Eaton Corporation plc

2018 Irish Statutory Accounts

Eaton Corporation plc

Directors' Report and Consolidated Financial Statements
For the Year Ended December 31, 2018

EATON CORPORATION plc

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DIRECTORS' REPORT

For the Year Ended December 31, 2018

Amounts are in millions of dollars or shares unless indicated otherwise (per share data assume dilution).

The directors present their report and financial statements of Eaton Corporation plc (Eaton or the Company) for the year ended December 31, 2018.

The directors have elected to prepare the consolidated financial statements in accordance with Section 279 of Part 6 of the Companies Act 2014, which provides that a true and fair view of the state of affairs and profit or loss may be given by preparing the financial statements in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP), as defined in Section 279 (1) of Part 6 of the Companies Act 2014, to the extent that the use of those principles in the preparation of the financial statements does not contravene any provision of that part of the Companies Act 2014.

BASIS OF PRESENTATION

The accompanying consolidated financial statements include the accounts of Eaton and its majority-owned subsidiaries or affiliated companies (Group) where Eaton has the ability to control the entity through voting or similar rights.

PRINCIPAL ACTIVITIES

Eaton Corporation plc is a power management company with 2018 net sales of $21.6 billion. The Company provides energy-efficient solutions that help its customers effectively manage electrical, hydraulic and mechanical power more reliably, safely and sustainably. Eaton has approximately 99,000 employees in 59 countries and sells products to customers in more than 175 countries.

Business Segment Information

During the first quarter of 2018, Eaton re-segmented certain reportable operating segments due to a reorganization of the Company's businesses. The new reportable business segment is eMobility (which includes certain legacy Electrical Products and Vehicle product lines).

Information by business segment and geographic region regarding principal products, principal markets, methods of distribution and net sales is presented in Note 19 of the Notes to the Consolidated Financial Statements. Additional information regarding Eaton's segments and business is presented below.

Electrical Products and Electrical Systems and Services

Principal methods of competition in these segments are performance of products and systems, technology, customer service and support, and price. Eaton has a strong competitive position in these segments and, with respect to many products, is considered among the market leaders. In normal economic cycles, sales of these segments are historically lower in the first quarter and higher in the third and fourth quarters of a year. In 2018, 23% of these segments' sales were made to seven large distributors of electrical products and electrical systems and services.

Hydraulics

Principal methods of competition in this segment are product performance, geographic coverage, service, and price. Eaton has a strong competitive position in this segment and, with respect to many products, is considered among the market leaders. Sales of this segment are historically higher in the first and second quarters and lower in the third and fourth quarters of the year. In 2018, 11% of this segment's sales were made to four large original equipment manufacturers or distributors of agricultural, construction, and industrial equipment and parts.

Aerospace

Principal methods of competition in this segment are total cost of ownership, product and system performance, quality, design engineering capabilities, and timely delivery. Eaton has a strong competitive position in this segment and, with respect to many products and platforms, is considered among the market leaders. In 2018, 26% of this segment's sales were made to three large original equipment manufacturers of aircraft.

Vehicle

Principal methods of competition in this segment are product performance, technology, global service, and price. Eaton has a strong competitive position in this segment and, with respect to many products, is considered among the market leaders. In 2018, 61% of this segment's sales were made to nine large original equipment manufacturers of vehicles and related components.

eMobility

Principal methods of competition in this segment are product performance, technology, global service, and price. Eaton has a strong competitive position in this segment. In 2018, 19% of this segment's sales were made to four large original equipment manufacturers of vehicles, construction equipment and related components.

Information Concerning Eaton's Business in General

Raw Materials

Eaton's major requirements for raw materials include iron, steel, copper, nickel, aluminum, brass, tin, silver, lead, titanium, rubber, plastic, electronic components, chemicals and fluids. Materials are purchased in various forms, such as extrusions, castings, powder metal, metal sheets and strips, forging billets, bar stock, and plastic pellets. Raw materials, as well as parts and other components, are purchased from many suppliers. Under normal circumstances, the Company has no difficulty obtaining its raw materials. In 2018, Eaton maintained appropriate levels of inventory to prevent shortages and did not experience any availability constraints.

Patents and Trademarks

Eaton considers its intellectual property, including without limitation patents, trade names, domain names, trademarks, confidential information, and trade secrets to be of significant value to its business as a whole. The Company's products are manufactured, marketed and sold under a portfolio of patents, trademarks, licenses, and other forms of intellectual property, some of which expire in the future. Eaton develops and acquires new intellectual property on an ongoing basis and considers all of its intellectual property to be valuable. Based on the broad scope of the Company's product lines, management believes that the loss or expiration of any single intellectual property right would not have a material effect on Eaton's consolidated financial statements or its business segments. The Company's policy is to file applications and obtain patents for the majority of its novel and innovative new products including product modifications and improvements.

Order Backlog

A significant portion of open orders placed with Eaton are by original equipment manufacturers or distributors. These open orders are not considered firm as they have been historically subject to releases by customers. In measuring backlog orders, only the amount of orders to which customers are firmly committed are included. Using this criterion, total backlog at December 31, 2018 and 2017 was approximately $5.3 billion. and $4.8 billion, respectively. Backlog should not be relied upon as being indicative of results of operations for future periods.

Environmental Contingencies

Operations of the Company involve the use and disposal of certain substances regulated under environmental protection laws. Eaton continues to modify processes on an ongoing, regular basis in order to reduce the impact on the environment, including the reduction or elimination of certain chemicals used in, and wastes generated from, operations. Compliance with laws that have been enacted or adopted regulating the discharge of materials into the environment, or otherwise relating to the protection of the environment, are not expected to have a material adverse effect upon earnings or the competitive position of the Company. Eaton's estimated capital expenditures for environmental control facilities are not expected to be material for 2019 and 2020. Information regarding the Company's liabilities related to environmental matters is presented in Note 12 of the Notes to the Consolidated Financial Statements.

PRINCIPAL RISKS AND UNCERTAINTIES

Among the risks that could materially adversely affect Eaton's businesses, financial condition or results of operations are the following:

Volatility of end markets that Eaton serves.

Eaton's segment revenues, operating results, and profitability have varied in the past and may vary from quarter to quarter in the future. Profitability can be negatively impacted by volatility in the end markets that Eaton serves. The Company has undertaken measures to reduce the impact of this volatility through diversification of the markets it serves and expansion of the geographic regions in which it operates. Future downturns in any of the markets could adversely affect revenues, operating results, and profitability.

Eaton's operating results depend in part on continued successful research, development, and marketing of new and/or improved products and services, and there can be no assurance that Eaton will continue to successfully introduce new products and services or maintain its present market positions.

The success of new and improved products and services depends on their initial and continued acceptance by Eaton's customers. The Company's businesses are affected, to varying degrees, by technological change and corresponding shifts in customer demand, which could result in unpredictable product transitions or shortened life cycles. Eaton may experience difficulties or delays in the research, development, production, or marketing of new products and services which may prevent Eaton from recouping or realizing a return on the investments required to bring new products and services to market. The Company's market positions may also be impacted by new entrants into Eaton's product or regional markets.

Eaton's ability to attract, develop and retain executives and other qualified employees is crucial to the Company's results of operations and future growth.

Eaton depends on the continued services and performance of key executives, senior management, and skilled personnel, particularly professionals with experience in its industry and business. Eaton cannot be certain that any of these individuals will continue his or her employment with the Company. A lengthy period of time is required to hire and develop replacement personnel when skilled personnel depart. An inability to hire, develop, and retain a sufficient number of qualified employees could materially hinder the business by, for example, delaying Eaton's ability to bring new products to market or impairing the success of the Company's operations.

Eaton's operations depend on production facilities throughout the world, which subjects them to varying degrees of risk of disrupted production.

Eaton manages businesses with manufacturing facilities worldwide. The Company's manufacturing facilities and operations could be disrupted by a natural disaster, labor strike, war, political unrest, terrorist activity, economic upheaval, or public health concerns. Some of these conditions are more likely in certain geographic regions in which Eaton operates. Any such disruption could cause delays in shipments of products and the loss of sales and customers, and insurance proceeds may not adequately compensate for losses.

If Eaton is unable to protect its information technology infrastructure against service interruptions, data corruption, cyber-based attacks or network security breaches, product or service offerings could be compromised or operations could be disrupted or data confidentiality lost.

Eaton relies on information technology networks and systems, including the Internet, to process, transmit and store electronic information, and to manage or support a variety of business processes and activities, including procurement, manufacturing, distribution, invoicing and collection. These technology networks and systems may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components, power outages, hardware failures, or computer viruses. In addition, security breaches could result in unauthorized disclosure of confidential information. If these information technology systems suffer severe damage, disruption, breach, or shutdown, and business continuity plans do not effectively resolve the issues in a timely manner, there could be a negative impact on operating results or the Company may suffer financial or reputational damage. Further, Cyber-based risks could also include attacks targeting the security, integrity and/or reliability of the hardware, software and information installed, stored or transmitted in our products, including after the purchase of those products and when they are incorporated into third party products, facilities or infrastructure. Such attacks could result in disruptions to third party systems, unauthorized release of confidential or otherwise protected information and corruption of data (our own or that of third parties). Further, to a significant extent, the security of our customers’ systems depends on how those systems are protected, configured, updated and monitored, all of which are typically outside our control.

Eaton's global operations subject it to economic risk as Eaton's results of operations may be adversely affected by changes in government legislation, regulations and policies and currency fluctuations.

Operating globally subjects Eaton to changes in government regulations and policies in a large number of jurisdictions around the world, including those related to tariffs and trade barriers, investments, property ownership rights, taxation, data privacy, and exchange controls. Changes in the relative values of currencies occur from time to time and could affect Eaton's operating results. While the Company monitors exchange rate exposures and attempts to reduce these exposures through hedging activities, these risks could adversely affect operating results.

Further, existing free trade laws and regulations provide certain beneficial duties and tariffs for qualifying imports and exports, subject to compliance with the applicable classification and other requirements. Changes in laws or policies governing the terms of foreign trade, and in particular increased trade restrictions, tariffs or taxes on imports from countries where we manufacture products could have an impact on our business and financial results.

Eaton may be subject to risks relating to changes in its tax rates or exposure to additional income tax liabilities.

Eaton is subject to income taxes in many jurisdictions around the world. Income tax liabilities are subject to the allocation of income among various tax jurisdictions. The Company's effective tax rate could be affected by changes in the mix among earnings in countries with differing statutory tax rates, changes in the valuation allowance of deferred tax assets, or changes in tax legislation, regulations, and policies. The amount of income taxes paid is subject to ongoing audits by tax authorities in the countries in which Eaton operates. If these audits result in assessments different from amounts reserved, future financial results may include unfavorable adjustments to the Company's tax liabilities.

Eaton uses a variety of raw materials and components in its businesses, and significant shortages, price increases, or supplier insolvencies could increase operating costs and adversely impact the competitive positions of Eaton's products.

Eaton's major requirements for raw materials are described above in Principal Activities “Raw Materials”. Significant shortages could affect the prices Eaton's businesses are charged and the competitive position of their products and services, all of which could adversely affect operating results.

Further, Eaton's suppliers of component parts may increase their prices in response to increases in costs of raw materials that they use to manufacture component parts. The Company may not be able to increase its prices commensurately with its increased costs, adversely affecting operating results.

Eaton may be unable to adequately protect its intellectual property rights, which could affect the Company's ability to compete.

Protecting Eaton's intellectual property rights is critical to its ability to compete and succeed. The Company owns a large number of patents and patent applications worldwide, as well as trademark and copyright registrations that are necessary, and contribute significantly, to the preservation of Eaton's competitive position in various markets. Although management believes that the loss or expiration of any single intellectual property right would not have a material effect on the results of operations or financial position of Eaton or its business segments, there can be no assurance that any one, or more, of these patents and other intellectual property will not be challenged, invalidated, or circumvented by third parties. Eaton enters into confidentiality and invention assignment agreements with the Company's employees, and into non-disclosure agreements with suppliers and appropriate customers, so as to limit access to and disclosure of proprietary information. These measures may not suffice to deter misappropriation or independent third party development of similar technologies.

Eaton is subject to litigation and environmental regulations that could adversely impact Eaton's businesses.

At any given time, Eaton may be subject to litigation, the disposition of which may have a material adverse effect on the Company's businesses, financial condition or results of operations. Information regarding current legal proceedings is presented in Note 12 and Note 13 of the Notes to the Consolidated Financial Statements.

RESULTS OF OPERATIONS

Summary of Results of Operations

During 2018, the Company's results of operations delivered strong sales growth as major global end markets expanded.

As discussed in Note 12, certain Eaton subsidiaries acquired in the 2012 acquisition of Cooper Industries have been ordered to pay $293 by an arbitration panel. The panel's award, issued on August 23, 2018, relate to claims brought by Pepsi-Cola Metropolitan Bottling Company, Inc. ("Pepsi") in 2011. A Texas state court confirmed the arbitration award at the confirmation hearing, which was held on October 12, 2018. On November 2, 2018, the Company appealed. On November 28, 2018, the Company paid the full judgment plus accrued post-judgment interest to Pneumo Abex and preserved its rights, including to pursue the appeal, which is pending. The impact of the arbitration award was an after-tax expense of $206 in the third quarter 2018, reducing earnings per share by $0.48.

During 2017, the Company's results of operations returned to solid growth as global end markets expanded, particularly in the second half of 2017. During the year, the Company completed its multi-year restructuring program, reducing its cost structure and expanding operating margins.

On July 31, 2017, Eaton sold a 50% interest in its heavy-duty and medium-duty commercial vehicle automated transmission business for $600 in cash to Cummins, Inc. The Company recognized a pre-tax gain of $533 ($410 after-tax) in the Consolidated Profit and Loss Accounts related to the gain from the $600 proceeds from the sale, and an unrealized gain of $544 ($433 after-tax) in the Consolidated Statements of Comprehensive Income related to the Company's remaining 50% investment in the joint venture being remeasured to fair value. Eaton accounts for its investment on the equity method of accounting.

The tax rate for 2017 includes a tax benefit of $62 related to the United States Tax Cuts and Jobs Act ("TCJA"), which was signed into law on December 22, 2017. The tax benefit of $62 related to the TCJA is comprised of a tax benefit of $79 for adjusting deferred tax assets and liabilities, offset by a tax expense of $17 for the taxation of unremitted earnings of non-U.S. subsidiaries owned directly or indirectly by U.S. subsidiaries of Eaton.

Additional information related to the sale of a business, restructuring activities, and the arbitration decision expense, is presented in Note 2, Note 5, and Note 12, respectively, of the Notes to the Consolidated Financial Statements.

A summary of Eaton's Net sales, Net income attributable to Eaton ordinary shareholders, and Net income per share attributable to Eaton ordinary shareholders - diluted follows:

	2018	2017
Net sales	$ 21,609	$ 20,404
Net income attributable to Eaton ordinary shareholders	2,145	2,552
Net income per share attributable to Eaton ordinary shareholders - diluted	$ 4.91	$ 5.71

Non-GAAP Financial Measures

The following discussion of Consolidated Financial Results and Business Segment Results of Operations includes certain non-GAAP financial measures. These financial measures include adjusted earnings, adjusted earnings per ordinary share, and operating profit before acquisition integration charges for each business segment as well as corporate, each of which differs from the most directly comparable measure calculated in accordance with generally accepted accounting principles (GAAP). A reconciliation of adjusted earnings and adjusted earnings per ordinary share to the most directly comparable GAAP measure is included in the table below. Operating profit before acquisition integration charges is reconciled in the discussion of the operating results of each business segment, and excludes acquisition integration expense related to integration of Ephesus Lighting, Inc. in 2017. Management believes that these financial measures are useful to investors because they exclude certain transactions, allowing investors to more easily compare Eaton's financial performance period to period. Management uses this information in monitoring and evaluating the on-going performance of Eaton and each business segment. For additional information on acquisition integration charges, see Note 3 to the Consolidated Financial Statements.

Consolidated Financial Results

		2018	Change from 2017		2017
Net sales	$	21,609	6 %	$	20,404
Gross profit		7,098	7 %		6,648
Percent of net sales		32.8%			32.6%
Income before income taxes		2,424	(14)%		2,824
Net income		2,146	(16)%		2,553
Less net income for noncontrolling interests		(1)			(1)
Net income attributable to Eaton ordinary shareholders		2,145	(16)%		2,552
Excluding acquisition integration charges, after-tax (Note 3)		—			2
Adjusted earnings	$	2,145	(16)%	$	2,554
Net income per share attributable to Eaton ordinary shareholders - diluted	$	4.91	(14)%	$	5.71
Excluding per share impact of acquisition integration charges, after-tax (Note 3)		—			—
Adjusted earnings per ordinary share	$	4.91	(14)%	$	5.71

Net Sales

Net sales in 2018 increased by 6% compared to 2017 due to an increase of 6% in organic sales. The increase in organic sales in 2018 was primarily due to higher sales volumes in all business segments.

Gross Profit

Gross profit margin increased from 32.6% in 2017 to 32.8% in 2018. The increase in gross profit margin in 2018 was primarily due to higher sales volumes, savings from restructuring actions, and lower restructuring charges, partially offset by commodity inflation and increased freight costs.

Income Taxes

During 2018, an income tax expense of $278 was recognized (an effective tax rate of 11.5%) compared to income tax expense of $271 for 2017 (an effective tax rate of 9.6%). The 2018 effective tax rate includes a tax benefit of $69 on the arbitration decision expense discussed in Note 12. The 2017 effective tax rate includes tax expense of $123 on the gain related to the sale of business discussed in Note 2 and a tax benefit of $62 related to the U.S. Tax Cuts and Jobs Act (TCJA). Excluding the one-time impacts of the 2018 arbitration decision, the 2017 sale of business, and the 2017 TCJA, the effective tax rate for 2018 was 12.8% compared to 9.2% for 2017. The increase from 9.2% for 2017 compared to 12.8% for 2018 was due to greater levels of income in higher tax jurisdictions and an increase in tax contingencies offset by net decreases of related valuation allowances.

Net Income

Net income attributable to Eaton ordinary shareholders of $2,145 in 2018 decreased 16% compared to $2,552 in 2017. Net income in 2018 included after-tax expense of $206 from the arbitration decision discussed in Note 12, and in 2017 included $533 from the gain on the sale of the business discussed in Note 2 and $62 of income from the new U.S. tax bill discussed in Note 13. Excluding these items, the increase in 2018 was primarily due to higher sales volumes, savings from restructuring actions, and lower restructuring charges, partially offset by commodity inflation and increased freight costs.

Net income per ordinary share decreased to $4.91 in 2018 compared to $5.71 in 2017. Net income per ordinary share in 2018 included an unfavorable $0.48 from the arbitration decision expense discussed in Note 12. Net income per ordinary share in 2017 included $0.92 from the gain on the sale of business discussed in Note 2 and $0.14 income from the 2017 U.S. Tax Cut and Jobs Act tax bill discussed in Note 13. Excluding these items, Net income per ordinary share increased in 2018 due to higher Net income attributable to Eaton ordinary shareholders and the Company's share repurchases over the past year.

Adjusted Earnings

There were no acquisition integration charges in 2018 and $2 in 2017 after-tax, which resulted in the same percent change for both Net income attributable to Eaton ordinary shareholders and Adjusted earnings.

There was no impact of excluding the per share impact of acquisition integration charges from Net income attributable to Eaton ordinary shareholders to arrive at Adjusted earnings per ordinary share for 2018 and 2017.

Business Segment Results of Operations

The following is a discussion of Net sales, operating profit and operating profit margin by business segment, which includes a discussion of operating profit and operating profit margin before acquisition integration charges. For additional information related to acquisition integration charges, see Note 3 to the Consolidated Financial Statements.

Electrical Products

	2018	Change from 2017	2017
Net sales	$ 7,124	3%	$ 6,917
Operating profit	1,311	6%	1,233
Operating margin	18.4%		17.8%
Acquisition integration charges	$ —		$ 4
Before acquisition integration charges			
Operating profit	$ 1,311	6%	$ 1,237
Operating margin	18.4%		17.9%

Net sales increased 3% in 2018 compared to 2017 due to an increase of 3% in organic sales. Organic sales grew in 2018 in North America and Europe, primarily driven by growth in products going into commercial, residential and industrial applications, partially offset by weakness in North American lighting sales.

Operating margin increased from 17.8% in 2017 to 18.4% in 2018. The increase in operating margin in 2018 was primarily due to higher sales volumes, lower restructuring costs, and savings from restructuring actions, partially offset by commodity inflation and increased freight costs.

Operating margin before acquisition integration charges increased from 17.9% in 2017 to 18.4% in 2018. The increase in operating margin before acquisition integration charges in 2018 was primarily due to an increase in operating margin, partially offset by lower acquisition integration charges.

