fund our financing needs on a short-term basis and use our revolving credit facility as back-up liquidity to support commercial paper.

We are focusing on increasing our cash flow and repaying existing debt, while continuing to fund our research and development, marketing and capital investment initiatives. Our intent is to maintain investment grade credit ratings and a solid liquidity position.

We experience seasonal cash flows primarily due to seasonal demand in a number of markets. We generally borrow in the first quarter of our fiscal year for operational purposes, which usage reverses in the second quarter as the seasonality of our businesses peaks. 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 heavy flooding and droughts.

### ***Operating activities***

Cash provided by operating activities of continuing operations was \$99.2 million in the first six months of 2019, compared to \$177.8 million in the same period of 2018.

The \$99.2 million in net cash provided by operating activities of continuing operations in the first six months of 2019 primarily reflects net income from continuing operations of \$226.6 million, net of non-cash depreciation, amortization and asset impairments, offset by an increase in net working capital of \$100.6 million, \$10.7 million of pension plan contributions and a \$12.2 million pension settlement gain in conjunction with the termination of the Pentair Salaried Plan during the first six months of 2019.

The \$177.8 million in net cash provided by operating activities of continuing operations in the first six months of 2018 primarily reflects net income from continuing operations of \$196.7 million, net of non-cash depreciation, amortization and the loss on early extinguishment of debt, offset by an increase in net working capital of \$48.1 million.

### ***Investing activities***

Cash used for investing activities of continuing operations was \$314.7 million in the first six months of 2019, compared to \$34.5 million in the same period of 2018. Net cash used for investing activities of continuing operations in the first six months of 2019 primarily reflects capital expenditures of \$29.8 million and cash paid for the Aquion and Pelican acquisitions of \$284.5 million, net of cash acquired.

Net cash used for investing activities of continuing operations in the first six months of 2018 primarily reflects capital expenditures of \$20.3 million and cash paid for the settlement of a working capital adjustment related to the sale of the Valves & Controls business.

### ***Financing activities***

Net cash provided by financing activities was \$222.4 million in the first six months of 2019, compared with net cash used for financing activities of \$161.1 million in the prior year period. Net cash provided by financing activities in the first six months of 2019 primarily relates to the proceeds from long-term debt of \$400.0 million, net receipts of commercial paper and revolving long-term debt of \$32.9 million, partially offset by \$150.0 million of share repurchases and the payment of dividends of \$62.0 million.

Net cash used for financing activities in the first six months of 2018 primarily relates to \$300.0 million of share repurchases and \$125.9 million of dividend payments during the first six months of 2018. Additionally, in the first six months of 2018, \$993.6 million of cash was distributed as a result of the Separation and Distribution of nVent. We used this cash to fund the repayment of commercial paper and revolving long term debt and for the early extinguishment of certain series of fixed rate debt during the first six months of 2018.

In June 2019, Pentair, Pentair Finance S.à r.l. (“PFSA”) and Pentair Investments Switzerland GmbH (“PISG”) completed a public offering of \$400.0 million aggregate principal amount of PFSA’s 4.500% Senior Notes due 2029 (the “2029 Notes”). The 2029 Notes are fully and unconditionally guaranteed as to payment of principal and interest by Pentair and PISG. We used the net proceeds of the 2029 Notes to partially repay outstanding commercial paper.

In April 2018, Pentair, PISG, 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. The Senior Credit Facility replaced PFSA’s existing credit facility under that certain Amended and Restated Credit Agreement, dated as of October 3, 2014. 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.

PFSA has the option to request an increase to the Senior Credit Facility up to \$1,100.0 million in the aggregate, subject to customary conditions, including the commitment of participating lenders. 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. As of June 30, 2019, total availability under the Senior Credit Facility was \$765.0 million.

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 \$130.9 million of commercial paper outstanding as of June 30, 2019 and \$76.0 million as of December 31, 2018, 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.

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. As of June 30, 2019, 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 \$21.1 million, of which there were no outstanding borrowings at June 30, 2019. Borrowings under these credit facilities bear interest at variable rates.

We have \$405.3 million aggregate principal amount of fixed rate senior notes maturing in the next twelve months. We classified this debt as long-term as of June 30, 2019 as we have the intent and ability to refinance such obligation on a long-term basis under the Senior Credit Facility.