Electrical Systems and Services

	2018	Change from 2017	2017
Net sales	$ 6,024	6%	$ 5,666
Operating profit	896	16%	770
Operating margin	14.9%		13.6%

Net sales increased 6% in 2018 compared to 2017 due to an increase of 7% in organic sales, partially offset by a decrease of 1% from the sale of a stake in a joint venture in the fourth quarter of 2017. The organic sales increase in 2018 was primarily due to strength in large industrial projects and commercial construction markets, data centers, and oil and gas markets.

Operating margin increased from 13.6% in 2017 to 14.9% in 2018. Operating margin increased in 2018 primarily due to higher sales volumes, savings from restructuring actions, and lower restructuring costs, partially offset by commodity inflation, unfavorable product mix, and increased freight costs.

Hydraulics

	2018	Change from 2017	2017
Net sales	$ 2,756	12%	$ 2,468
Operating profit	370	28%	288
Operating margin	13.4%		11.7%

Net sales in 2018 increased 12% compared to 2017 due to an increase in organic sales of 11% and an increase of 1% from the impact of positive currency translation. The increase in organic sales in 2018 was due to strength in global mobile equipment markets.

Operating margin increased from 11.7% in 2017 to 13.4% in 2018. The increase in operating margin in 2018 was primarily due to higher sales volumes, lower restructuring costs, and savings from restructuring actions, partially offset by commodity inflation, unfavorable product mix and increased freight costs.

Aerospace

	2018	Change from 2017	2017
Net sales	$ 1,896	9%	$ 1,744
Operating profit	398	20%	332
Operating margin	21.0%		19.0%

Net sales in 2018 increased 9% compared to 2017 due to an increase in organic sales of 9%. The increase in organic sales during 2018 was primarily due to higher sales in all major commercial and military end markets.

Operating margin increased from 19.0% in 2017 to 21.0% in 2018. The increase was primarily due to higher sales volume and favorable product mix.

Vehicle

	2018	Change from 2017	2017
Net sales	$ 3,489	5%	$ 3,326
Operating profit	611	13%	541
Operating margin	17.5%		16.3%

Net sales increased 5% in 2018 compared to 2017 due to an increase in organic sales of 7%, partially offset by a decrease of 2% from the sale of the business discussed in Note 2. The increase in organic sales in 2018 was primarily driven by growth in the Americas and Asia Pacific regions, with particular strength in the North American Class 8 truck market, partially offset by weakness in light vehicle markets in the European region.

Operating margin increased from 16.3% in 2017 to 17.5% in 2018. The increase in operating margin in 2018 was primarily due to higher sales volumes, partially offset by unfavorable product mix, commodity inflation and increased freight costs.

eMobility

	2018	Change from 2017	2017
Net sales	$ 320	13 %	$ 283
Operating profit	44	(12)%	50
Operating margin	13.8%		17.7%

Net sales increased 13% in 2018 compared to 2017 due to an increase in organic sales of 12% and an increase of 1% from the impact of positive currency translation. The increase in organic sales in 2018 was primarily due to strength in North America and Europe.

Operating margin decreased from 17.7% in 2017 to 13.8% in 2018. The decrease in operating margin in 2018 was primarily due to increased research and development costs.

Corporate Expense

	2018	Change from 2017	2017
Amortization of intangible assets	$ 382	(2)%	$ 388
Interest expense	311	11 %	280
Interest income	(40)	18 %	(34)
Pension and other postretirement benefits expense	1	(98)%	45
Gain on sale of a business	—	NM	(533)
Arbitration decision expense	275	NM	—
Other corporate expense - net	277	14 %	244
Total corporate expense	$ 1,206	209 %	$ 390

Corporate results were expense of $1,206 in 2018 compared to $390 in 2017. The change in Total corporate expense in 2018 was primarily due to the 2018 arbitration decision discussed in Note 12 and the 2017 gain on the sale of the business discussed in Note 2.

LIQUIDITY, CAPITAL RESOURCES AND CHANGES IN FINANCIAL CONDITION

Financial Condition and Liquidity

Eaton's objective is to finance its business through operating cash flow and an appropriate mix of equity and long-term and short-term debt. By diversifying its debt maturity structure, Eaton reduces liquidity risk. The Company maintains access to the commercial paper markets through a $2,000 commercial paper program. The Company maintains long-term revolving credit facilities totaling $2,000, consisting of a $500 three-year revolving credit facility that will expire November 17, 2020, a $750 five-year revolving credit facility that will expire October 14, 2021, and a $750 five-year revolving credit facility that will expire November 17, 2022. The revolving credit facilities are used to support commercial paper borrowings and are fully and unconditionally guaranteed by Eaton and certain of its direct and indirect subsidiaries on an unsubordinated, unsecured basis. There were no borrowings outstanding under Eaton's revolving credit facilities at December 31, 2018 or 2017. The Company had available lines of credit of $1,079 from various banks primarily for the issuance of letters of credit, of which there was $265 outstanding at December 31, 2018. Over the course of a year, cash, short-term investments and short-term debt may fluctuate in order to manage global liquidity. Eaton believes it has the operating flexibility, cash flow, cash and short-term investment balances, and access to capital markets in excess of the liquidity necessary to meet future operating needs of the business as well as scheduled payments of long-term debt.

On September 15, 2017, a subsidiary of Eaton issued senior notes (the 2017 Senior Notes) with a face amount of $1,000. The 2017 Senior Notes are comprised of two tranches of $700 and $300 which mature in 2027 and 2047, respectively, with interest payable semi-annually at a respective rate of 3.1% and 3.9%. The issuer received proceeds totaling $993 from the issuance, net of financing costs.

For additional information on financing transactions and debt, see Note 10 to the Consolidated Financial Statements.

Eaton’s credit facilities and indentures governing certain long-term debt contain various covenants, the violation of which would limit or preclude the use of the credit facilities for future borrowings, or might accelerate the maturity of the related outstanding borrowings covered by the indentures. At Eaton’s present credit rating level, the most restrictive financial covenant provides that the ratio of secured debt (or lease payments due under a sale and leaseback transaction) to adjusted consolidated net worth (or consolidated net tangible assets, in each case as defined in the relevant credit agreement or indenture) may not exceed 10%. Eaton's actual ratios are substantially below the required threshold. In addition, Eaton is in compliance with each of its debt covenants for all periods presented.

Sources and Uses of Cash

Operating Cash Flow

Net cash provided by operating activities was $2,658 in 2018, a decrease of $8 compared to $2,666 in 2017. The decrease was driven by a $297 payment made during 2018 for the arbitration decision discussed in Note 12, offset by lower pension contributions to Eaton's U.S. qualified pension plans in 2018. Other-net includes the impact of foreign currency gains and losses related to the remeasurement of intercompany balance sheet exposures, which have no impact on Operating cash flow.

Investing Cash Flow

Net cash used in investing activities was $398 in 2018, an increase in the use of cash of $181 compared to $217 in 2017. The increase in the use of cash was primarily driven by proceeds from the sale of a business as part of the formation of the Eaton Cummins joint venture in 2017 discussed in Note 2 and $110 in payments for the settlement of currency exchange contracts not designated as hedges discussed in Note 17, partially offset by net sales of short-term investments of $355 in 2018 compared to net purchases of $298 in 2017. Capital expenditures were $565 in 2018 compared to $520 in 2017. Eaton expects approximately $600 in capital expenditures in 2019.

Financing Cash Flow

Net cash used in financing activities was $2,581 in 2018, an increase in the use of cash of $139 compared to $2,442 in 2017. The increase in the use of cash was primarily due to lower proceeds from borrowings of $410 in 2018 compared to $1,000 in 2017, higher share repurchases of $1,271 in 2018 compared to $850 in 2017, and higher dividends paid of $1,149 in 2018 compared to $1,068 in 2017, partially offset by lower payments on borrowings of $574 in 2018 compared to $1,554 in 2017.

Credit Ratings

Eaton's debt has been assigned the following credit ratings:

Credit Rating Agency (long- /short-term rating)	Rating	Outlook
Standard & Poor's	A-/A-2	Stable outlook
Moody's	Baa1/P-2	Stable outlook
Fitch	BBB+/F2	Positive outlook

Defined Benefits Plans

Pension Plans

During 2018, the fair value of plan assets in the Company’s employee pension plans decreased $684 to $4,628 at December 31, 2018. The decrease in plan assets was primarily due to lower than expected return on plan assets and the impact of negative currency translation. At December 31, 2018, the net unfunded position of $1,290 in pension liabilities consisted of $400 in the U.S. qualified pension plan, $865 in plans that have no minimum funding requirements, and $83 in all other plans that require minimum funding, partially offset by $58 in plans that are overfunded.

Funding requirements are a major consideration in making contributions to Eaton’s pension plans. With respect to the Company’s pension plans worldwide, the Company intends to contribute annually not less than the minimum required by applicable law and regulations. In 2018, $126 was contributed to the pension plans. The Company anticipates making $116 of contributions to certain pension plans during 2019. The funded status of the Company’s pension plans at the end of 2019, and future contributions, will depend primarily on the actual return on assets during the year and the discount rate used to calculate certain benefits at the end of the year.

Off-Balance Sheet Arrangements

Eaton does not have off-balance sheet arrangements or financings with unconsolidated entities or other persons. In the ordinary course of business, the Company leases certain real properties and equipment, as described in Note 12 to the Consolidated Financial Statements.

MARKET RISK DISCLOSURE

On a regular basis, Eaton monitors third-party depository institutions that hold its cash and short-term investments, primarily for safety of principal and secondarily for maximizing yield on those funds. The Company diversifies its cash and short-term investments among counterparties to minimize exposure to any one of these entities. Eaton also monitors the creditworthiness of its customers and suppliers to mitigate any adverse impact.

Eaton uses derivative instruments to manage exposure to volatility in raw material costs, currency, and interest rates on certain debt instruments. Derivative financial instruments used by the Company are straightforward and non-leveraged. The counterparties to these instruments are financial institutions with strong credit ratings. Eaton maintains control over the size of positions entered into with any one counterparty and regularly monitors the credit rating of these institutions. See Note 17 to the Consolidated Financial Statements for additional information about hedges and derivative financial instruments.

Eaton's ability to access the commercial paper market, and the related cost of these borrowings, is based on the strength of its credit rating and overall market conditions. The Company has not experienced any material limitations in its ability to access these sources of liquidity. At December 31, 2018, Eaton had $2,000 of long-term revolving credit facilities with banks in support of its commercial paper program. It has no borrowings outstanding under these credit facilities.

Interest rate risk can be measured by calculating the short-term earnings impact that would result from adverse changes in interest rates. This exposure results from short-term debt, which includes commercial paper at a floating interest rate, long-term debt that has been swapped to floating rates, and money market investments that have not been swapped to fixed rates. Based upon the balances of investments and floating rate debt at year end 2018, a 100 basis-point increase in short-term interest rates would have increased the Company's net, pretax interest expense by $24.

Eaton also measures interest rate risk by estimating the net amount by which the fair value of the Company's financial liabilities would change as a result of movements in interest rates. Based on Eaton's best estimate for a hypothetical, 100 basis point increase in interest rates at December 31, 2018, the market value of the Company's debt and interest rate swap portfolio, in aggregate, would increase by $463.

The Company is exposed to currency risk associated with translating its functional currency financial statements into its reporting currency, which is the U.S. dollar. As a result, the Company is exposed to movements in the exchange rates of various currencies against the U.S. dollar. Eaton also monitors exposure to transactions denominated in currencies other than the functional currency of each country in which the Company operates, and regularly enters into forward contracts to mitigate that exposure. In the aggregate, Eaton's portfolio of forward contracts related to such transactions was not material to its Consolidated Financial Statements.

CONTRACTUAL OBLIGATIONS

A summary of contractual obligations as of December 31, 2018 follows:

	2019	2020 to 2021	2022 to 2023	Thereafter	Total
Long-term debt, including current portion[1]	$ 339	$ 543	$ 2,002	$ 4,217	$ 7,101
Interest expense related to long-term debt	255	483	391	1,795	2,924
Increase (reduction) of interest expense from interest rate swap agreements related to long-term debt	3	1	(8)	(37)	(41)
Operating leases	165	239	128	110	642
Purchase obligations	993	117	33	—	1,143
Other obligations	144	8	9	23	184
Total	$ 1,899	$ 1,391	$ 2,555	$ 6,108	$ 11,953

[1] Long-term debt excludes deferred gains and losses on derivatives related to debt, adjustments to fair market value, and premiums and discounts on long-term debentures.

Interest expense related to long-term debt is based on the fixed interest rate, or other applicable interest rate, related to the debt instrument. The increase (reduction) of interest expense due to interest rate swap agreements related to long-term debt is based on the difference in the fixed interest rate the Company receives from the swap, compared to the floating interest rate the Company pays on the swap. Purchase obligations are entered into with various vendors in the normal course of business. These amounts include commitments for purchases of raw materials, outstanding non-cancelable purchase orders, releases under blanket purchase orders, and commitments under ongoing service arrangements. Other obligations principally include $116 of anticipated contributions to pension plans in 2019, $21 of other postretirement benefits payments expected to be paid in 2019, and $44 of deferred compensation earned under various plans for which the participants have elected to receive disbursement at a later date. The table above does not include all other future expected pension and other postretirement benefits payments. Information related to the amounts of these future payments is described in Note 11 to the Consolidated Financial Statements. The table above also excludes the liability for unrecognized income tax benefits, since the Company cannot predict with reasonable certainty the timing of cash settlements with the respective taxing authorities. At December 31, 2018, the gross liability for unrecognized income tax benefits totaled $913 and interest and penalties were $74.

RESULTS FOR THE YEAR AND STATE OF AFFAIRS

The results for the year are set out in the Consolidated Profit and Loss Accounts. The balance to be transferred to reserves is $2,145.

DIVIDENDS

During 2018 and 2017, Eaton's Board of Directors declared and paid quarterly dividends of $1,149 and $1,068, respectively.

FUTURE DEVELOPMENTS

Eaton expects to continue to invest in research and development associated with initiatives that it believes will offer the greatest potential for near and long-term growth. The Company plans to invest in areas in which it can benefit from its core competencies and global infrastructure. Funds will be used to expand operations organically and through acquisitions.

ACCOUNTING RECORDS

The directors are responsible for ensuring that the Company and its subsidiaries included in the consolidated financial statements maintain proper accounting records and appropriate accounting systems. On a periodic basis, reports, certifications and attestations on the Company's financial matters, internal controls and fraud are made to the Audit Committee of the Board of Directors, who in turn, updates the full Board of Directors. The Company allocates appropriate resources to maintain proper accounting records throughout the group, including the appointment of personnel with appropriate qualifications and experience to ensure compliance with the requirements of Sections 281 to 285 of the Companies Act 2014. The accounting records of Eaton Corporation plc are maintained at the Company's principal executive offices located at Eaton House, 30 Pembroke Road, Dublin 4, Ireland D04 Y0C2.

SIGNIFICANT EVENTS SINCE YEAR END

Subsequent events have been evaluated through February 27, 2019, the date this report was approved by the Audit Committee of the Board of Directors and the Board of Directors. On February 27, 2019, Eaton's Board of Directors declared a quarterly dividend of $0.71 per ordinary share, an 8% increase over the dividend paid in the fourth quarter of 2018. The dividend is payable on March 22, 2019 to shareholders of record on March 9, 2019.

In 2014, Eaton US received a Notice from the IRS for the 2007 through 2010 tax years (the 2014 Notice), which includes a proposed assessment involving the recognition of income for several of Eaton US's controlled foreign corporations. The Company believes that the proposed assessment is without merit and is contesting the matter in Tax Court. Eaton and the IRS have both moved for partial summary judgment on this issue. The Tax Court heard oral arguments on the motions in January 2018, following which the Court ordered further briefing, which was completed in March 2018. On February 25, 2019 the Tax Court granted the IRS's motion for partial summary judgment and denied Eaton's. The Company intends to appeal the Tax Court's decision to the United States Court of Appeals. The Company is analyzing the impact, if any, the Tax Court's decision will have on its consolidated financial statements in 2019.

On January 31, 2019, Eaton reached a definitive agreement to acquire an 82.275 percent controlling interest in Ulusoy Elektrik Imalat Taahhut ve Ticaret A.S., a leading manufacturer of electrical switchgear based in Ankara, Turkey, with a primary focus on medium voltage solutions for industrial and utility customers. Its sales for the 12 months ended September 30, 2018 were $126. The purchase price for the shares is approximately $214 on a cash and debt free basis. As required by the Turkish capital markets legislation, Eaton plans to file an application to execute a mandatory tender offer for the remaining shares shortly after the transaction closes. The transaction is subject to customary closing conditions and regulatory approvals.

OTHER NON-FINANCIAL DISCLOSURES

These other non-financial disclosures are included for the purpose of Statutory Instrument 360/2017 European Union (Disclosure of Non-financial and Diversity Information by certain large undertakings and groups) Regulation 2017.

Our Business Model

Information regarding the Company's business model is presented in the Principal Activities section of this Directors' Report.

Key Performance Indicators

Eaton has non-financial key performance indicators in areas where we believe the impact on Eaton is relevant. Eaton's vision is to improve the quality of life and the environment through the use of power management technologies and services. To fulfill this vision, we are committed to making a positive impact on stakeholders. We develop our employees by helping them succeed at work and in life. We delight our customers by understanding their challenges and proactively delivering real solutions. We deliver for our shareholders by doing what's right. And we support our communities by providing products and solutions that improve the quality of life and the environment and by offering our time, talent, and treasure to meet social and economic needs in the communities where we work and live.

The Company has also set a number of financial and aspirational goals which have been shared publicly with investors. We strive to be the preferred supplier to customers and channel partners. We pledge to make work exciting, engaging and meaningful, while ensuring the safety, health, and wellness of our employees. We work to make our communities stronger. And we are committed to being a model of inclusion and diversity in our industry and to being active stewards of the environment.

The Company monitors and tracks non-financial key-performance indicators on an ongoing basis. The Company’s Executive Vice President, Eaton Business Systems and Sustainability, updates the Board of Directors regarding these metrics and the application and outcome of these policies, including that they are operating as intended and no material issues or incidents were identified during the year under review.

The metrics that we monitor in relation to the policies outlined below currently include:

- workplace inclusion and diversity
- supplier diversity
- charitable contributions
- health and safety
- greenhouse gas generation
- energy consumption
- water consumption
- waste-to-landfill metrics

Addressing Environmental Matters

Eaton monitors the impact of its activity on the environment. Eaton has established policies to ensure that its operations are conducted with a positive commitment to the protection of the natural and workplace environments. The Company's manufacturing facilities are required to be certified to ISO 14001, an international standard for environmental management systems. We routinely review EHS performance at each of our facilities and continuously strive to improve pollution prevention.

The Company is involved in remedial response and voluntary environmental remediation at sites worldwide, including currently-owned or formerly-owned plants. None of these sites is individually significant to the Company's development, performance or position. The remediation activities generally involve soil and/or groundwater contamination and include pre-cleanup activities such as fact finding and investigation. risk assessment, feasibility study, design and action planning, and operation and maintenance of remediation systems. The estimated costs of remediation, which will be paid over a period of years, are accrued for in accordance with applicable accounting rules.

Managing Social and Employee Matters

Eaton monitors the development, performance, position, and impact of its activity on social and employee matters. Eaton follows relevant non-discrimination laws and regulations in the countries where we operate. It is our policy to make all decisions regarding employment, including hiring, compensation, training, promotions, transfers, or lay-offs, based on the principle of equal employment opportunity, unlimited by race, color, social or economic status, religion, national origin, marital status, age, disability, veteran status, sexual orientation, gender identity, or any protected status.

We are committed to the well-being of all employees. We value individual differences, communicate openly and honestly and provide competitive pay and benefits. We encourage employees to continuously learn, grow and change. We value new ideas and ask employees to be involved in their work and committed to the Company's future. We strive to improve the environment and our communities. We also provide employees with a work environment based on trust, where they are free to ask questions, provide feedback, report concerns, and be actively engaged in decision-making.

Where employees are represented by unions and/or works councils, Eaton follows local laws when dealing with their representatives.

Health and safety issues

Eaton operates under a safety policy that states safety is fundamental to everything the Company and its employees do. We strive to ensure a workplace with zero incidents. We are committed to removing conditions that cause personal injury or occupational illness and we make decisions and promote behaviors that protect others from risk of injury. We use formal problem-solving processes to reduce risk and continuously improve our safety performance.

Customer feedback

We engage our customers primarily through our Customer Advisory Board and our Customer Relationship Reviews. The Customer Advisory Board solicits unfiltered feedback from customers that helps us identify successes and areas of opportunity to continuously improve our performance. The Customer Relationship Reviews involve face-to-face interviews with more than 1,000 decision makers from key strategic customers. The results from these customer feedback tools are delivered to key leaders within the Company and follow-up action plans are developed and monitored.

Community relations initiatives

Eaton cares about the communities where our employees live and work. We invest our time and money in programs that help support community needs. In our facilities around the world, local managers and employees identify specific community needs and determine the local programs their facility will support through philanthropy or volunteerism. This localized approach to community relations focuses our efforts where they can have the most positive impact.

Ensuring Respect for Human Rights

Eaton has a Code of Ethics, a Global Ethics and Compliance Office, and a Supplier Code of Conduct to assist with ensuring a positive development, performance, position, and impact of the Company's activity in relation to human rights.

Eaton's Code of Ethics establishes respect for human rights as a fundamental principle that our employees and suppliers are required to honor. Our guidelines specifically prohibit suppliers from using forced labor of any kind. The Global Ethics and Compliance Office oversees and manage our ethics and compliance program under the direction of the Senior Vice President, Global Ethics and Compliance, with ultimate oversight by the Governance Committee of the Board of Directors.

Our Supplier Code of Conduct establishes minimum workplace standards and business practices that are expected of any supplier doing business with Eaton, consistent with our Company's values as documented in our Code of Ethics. These requirements are applicable to suppliers of Eaton and their affiliates and subsidiaries globally and include prohibitions on the use of forced labor, slavery, and human trafficking. Our suppliers are required to adhere to and certify compliance with the Supplier Code. In support of all of these policies, processes and procedures, Eaton undertakes specific actions to prevent and mitigate the risk of forced labor, slavery, and human trafficking in our own business and supply chain, including: verification processes, supplier audits, certifications, internal accountability, and training.

Reducing Bribery and Corruption Risk

To assist with ensuring a positive development, performance, position, and impact of the Company's activity in relation to bribery and corruption and to manage this risk and enable us to pursue opportunities with greater confidence, we employ a comprehensive global anti-corruption strategy. Our policies prohibit bribes, kickbacks, inappropriate gifts or entertainment, and any other form of corrupt payment. We use online and in-person annual training curriculum to ensure our employees know our policies, know the law, and know the behavior we expect.

Our Principal Risks and How We Manage Them

Eaton has an Enterprise Risk Management Policy to manage risk. Identifying and managing key risks to Eaton's business operations are essential to the Company's future growth, profitability, and successful execution of its strategic plans. The Company is committed to understanding and managing these risks through a consistent approach to risk assessment, planning, reporting, and mitigation. Each operation and function is responsible for participating in the annual risk assessment process. The process covers compliance, business, legislative, and emerging risks. The objective of the annual risk assessment process is to identify, key risks, develop strategies for managing the risks, and to ensure execution of mitigation strategies. Each operation and function is responsible for evaluation, mitigation, and reporting of key risks as part of their business planning.

Dealing with environmental matters

Information regarding how the Company deals with environmental matters is presented in the Environmental Contingencies section of this Directors' Report.

Additionally, Eaton's Senior Leadership Council drives our sustainability strategy, optimizes our resources and ensures that we are focusing on the environmental risks and opportunities that are most important to our customers, investors, communities and employees. We establish goals for reducing our environmental impact, and measure, review and report our progress to the public. The Company also supports collective actions that will lead to the worldwide reduction of Greenhouse Gas (GHG) emissions to address the risks of climate change. Using guidelines established by the Global Reporting Initiative, we set annual targets for reduction of our worldwide energy consumption and carbon emissions. Progress is audited by a third party and we report the results to the public. See our section on Addressing Environmental Matters above which provide more detail on our risk management approach and due diligence.

Managing social and employee matters

With our commitment to the safety and health of our employees, we reinforce specific safety principles to strengthen our zero incident safety culture. We care about providing meaningful and engaging work for our employees, and ensure that our culture allows them to flourish. Fostering a motivated, inclusive, and diverse workforce is a central focus of the Company. We support and train our employees for the changes we anticipate in the coming years to ensure we have a strong capable workforce.

Eaton is committed to having a workforce that is diverse and non-discriminatory at all levels, reflecting the diversity of our customers and the varied environments in which we conduct business around the world. Our success depends on our ability to attract and retain the best employees unlimited by race, color, social or economic status, religion, national origin, marital status, age, disability, veteran status, sexual orientation, gender identity, or any protected status. It is the policy of the Company to make all decisions regarding employment, including hiring, compensation, training, promotions, transfers, or lay-offs, based on the principle of equal employment opportunity.

Respecting human rights

We recognize that many independent organizations and commissions have proposed core international human rights instruments, such as the United Nations Global Compact, the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights. These instruments generally follow the principles that businesses should respect and support identified human rights and should not participate in human rights abuses. At Eaton, these important principles govern the way we conduct ourselves, and the expectations of conduct we require of our suppliers. We are also a member and participant in the Global Reporting Initiative, which is one of the world's most widely used reporting frameworks for performance on human rights, labor, environment, anti-corruption and corporate citizenship. See our section on Ensuring Respect for Human Rights above which provide more detail on our risk management approach and due diligence.

Preventing bribery and corruption

The laws of most countries make the payment, or offer of payment, or receipt of a bribe, kickback or other corrupt payment a crime, subjecting both Eaton and individual employees to fines and/or imprisonment. In addition, these anti-corruption laws make it a crime to pay, offer, or give anything of value to foreign governmental officials, a foreign political party (or official thereof) or candidate for foreign office, for the purpose of influencing the acts or decisions of those officials, parties or candidates. We follow all pertinent Bribery and Corruption laws of the countries where we operate to reduce any risk to Eaton.

It is the global policy of Eaton that the Company and all affiliates, employees, officers and directors, or any of its affiliates, and all persons that act as a representative, agent, or advisor to Eaton or any of its affiliates, must comply fully with applicable anti-corruption laws. Our employees are prohibited from directly or indirectly offering, giving, soliciting, or receiving any form of bribe, kickback, or other corrupt payment, or anything of value, to or from any person or organization, including government agencies, individual government officials, private companies, and employees of those private companies under any circumstances.

Policy Outcomes

Eaton has succeeded in our pledge to be active stewards of the environment - exceeding our greenhouse gas, water use and waste reduction goals. We also made progress with our employee related goals - improving safety, reducing voluntary turnover across the organization, and increasing the diversity of our workforce. Forbes magazine recently recognized Eaton as one of America's Best Employers for Diversity and Fortune magazine named the Company one of the World's Most Admired Companies. We helped strengthen our communities by investing more than $11 million in local community organizations. We also established the Eaton Qualified Disaster Relief Fund to help colleagues who lost or suffered significant damage to their homes as a result of hurricanes Harvey and Maria.

Eaton's Code of Ethics and global anti-corruption strategy set out our fundamental principles of ethical behavior. The Eaton Ethics Guide has been published to provide practical guidance in complying with our Code of Ethics. We also deliver training to employees to ensure there is sufficient knowledge and awareness of our policies. More information on the outcomes of these policies can be found in the Ensuring Respect for Human Rights and Reducing Bribery and Corruption Risk sections above.

Ensuring Supply Chain Integrity

Eaton's supply chain is multi-tiered and the raw materials, parts and services that we purchase are varied and are sourced from more than 50,000 suppliers across the globe supporting the Company's businesses. We actively seek to do business with suppliers that are industry leaders, strategic partners and financially stable. Suppliers must also share Eaton's focus on doing business responsibly and our long-standing commitment to the highest ethical standards. An important part of this commitment is ensuring that our suppliers and supply chain do not use slave labor or engage in human trafficking. Several key governance processes and supporting policies, including our Supplier Code of Conduct, guide our actions accordingly.

Policies on Conflict Minerals

We are committed to ensuring our products do not incorporate conflict minerals, which are minerals smelted into tin, tantalum, tungsten and gold sourced from entities that directly or indirectly finance conflict in the Democratic Republic of Congo or adjoining countries. The Company's management team works to directly engage our supply chain on responsible sourcing practices. Eaton is a member of multi-stakeholder initiatives such as the Responsible Minerals Initiative, which is focused on driving supply chain responsibility and transparency deep into global supply chains.

Eaton requires its suppliers to perform sufficient due diligence into their respective supply chains to determine whether products sold to us contain tin, tantalum, tungsten or gold, and if so, whether and to what extent those metals are sourced from conflict-free smelters. Suppliers must report to Eaton the results of such due diligence to enable us to comply with our legal obligations and policy goals, so that any such metals are sourced only from conflict-free smelters. Through these actions, we are meeting and exceeding regulatory, customer, and societal expectations by supporting only conflict-free minerals and supply chains.

DIRECTORS AND SECRETARIES

The present directors and secretaries are listed in the following table and have served throughout the period to December 31, 2018 and since year end.

AUDIT COMMITTEE

Eaton has an Audit Committee with responsibility for oversight of the financial reporting process, the audit process, the independence of the auditors, the system of internal controls, internal audit and risk management, and compliance with laws and regulations.

DIRECTORS' AND SECRETARIES' INTEREST IN SHARES

No director, the secretary, assistant secretary or any member of their immediate families had any interest in shares or debentures of any subsidiary. Directors' remuneration is set forth in Note 21 to the Consolidated Financial Statements. The interest of the directors and company secretaries in ordinary share capital of Eaton Corporation plc at December 31, 2018 and December 31, 2017 are as follows:

	December 31, 2018				December 31, 2017			
	Ordinary shares	Stock options	Restricted share units	Deferred Share Units	Ordinary shares	Stock options	Restricted share units	Deferred Share Units
Directors								
Craig Arnold [(1)(2)]	230,093	563,992	66,228	—	215,525	446,442	61,073	—
Todd M. Bluedorn	6,536	—	14,341	—	6,536	—	12,061	—
Christopher M. Connor	13,650	—	14,341	28,335	13,650	—	12,061	27,396
Michael J. Critelli	65,566	—	14,341	—	70,566	—	12,061	—
Richard H. Fearon	221,459	369,550	21,289	—	236,497	326,150	23,388	—
Charles E. Golden	18,103	—	14,341	10,309	18,103	—	12,061	9,967
Arthur E. Johnson	9,590	—	14,341	—	9,590	—	12,061	—
Deborah L. McCoy	32,936	—	14,341	30,098	39,936	—	12,061	29,102
Gregory R. Page	57,229	—	14,341	12,672	57,229	—	12,061	12,252
Sandra Pianalto	557	—	9,485	—	500	—	7,367	—
Gerald B. Smith	5,791	—	14,341	—	5,671	—	12,061	—
Dorothy C. Thompson	550	—	4,108	—	550	—	2,168	—
Secretary								
Thomas E. Moran [(3)(4)]	11,296	31,770	4,297	—	10,668	28,570	4,532	—
Assistant Secretaries								
Estelle Diggin	—	—	—	—	—	—	—	—
Nigel Crawford	102	—	1,221	—	—	—	650	—

(1) At December 31, 2018, Craig Arnold held 168.59 shares in the Employee Stock Plan (ESP)

(2) At December 31, 2017, Craig Arnold held 162.42 shares in the Employee Stock Plan (ESP)

(3) At December 31, 2018, 600 shares were owned by Thomas E. Moran's spouse; 188.38 ordinary shares in ESP

(4) At December 31, 2017, 600 shares were owned by Thomas E. Moran's spouse; 181.49 ordinary shares in ESP

POLITICAL DONATIONS

No political contributions that require disclosure under Irish law were made during the year.

SUBSIDIARY COMPANIES AND BRANCHES

Information regarding subsidiary undertakings, included information regarding branches, is provided in Note 23 to the Consolidated Financial Statements.

GOING CONCERN

The directors have a reasonable expectation that Eaton has adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the financial statements.

DIRECTORS' RESPONSIBILITIES STATEMENT

Company law in the Republic of Ireland requires the Directors to prepare financial statements for each financial year which give a true and fair view of the state of the assets, liabilities and financial position of the Parent Company and of the Group and of the profit or loss of the Group for that period.

In preparing the financial statements of the Group, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgments and estimates that are reasonable and prudent;
- comply with applicable U.S. generally accepted accounting principles to the extent they do not contravene any provision of the Companies Act 2014; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group will continue in business

The considerations set out above for the Group are also required to be addressed by the Directors in preparing the financial statements of the Parent Company (which are also set out in these statutory accounts), in respect of which the applicable accounting standards are those which are generally accepted in the Republic of Ireland.

The directors have elected to prepare the Parent Company's financial statements in accordance with accounting standards issued by the Financial Reporting Council, including FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (Generally Accepted Accounting Practice in Ireland).

Under company law the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the assets, liabilities, and financial position of the group and parent company as at the end of the financial year, and the profit or loss for the group for the financial year, and otherwise comply with the Companies Act 2014.

The Directors are responsible for keeping accounting records which disclose with reasonable accuracy the assets, liabilities, financial position and profit and loss of the Parent Company and which enable them to ensure that the financial statements of the Group are prepared in accordance with applicable U.S. generally accepted accounting principles and comply with the provisions of the Companies Acts 2014. They are also responsible for safeguarding the assets of the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

DIRECTORS' COMPLIANCE STATEMENT

As required by Section 225 of the Companies Act 2014 of Ireland, the Directors acknowledge that they are responsible for securing the Company's compliance with its relevant obligations (as defined in that legislation). The Directors further confirm that a compliance policy statement has been drawn up, and that appropriate arrangements and structures have been put in place that are, in the Directors' opinion, designed to secure material compliance with the relevant obligations. A review of those arrangements and structures has been conducted in the financial year to which this report relates.

DISCLOSURE OF INFORMATION TO THE AUDITOR

So far as each person who was a Director at the date of approving this report is aware, there is no relevant audit information, being information needed by the auditor in connection with preparing their report, of which the auditor is unaware. Having made inquiries of fellow Directors and the group’s auditor, each Director has taken all the steps that they are obliged to take as a director in order to make them aware of any relevant audit information and to establish that the auditor is aware of that information.

AUDITORS

Ernst & Young, Chartered Accountants, have expressed their willingness to continue in office in accordance with the Section 383(2) of the Companies Act 2014.

On behalf of the Directors:

Craig Arnold	Gerald B. Smith
Chairman of the Board of Directors	Director

February 27, 2019

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF EATON CORPORATION PLC

Report on the audit of the financial statements

Opinion

We have audited the financial statements of Eaton Corporation plc (the 'Parent Company') and its subsidiaries (the 'Group') for the year ended 31 December 2018 which comprise the Consolidated Profit and Loss Account, the Consolidated Statement of Comprehensive Income, the Consolidated Balance Sheet, the Consolidated Statement of Cash Flows, the Consolidated Statement of Shareholders' Equity, the Parent Company Statement of Financial Position, the Parent Company Statement of Comprehensive Income, the Parent Company Statement of Changes in Equity, the related notes 1 to 23 in respect of the Group financial statements and the related notes 1 to 15 in respect to the Parent Company financial statements, including a summary of significant accounting policies as set out therein. The financial reporting framework that has been applied in the preparation of the Group financial statements is Irish law and U.S. Generally Accepted Accounting Principles (U.S. GAAP), as defined in section 279 of Part 6 of the Companies Act 2014, to the extent that the use of those principles in the preparation of the financial statements does not contravene any provision of that Part of the Companies Act 2014. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is applicable Irish law and accounting standards issued by the Financial Reporting Council (Generally Accepted Accounting Practice in Ireland), including FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland*.

In our opinion:

- the Group financial statements give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2018 and of the profit for the Group for the year then ended, and have been properly prepared in accordance with U.S. Generally Accepted Accounting Principles (U.S. GAAP), as defined in section 279 of Part 6 of the Companies Act 2014, to the extent that the use of those principles in the preparation of the financial statements does not contravene any provision of that Part of the Companies Act 2014;

- the Parent Company statement of financial position gives a true and fair view of the assets, liabilities and financial position of the Parent Company as at 31 December 2018, and has been properly prepared in accordance with Irish GAAP, including FRS 102 *The Financial Reporting Standard applicable in the UK and Republic of Ireland*; and

- the financial statements have been properly prepared in accordance with the requirements of the Companies Act 2014.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (Ireland) (ISAs (Ireland)) and applicable law. Our responsibilities under those standards are described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Group and the Parent Company in accordance with ethical requirements that are relevant to our audit of financial statements in Ireland, including the Ethical Standard issued by the Irish Accounting and Auditing Supervisory Authority (IAASA), as applies to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

We have nothing to report in respect of the following matters in relation to which ISA 570 (Ireland) 'Going concern' requires us to report to you where:

- The directors' use of the going concern basis of accounting in the preparation of the financial statements is not appropriate: or
- The directors have not disclosed in the financial statements any identified material uncertainties that may cast significant doubt about the Group and Parent Company's ability to continue to adopt the going concern basis of accounting for a period of at least twelve months from the date when the financial statements are authorised for issue.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) we identified. These matters include those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit, and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Unrecognised Income Tax Benefits As more fully described in Note 13 of the financial statements, the Group had unrecognised income tax benefits of $913 million related to its uncertain tax positions at 31 December 2018. Unrecognised income tax benefits are recorded under the two-step recognition and measurement principles when a tax position does not meet the more likely than not standard, or if a tax position meets the more likely than not standard, but the financial statement tax benefit is reduced as part of the measurement step. The Group has not taken any positions that do not meet the more likely than not standard. As such, the balance of unrecognised income tax benefits is comprised of uncertain tax positions which meet the more likely than not standard, but the financial statement tax benefit has been reduced as part of measuring the tax position. Auditing management's analysis of its uncertain tax positions and resulting unrecognised income tax benefits is significant because the amounts are material to the financial statements and the assessment process is complex and involves both significant judgement and estimation. Each tax position carries unique facts and circumstances that must be evaluated and ultimate resolution is dependent on uncontrollable factors such as the prospect of retroactive regulations, new case law, the willingness of the income tax authority to settle the issue, including the timing thereof, and other factors.	We tested controls that address the risks of material misstatement relating to uncertain tax positions. For example, we tested controls over management's application of the two-step recognition and measurement principles and management's review of the inputs and resultant calculations of all unrecognised income tax benefits, as well as the controls in place for the identification of uncertain tax positions. We also evaluated the Group's assessment of its uncertain tax positions. Our audit procedures included evaluating the assumptions used to develop its uncertain tax positions and related unrecognised income tax benefit amounts by jurisdiction and testing the completeness and accuracy of the underlying data used by the Company. For example, we compared the unrecognised income tax benefits recorded with similar positions in prior periods and assessed management's consideration of current tax controversy and litigation and trends in similar positions challenged by tax authorities. We also assessed the historical accuracy of management's estimates of its unrecognised income tax benefits with the resolution of those positions. In addition, we involved tax subject matter professionals to evaluate the application of relevant tax laws in the Group's recognition determination. We also tested the Group's release of previously recorded unrecognised income tax benefits, which along with the recording of additional unrecognised tax benefits, impacts the calculation of its effective tax rate. We have also evaluated the Group's income tax disclosures included in Note 13 in relation to these matters.	Our observations included an outline of the range of audit procedures performed and the results of our testing. We provided our assessment of the tax reserves in light of open tax authority examination periods, transfer pricing and various country matters.

Risk	Our response to the risk	Key observations communicated to the Audit Committee
Valuation of Indefinite-Life Intangible Assets Indefinite-life intangible assets totalled approximately $1,626 million at 31 December 2018 and consisted of trademarks recognised as a result of prior business combinations. As explained in Note 1 of the financial statements, indefinite-life intangible assets are not amortised but rather are tested by management for impairment at least annually. Auditing the impairment tests was complex due to the significant measurement uncertainty in determining the fair value of the trademarks. In particular, the fair value estimates were sensitive to significant assumptions such as weighted average cost of capital, revenue growth rate, royalty rate and terminal value, which are affected by expected future economic or market conditions.	We tested relevant controls over the Group's process to determine the fair value of each trademark. For example, we tested controls over management's review of the valuation model (e.g., weighted average cost of capital, revenue growth rate, royalty rate and terminal value) and the significant assumptions used to develop prospective financial information (PFI) (e.g., revenue growth rate, including historical results, primary market indicators and profitability expectations). We also tested management's controls to validate that the data used in the valuation was complete and accurate. To test the fair value of the Group's trademarks, our audit procedures included, among others, evaluating the Group's use of the income approach (the relief-from-royalty methodology), testing the significant assumptions discussed above used to develop the PFI and testing the completeness and accuracy of the underlying data. For example, we compared the significant assumptions to current industry, market and economic trends, to historical results of the Group's business and other guideline companies within the same industry and to other relevant factors. We performed a sensitivity analysis of the significant assumptions (e.g., weighted average cost of capital, revenue growth rate and terminal value) to evaluate the change in fair value of the trademarks resulting from changes in assumptions. We also assessed the historical accuracy of management's estimates. In addition, we involved a valuation specialist to help us evaluate the components of each trademark's weighted average costs of capital, which is a significant input to the fair value estimate.	Our observations included our assessment of the reasonableness of the Group using a discounted cash flow analysis under the relief-from-royalty method to assess indefinite lived intangible assets for impairment. We also provided our observations on the reasonableness of the discount rates used.