As of June 30, 2019, we have \$54.3 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 cash requirements 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.

#### *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 authorization expires on May 31, 2021. During the six months ended June 30, 2019, we repurchased 4.0 million of our shares for \$150.0 million. As of June 30, 2019, we had \$250.0 million available for share repurchases under this authorization.

#### *Dividends payable*

On May 6, 2019, the Board of Directors declared a quarterly cash dividend of \$0.18, payable on August 2, 2019 to shareholders of record at the close of business on July 19, 2019. As a result, the balance of dividends payable included in *Other current liabilities* on our Condensed Consolidated Balance Sheets was \$30.2 million at June 30, 2019, compared to \$30.8 million at December 31, 2018.

We paid dividends in the first six months of 2019 of \$62.0 million, or \$0.36 per ordinary share compared with \$125.9 million, or \$0.70 per ordinary share, in the prior year period.

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 U.S. generally accepted accounting principles (“GAAP”) reported amount (e.g., retained earnings). Our distributable reserve balance was \$6.5 billion as of December 31, 2018.

**Other financial measures**

In addition to measuring our cash flow generation or usage based upon operating, investing and financing classifications included in the Condensed 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 adjusted 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, make acquisitions, repay debt and repurchase shares. 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>	<b>Six months ended</b>	
	<b>June 30, 2019</b>	<b>June 30, 2018</b>
Net cash provided by operating activities of continuing operations	\$ 99.2	\$ 177.8
Capital expenditures of continuing operations	(29.8)	(20.3)
Proceeds from sale of property and equipment of continuing operations	0.4	(0.5)
<b>Free cash flow from continuing operations</b>	<b>\$ 69.8</b>	<b>\$ 157.0</b>
Net cash used for operating activities of discontinued operations	(2.5)	(5.9)
Capital expenditures of discontinued operations	—	(7.4)
Proceeds from sale of property and equipment of discontinued operations	—	2.3
<b>Free cash flow</b>	<b>\$ 67.3</b>	<b>\$ 146.0</b>

**NEW ACCOUNTING STANDARDS**

See Note 1 of the Notes to Condensed Consolidated Financial Statements for information pertaining to recently adopted accounting standards.

**CRITICAL ACCOUNTING POLICIES**

We have adopted various accounting policies to prepare the consolidated financial statements in accordance with GAAP. Certain of our accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. In our 2018 Annual Report on Form 10-K, we identified the critical accounting policies that affect our more significant estimates and assumptions used in preparing our consolidated financial statements. There have been no material changes to our critical accounting policies and estimates from those disclosed in our 2018 Annual Report on Form 10-K for the year ended December 31, 2018.

**ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

There have been no material changes in our market risk during the quarter ended June 30, 2019. For additional information, refer to Item 7A of our 2018 Annual Report on Form 10-K.

**ITEM 4. CONTROLS AND PROCEDURES**

**(a) Evaluation of Disclosure Controls and Procedures**

We maintain a system of disclosure controls and procedures designed to provide reasonable assurance as to the reliability of our published financial statements and other disclosures included in this report. Our management evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the quarter ended June 30, 2019 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, at the reasonable assurance level, as of the end of the quarter ended June 30, 2019 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.

**(b) Changes in Internal Control over Financial Reporting**

There was no change in our internal control over financial reporting that occurred during the quarter ended June 30, 2019 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II OTHER INFORMATION

### ITEM 1. 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 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 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.

#### ***Asbestos matters***

Our subsidiaries and numerous other unaffiliated companies are named as defendants in personal injury lawsuits based on alleged exposure to asbestos-containing materials. These cases typically involve product liability claims based primarily on allegations of manufacture, sale or distribution of industrial products that either contained asbestos or were attached to or used with asbestos-containing components manufactured by third-parties. Each case typically names between several dozen to more than a hundred corporate defendants. Our historical strategy has been to mount a vigorous defense aimed at having unsubstantiated suits dismissed, and, where appropriate, settling suits before trial. Although a large percentage of litigated suits have been dismissed, we cannot predict the extent to which we will be successful in resolving lawsuits in the future.