In the prior year, our auditor's report included a key audit matter in relation to accounting for the Cummins Joint Venture formation. In the current year, this is no longer considered a key audit matter as the transaction was completed in 2017.

Our application of materiality

We apply the concept of materiality in planning and performing the audit, in evaluating the effect of identified misstatements on the audit and in forming our audit opinion.

Materiality

Materiality is the magnitude of an omission or misstatement that, individually or in the aggregate, could reasonably be expected to influence the economic decisions of the users of the financial statements. Materiality provides a basis for determining the nature and extent of our audit procedures.

We determined materiality for the Group to be $135 million (2017: $110 million), which is approximately 5% of Group profit before tax (adjusted for non-recurring items). We believe that adjusted profit before tax is a key performance indicator for the Group. We therefore considered adjusted profit before tax to be the most appropriate performance metric on which to base our materiality calculation as we consider it to be the most relevant performance measure to the main stakeholders of the Group.

During the course of our audit, we reassessed initial materiality and the only change in final materiality was to reflect the actual reported performance of the Group in the year.

Performance materiality

Performance materiality is the application of materiality at the individual account or balance level. It is set at an amount to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds materiality.

On the basis of our risk assessments, together with our assessment of the Group's overall control environment, our judgement was that performance materiality should be set at 75% of our planning materiality, namely $100 million (2017: $82 million). We have set performance materiality at this percentage due to our past history of a low number of misstatements, our ability to assess the likelihood of misstatements, both corrected and uncorrected, the effectiveness of the control environment and other factors affecting the entity and its financial reporting.

Audit work at component locations for the purpose of obtaining audit coverage over significant financial statement accounts is undertaken based on a percentage of total performance materiality. The performance materiality set for each component is based on the relative scale and risk of the component to the Group as a whole and our assessment of the risk of misstatement at that component. In the current year, the range of performance materiality allocated to components was $6.75 million to $80 million.

Reporting threshold

Reporting Threshold is the amount below which identified misstatements are considered as being clearly trivial.

We agreed with the Audit Committee that we would report to them all uncorrected audit differences in excess of $6.75 million (2017: $5.5 million), which is set at approximately 5% of planning materiality, as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We evaluate any uncorrected misstatements against both the quantitative measures of materiality discussed above and in light of other relevant qualitative considerations in forming our opinion.

Audit Scope

- We performed an audit of the complete financial information of 26 full-scope components and performed audit procedures on specific balances for a further 46 components.
- The components where we performed either full or specific audit procedures accounted for 63% of the Group's profit before tax, 90% of the Group's Revenue and 74% of the Group's Total Assets.
- 'Components' represent business units across the Group considered for audit scoping purposes.

An overview of the scope of our audit
Tailoring the scope

Our assessment of audit risk, our evaluation of materiality and our allocation of performance materiality determine our audit scope for each entity within the Group. Taken together, this enables us to form an opinion on the Consolidated Financial Statements. We take into account size, risk profile, the organisation of the Group and effectiveness of group-wide controls and other factors when assessing the level of work to be performed at each entity.

In assessing the risk of material misstatement to the Group financial statements, and to ensure we had adequate quantitative coverage of significant accounts in the financial statements, we selected 72 components covering entities across the Americas, Asia, Europe, the Middle East, and Africa, which represent the principal business units within the Group.

Of the 72 (2017: 68) components selected, we performed an audit of the complete financial information of 26 (2017: 27) components ('full scope components') which were selected based on their size or risk characteristics. Of the 26 full scope components selected, 6 such components relate to U.S. Corporate Headquarters and other corporate entities, including shared service centres as well as the Group's treasury management and consolidation functions. For the remaining 46 (2017: 41) components ('specific scope components'), we performed audit procedures on specific accounts within that component that we considered had the potential for the greatest impact on the significant accounts in the financial statements either because of the size of these accounts or their risk profile.

The reporting components where we performed audit procedures accounted for 63% (2017: 85%) of the Group's profit before tax, 90% (2017: 94%) of the Group's revenue and 74% (2017: 74%) of the Group's total assets. The change in coverage of Group profit before tax is due to rotation of certain components previously included within our Group audit scope.

For the current year, the full scope components contributed 37% (2017: 48%) of the Group's profit before tax, 90% (2017: 94%) of the Group's revenue and 71% (2017: 71%) of the Group's total assets. The specific scope components contributed 26% (2017: 37%) of the Group's profit before tax. The audit scope of these components may not have included testing of all significant accounts of the component but will have contributed to the coverage of significant accounts tested for the Group.

The remaining components together represent 37% (2017: 15%) of the Group's profit before tax with average revenues of $10.9m (2017: $11.1m) and average profit before tax of $0.7m (2017: $0.4m). Included within the remaining components are entities selected for specified procedures over certain accounts, such as cash, income taxes, pension and other postretirement benefits and inventory. For these remaining components, we also performed other procedures, including testing the effectiveness of Group-wide controls, analytical reviews, testing of consolidation journals and intercompany eliminations and foreign currency translation recalculations to respond to any potential risks of material misstatement to the financial statements.

Involvement with component teams

In establishing our overall approach to the group audit, we determined the type of work that needed to be undertaken at each of the components by us, EY Dublin, as the primary audit engagement team, or by component auditors from other EY global network firms operating under our instruction. For all components we determined the appropriate level of involvement to enable us to determine that sufficient audit evidence had been obtained as a basis for our opinion on the group as a whole. The primary team interacted with the component team where appropriate during various stages of the audit, reviewed key working papers and were responsible for the scope and direction of the audit process. This, together with the additional procedures performed at a group level, gave us appropriate evidence for our opinion on the consolidated financial statements.

Other information

The directors are responsible for the other information. The other information comprises the information included in the Directors' Report. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Matters on which we are required to report by the Companies Act 2014

In our opinion, based solely on the work undertaken in the course of the audit:

- the information given in the directors' report, other than those parts dealing with the non-financial statement pursuant to the requirements of S.I. No. 360/2017 on which we are not required to report, for the financial year for which the statutory financial statements are prepared is consistent with the statutory financial statements in respect of the financial year concerned; and
- the directors' report, other than those parts dealing with the non-financial statement pursuant to the requirements of S.I. No. 360/2017 on which we are not required to report, has been prepared in accordance with applicable legal requirements.

We have obtained all the information and explanations which we consider necessary for the purposes of our audit.

In our opinion the accounting records of the Parent Company were sufficient to permit the financial statements to be readily and properly audited and the Parent Company statement of financial position is in agreement with the accounting records.

Matters on which we are required to report by exception

Based on our knowledge and understanding of the Group and its environment obtained in the course of the audit, we have not identified material misstatements in the directors' report. We are not required to report on the non-financial statement, which is included within the directors' report, pursuant to the requirements of S.I. No. 360/2017.

We have nothing to report in respect of Sections 305 to 312 of the Companies Act 2014 which require us to report to you if, in our opinion, the disclosures of directors' remuneration and transactions specified by law are not made.

Respective responsibilities
Responsibilities of directors for the financial statements

As explained more fully in the directors' responsibilities statement set on page 19, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the Group and Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or the Parent Company or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (Ireland) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the IAASA's website at: http://www.iaasa.ie/getmedia/b2389013-1cf6-458b-9b8f-a98202dc9c3a/Description_of_auditors_responsibilities_for_audit.pdf. This description forms part of our auditor's report.

The purpose of our audit work and to whom we owe our responsibilities

This report is made solely to the Parent Company's members, as a body, in accordance with section 391 of the Companies Act 2014. Our audit work has been undertaken so that we might state to the Parent Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Parent Company and the Parent Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Dermot Daly
For and on behalf of Ernst & Young
Chartered Accountants and Statutory Audit Firm

Dublin
27 February 2019

EATON CORPORATION plc
CONSOLIDATED PROFIT AND LOSS ACCOUNTS

(In millions except for per share data)	Note	Year ended December 31 2018	2017
Net sales	19	$ 21,609	$ 20,404
Cost of products sold		14,511	13,756
Gross profit		7,098	6,648
Selling and administrative expense		3,548	3,526
Research and development expense		584	584
Interest expense		311	280
Interest income		(40)	(34)
Gain on sale of business	2	—	(533)
Arbitration decision expense	12	275	
Other expense		80	108
Other income		(84)	(107)
Income before income taxes	19	2,424	2,824
Income tax expense	13	278	271
Net income		2,146	2,553
Less net income for noncontrolling interests		(1)	(1)
Net income attributable to Eaton ordinary shareholders		$ 2,145	$ 2,552
Net income per share attributable to Eaton ordinary shareholders			
Diluted	14	$ 4.91	$ 5.71
Basic	14	4.93	5.74
Weighted-average number of ordinary shares outstanding			
Diluted	14	436.9	447.0
Basic	14	434.3	444.5
Cash dividends declared per ordinary share		$ 2.64	$ 2.40

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

EATON CORPORATION plc
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In millions)	Note	Year ended December 31 2018	2017
Net income		$ 2,146	$ 2,553
Less net income for noncontrolling interests		(1)	(1)
Net income attributable to Eaton ordinary shareholders		2,145	2,552
Other comprehensive income (loss), net of tax			
Currency translation and related hedging instruments	14	(609)	807
Unrealized gain on retained investment in sold business	14	—	433
Pensions and other postretirement benefits	14	(139)	241
Cash flow hedges	14	7	(4)
Other comprehensive income (loss) attributable to Eaton ordinary shareholders		(741)	1,477
Total comprehensive income attributable to Eaton ordinary shareholders		$ 1,404	$ 4,029

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

EATON CORPORATION plc
CONSOLIDATED BALANCE SHEETS

(In millions)	Note	December 31 2018		December 31 2017	
Assets					
Fixed assets					
Intangible assets - goodwill	7	$	13,328	$	13,568
Intangible assets - other	7		5,179		5,594
Property, plant and equipment, net	6		3,467		3,502
Investments in associate companies	2		744		756
Current assets					
Inventory	18		2,785		2,620
Debtors	8		5,443		5,710
Short-term investments	16		157		534
Cash			283		561
Total assets		$	31,386	$	32,845
Liabilities					
Shareholders' equity					
Called up share capital		$	4	$	4
Share premium			11,606		11,576
Profit and loss account			8,294		8,801
Other reserves	14		(3,794)		(3,125)
Shares held in trust			(3)		(3)
Total Eaton shareholders' equity			16,107		17,253
Noncontrolling interests			35		37
Total shareholders' equity			16,142		17,290
Provision for liabilities and charges					
Pension and other postretirement benefits	11		1,689		1,659
Deferred income taxes	13		643		760
Other provisions	12		405		487
Creditors					
Debt	10		7,521		7,751
Creditors	9		4,986		4,898
Total for provisions and creditors			15,244		15,555
Total liabilities		$	31,386	$	32,845

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

The Consolidated Financial Statements were approved by the Audit Committee of the Board of Directors and the Board of Directors on February 27, 2019 and signed on its behalf by:

Craig Arnold
Chairman of the Board of Directors

Gerald B. Smith
Director

EATON CORPORATION plc
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In millions)	Year ended December 31 2018	2017
Operating activities		
Net income	$ 2,146	$ 2,553
Adjustments to reconcile to net cash provided by operating activities		
Depreciation and amortization	903	914
Deferred income taxes	(115)	(206)
Pension and other postretirement benefits expense	159	208
Contributions to pension plans	(126)	(473)
Contributions to other postretirement benefits plans	(25)	(20)
Gain on sale of businesses	—	(410)
Changes in working capital		
Accounts receivable - net	(123)	(231)
Inventory	(242)	(202)
Accounts payable	23	388
Accrued compensation	23	59
Accrued income and other taxes	(31)	(4)
Other current assets	71	2
Other current liabilities	144	(203)
Other - net	(149)	291
Net cash provided by operating activities	2,658	2,666
Investing activities		
Capital expenditures for property, plant and equipment	(565)	(520)
Proceeds from sale of business	—	607
Sale (purchases) of short-term investments - net	355	(298)
Payments for settlement of currency exchange contracts not designated as hedges - net	(110)	—
Other - net	(78)	(6)
Net cash used in investing activities	(398)	(217)
Financing activities		
Proceeds from borrowings	410	1,000
Payments on borrowings	(574)	(1,554)
Cash dividends paid	(1,149)	(1,068)
Exercise of employee stock options	29	66
Repurchase of shares	(1,271)	(850)
Employees taxes paid from shares withheld	(24)	(22)
Other - net	(2)	(14)
Net cash used in financing activities	(2,581)	(2,442)
Effect of currency on cash	43	11
Total increase in cash	(278)	18
Cash at the beginning of the period	561	543
Cash at the end of the period	$ 283	$ 561

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

EATON CORPORATION plc
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In millions)	Called up share capital		Share premium	Profit and loss account	Other reserves	Shares held in trust	Total Eaton shareholders' equity (Note 14)	Noncontrolling interests	Total equity
	Shares	Dollars							
Balance at January 1, 2017	449.4	$ 5	$ 11,507	$ 7,687	$ (4,242)	$ (3)	$ 14,954	$ 44	$ 14,998
Cumulative-effect adjustment upon adoption of ASU 2016-09	—	—	—	48	—	—	48	—	48
Net income	—	—	—	2,552	—	—	2,552	1	2,553
Other comprehensive income, net of tax	—	—	—	433	1,044	—	1,477	—	1,477
Cash dividends paid	—	—	—	(1,068)	—	—	(1,068)	(5)	(1,073)
Issuance of shares under equity-based compensation plans-net	2.0	—	69	(2)	73	—	140	—	140
Changes in noncontrolling interest of consolidated subsidiaries, net	—	—	—	—	—	—	—	(3)	(3)
Repurchase and cancellation of ordinary shares	(11.5)	(1)	—	(849)	—	—	(850)	—	(850)
Balance at December 31, 2017	439.9	4	11,576	8,801	(3,125)	(3)	17,253	37	17,290
Cumulative-effect adjustment upon adoption of ASU 2014-09	—	—	—	(2)	—	—	(2)	—	(2)
Cumulative-effect adjustment upon adoption of ASU 2016-16	—	—	—	(199)	—	—	(199)	—	(199)
Net income	—	—	—	2,145	—	—	2,145	1	2,146
Other comprehensive loss, net of tax				—	(741)		(741)	—	(741)
Cash dividends paid	—	—	—	(1,149)	—	—	(1,149)	(1)	(1,150)
Issuance of shares under equity-based compensation plans	1.2	—	30	(2)	72	—	100	—	100
Changes in noncontrolling interest of consolidated subsidiaries, net	—	—	—	—	—	—	—	(2)	(2)
Repurchase and cancellation of ordinary shares	(17.5)	—	—	(1,300)	—	—	(1,300)	—	(1,300)
Balance at December 31, 2018	423.6	$ 4	$ 11,606	$ 8,294	$ (3,794)	$ (3)	$ 16,107	$ 35	$ 16,142

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

Amounts are in millions unless indicated otherwise (per share data assume dilution).

Note 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

General Information

Eaton Corporation plc (Eaton or the Company) is a power management company with 2018 net sales of $21.6 billion. The Company provides energy-efficient solutions that help its customers effectively manage electrical, hydraulic and mechanical power more reliably, safely and sustainably. Eaton has approximately 99,000 employees in 59 countries and sells products to customers in more than 175 countries.

The consolidated financial statements of the Company have been prepared in accordance with Section 279 of the Companies Act 2014, which provides that a true and fair view of the assets, liabilities, financial position and profit or loss may be given by preparing the financial statements in accordance with generally accepted accounting principles in the United States (U.S. GAAP), as defined in Section 279 (1) of the Companies Act 2014, to the extent that the use of those principles in the preparation of the consolidated financial statements does not contravene any provision of Part 6 of the Companies Act 2014.

These consolidated financial statements were prepared in accordance with Irish Company Law, to present to the shareholders of the Company and file with the Companies Registration Office in Ireland. Accordingly, these consolidated financial statements include presentation and additional disclosures required by the Republic of Ireland's Companies Act, 2014 (Companies Act) in addition to those disclosures required under U.S. GAAP.

Terminology typically utilized in a set of U.S. GAAP financial statements has been retained for the benefit of those users of these financial statements who also access our Form 10-K U.S. GAAP financial statements, rather than utilizing the terminology set out under Irish Company Law. Accordingly, references to net sales, cost of products sold, interest income, interest expense, income tax expense, net income, property, plant and equipment, net, inventory and cash have the same meaning as references to turnover, cost of sales, other interest receivable and similar income, interest payable and similar charges, tax on profit on ordinary activities, profit on ordinary activities after taxation, tangible assets, stocks and cash at bank and in hand under Irish Company Law.

Preparation of the consolidated financial statements requires management to make estimates and assumptions that affect amounts reported in the consolidated financial statements and notes. Actual results could differ from these estimates.

The consolidated financial statements include the accounts of Eaton and all subsidiaries and other entities it controls. Intercompany transactions and balances have been eliminated. The equity method of accounting is used for investments in associate companies where the Company has significant influence and generally a 20% to 50% ownership interest. Equity investments are evaluated for impairment whenever events or circumstances indicate the book value of the investment exceeds fair value. An impairment would exist if there is an other-than-temporary decline in value. Income from equity investments is reported in Other income or Other expense. Eaton does not have off-balance sheet arrangements or financings with unconsolidated entities. In the ordinary course of business, the Company leases certain real properties and equipment, as described in Note 12.

Eaton's functional currency is United States Dollars (USD). The functional currency for most subsidiaries is their local currency. Financial statements for these subsidiaries are translated at year-end exchange rates as to assets and liabilities and weighted-average exchange rates as to revenues and expenses. The resulting translation adjustments are recognized in Other reserves.

During the first quarter of 2018, Eaton re-segmented certain reportable operating segments due to a reorganization of the Company's businesses. The new reportable business segment is eMobility (which includes certain legacy Electrical Products and Vehicle product lines). For reportable segments that were re-segmented, previously reported segment financial information has been updated for 2016 and 2017. See Note 19 for additional information related to these segments.

Adoption of New Accounting Standards

Eaton adopted Accounting Standard Update 2014-09, Revenue from Contracts with Customers, at the start of the first quarter of 2018 using the modified retrospective approach and recorded a cumulative effect adjustment to the Profit and loss reserve account based on the current terms and conditions for open contracts as of January 1, 2018. The adoption of the standard did not have a material impact on the Company’s Consolidated financial statements. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods.

Consolidated Balance Sheet	Balance at December 31, 2017	Adjustments due to ASU 2014-09	Balance at January 1, 2018
Assets			
Accounts receivable - net (Note 8)	$ 3,943	$ (99)	$ 3,844
Prepayments (Note 8)	679	129	808
Deferred income taxes (Note 8)	298	1	299
Liabilities and shareholders' equity			
Other liabilities (Note 9)	$ 1,516	$ 33	$ 1,549
Eaton shareholders' equity	17,253	(2)	17,251

Eaton adopted Accounting Standards Update 2016-16, Intra-Entity Transfers of Assets Other Than Inventory (ASU 2016-16), at the start of the first quarter of 2018. This accounting standard requires companies to recognize the income tax effects of intercompany sales and transfers of assets other than inventory in the period in which the transfer occurs. The previous accounting standard required companies to defer the income tax effects of intercompany transfers of assets by recording a prepaid tax, until such assets were sold to an outside party or otherwise recognized. ASU 2016-16 requires companies to write off any income tax amounts that had been deferred as prepaid taxes from past intercompany transactions, and record deferred tax balances for amounts that have not been recognized, through a cumulative-effect adjustment to the Profit and loss reserve account. Upon adoption, the Company recorded a cumulative-effect adjustment of $199 to reduce the Profit and loss reserve account.

Eaton adopted Accounting Standards Update 2017-07, Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost (ASU 2017-07), at the start of the first quarter of 2018. The new standard requires companies to present service costs consistent with other employee compensation costs on the income statement and separate from all other elements of pension costs. The retrospective adoption of this standard resulted in an increase in selling and administrative expense with a corresponding decrease in Other expense of $6 for the year ended December 31, 2018, and a reduction in selling and administrative expense with a corresponding increase in Other expense of $39 for the year ended December 31, 2017.

Certain prior year amounts have been reclassified to conform to the current year presentation.

Revenue Recognition

Sales are recognized when control of promised goods or services are transferred to customers in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. Control is transferred when the customer has the ability to direct the use of and obtain benefits from the goods or services. The majority of the Company’s sales agreements contain performance obligations satisfied at a point in time when control is transferred to the customer. Sales recognized over time are generally accounted for using an input measure to determine progress completed at the end of the period. Sales for service contracts generally are recognized as the services are provided. For agreements with multiple performance obligations, judgment is required to determine whether performance obligations specified in these agreements are distinct and should be accounted for as separate revenue transactions for recognition purposes. In these types of agreements, we generally allocate sales price to each distinct obligation based on the price of each item sold in separate transactions.

Payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and payment is due is not significant. Eaton does not evaluate whether the selling price includes a financing interest component for contracts that are less than a year. Sales, value added, and other taxes collected concurrent with revenue are excluded from sales. Shipping and handling costs are treated as fulfillment costs and are included in Cost of products sold.

Eaton records reductions to sales for returns, and customer and distributor incentives, primarily comprised of rebates, at the time of the initial sale. Rebates are estimated based on sales terms, historical experience, trend analysis, and projected market conditions in the various markets served. The rebate programs offered vary across businesses due to the numerous markets Eaton serves, but the most common incentives relate to amounts paid or credited to customers for achieving defined volume levels. Returns are estimated at the time of the sale primarily based on historical experience and recorded gross on the Consolidated Balance Sheet. See Note 4 for additional information.

Goodwill and Indefinite Life Intangible Assets

Irish Company Law requires that indefinite-lived intangible assets and goodwill be amortized. However, Eaton does not believe this gives a true and fair view because not all goodwill and intangible assets decline in value. In addition, since goodwill that does decline in value rarely does so on a straight-line basis, straight-line amortization of goodwill over an arbitrary period does not reflect the economic reality. Therefore, in order to present a true and fair view of the economic reality under U.S. GAAP, goodwill and certain other intangible assets are considered indefinite-lived and are not amortized. The company is not able to reliably estimate the impact on the financial statements on the basis that the useful economic life of goodwill cannot be predicted with a satisfactory level of reliability nor can the pattern in which goodwill diminishes be known. Goodwill and these intangible assets are subject to an annual impairment test.

Goodwill is evaluated annually for impairment as of July 1 using either a quantitative or qualitative analysis. Goodwill is tested for impairment at the reporting unit level, which is equivalent to Eaton's operating segments and based on the net assets for each segment, including goodwill and intangible assets. Goodwill is assigned to each operating segment, as this represents the lowest level that constitutes a business and is the level at which management regularly reviews the operating results. The Company performs a quantitative analysis using a discounted cash flow model and other valuation techniques, but may elect to perform a qualitative analysis. Additionally, goodwill is evaluated for impairment whenever an event occurs or circumstances change that would indicate that it is more likely than not that the fair value of an operating segment is less than its carrying amount.

The annual goodwill impairment test was performed using a qualitative analysis in 2018 and 2017 and a quantitative analysis in 2016. A qualitative analysis is performed by assessing certain trends and factors, including projected market outlook and growth rates, forecasted and actual sales and operating profit margins, discount rates, industry data, and other relevant qualitative factors. These trends and factors are compared to, and based on, the assumptions used in the most recent quantitative analysis performed for each reporting unit. The results of the qualitative analyses did not indicate a need to perform quantitative analysis.

Goodwill impairment testing was also performed using a quantitative analysis for the Electrical Products, Vehicle and eMobility segments in the first quarter of 2018 due to a reorganization of the Company's businesses resulting in the creation of the eMobility segment. The Company used the relative fair value method to reallocate goodwill among these reporting units.

Quantitative analyses were performed by estimating the fair value for each reporting unit using a discounted cash flow model, which considered forecasted cash flows discounted at an estimated weighted-average cost of capital. The forecasted cash flows were based on the Company's long-term operating plan and a terminal value was used to estimate the operating segment's cash flows beyond the period covered by the operating plan. The weighted-average cost of capital is an estimate of the overall after-tax rate of return required by equity and debt market holders of a business enterprise. These analyses require the exercise of significant judgments, including judgments about appropriate discount rates, perpetual growth rates and the timing of expected cash flows of the respective reporting unit. Sensitivity analyses were performed around these assumptions in order to assess the reasonableness of the assumptions and the resulting estimated fair values.

Based on these analyses performed in 2018 and 2017, the fair value of Eaton's reporting units continue to substantially exceed their respective carrying amounts and thus, no impairment exists.

Indefinite life intangible assets consist of certain trademarks. They are evaluated annually for impairment as of July 1 using either a quantitative or qualitative analysis to determine whether their fair values exceed their respective carrying amounts. Indefinite life intangible asset impairment testing for 2018 and 2017 was performed using a quantitative analysis. The Company determines the fair value of these assets using a royalty relief methodology similar to that employed when the associated assets were acquired, but using updated estimates of future sales, cash flows and profitability. Additionally, indefinite life intangible assets are evaluated for impairment whenever an event occurs or circumstances change that would indicate that it is more likely than not that the asset is impaired. For 2018 and 2017, the fair value of indefinite lived intangible assets exceeded the respective carrying value.

For additional information about goodwill and other intangible assets, see Note 7.

Other Long-Lived Assets

Depreciation and amortization for property, plant and equipment, and intangible assets subject to amortization, are generally computed by the straight-line method and included in Cost of products sold, Selling and administrative expense, and Research and development expense, as appropriate. Cost of buildings are depreciated generally over 40 years and machinery and equipment over 3 to 10 years. At December 31, 2018, the weighted-average amortization period for intangible assets subject to amortization was 17 years for patents and technology; 17 years for customer relationships; and 17 years for certain trademarks. Software is generally amortized up to a life of 15 years.

Other long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. Upon indications of impairment, assets and liabilities are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities. The asset group would be considered impaired when the estimated future net undiscounted cash flows generated by the asset group are less than its carrying value. Determining asset groups and underlying cash flows requires the use of significant judgment.

For additional information about property, plant and equipment see Note 6.

Retirement Benefits Plans

For the principal pension plans in the United States, Canada, Puerto Rico and the United Kingdom, the Company uses a market-related value of plan assets to calculate the expected return on assets used to determine net periodic benefit costs. The market-related value of plan assets is a calculated value that recognizes changes in the fair value of plan assets over a five year period. All other plans use fair value of plan assets.

Net actuarial gains or losses are amortized to expense on a plan-by-plan basis when they exceed the accounting corridor. The Company's corridors are set at either 8% or 10%, depending on the plan, of the greater of the plan assets or benefit obligations. Gains or losses outside of the corridor are subject to amortization over an average employee future service period that differs by plan, but is approximately 11 years on a weighted average basis. If most or all of the plan's participants are no longer actively accruing benefits, the average life expectancy is used.

Asset Retirement Obligations

A conditional asset retirement obligation is recognized at fair value when incurred if the fair value of the liability can be reasonably estimated. Uncertainty about the timing or method of settlement of a conditional asset retirement obligation would be considered in the measurement of the liability when sufficient information exists. Eaton believes that for substantially all of its asset retirement obligations, there is an indeterminate settlement date because the range of time over which the Company may settle the obligation is unknown or cannot be estimated. A liability for these obligations will be recognized when sufficient information is available to estimate fair value.

Income Taxes

Deferred income tax assets and liabilities are determined based on the difference between the financial statement and tax basis of the respective assets and liabilities, using enacted tax rates in effect for the year when the differences are expected to reverse. Deferred income tax assets are recognized for income tax loss carryforwards and income tax credit carryforwards. Judgment is required in determining and evaluating income tax provisions and valuation allowances for deferred income tax assets. Eaton recognizes an income tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. Eaton evaluates and adjusts these accruals based on changing facts and circumstances. Eaton recognizes interest and penalties related to unrecognized income tax benefits in the provision for income tax expense. For additional information about income taxes, see Note 13.

Derivative Financial Instruments and Hedging Activities

Eaton uses derivative financial instruments to manage the exposure to the volatility in raw material costs, currency, and interest rates on certain debt. These instruments are marked to fair value in the accompanying Consolidated Balance Sheets. Changes in the fair value of derivative assets or liabilities (i.e., gains or losses) are recognized depending upon the type of hedging relationship and whether an instrument has been designated as a hedge. For those instruments that qualify for hedge accounting, Eaton designates the hedging instrument, based upon the exposure being hedged, as a cash flow hedge, a fair value hedge, or a hedge of a net investment in a foreign operation. Changes in fair value of these instruments that do not qualify for hedge accounting are recognized immediately in net income. See Note 17 for additional information about hedges and derivative financial instruments.

Recently Issued Accounting Pronouncements

In February 2016, the FASB issued Accounting Standards Update 2016-02, Leases (Topic 842), (ASU 2016-02). This accounting standard requires that a lessee recognize a lease asset and a lease liability on its balance sheet for all leases, including operating leases. ASU 2016-02 will require additional disclosures in the notes to the consolidated financial statements.

Eaton adopted the standard, and related amendments, in the first quarter of 2019 using the optional transition method and will not restate prior periods. The Company elected to use the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed the carry forward of historical lease classification of existing leases. The Company made an accounting policy election to not recognize lease assets or liabilities for leases with a term of 12 months or less. Additionally, when accounting for leases, the Company combines payments for leased assets, related services and other components of a lease.

The Company is in the final stage of assessing the impact of adopting the standard. The Company collected the lease data required by the new standard, and has identified and is implementing the appropriate changes to business processes and controls to support recognition and disclosure under the new standard. In the first quarter of 2019, Eaton plans to conclude its testing of the new third-party lease accounting system. The Company expects to record a cumulative-effect adjustment of less than $1 to the Profit and loss reserve account as of January 1, 2019. Additionally, the adoption of the new standard will result in the recording of lease assets and lease liabilities for operating leases in the range of approximately $400 to $500 as of January 1, 2019. The Company does not expect the new standard to have a material impact to the Consolidated Statements of Profit and Loss Accounts or Cash Flows.

Note 2. SALE AND ACQUISITION OF BUSINESSES

Agreement to acquire controlling interest of Ulusoy Elektrik Imalat Taahhut ve Ticaret A.S.

On January 31, 2019, Eaton reached a definitive agreement to acquire an 82.275% controlling interest in Ulusoy Elektrik Imalat Taahhut ve Ticaret A.S., a leading manufacturer of electrical switchgear based in Ankara, Turkey, with a primary focus on medium voltage solutions for industrial and utility customers. Its sales for the 12 months ended September 30, 2018 were $126. The purchase price for the shares is approximately $214 on a cash and debt free basis. As required by the Turkish capital markets legislation, Eaton plans to file an application to execute a mandatory tender offer for the remaining shares shortly after the transaction closes. The transaction is subject to customary closing conditions and regulatory approvals.

Sale of heavy-duty and medium-duty commercial vehicle automated transmission business

On July 31, 2017, Eaton sold a 50% interest in its heavy-duty and medium-duty commercial vehicle automated transmission business for $600 in cash to Cummins, Inc. The new joint venture is named Eaton Cummins Automated Transmission Technologies (ECATT). In 2017, the Company recognized a pre-tax gain of $533 ($410 after-tax) in the Consolidated Profit and Loss Accounts related to the gain from the $600 proceeds from the sale, and an unrealized gain of $544 ($433 after-tax) in the Consolidated Statement of Comprehensive Income related to the Company's remaining 50% investment in the joint venture being remeasured to fair value. The fair value is based on the price paid to Eaton for the 50% interest sold to Cummins, Inc. and further supported by a discounted cash flow model. Eaton accounts for its investment on the equity method of accounting. The investment of $602 in ECATT is included in Investments in associate companies in the December 31, 2018 Consolidated Balance Sheet.

Note 3. ACQUISITION INTEGRATION CHARGES

Eaton incurs integration charges related to acquired businesses. A summary of these charges follows:

	2018	2017
Electrical Products	$ —	$ 4
Electrical Systems and Services	—	—
Total acquisition integration charges before income taxes	—	4
Income taxes	—	2
Total after income taxes	$ —	$ 2
Per ordinary share - diluted	$ —	$ —

Business segment acquisition integration charges in 2017 related to the integration of Ephesus Lighting, Inc. (Ephesus), which was acquired in 2015. The charges associated with Ephesus were included in Selling and administrative expense. In Business Segment Information in Note 19, the charges reduced Operating profit of the related business segment.

Note 4. REVENUE RECOGNITION

Sales are recognized when obligations under the terms of the contract are satisfied and control of promised goods or services have transferred to our customers. Sales are measured at the amount of consideration the Company expects to be paid in exchange for these products or services.

The majority of the Company's sales agreements contain performance obligations satisfied at a point in time when title and risk and rewards of ownership have transferred to the customer. Sales recognized over time are less than 5% of Eaton's Consolidated Net Sales. Sales recognized over time are generally accounted for using an input measure to determine progress completed at the end of the period. Sales for service contracts generally are recognized as the services are provided. For agreements with multiple performance obligations, judgment is required to determine whether performance obligations specified in these agreements are distinct and should be accounted for as separate revenue transactions for recognition purposes. In these types of agreements, we generally allocate sales price to each distinct obligation based on the price of each item sold in separate transactions.

Due to the nature of the work required to be performed for obligations recognized over time, Eaton estimates total costs by contract. The estimate of total costs are subject to judgment. Estimated amounts are included in the recognized sales price to the extent it is not probable that a significant reversal of cumulative sales will occur. Additionally, contracts can be modified to account for changes in contract specifications, requirements or sale price. The effect of a contract modification on the sales price or adjustments to the measure of completion under the input method are recognized as adjustments to revenue on a cumulative catch-up basis.

Payment terms vary by the type and location of the customer and the products or services offered. Generally, the time between when revenue is recognized and when payment is due is not significant. Eaton does not evaluate whether the selling price includes a financing interest component for contracts that are less than a year. Sales, value added, and other taxes collected concurrent with revenue are excluded from sales. Shipping and handling costs are treated as fulfillment costs and are included in Cost of products sold.

Eaton records reductions to sales for returns, and customer and distributor incentives, primarily comprised of rebates, at the time of the initial sale. Rebates are estimated based on sales terms, historical experience, trend analysis, and projected market conditions in the various markets served. The rebate programs offered vary across businesses due to the numerous markets Eaton serves, but the most common incentives relate to amounts paid or credited to customers for achieving defined volume levels. Returns are estimated at the time of the sale primarily based on historical experience and are recorded gross on the Consolidated Balance Sheet.

Sales commissions are expensed when the amortization period is less than a year and are generally not capitalized as they are typically earned at the completion of the contract when the customer is invoiced or when the customer pays Eaton.

Sales of products and services varies by segment and are discussed in Note 19.

In the Electrical Products segment, sales contracts are primarily for electrical components, industrial components, residential products, single phase power quality, emergency lighting, fire detection, wiring devices, structural support systems, circuit protection, and lighting products. These sales contracts are primarily based on a customer's purchase order followed by our order acknowledgement, and may also include a master supply or distributor agreement. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer's facility.

In the Electrical Systems and Services segment, sales contracts are primarily for power distribution and assemblies, three phase power quality, hazardous duty electrical equipment, intrinsically safe explosion-proof instrumentation, utility power distribution, power reliability equipment, and services. The majority of the sales contracts in this segment contain performance obligations satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer's facility; however, certain power distribution and power quality services are recognized over time.

Many of the products and services in power distribution and power quality services meet the definition of continuous transfer of control to customers and are recognized over time. These products are engineered to a customer's design specifications, have no alternative use to Eaton, and are controlled by the customer as evidenced by the customer's contractual ownership of the work in process or our right to payment for work performed to date plus a reasonable margin. As control is transferring over time, sales are recognized based on the extent of progress towards completion of the obligation. Eaton generally uses an input method to determine the progress completed and sales are recorded proportionally as costs are incurred. Incurred cost represent work performed, which corresponds with, and thereby best depicts, the transfer of control to the customer.

In the Hydraulics segment, sales contracts are primarily for hydraulic components and systems for industrial and mobile equipment. These sales contracts are primarily based on a customer's purchase order. In this segment, performance obligations are generally satisfied at a point in time when we ship the product from our facility.

In the Aerospace segment, sales contracts are primarily for aerospace fuel, hydraulics, and pneumatic systems for commercial and military use. These sales contracts are primarily based on a customer's purchase order, and frequently covered by terms and conditions included in a long-term agreement. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer's facility. Our military contracts are primarily fixed-price contracts that are not subject to performance-based payments or progress payments from the customer.

In the Vehicle segment, sales contracts are primarily for drivetrains, powertrain systems and critical components that reduce emissions and improve fuel economy, stability, performance, and safety of cars, light trucks and commercial vehicles. These sales contracts are primarily based on a customer's purchase order or a blanket purchase order subject to firm releases, frequently covered by terms and conditions included in a master supply agreement. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer's facility.

In the eMobility segment, sales contracts are primarily for electronic and mechanical components and systems that improves the power management and performance of both on-road and off-road vehicles. These sales contracts are primarily based on a customer's purchase order. In this segment, performance obligations are generally satisfied at a point in time either when we ship the product from our facility, or when it arrives at the customer's facility.

In limited circumstances, primarily in the Electrical and Vehicle segments, Eaton sells separately-priced warranties that extend the warranty coverage beyond the standard coverage offered on specific products. Sales for these separately-priced warranties are recorded based on their stand-alone selling price and are recognized as revenue over the length of the warranty period.

The Company's six operating segments and the following tables disaggregate sales by lines of businesses, geographic destination, market channel or end market.

	Year ended December 31, 2018		
Net sales	United States	Rest of World	Total
Electrical Products	$ 4,112	$ 3,012	$ 7,124
Electrical Systems and Services	3,936	2,088	6,024
Hydraulics	1,190	1,566	2,756
	Original Equipment Manufacturers	Aftermarket, Distribution and End User	
Aerospace	$ 1,085	$ 811	1,896
	Commercial	Passenger and Light Duty	
Vehicle	$ 1,759	$ 1,730	3,489
eMobility			320
Total			$ 21,609

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (revenue recognized exceeds amount billed to the customer), and deferred revenue (advance payments and billings in excess of revenue recognized). Accounts receivables from customers were $3,402 and $3,399 at December 31, 2018 and December 31, 2017, respectively. Amounts are billed as work progresses in accordance with agreed-upon contractual terms, either at periodic intervals or upon achievement of contractual milestones. These assets and liabilities are reported on the Consolidated Balance Sheets on a contract-by-contract basis at the end of each reporting period. Unbilled receivables were $94 and $117 at December 31, 2018 and January 1, 2018, respectively, and are recorded in Prepayments. The decrease in unbilled receivables was primarily due to billings to customers for amounts previously recognized as revenue, partially offset by revenue recognized and not yet billed.

Changes in the deferred revenue liabilities are as follows:

	Deferred Revenue
Balance at January 1, 2018	$ 227
Customer deposits and billings	967
Revenue recognized in the period	(939)
Translation	(7)
Balance at December 31, 2018	$ 248

A significant portion of open orders placed with Eaton are by original equipment manufacturers or distributors. These open orders are not considered firm as they have been historically subject to releases by customers. In measuring backlog of unsatisfied or partially satisfied obligations, only the amount of orders to which customers are firmly committed are included. Using this criterion, total backlog at December 31, 2018 was approximately $5.3 billion. Eaton expects to recognize approximately 87% of this backlog in the next twelve months and the rest thereafter.

Impact of new accounting standard

In accordance with the new revenue accounting requirements, the impact of the adoption on the financial statement line items within the accompanying consolidated financial statements was as follows:

	Year ended December 31, 2018		
Consolidated Profit and Loss Accounts	As Reported	Adjustment	Balances without Adoption of ASC 606
Net sales	$ 21,609	$ (30)	$ 21,579
Cost of products sold	14,511	(20)	14,491
Income before income taxes	2,424	(10)	2,414
Income tax expense	278	(2)	276
Net income	2,146	(8)	2,138
Net income attributable to Eaton ordinary shareholders	$ 2,145	$ (8)	$ 2,137

Consolidated Balance Sheets	December 31, 2018 As Reported	Adjustment	Balances without Adoption of ASC 606
Assets			
Accounts receivable - net (Note 8)	$ 3,858	$ 60	$ 3,918
Inventory	2,785	18	2,803
Prepayments (Note 8)	507	(109)	398
Deferred income taxes (Note 8)	307	(1)	306
Liabilities			
Other liabilities (Note 9)	$ 1,530	$ (26)	$ 1,504
Eaton shareholders' equity	$ 16,142	$ (6)	$ 16,136

Note 5. RESTRUCTURING CHARGES

During 2015, Eaton announced its commitment to undertake actions to reduce its cost structure in all business segments and at corporate. The multi-year initiative concluded at the end of 2017.