As of June 30, 2019, there were approximately 670 claims outstanding against our subsidiaries. This amount is not adjusted for claims that are not actively being prosecuted, identified incorrect defendants, or duplicated other actions, which would ultimately reflect our current estimate of the number of viable claims made against us, our affiliates, or entities for which we assumed responsibility in connection with acquisitions or divestitures. In addition, the amount does not include certain claims pending against third parties for which we have been provided an indemnification.

#### ***Environmental matters***

We have been named as defendant, target or a potentially responsible party (“PRP”) in a number of environmental clean-ups relating to our current or former business units. We have disposed of a number of businesses in recent years, and in certain cases, we have retained responsibility and potential liability for certain environmental obligations. We have received claims for indemnification from certain purchasers. 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 cleanup actions brought by governmental authorities, private parties could bring personal injury or other 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 other businesses that previously owned or used the properties.

Our 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 June 30, 2019, our recorded reserves for environmental matters were not material. We do not anticipate our remaining environmental conditions will have a material adverse effect on our financial position, results of operations or cash flows. However, unknown conditions, new details about existing conditions or changes in environmental requirements may give rise to environmental liabilities that will exceed the amount of our current reserves and could have a material adverse effect 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. 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.

**ITEM 1A. RISK FACTORS**

There have been no material changes from the risk factors previously disclosed in Item 1A. of our 2018 Annual Report on Form 10-K.

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

The following table provides information with respect to purchases we made of our ordinary shares during the second quarter of 2019:

Period	(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
April 1 - April 27	293	\$ 41.73	—	\$ 400,000,120
April 28 - May 25	2,601,781	\$ 38.81	2,574,607	\$ 300,000,182
May 26 - June 30	1,390,920	\$ 35.95	1,389,742	\$ 250,000,187
Total	3,992,994		3,964,349	

- (a) The purchases in this column include 293 shares for the period April 1 - April 27, 27,174 shares for the period April 28 - May 25 and 1,178 shares for the period May 26 - June 30 deemed surrendered to us by participants in our 2012 Stock and Incentive Plan (the "2012 Plan") and earlier stock incentive plans that are now outstanding under the 2012 Plan (collectively the "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 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 the 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 expires on May 31, 2021. As of June 30, 2019, we had \$250.0 million available for share repurchases under this authorization. From time to time, we may enter into a Rule 10b5-1 trading plan for the purpose of repurchasing shares under this authorization.

## ITEM 6. EXHIBITS

The exhibits listed in the following Exhibit Index are filed as part of this Quarterly Report on Form 10-Q.

### **Exhibit Index to Form 10-Q for the Period Ended June 30, 2019**

- [4.1](#) 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)).
- [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 Quarterly Report on Form 10-Q for the quarter ended June 30, 2019 are filed herewith, formatted in XBRL (Extensible Business Reporting Language): (i) the Condensed Consolidated Statements of Operations and Comprehensive Income for the three and six months ended June 30, 2019 and 2018, (ii) the Condensed Consolidated Balance Sheets as of June 30, 2019 and December 31, 2018, (iii) the Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2019 and 2018, (iv) the Condensed Consolidated Statements of Changes in Equity for the three and six months ended June 30, 2019 and 2018, and (v) Notes to Condensed 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.

## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on July 23, 2019.

Pentair plc

Registrant

By /s/ Mark C. Borin

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Mark C. Borin

Executive Vice President and Chief Financial Officer

By /s/ Ademir Sarcevic

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Ademir Sarcevic

Senior Vice President and Chief Accounting Officer

**Certification**

I, John L. Stauch, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: July 23, 2019

/s/ John L. Stauch

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John L. Stauch

President and Chief Executive Officer

**Certification**

I, Mark C. Borin, certify that:

1. I have reviewed this quarterly report on Form 10-Q 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: July 23, 2019

/s/ Mark C. Borin

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Mark C. Borin

Executive Vice President and Chief Financial 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 Quarterly Report of Pentair plc (the "Company") on Form 10-Q for the period ended June 30, 2019 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: July 23, 2019

/s/ John L. Stauch

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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 Quarterly Report of Pentair plc (the "Company") on Form 10-Q for the period ended June 30, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mark C. Borin, Executive Vice President and Chief Financial 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: July 23, 2019

/s/ Mark C. Borin

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Mark C. Borin

Executive Vice President and Chief Financial Officer