A summary of liabilities related to workforce reductions, plant closings and other associated costs announced as part of this program follows:

	Workforce reductions	Plant closing and other	Total
Balance at December 31, 2016	$ 113	$ 1	$ 114
Liability recognized	57	59	116
Payments	(102)	(39)	(141)
Other adjustments	(1)	(16)	(17)
Balance at December 31, 2017	67	5	72
Payments	(36)	(4)	(40)
Other adjustments	(17)	—	(17)
Balance at December 31, 2018	$ 14	$ 1	$ 15

Note 6. PROPERTY, PLANT AND EQUIPMENT

Changes in Property, plant and equipment follow:

	Land, buildings and improvements	Machinery and equipment	Construction in progress	Total
December 31, 2016				
Cost	$ 2,369	$ 5,364	$ 306	$ 8,039
Accumulated depreciation	(885)	(3,711)	—	(4,596)
Net book value	$ 1,484	$ 1,653	$ 306	$ 3,443
Capital expenditures and transfers	$ 88	$ 361	$ 71	$ 520
Depreciation expense	(79)	(397)	—	(476)
Retirements and disposals	(45)	(63)	—	(108)
Currency translation	59	53	11	123
December 31, 2017				
Cost	2,491	5,626	388	8,505
Accumulated depreciation	(984)	(4,019)	—	(5,003)
Net book value	$ 1,507	$ 1,607	$ 388	$ 3,502

	Land, buildings and improvements	Machinery and equipment	Construction in progress	Total
December 31, 2017				
Cost	$ 2,491	$ 5,626	$ 388	$ 8,505
Accumulated depreciation	(984)	(4,019)	—	(5,003)
Net book value	$ 1,507	$ 1,607	$ 388	$ 3,502
Capital expenditures and transfers	$ 71	$ 458	$ 36	$ 565
Depreciation expense	(94)	(379)	—	(473)
Retirements and disposals	(1)	(31)	—	(32)
Currency translation	(35)	(46)	(14)	(95)
December 31, 2018				
Cost	2,466	5,696	410	8,572
Accumulated depreciation	(1,018)	(4,087)	—	(5,105)
Net book value	$ 1,448	$ 1,609	$ 410	$ 3,467

Capital expenditures are expected to be approximately $600 in 2019. Projected expenditures for 2019 will focus on capacity expansions in developing markets, development of new products, replacement equipment, and cost reduction programs.

Note 7. GOODWILL AND OTHER INTANGIBLE ASSETS

Changes in the carrying amount of goodwill by segment follow:

	December 31, 2016	Goodwill Written off from sale of business	Translation adjustments	December 31, 2017	Translation adjustments	December 31, 2018
Electrical Products	$ 6,418	$ —	$ 260	$ 6,678	$ (116)	$ 6,562
Electrical Systems and Services	4,203	(3)	111	4,311	(70)	4,241
Hydraulics	1,221	—	36	1,257	(45)	1,212
Aerospace	938	—	9	947	(6)	941
Vehicle	342	(52)	4	294	(2)	292
eMobility	79	—	2	81	(1)	80
Total	$ 13,201	$ (55)	$ 422	$ 13,568	$ (240)	$ 13,328

Eaton re-segmented certain reportable operating segments due to a reorganization of the Company's businesses. The new reportable business segment is eMobility (which includes certain legacy Electrical Products and Vehicle product lines). The Company used the relative fair value method to reallocate goodwill to the associated reporting units.

A summary of other intangible assets follows:

	2018		2017	
	Historical cost	Accumulated amortization	Historical cost	Accumulated amortization
Intangible assets not subject to amortization				
Trademarks	$ 1,626		$ 1,654	
Intangible assets subject to amortization				
Customer relationships	$ 3,463	$ 1,600	$ 3,586	$ 1,475
Patents and technology	1,329	646	1,395	628
Software	879	546	826	497
Trademarks	1,032	419	1,137	473
Other	92	31	99	30
Total other intangible assets	$ 6,795	$ 3,242	$ 7,043	$ 3,103

Changes in Other intangibles follows:

	Indefinite lived trademarks	Customer relationships	Patents and technology	Software	Trademarks	Other	Total
December 31, 2016							
Cost	$ 1,637	$ 3,456	$ 1,342	$ 755	$ 1,104	$ 97	$ 8,391
Accumulated amortization	—	(1,199)	(519)	(441)	(378)	(26)	(2,563)
Net book value	$ 1,637	$ 2,257	$ 823	$ 314	$ 726	$ 71	$ 5,828
Additions	$ —	$ —	$ —	$ 74	$ —	$ —	$ 74
Amortization expense	—	(217)	(84)	(55)	(78)	(4)	(438)
Retirements and disposals	—	—	—	(9)	(3)	(1)	(13)
Currency translation	17	71	28	5	18	4	143
December 31, 2017							
Cost	1,654	3,586	1,395	826	1,137	99	8,697
Accumulated amortization	—	(1,475)	(628)	(497)	(474)	(29)	(3,103)
Net book value	$ 1,654	$ 2,111	$ 767	$ 329	$ 663	$ 70	$ 5,594

	Indefinite lived trademarks	Customer relationships	Patents and technology	Software	Trademarks	Other	Total
December 31, 2017							
Cost	$ 1,654	$ 3,586	$ 1,395	$ 826	$ 1,137	$ 99	$ 8,697
Accumulated amortization	—	(1,475)	(628)	(497)	(474)	(29)	(3,103)
Net book value	$ 1,654	$ 2,111	$ 767	$ 329	$ 663	$ 70	$ 5,594
Additions	$ —	$ —	$ —	$ 73	$ —	$ —	$ 73
Amortization expense	—	(216)	(84)	(62)	(63)	(5)	(430)
Retirements and disposals	—	—	—	(6)	—	—	(6)
Currency translation	(28)	(32)	—	(1)	13	(4)	(52)
December 31, 2018							
Cost	1,626	3,463	1,329	879	1,032	92	8,421
Accumulated amortization	—	(1,600)	(646)	(546)	(419)	(31)	(3,242)
Net book value	$ 1,626	$ 1,863	$ 683	$ 333	$ 613	$ 61	$ 5,179

Amortization expense related to intangible assets (excluding software) subject to amortization in 2018, and estimated amortization expense for each of the next five years, follows:

2018	$ 368
2019	357
2020	352
2021	341
2022	332
2023	283

Note 8. DEBTORS

Debtors	2018	2017
Amounts falling due within one year		
Accounts receivable - net	$ 3,858	$ 3,943
Deferred income taxes	307	298
Prepayments	507	679
	4,672	4,920
Amounts falling due after more than one year		
Deferred income taxes	280	177
Pension plan assets	58	218
Other debtors	433	395
	771	790
Total debtors	$ 5,443	$ 5,710

Note 9. CREDITORS

Creditors	2018	2017
Amounts falling due within one year		
Accounts payable	$ 2,130	$ 2,166
Accrued compensation	457	453
Other liabilities	1,530	1,516
	4,117	4,135
Amounts falling due after more than one year		
Other long-term liabilities	869	763
Total creditors	$ 4,986	$ 4,898

Note 10. DEBT

A summary of debt follows:

	2018	2017
5.60% notes due 2018 ($415 converted to floating rate by interest rate swap)	$ —	$ 450
4.215% Japanese yen notes due 2018	—	88
6.95% notes due 2019 ($300 converted to floating rate by interest rate swap)	300	300
3.875% debentures due 2020 ($150 converted to floating rate by interest rate swap)	239	239
3.47% notes due 2021 ($275 converted to floating rate by interest rate swap)	300	300
8.10% debentures due 2022 ($100 converted to floating rate by interest rate swap)	100	100
2.75% senior notes due 2022 ($1,400 converted to floating rate by interest rate swap)	1,600	1,600
3.68% notes due 2023 ($200 converted to floating rate by interest rate swap)	300	300
0.75% euro notes due 2024	629	659
6.50% debentures due 2025	145	145
3.10% senior notes due 2027	700	700
7.65% debentures due 2029 ($50 converted to floating rate by interest rate swap)	200	200
4.00% senior notes due 2032	700	700
5.45% debentures due 2034 ($25 converted to floating rate by interest rate swap)	136	136
5.80% notes due 2037	240	240
4.15% senior notes due 2042	1,000	1,000
3.92% senior notes due 2047	300	300
5.25% to 8.875% notes (maturities ranging from 2019 to 2035, including $50 converted to floating rate by interest rate swap)	203	239
Other	15	49
Total long-term debt	7,107	7,745
Short-term debt	414	6
Total debt	$ 7,521	$ 7,751

Substantially all these long-term debt instruments are fully and unconditionally guaranteed on an unsubordinated, unsecured basis by Eaton and certain of its direct and indirect subsidiaries (the Senior Notes). Further, as of December 31, 2018 all of these long-term debt instruments except the 3.875% debentures due 2020, the 3.47% notes due 2021, the 3.68% notes due 2023, and the 0.75% Euro notes due 2024 are registered by Eaton Corporation under the Securities Act of 1933, as amended (the Registered Senior Notes).

The Company maintains long-term revolving credit facilities totaling $2,000, consisting of a $500 three-year revolving credit facility that will expire November 17, 2020, a $750 five-year revolving credit facility that will expire October 14, 2021, and a $750 five-year revolving credit facility that will expire November 17, 2022. The revolving credit facilities are used to support commercial paper borrowings and are fully and unconditionally guaranteed by Eaton and certain of its direct and indirect subsidiaries on an unsubordinated, unsecured basis. There were no borrowings outstanding under Eaton's revolving credit facilities at December 31, 2018 or 2017. The Company had available lines of credit of $1,079 from various banks primarily for the issuance of letters of credit, of which there was $265 of letters of credit issued thereunder at December 31, 2018. Borrowings outside the United States are generally denominated in local currencies.

The Company repaid the 5.60% notes on May 15, 2018 for $450 and the 4.215% Japanese yen notes on December 17, 2018 for $88.The Company repaid the 5.30% notes on March 15, 2017 for $250, the 6.10% debentures on June 29, 2017 for $289 and the 1.50% senior notes on November 2, 2017 for $1,000.

Short-term debt of $414 at December 31, 2018 included $388 of short-term commercial paper in the United States, which had a weighted average interest rate of 2.97%, and $26 of short-term debt outside the United States.

On September 15, 2017, a subsidiary of Eaton issued senior notes (the 2017 Senior Notes) with a face amount of $1,000. The 2017 Senior Notes are comprised of two tranches of $700 and $300, which mature in 2027 and 2047, respectively, with interest payable semi-annually at a respective rate of 3.1% and 3.9%. The issuer received proceeds totaling $993 from the issuance, net of financing costs. The 2017 Senior Notes are fully and unconditionally guaranteed on an unsubordinated, unsecured basis by Eaton and certain of its direct and indirect subsidiaries. The 2017 Senior Notes contain customary optional redemption and par call provisions. The 2017 Senior Notes also contain a provision which upon a change of control requires the Company to make an offer to purchase all or any part of the 2017 Senior Notes at a purchase price of 101% of the principal amount plus accrued and unpaid interest. The capitalized deferred financing fees are amortized in Interest expense-net over the respective terms of the 2017 Senior Notes. The 2017 Senior Notes are subject to customary non-financial covenants.

Eaton is in compliance with each of its debt covenants for all periods presented.

Maturities of long-term debt for each of the next five years follow:

2019	$ 339
2020	241
2021	302
2022	1,701
2023	301

Interest paid on debt follows:

2018	$ 313
2017	293

Note 11. RETIREMENT BENEFITS PLANS

Eaton has defined benefit pension plans and defined contribution pension plans, covering substantially all U.S. employees and many employees at non-U.S. locations. Funding requirements are a major consideration in making contributions to Eaton's pension plans. With respect to the Company's pension plans worldwide, the Company intends to contribute annually not less than the minimum required by applicable law and regulations. The Company also has postretirement benefits plans for certain eligible employees, primarily in United States locations, which provide healthcare benefits and, in some instances, life insurance benefits. Additional other supplemental benefit plans are provided for officers and other key employees.

The Company utilizes qualified actuaries to value all of its material pension and other postretirement benefits plans. Amounts recognized in the financial statements as of December 31, 2018 were based on actuarial valuations carried out per the required respective statutory period. Actuarial valuation reports are available for inspection by the scheme members but not for public inspection.

Obligations and Funded Status

	United States pension liabilities		Non-United States pension liabilities		Other postretirement liabilities	
	2018	2017	2018	2017	2018	2017
Funded status						
Fair value of plan assets	$ 3,068	$ 3,585	$ 1,560	$ 1,727	$ 37	$ 55
Benefit obligations	(3,633)	(3,961)	(2,285)	(2,399)	(378)	(448)
Funded status	$ (565)	$ (376)	$ (725)	$ (672)	$ (341)	$ (393)
Amounts recognized in the Form 10-K Consolidated Balance Sheets						
Non-current assets	$ —	$ 82	$ 58	$ 136	$ —	$ —
Current liabilities	(20)	(15)	(24)	(25)	(20)	(31)
Non-current liabilities	(545)	(443)	(759)	(783)	(321)	(362)
Total	$ (565)	$ (376)	$ (725)	$ (672)	$ (341)	$ (393)

At December 31, 2018 and 2017, non-current assets of $58 and $218, respectively, are classified within Debtors. All other amounts are classified within Pension and other postretirement benefits in the Consolidated Balance Sheet.

	United States pension liabilities		Non-United States pension liabilities		Other postretirement liabilities	
	2018	2017	2018	2017	2018	2017
Amounts recognized in Other reserves (pretax)						
Net actuarial (gain) loss	$ 1,153	$ 1,059	$ 683	$ 596	$ (20)	$ 19
Prior service cost (credit)	7	4	27	8	(32)	(46)
Total	$ 1,160	$ 1,063	$ 710	$ 604	$ (52)	$ (27)

Change in Benefit Obligations

	United States pension liabilities		Non-United States pension liabilities		Other postretirement liabilities	
	2018	2017	2018	2017	2018	2017
Balance at January 1	$ 3,961	$ 3,771	$ 2,399	$ 2,314	$ 448	$ 473
Service cost	100	96	63	71	2	3
Interest cost	122	123	52	55	13	14
Actuarial (gain) loss	(272)	271	(16)	(148)	(39)	2
Gross benefits paid	(282)	(301)	(112)	(97)	(67)	(74)
Currency translation	—	—	(124)	223	(4)	3
Plan amendments	4	1	21	—	—	—
Other	—	—	2	(19)	25	27
Balance at December 31	$ 3,633	$ 3,961	$ 2,285	$ 2,399	$ 378	$ 448
Accumulated benefit obligation	$ 3,506	$ 3,802	$ 2,175	$ 2,283		

Change in Plan Assets

	United States pension liabilities		Non-United States pension liabilities		Other postretirement liabilities	
	2018	2017	2018	2017	2018	2017
Balance at January 1	$ 3,585	$ 2,969	$ 1,727	$ 1,478	$ 55	$ 74
Actual return on plan assets	(252)	543	(72)	131	—	8
Employer contributions	17	374	109	99	25	20
Gross benefits paid	(282)	(301)	(112)	(97)	(67)	(74)
Currency translation	—	—	(93)	135	—	—
Other	—	—	1	(19)	24	27
Balance at December 31	$ 3,068	$ 3,585	$ 1,560	$ 1,727	$ 37	$ 55

The components of pension plans with an accumulated benefit obligation in excess of plan assets at December 31 follow:

	United States pension liabilities		Non-United States pension liabilities	
	2018	2017	2018	2017
Projected benefit obligation	$ 3,633	$ 3,540	$ 905	$ 966
Accumulated benefit obligation	3,506	3,380	853	911
Fair value of plan assets	3,068	3,081	158	175

Changes in pension and other postretirement benefit liabilities recognized in Other reserves follow:

	United States pension liabilities		Non-United States pension liabilities		Other postretirement liabilities	
	2018	2017	2018	2017	2018	2017
Balance at January 1	$ 1,063	$ 1,235	$ 604	$ 779	$ (27)	$ (39)
Prior service cost arising during the year	4	1	21	—	—	—
Net loss (gain) arising during the year	233	(28)	161	(185)	(36)	(2)
Currency translation	—	—	(35)	66	(2)	1
Less amounts included in expense during the year	(140)	(145)	(41)	(56)	13	13
Net change for the year	97	(172)	106	(175)	(25)	12
Balance at December 31	$ 1,160	$ 1,063	$ 710	$ 604	$ (52)	$ (27)

Benefits Expense

	United States pension benefit expense		Non-United States pension benefit expense		Other postretirement benefits expense	
	2018	2017	2018	2017	2018	2017
Service cost	$ 100	$ 96	$ 63	$ 71	$ 2	$ 3
Interest cost	122	123	52	55	13	14
Expected return on plan assets	(253)	(244)	(105)	(94)	(3)	(4)
Amortization	94	83	39	51	(13)	(13)
	63	58	49	83	(1)	—
Settlements and special termination benefits	46	62	2	5	—	—
Total expense	$ 109	$ 120	$ 51	$ 88	$ (1)	$ —

The components of retirement benefits expense other than service costs are included in Other expense.

The estimated pretax net amounts that will be recognized from Other reserves into net periodic benefit cost in 2019 follow:

	United States pension liabilities	Non-United States pension liabilities	Other postretirement liabilities
Actuarial loss	$ 113	$ 36	$ —
Prior service cost (credit)	1	3	(14)
Total	$ 114	$ 39	$ (14)

Retirement Benefits Plans Assumptions

For purposes of determining liabilities related to pension plans and other postretirement benefits plans in the United States in 2017 the Company used 2014 mortality tables and generational improvement scales that are based on MP-2017. In 2018, for the majority of its plans in the United States, the Company updated its mortality assumption to use tables that are based on the Company's own experience and a generational improvement scale that is based on MP-2018.

To estimate the service and interest cost components of net periodic benefit cost for the vast majority of its defined benefits pension and other postretirement benefits plans, the Company used a spot rate approach by applying the specific spot rates along the yield curve used to measure the benefit obligation at the beginning of the period to the relevant projected cash flows.

Pension Plans

	United States pension plans		Non-United States pension plans	
	2018	2017	2018	2017
Assumptions used to determine benefit obligation at year-end				
Discount rate	4.28%	3.64%	2.83%	2.62%
Rate of compensation increase	3.14%	3.15%	3.10%	3.11%
Assumptions used to determine expense				
Discount rate used to determine benefit obligation	3.64%	4.12%	2.62%	2.63%
Discount rate used to determine service cost	3.78%	4.31%	3.54%	3.38%
Discount rate used to determine interest cost	3.19%	3.40%	2.31%	2.34%
Expected long-term return on plan assets	7.52%	7.90%	6.40%	6.30%
Rate of compensation increase	3.15%	3.15%	3.11%	3.13%

The expected long-term rate of return on pension assets was determined for each country and reflects long-term historical data taking into account each plan's target asset allocation. The expected long-term rates of return on pension assets for United States pension plans and Non-United States pension plans for 2019 are 7.25% and 6.42%, respectively. The discount rates were determined using appropriate bond data for each country.

Other Postretirement Benefits Plans

Substantially all of the obligation for other postretirement benefits plans relates to United States plans. Assumptions used to determine other postretirement benefits obligations and expense follow:

	Other postretirement benefits plans	
	2018	2017
Assumptions used to determine benefit obligation at year-end		
Discount rate	4.23%	3.55%
Health care cost trend rate assumed for next year	7.10%	8.25%
Ultimate health care cost trend rate	4.75%	4.75%
Year ultimate health care cost trend rate is achieved	2028	2027
Assumptions used to determine expense		
Discount rate used to determine benefit obligation	3.55%	3.96%
Discount rate used to determine service cost	3.62%	4.11%
Discount rate used to determine interest cost	3.04%	3.18%
Initial health care cost trend rate	8.25%	7.35%
Ultimate health care cost trend rate	4.75%	4.75%
Year ultimate health care cost trend rate is achieved	2027	2026

Assumed health care cost trend rates may have a significant effect on the amounts reported for the health care plans. A 1-percentage point change in the assumed health care cost trend rates would have the following effects:

	1% increase	1% decrease
Effect on total service and interest cost	$ 1	$ —
Effect on other postretirement liabilities	11	(10)

Employer Contributions to Retirement Benefits Plans

Contributions to pension plans that Eaton expects to make in 2019, and made in 2018 and 2017, follow:

	2019	2018	2017
United States plans	$ 20	$ 17	$ 374
Non-United States plans	96	109	99
Total contributions	$ 116	$ 126	$ 473

The following table provides the estimated pension and other postretirement benefit payments for each of the next five years, and the five years thereafter in the aggregate. For other postretirement benefits liabilities, the expected subsidy receipts related to the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 would reduce the gross payments listed below.

			Estimated other postretirement benefit payments	
	Estimated United States pension payments	Estimated non-United States pension payments	Gross	Medicare prescription drug subsidy
2019	$ 299	$ 86	$ 40	$ (2)
2020	291	88	36	(2)
2021	296	90	32	(1)
2022	297	94	33	—
2023	294	98	30	—
2024 - 2028	1,440	539	126	(2)

Pension Plan Assets

Investment policies and strategies are developed on a country specific basis. The United States plans, representing 66% of worldwide pension assets, and the United Kingdom plans representing 27% of worldwide pension assets, are invested primarily for growth, as the majority of the assets are in plans with active participants and ongoing accruals. In general, the plans have their primary allocation to diversified global equities, primarily through index funds in the form of common collective and other trusts. The United States plans' target allocation is 25% United States equities, 25% non-United States equities, 8% real estate (primarily equity of real estate investment trusts), 37% debt securities and 5% other, including hedge funds, private equity and cash equivalents. The United Kingdom plans' target asset allocations are 62% equities and the remainder in debt securities, cash equivalents and real estate investments. The equity risk for the plans is managed through broad geographic diversification and diversification across industries and levels of market capitalization. The majority of debt allocations for these plans are longer duration government and corporate debt. The United States, United Kingdom and Canada pension plans are authorized to use derivatives to achieve more economically desired market exposures and to use futures, swaps and options to gain or hedge exposures.

Fair Value Measurements

Financial instruments included in pension and other postretirement benefits plan assets are categorized into a fair value hierarchy of three levels, based on the degree of subjectivity inherent in the valuation methodology as follows:

Level 1 - Quoted prices (unadjusted) for identical assets in active markets.

Level 2 - Quoted prices for similar assets in active markets, and inputs that are observable for the asset, either directly or indirectly, for substantially the full term of the financial instrument.

Level 3 - Unobservable prices or inputs.

Certain investments that are measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables to permit a reconciliation to total plan assets.

Pension Plans

A summary of the fair value of pension plan assets at December 31, 2018 and 2017, follows:

	Total	Quoted prices in active markets for identical assets (Level 1)	Other observable inputs (Level 2)	Unobservable inputs (Level 3)[1]
2018				
Common collective trusts				
Non-United States equity and global equities	$ 612	$ —	$ 612	$ —
United States equity	50	—	50	—
Fixed income	483	—	483	—
Fixed income securities	721	—	721	—
United States treasuries	261	261	—	—
Bank loans	107	—	107	—
Real estate	202	181	—	21
Equity securities	51	51	—	—
Cash equivalents	152	104	48	—
Exchange traded funds	60	60	—	—
Other	90	—	15	75
Common collective and other trusts measured at net asset value	1,834			
Money market funds measured at net asset value	5			
Total pension plan assets	$ 4,628	$ 657	$ 2,036	$ 96

[1] These pension plan assets include private real estate, private credit and private equity funds that generally have redemption notice periods of six months or longer, and are not eligible for redemption until the underlying assets are liquidated or distributed. The Company has unfunded commitments to these funds of approximately $180 at December 31, 2018, which will be satisfied by a reallocation of pension plan assets.

	Total	Quoted prices in active markets for identical assets (Level 1)	Other observable inputs (Level 2)	Unobservable inputs (Level 3)[1]
2017				
Common collective trusts				
Non-United States equity and global equities	$ 741	$ —	$ 741	$ —
United States equity	86	—	86	—
Fixed income	478	—	478	—
Fixed income securities	709	—	709	—
United States treasuries	67	67	—	—
Bank loans	161	—	161	—
Real estate	239	220	—	19
Equity securities	139	139	—	—
Cash equivalents	86	51	35	—
Exchange traded funds	224	224	—	—
Other	81	—	8	73
Common collective and other trusts measured at net asset value	2,225			
Hedge funds measured at net asset value	67			
Money market funds measured at net asset value	9			
Total pension plan assets	$ 5,312	$ 701	$ 2,218	$ 92

[1] These pension plan assets include private real estate and private equity funds that generally have redemption notice periods of six months or longer, and are not eligible for redemption until the underlying assets are liquidated or distributed. The Company has unfunded commitments to these funds of approximately $20 at December 31, 2017, which will be satisfied by a reallocation of pension plan assets.

The fair value measurement of plan assets using significant unobservable inputs (Level 3) changed during 2017 and 2018 due to the following:

	Real estate	Other	Total
Balance at December 31, 2016	$ 6	$ 95	$ 101
Actual return on plan assets:			
Gains (losses) relating to assets still held at year-end	1	(5)	(4)
Purchases, sales, settlements - net	12	(17)	(5)
Transfers into or out of Level 3	—	—	—
Balance at December 31, 2017	19	73	92
Actual return on plan assets:			
Gains (losses) relating to assets still held at year-end	(1)	—	(1)
Purchases, sales, settlements - net	3	2	5
Transfers into or out of Level 3	—	—	—
Balance at December 31, 2018	$ 21	$ 75	$ 96

Other Postretirement Benefits Plans

A summary of the fair value of other postretirement benefits plan assets at December 31, 2018 and 2017, follows:

	Total	Quoted prices in active markets for identical assets (Level 1)	Other observable inputs (Level 2)	Unobservable inputs (Level 3)
2018				
Cash equivalents	$ 6	$ 6	$ —	$ —
Common collective and other trusts measured at net asset value	31			
Total other postretirement benefits plan assets	$ 37	$ 6	$ —	$ —
2017				
Cash equivalents	$ 7	$ 7	$ —	$ —
Common collective and other trusts measured at net asset value	48			
Total other postretirement benefits plan assets	$ 55	$ 7	$ —	$ —

Valuation Methodologies

Following is a description of the valuation methodologies used for pension and other postretirement benefits plan assets measured at fair value. There have been no changes in the methodologies used at December 31, 2018 and 2017.

Common collective and other trusts - Valued at the net unit value of units held by the trust at year end. The unit value is determined by the total value of fund assets divided by the total number of units of the fund owned. The equity investments in collective trusts are predominantly in index funds for which the underlying securities are actively traded in public markets based upon readily measurable prices. The investments in other trusts are predominantly in exchange traded funds for which the underlying securities are actively traded in public markets based upon readily measurable prices. Common collective and other trusts measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables above to permit a reconciliation of the fair value hierarchy to the total plan assets.

Fixed income securities - These securities consist of publicly traded United States and non-United States fixed interest obligations (principally corporate and government bonds and debentures). The fair value of corporate and government debt securities is determined through third-party pricing models that consider various assumptions, including time value, yield curves, credit ratings, and current market prices. The Company verifies the results of trustees or custodians and evaluates the pricing classification of these securities by performing analyses using other third-party sources.

United States treasuries - Valued at the closing price of each security.

Bank loans - These securities consist of senior secured term loans of publicly traded and privately held United States and non-United States floating rate obligations (principally corporations of non-investment grade rating). The fair value is determined through third-party pricing models that primarily utilize dealer quoted current market prices. The Company verifies the results of trustees or custodians and evaluates the pricing classification of these securities by performing analyses using other third-party sources.

Equity securities - These securities consist of direct investments in the stock of publicly traded companies. Such investments are valued based on the closing price reported in an active market on which the individual securities are traded. As such, the direct investments are classified as Level 1.

Real estate - Consists of direct investments in the stock of publicly traded companies and investments in pooled funds that invest directly in real estate. The publicly traded companies are valued based on the closing price reported in an active market on which the individual securities are traded and as such are classified as Level 1. The pooled funds rely on appraisal based valuations and as such are classified as Level 3.

Cash equivalents - Primarily certificates of deposit, commercial paper, and repurchase agreements.

Exchange traded funds - Valued at the closing price of the exchange traded fund's shares.

Hedge funds - Consists of direct investments in hedge funds through limited partnership interests. Net asset values are based on the estimated fair value of the ownership interest in the investment as determined by the General Partner. The majority of the holdings of the hedge funds are in equity securities traded on public exchanges. The investment terms of the hedge funds allow capital to be redeemed quarterly given prior notice with certain limitations. Hedge funds measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables above to permit a reconciliation of the fair value hierarchy to the total plan assets.

Money market funds - Money market funds measured at fair value using the net asset value per share practical expedient have not been categorized in the fair value hierarchy and are being presented in the tables above to permit a reconciliation of the fair value hierarchy to the total plan assets.

Other - Primarily insurance contracts for international plans and also futures contracts and over-the-counter options. These investments are valued based on the closing prices of future contracts or indices as available on Bloomberg or similar service, private credit and private equity investments.

For additional information regarding fair value measurements, see Note 16.

Defined Contribution Plans

The Company has various defined contribution benefit plans, primarily consisting of the plans in the United States. The total contributions related to these plans are charged to expense and were as follows:

2018	$	124
2017		114

Note 12. OTHER PROVISIONS AND COMMITMENTS AND CONTINGENCIES

Changes in Other provisions follows:

	December 31, 2016	Provisions, net	Utilization	Other	December 31, 2017
Warranty accrual	$ 180	$ 163	$ (156)	$ 1	$ 188
Legal liabilities	44	59	(61)	—	42
Environmental liabilities	124	8	(14)	2	120
Workers' compensation	68	10	(14)	—	64
Restructuring liabilities	118	115	(143)	(17)	73
	$ 534	$ 355	$ (388)	$ (14)	$ 487

	December 31, 2017	Provisions, net	Utilization	Other	December 31, 2018
Warranty accrual	$ 188	$ 139	$ (145)	$ (6)	$ 176
Legal liabilities	42	334	(356)	—	20
Environmental liabilities	120	14	(16)	(2)	116
Workers' compensation	64	9	(17)	—	56
Restructuring liabilities	73	70	(99)	(7)	37
	$ 487	$ 566	$ (633)	$ (15)	$ 405

Warranty Accruals

Product warranty accruals are established at the time the related sale is recognized through a charge to Cost of products sold. Warranty accrual estimates are based primarily on historical warranty claim experience and specific customer contracts. Provisions for warranty accruals are comprised of basic warranties for products sold, as well as accruals for product recalls and other events when they are known and estimable.

Legal Contingencies

Eaton is subject to a broad range of claims, administrative and legal proceedings such as lawsuits that relate to contractual allegations, tax audits, patent infringement, personal injuries, antitrust matters and employment-related matters. Eaton is also subject to asbestos claims from historic products which may have contained asbestos. Insurance may cover some of the costs associated with these claims and proceedings. Although it is not possible to predict with certainty the outcome or cost of these matters, the Company believes they will not have a material adverse effect on the consolidated financial statements. During the fourth quarter of 2016, the Company was able to resolve several insurance matters. In total, the income from insurance matters was $68.

In December 2011, Pepsi-Cola Metropolitan Bottling Company, Inc. (“Pepsi”) filed an action against (a) Cooper Industries, LLC, Cooper Industries, Ltd., Cooper Holdings, Ltd., Cooper US, Inc., and Cooper Industries plc (collectively, “Cooper”), (b) M&F Worldwide Corp., Mafco Worldwide Corp., Mafco Consolidated Group LLC, and PCT International Holdings, Inc. (collectively, “Mafco”), and (c) the Pneumo Abex Asbestos Claims Settlement Trust (the “Trust”) in Texas state court. Pepsi alleged that it was harmed by a 2011 settlement agreement (“2011 Settlement”) among Cooper, Mafco, and Pneumo Abex, LLC (“Pneumo,” which prior to the 2011 Settlement was a Mafco subsidiary), which settlement resolved litigation that Pneumo had previously brought against Cooper involving, among other things, a guaranty related to Pneumo’s friction products business. In November 2015, after a Texas court ruled that Pepsi's claims should be heard in arbitration, Pepsi filed a demand for arbitration against Cooper, Mafco, the Trust, and Pneumo. Pepsi subsequently dropped claims against all parties except Cooper. An arbitration under the auspices of the American Arbitration Association commenced in October 2017. Pepsi’s experts opined, among other things, that the value contributed to the Trust for a release of the guaranty was below reasonably equivalent value, and that an inability of Pneumo to satisfy future liabilities could result in plaintiffs suing Pepsi under various theories. Cooper submitted various expert reports and, among other things, Cooper’s experts opined that Pepsi had no basis to seek any damages and that Cooper paid reasonably equivalent value for the release of its indemnity obligations under the guaranty. The arbitration proceedings closed in December 2017. On July 11, 2018, the arbitration panel made certain findings and concluded that the value contributed to the Trust did not constitute reasonably equivalent value, but ordered the parties to recalculate the amount that should have been contributed to the Trust as of the date of the 2011 transaction. Based on the findings made by the panel and the recalculation ordered by the panel, Cooper believed that no additional amount should be contributed. Pepsi argued that an additional $347 should be contributed. Cooper and its expert disagreed with Pepsi’s argument and believed that Pepsi’s recalculation was flawed and failed to comply with the instructions of the panel. On August 23, 2018, the panel issued its final award and ordered Cooper to pay $293 to Pneumo Abex. On August 30, 2018, Pepsi sought to confirm the award in Texas state court, which Cooper opposed on October 9, 2018. Cooper further requested that the court vacate the award on various grounds, including that Cooper was prejudiced by the conduct of the proceedings, the panel exceeded its powers, and because the panel denied Cooper a full and fair opportunity to present certain evidence. The court confirmed the award at the confirmation hearing, which was held on October 12, 2018. On November 2, 2018, the Company appealed. On November 28, 2018, the Company paid $297, the full judgment plus accrued post-judgment interest, to Pneumo Abex and preserved its rights, including to pursue the appeal, which is pending.

Environmental Contingencies

Eaton has established policies to ensure that its operations are conducted in keeping with good corporate citizenship and with a positive commitment to the protection of the natural and workplace environments. The Company's manufacturing facilities are required to be certified to ISO 14001, an international standard for environmental management systems. The Company routinely reviews EHS performance at each of its facilities and continuously strives to improve pollution prevention.

Eaton is involved in remedial response and voluntary environmental remediation at a number of sites, including certain of its currently-owned or formerly-owned plants. The Company has also been named a potentially responsible party under the United States federal Superfund law, or the state equivalents thereof, at a number of disposal sites. The Company became involved in these sites as a result of government action or in connection with business acquisitions. At the end of 2018, the Company was involved with a total of 113 sites worldwide, including the Superfund sites mentioned above, with none of these sites being individually significant to the Company.

Remediation activities, generally involving soil and/or groundwater contamination, include pre-cleanup activities such as fact finding and investigation, risk assessment, feasibility study, design and action planning, performance (where actions may range from monitoring, to removal of contaminants, to installation of longer-term remediation systems), and operation and maintenance of a remediation system. The extent of expected remediation activities and costs varies by site. A number of factors affect the cost of environmental remediation, including the number of parties involved at a particular site, the determination of the extent of contamination, the length of time the remediation may require, the complexity of environmental regulations, and the continuing advancement of remediation technology. Taking these factors into account, Eaton has estimated the costs of remediation, which will be paid over a period of years. The Company accrues an amount on an undiscounted basis, consistent with the estimates of these costs, when it is probable that a liability has been incurred. Actual results may differ from these estimates. At December 31, 2018 and 2017, the Company had an accrual totaling $116 and $120, respectively, for these costs.

Based upon Eaton's analysis and subject to the difficulty in estimating these future costs, the Company expects that any sum it may be required to pay in connection with environmental matters is not reasonably possible to exceed the recorded liability by an amount that would have a material effect on its financial position, results of operations or cash flows.

Lease Commitments

Eaton leases certain real properties and equipment. A summary of minimum rental commitments at December 31, 2018 under noncancelable operating leases, which expire at various dates and in most cases contain renewal options, for each of the next five years and thereafter in the aggregate, follow:

2019	$ 165
2020	133
2021	106
2022	75
2023	53
Thereafter	110
Total noncancelable lease commitments	$ 642

A summary of rental expense follows:

2018	$ 232
2017	222

Note 13. INCOME TAXES

Eaton Corporation plc is domiciled in Ireland. Income (loss) before income taxes and income tax (benefit) expense are summarized below based on the geographic location of the operation to which such earnings and income taxes are attributable.

	Income (loss) before income taxes	
	2018	2017
Ireland	$ (365)	$ (1,090)
Foreign	2,789	3,914
Total income before income taxes	$ 2,424	$ 2,824

	Income tax expense (benefit)	
	2018	2017
Current		
Ireland	$ 47	$ 1
Foreign		
United States	115	123
Non-United States	255	234
Total current income tax expense	417	358
Deferred		
Ireland	6	—
Foreign		
United States	(122)	(29)
Non-United States	(23)	(58)
Total deferred income tax (benefit)	(139)	(87)
Total income tax expense	$ 278	$ 271

Reconciliations of income taxes from the Ireland national statutory rate of 25% to the consolidated effective income tax rate follow:

	2018	2017
Income taxes at the applicable statutory rate	25.0 %	25.0 %
Ireland operations		
Ireland tax on trading income	(2.0)%	— %
Nondeductible interest expense	7.8 %	9.7 %
Ireland Other - net	0.1 %	— %
Foreign operations		
United States operations (earnings taxed at other than the applicable statutory rate)	0.2 %	1.1 %
U.S. federal tax rate change	— %	(8.9)%
U.S. tax on foreign earnings	— %	5.7 %
U.S. foreign tax credit	(0.2)%	(4.6)%
Credit for research activities	(0.8)%	(0.6)%
Tax on foreign currency loss	(1.6)%	— %
U.S. Other - net	2.4 %	3.2 %
Non-U.S. operations (earnings taxed at other than the applicable statutory tax rate)	(19.8)%	(24.9)%
Non-U.S. operations - other items	0.7 %	0.5 %
Worldwide operations		
Adjustments to tax liabilities	1.1 %	(2.1)%
Adjustments to valuation allowances	(1.4)%	5.5 %
Effective income tax expense rate	11.5 %	9.6 %

During 2018, income tax expense of $278 was recognized (an effective tax rate of 11.5%) compared to income tax expense of $271 for 2017 (an effective tax rate of 9.6%). The 2018 effective tax rate includes a tax benefit of $69 on the arbitration decision expense discussed in Note 12. The 2017 effective tax rate includes tax expense of $123 on the gain related to the sale of business discussed in Note 2 and a tax benefit of $62 related to the U.S. Tax Cuts and Jobs Act (TCJA) which is discussed in further detail below. Excluding the one-time impacts of the 2018 arbitration decision, the 2017 sale of business, and the 2017 TCJA, the effective tax rate for 2018 was 12.8% compared to 9.2% for 2017. The increase in the tax rate from 2017 to 2018 was due to greater levels of income in higher tax jurisdictions and an increase in tax contingencies offset by net decreases of related valuation allowances.

The TCJA was enacted on December 22, 2017, which reduced the U.S. federal corporate tax rate from 35% to 21% and required a one-time transition tax on certain unremitted earnings of non-U.S. subsidiaries owned directly or indirectly by U.S. subsidiaries of the Company. In December 2017 the Company recorded a provisional tax benefit amount of $79 for the impact of the tax rate change on deferred tax balances and a provisional tax expense of $17 for the one-time transition tax, for a net tax benefit of $62. During 2018, the Company finalized its accounting for the 2017 enactment of the TCJA and recorded an adjustment of $17 tax expense, primarily related to the one-time transition tax, resulting in a final net tax benefit of $45.

No provision has been made for income taxes on undistributed earnings of foreign subsidiaries of approximately $25.5 billion at December 31, 2018, since it is the Company's intention to indefinitely reinvest undistributed earnings of its foreign subsidiaries. It is not practicable to estimate the additional income taxes and applicable withholding taxes that would be payable on the remittance of such undistributed earnings.

The Company expects to deploy capital to those markets which offer particularly attractive growth opportunities. The cash that is permanently reinvested is typically used to expand operations either organically or through acquisitions. In addition, the Company expects that minimal to no Irish tax would apply to dividends paid to the Irish parent due to the impact of the Irish foreign tax credit system. The Company's public dividends and share repurchases are funded primarily from Non-U.S. operations.

Worldwide income tax payments, net of tax refunds, follow:

2018	$	371
2017		288

Deferred Income Tax Assets and Liabilities

Components of current and long-term deferred income taxes follow:

	2018	2017
	Assets and liabilities	Assets and liabilities
Accruals and other adjustments		
Employee benefits	$ 481	$ 430
Depreciation and amortization	(1,198)	(1,324)
Other accruals and adjustments	434	380
Ireland income tax loss carryforwards	1	1
Foreign income tax loss carryforwards	1,915	1,962
Foreign income tax credit carryforwards	396	404
Valuation allowance for income tax loss and income tax credit carryforwards	(2,032)	(1,992)
Other valuation allowances	(53)	(146)
Total deferred income taxes	$ (56)	$ (285)

Changes in net deferred tax activity follows:

Balance at December 31, 2016	$ 4
Provision - continuing operations	87
Charges to equity	(163)
Reclassifications and other	(213)
Balance at December 31, 2017	$ (285)
Balance at December 31, 2017	$ (285)
Provision - continuing operations	139
Charges to equity	130
Reclassifications and other	(40)
Balance at December 31, 2018	$ (56)

At December 31, 2018, Eaton Corporation plc and certain Irish subsidiaries had tax loss carryforwards that are available to reduce future taxable income and tax liabilities. These carryforwards and their respective expiration dates are summarized below:

	2019 through 2023	2024 through 2028	2029 through 2033	2034 through 2043	Not subject to expiration	Valuation allowance
Ireland income tax loss carryforwards	$ —	$ —	$ —	$ —	$ 8	$ —
Ireland deferred income tax assets for income tax loss carryforwards	—	—	—	—	1	(1)

At December 31, 2018, the Company’s foreign subsidiaries, including all U.S. and non-U.S. subsidiaries, had income tax loss carryforwards and income tax credit carryforwards that are available to reduce future taxable income or tax liabilities. These carryforwards and their respective expiration dates are summarized below:

	2019 through 2023	2024 through 2028	2029 through 2033	2034 through 2043	Not subject to expiration	Valuation allowance
Foreign income tax loss carryforwards	$ 929	$ 130	$ 7,433	$ 788	$ 3,450	$ —
Foreign deferred income tax assets for income tax loss carryforwards	112	41	686	225	892	(1,790)
Foreign deferred income tax assets for income tax loss carryforwards after ASU 2013-11	99	36	672	216	892	(1,790)
Foreign income tax credit carryforwards	116	188	104	120	31	(241)
Foreign income tax credit carryforwards after ASU 2013-11	80	178	32	75	31	(241)

Recoverability of Deferred Income Tax Assets

Eaton is subject to the income tax laws in the jurisdictions in which it operates. In order to determine its income tax provision for financial statement purposes, Eaton must make significant estimates and judgments about its business operations in these jurisdictions. These estimates and judgments are also used in determining the deferred income tax assets and liabilities that have been recognized for differences between the financial statement and income tax basis of assets and liabilities, and income tax loss carryforwards and income tax credit carryforwards.

Management evaluates the realizability of deferred income tax assets for each of the jurisdictions in which it operates. If the Company experiences cumulative pretax income in a particular jurisdiction in the three-year period including the current and prior two years, management normally concludes that the deferred income tax assets will more likely than not be realizable and no valuation allowance is recognized, unless known or planned operating developments, or changes in tax laws, would lead management to conclude otherwise. However, if the Company experiences cumulative pretax losses in a particular jurisdiction in the three-year period including the current and prior two years, management then considers a series of factors in the determination of whether the deferred income tax assets can be realized. These factors include historical operating results, known or planned operating developments, the period of time over which certain temporary differences will reverse, consideration of the utilization of certain deferred income tax liabilities, tax law carryback capability in the particular country, prudent and feasible tax planning strategies, changes in tax laws, and estimates of future earnings and taxable income using the same assumptions as those used for the Company's goodwill and other impairment testing. After evaluation of these factors, if the deferred income tax assets are expected to be realized within the tax carryforward period allowed for that specific country, management would conclude that no valuation allowance would be required. To the extent that the deferred income tax assets exceed the amount that is expected to be realized within the tax carryforward period for a particular jurisdiction, management would establish a valuation allowance.

Applying the above methodology, valuation allowances have been established for certain deferred income tax assets to the extent they are not expected to be realized within the particular tax carryforward period.

Adoption of Accounting Policy

In January 2018 the FASB issued ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from accumulated other comprehensive income (AOCI), which gives companies the option to reclassify to Profit and loss reserve account certain income tax effects resulting from the TCJA related to items in Other reserves that the FASB refers to as having been stranded in Other reserves.

The new guidance may be applied retrospectively to each period in which the effect of the TCJA is recognized, or in the period of adoption. Companies must adopt this guidance for years beginning after December 15, 2018 and interim periods within those years. Early adoption is also permitted for periods for which financial statements have not yet been issued or made available for issuance. Eaton elected to early adopt ASU 2018-02 in the fourth quarter of 2018. Eaton elected not to reclassify any income tax effects resulting from the TCJA from Other reserves to Profit and loss reserve account. The Company’s policy is to release income tax effects from Other reserves when individual units of account are sold, terminated, or extinguished.

Unrecognized Income Tax Benefits

A summary of gross unrecognized income tax benefits follows:

	2018	2017
Balance at January 1	$ 735	$ 629
Increases and decreases as a result of positions taken during prior years		
Transfers from valuation allowances	2	—
Other increases, including currency translation	164	10
Other decreases, including currency translation	(35)	(30)
Increases as a result of positions taken during the current year	69	162
Decreases relating to settlements with tax authorities	(3)	(10)
Decreases as a result of a lapse of the applicable statute of limitations	(19)	(26)
Balance at December 31	$ 913	$ 735

Eaton recognizes an income tax benefit from an uncertain tax position only if it is more likely than not that the benefit would be sustained upon examination by taxing authorities, based on the technical merits of the position. The Company evaluates and adjusts the amount of unrecognized income tax benefits based on changes in facts and circumstances. The Company does not enter into any of the United States Internal Revenue Service (IRS) Listed Transactions as set forth in Treasury Regulation 1.6011-4.

If all unrecognized income tax benefits were recognized, the net impact on the provision for income tax expense would be $599, which includes all impacts of the TCJA and interaction with deferred tax netting pursuant to ASU 2013-11. The increase in gross unrecognized income tax benefits for positions taken in prior years was primarily offset by net decreases in related valuation allowances.

As of December 31, 2018 and 2017, Eaton had accrued approximately $74 and $80, respectively, for the payment of worldwide interest and penalties, which are not included in the table of unrecognized income tax benefits above. Eaton recognizes interest and penalties related to unrecognized income tax benefits in the provision for income tax expense.

The resolution of the majority of Eaton's unrecognized income tax benefits is dependent upon uncontrollable factors such as the prospect of retroactive regulations; new case law; and the willingness of the income tax authority to settle the issue, including the timing thereof. Therefore, for the majority of unrecognized income tax benefits, it is not reasonably possible to estimate the increase or decrease in the next 12 months. For each of the unrecognized income tax benefits where it is possible to estimate the increase or decrease in the balance within the next 12 months, the Company does not anticipate any significant change.

Eaton or its subsidiaries file income tax returns in Ireland and many countries around the world. With only a few exceptions, Irish and non-United States subsidiaries of Eaton are no longer subject to examinations for years before 2007.

The United States Internal Revenue Service ("IRS") has completed its examination of the consolidated income tax returns of the Company's United States subsidiaries ("Eaton US") for 2005 through 2010 and has issued Statutory Notices of Deficiency (Notices) as discussed below. The statute of limitations on these tax years remains open until the matters are resolved. The IRS has also completed its examination of the consolidated income tax returns of Eaton US for 2011 through 2013 and has issued proposed adjustments as discussed below. The statute of limitations on these tax years remains open until June 30, 2020. The IRS is currently examining tax years 2014 through 2016. The statute of limitations for tax years 2014 through 2016 is open until September 30, 2020. Tax year 2017 is still subject to examination by the IRS.

Eaton US is also under examination for the income tax filings in various states and localities of the United States. Income tax returns of states and localities within the United States will be reopened to the extent of United States federal income tax adjustments, if any, going back to 2005 when those audit years are finalized. Some states and localities might not limit their assessment to the United States federal adjustments, and may require the opening of the entire tax year.

In 2011, the IRS issued a Notice for Eaton US for the 2005 and 2006 tax years (the 2011 Notice). The 2011 Notice proposed assessments of $75 in additional taxes plus $52 in penalties related primarily to transfer pricing adjustments for products manufactured in the Company's facilities in Puerto Rico and the Dominican Republic and sold to affiliated companies located in the United States. Eaton US has set its transfer prices for products sold between these affiliates at the same prices that Eaton US sells such products to third parties as required by two successive Advance Pricing Agreements (APAs) Eaton US entered into with the IRS that governed the 2005-2010 tax years. Eaton US has continued to apply the arms-length transfer pricing methodology for 2011 through the current reporting period. Immediately prior to the 2011 Notice being issued, the IRS sent a letter stating that it was retrospectively canceling the APAs. Eaton US contested the proposed assessments in United States Tax Court. The case involved both whether the APAs should be enforced and, if not, the appropriate transfer pricing methodology. On July 26, 2017, the United States Tax Court issued a ruling in which it agreed with Eaton US that the IRS must abide by the terms of the APAs for the tax years 2005-2006. The Tax Court's ruling on the APAs did not have a material impact on Eaton's consolidated financial statements.

In 2014, Eaton US received a Notice from the IRS for the 2007 through 2010 tax years (the 2014 Notice) proposing assessments of $190 in additional taxes plus $72 in penalties, net of agreed credits and deductions, which the Company has also contested in Tax Court. The proposed assessments pertain primarily to the same transfer pricing issues and APA for which the Tax Court has issued its ruling during 2017 as noted above. The Company believes that the Tax Court's ruling for tax years 2005-2006 will also be applicable to the 2007-2010 years. Following the issuance of the Tax Court's ruling, Eaton and the IRS recognized that the ruling on the enforceability of the APAs did not address a secondary issue regarding the transfer pricing for a certain royalty paid from 2006-2010. Eaton US reported a consistent royalty rate for 2006-2010. The IRS has agreed to the royalty rate as reported by Eaton US in 2006. Although the IRS has not proposed an alternative rate, it has not agreed to apply the same royalty rate in the 2007-2010 years.

The 2014 Notice also includes a separate proposed assessment involving the recognition of income for several of Eaton US's controlled foreign corporations. The Company believes that the proposed assessment is without merit and is contesting the matter in Tax Court. Eaton and the IRS have both moved for partial summary judgment on this issue. The Tax Court heard oral arguments on the motions in January 2018, following which the Court ordered further briefing, which was completed in March 2018. On February 25, 2019 the Tax Court granted the IRS's motion for partial summary judgment and denied Eaton's. The Company intends to appeal the Tax Court's decision to the United States Court of Appeals. The Company is analyzing the impact, if any, the Tax Court's decision will have on its consolidated financial statements in 2019.

In 2018 the IRS completed its examination of the Eaton US tax years 2011 through 2013 and has proposed adjustments to certain transfer pricing tax positions, including adjustments similar to those proposed in the 2011 and 2014 Notices for products manufactured in the Company's facilities in Puerto Rico and the Dominican Republic and sold to affiliated companies located in the United States. The IRS also proposed adjustments involving the recognition of income for several of Eaton US's controlled foreign corporation, which is the same issue included in the 2014 Notice described above and subject to litigation in Tax Court. The Company intends to pursue its administrative appeals alternatives with respect to each of the IRS adjustments and believes that final resolution of the proposed adjustments will not have a material impact on its consolidated financial statements.

During 2010, the Company received a tax assessment, which included interest and penalties, in Brazil for the tax years 2005 through 2008 that relates to the amortization of certain goodwill generated from the acquisition of third-party businesses and corporate reorganizations. In 2018 the Company received an unfavorable result at the final tax administrative appeals level, resulting in an alleged tax deficiency of $32 plus $84 of interest and penalties (translated at the December 31, 2018 exchange rate). The Company plans to challenge the assessment in the judicial system, which is expected to take up to 10 years to resolve. During 2014, the Company received a tax assessment of $33 (translated at the December 31, 2018 exchange rate), plus interest and penalties, for the 2009 through 2012 tax years (primarily relating to the same issues concerning the 2005 through 2008 tax years), which the Company is also contesting and remains under review at the final tax administrative appeals level. The Company continues to believe that final resolution of both of the assessments will not have a material impact on its consolidated financial statements.

Note 14. EATON SHAREHOLDERS' EQUITY

There are 750 million Eaton ordinary shares authorized ($0.01 par value per share), 423.6 million and 439.9 million of which were issued and outstanding at December 31, 2018 and 2017, respectively. Eaton's Memorandum and Articles of Association authorized 40 thousand deferred ordinary shares (€1.00 par value per share) and 10 thousand preferred A shares ($1.00 par value per share), all of which were issued and outstanding at December 31, 2018 and 2017, and 10 million serial preferred shares ($0.01 par value per share), none of which is outstanding at December 31, 2018 and 2017. At December 31, 2018, there were 12,846 holders of record of Eaton ordinary shares. Additionally, 18,972 current and former employees were shareholders through participation in the Eaton Savings Plan, Eaton Personal Investment Plan, or the Eaton Puerto Rico Retirement Savings Plan.

On February 24, 2016, the Board of Directors approved a share repurchase program for share repurchases up to $2,500 of ordinary shares (2016 Program). Under the 2016 Program, the ordinary shares were expected to be repurchased over time, depending on market conditions, the market price of ordinary shares, capital levels, and other considerations. During 2018 and 2017, 13.2 million and 11.5 million shares, respectively, were purchased on the open market under the 2016 Program for a total cost of $1,002 and $850, respectively. An additional 4.3 million shares were purchased on the open market in December 2018 outside of the 2016 Program for a total cost of $298.

Eaton has deferral plans that permit certain employees and directors to defer a portion of their compensation. A trust contains $8 and $11 of ordinary shares and marketable securities at December 31, 2018 and 2017, respectively, to fund a portion of these liabilities. The marketable securities were included in Other assets and the ordinary shares were included in Shareholders' equity at historical cost.

On February 27, 2019, Eaton's Board of Directors declared a quarterly dividend of $0.71 per ordinary share, a 8% increase over the dividend paid in the fourth quarter of 2018. The dividend is payable on March 22, 2019 to shareholders of record on March 9, 2019.

Comprehensive Income (Loss)

Comprehensive income (loss) consists primarily of net income, currency translation and related hedging instruments, changes in unrecognized costs of pension and other postretirement benefits, and changes in the effective portion of open derivative contracts designated as cash flow hedges. The following table summarizes the pre-tax and after-tax amounts recognized in Comprehensive income (loss):

	2018		2017	
	Pre-tax	After-tax	Pre-tax	After-tax
Currency translation and related hedging instruments	$ (613)	$ (609)	$ 800	$ 807
Unrealized gain on retained investment in sold business	—	—	544	433
Pensions and other postretirement benefits				
Prior service credit (cost) arising during the year	(25)	(20)	(1)	—
Net gain (loss) arising during the year	(358)	(274)	215	169
Currency translation	37	29	(67)	(53)
Other	—	5	—	(5)
Amortization of actuarial loss and prior service cost reclassified to earnings	168	121	188	130
	(178)	(139)	335	241
Cash flow hedges				
Gain (loss) on derivatives designated as cash flow hedges	(8)	(6)	(24)	(15)
Changes in cash flow hedges reclassified to earnings	16	13	17	11
Cash flow hedges, net of reclassification adjustments	8	7	(7)	(4)
Other comprehensive income (loss) attributable to Eaton ordinary shareholders	$ (783)	$ (741)	$ 1,672	$ 1,477

The changes in Other reserves follow:

	Currency translation and related hedging instruments	Pensions and other postretirement benefits	Cash flow hedges	Other	Total
Balance at December 31, 2016	$ (3,062)	$ (1,380)	$ (6)	$ 206	$ (4,242)
Other comprehensive income (loss) before reclassifications	807	111	(15)	—	903
Amounts reclassified from Other reserves	—	130	11	—	141
Net current-period other comprehensive loss	807	241	(4)	—	1,044
Other equity-based compensation	—	—	—	73	73
Balance at December 31, 2017	$ (2,255)	$ (1,139)	$ (10)	$ 279	$ (3,125)

	Currency translation and related hedging instruments	Pensions and other postretirement benefits	Cash flow hedges	Other	Total
Balance at December 31, 2017	$ (2,255)	$ (1,139)	$ (10)	$ 279	$ (3,125)
Other comprehensive loss before reclassifications	(609)	(260)	(6)	—	(875)
Amounts reclassified from Other reserves	—	121	13	—	134
Net current-period other comprehensive income (loss)	(609)	(139)	7	—	(741)
Other equity-based compensation	—	—	—	72	72
Balance at December 31, 2018	$ (2,864)	$ (1,278)	$ (3)	$ 351	$ (3,794)

The reclassifications out of Other reserves follow:

	December 31, 2018	Consolidated Profit and Loss Accounts
Amortization of defined benefits pension and other postretirement benefits items		
Actuarial loss and prior service cost	$ (168)	[1]
Tax benefit	47	
Total, net of tax	(121)	
Gains and (losses) on cash flow hedges		
Currency exchange contracts	(16)	Cost of products sold
Tax benefit	3	
Total, net of tax	(13)	
Total reclassifications for the period	$ (134)	

[1] These components of Other reserves are included in the computation of net periodic benefit cost. See Note 11 for additional information about defined benefits pension and other postretirement benefits items.

Net Income Per Share Attributable to Eaton Ordinary Shareholders

A summary of the calculation of net income per share attributable to Eaton ordinary shareholders follows:

(Shares in millions)	2018	2017
Net income attributable to Eaton ordinary shareholders	$ 2,145	$ 2,552
Weighted-average number of ordinary shares outstanding - diluted	436.9	447.0
Less dilutive effect of equity-based compensation	2.6	2.5
Weighted-average number of ordinary shares outstanding - basic	434.3	444.5
Net income per share attributable to Eaton ordinary shareholders		
Diluted	$ 4.91	$ 5.71
Basic	4.93	5.74

In 2018 and 2017, 0.5 million and 0.4 million stock options, respectively, were excluded from the calculation of diluted net income per share attributable to Eaton ordinary shareholders because the exercise price of the options exceeded the average market price of the ordinary shares during the period and their effect, accordingly, would have been antidilutive.

Note 15. EQUITY-BASED COMPENSATION

Eaton recognizes equity-based compensation expense based on the grant date fair value of the award. Awards with service conditions or both service and market conditions are expensed over the period during which an employee is required to provide service in exchange for the award. Awards with both service and performance conditions are expensed over the period an employee is required to provide service based on the number of units for which achievement of the performance objective is probable. The Company estimates forfeitures as part of recording equity-based compensation expense.

Restricted Stock Units and Awards

Restricted stock units (RSUs) and restricted stock awards (RSAs) have been issued to certain employees and directors. Participants awarded RSUs in 2016 do not receive dividends; therefore, the fair value is determined by reducing the closing market price of the Company's ordinary shares on the date of grant by the present value of the estimated dividends had they been paid. The fair value of RSUs awarded in 2017 and 2018, and RSAs are determined based on the closing market price of the Company's ordinary shares at the date of grant. The RSUs entitle the holder to receive one ordinary share for each RSU upon vesting, generally over three years. RSAs are issued and outstanding at the time of grant, but remain subject to forfeiture until vested, generally over three or four years. A summary of the RSU and RSA activity for 2018 follows:

(Restricted stock units and awards in millions)	Number of restricted stock units and awards	Weighted-average fair value per unit and award
Non-vested at January 1	2.4	$ 62.24
Granted	0.7	81.83
Vested	(0.9)	63.44
Forfeited	(0.1)	68.94
Non-vested at December 31	2.1	$ 68.56

Information related to RSUs and RSAs follows:

	2018	2017
Pretax expense for RSUs and RSAs	$ 59	$ 66
After-tax expense for RSUs and RSAs	46	43
Fair value of vested RSUs and RSAs	71	73

As of December 31, 2018, total compensation expense not yet recognized related to non-vested RSUs and RSAs was $72, and the weighted-average period in which the expense is expected to be recognized is 2.4 years. Excess tax benefit for RSUs and RSAs totaled $3 and $2 for 2018 and 2017, respectively.

Performance Share Units

In February 2018 and 2017, the Compensation and Organization Committee of the Board of Directors approved the grant of performance share units (PSUs) to certain employees that vest based on the satisfaction of a three-year service period and total shareholder return relative to that of a group of peers. Awards earned at the end of the three-year vesting period range from 0% to 200% of the targeted number of PSUs granted based on the ranking of total shareholder return of the Company, assuming reinvestment of all dividends, relative to a defined peer group of companies. Equity-based compensation expense for these PSUs is recognized over the period during which an employee is required to provide service in exchange for the award. Upon vesting, dividends that have accumulated during the vesting period are paid on earned awards.

The Company uses a Monte Carlo simulation to estimate the fair value of PSUs with market conditions. The principal assumptions utilized in valuing these PSUs include the expected stock price volatility (based on the most recent 3-year period as of the grant date) and the risk-free interest rate (an estimate based on the yield of United States Treasury zero coupon bonds with a 3-year maturity as of the grant date). A summary of the assumptions used in determining fair value of these PSUs follows:

	2018	2017
Expected volatility	22%	24%
Risk-free interest rate	2.38%	1.46%
Weighted-average fair value of PSUs granted	$ 100.86	$ 80.07

A summary of these PSUs that vested follows:

(Performance share units in millions)	2018
Percent payout	116%
Shares vested	0.5

A summary of the 2018 activity for these PSUs follows:

(Performance share units in millions)	Number of performance share units	Weighted-average fair value per unit
Non-vested at January 1	0.8	$ 77.97
Granted[1]	0.3	100.86
Adjusted for performance results achieved[2]	0.1	76.41
Vested	(0.5)	76.41
Forfeited	(0.1)	85.92
Non-vested at December 31	0.6	$ 89.95

[1] Performance shares granted assuming the Company will perform at target relative to peers.

[2] Adjustments for the number of shares vested under the 2016 awards at the end of the three-year performance period ended December 31, 2018, being higher than the target number of shares.

In February 2016, performance share units were granted to certain employees that entitles the holder to receive one ordinary share for each PSU that vest based on the satisfaction of a three-year service period and the achievement of certain performance metrics over that same period. Upon vesting, PSU holders receive dividends that accumulate during the vesting period. The fair value of these PSUs is determined based on the closing market price of the Company's ordinary shares at the date of grant. Equity-based compensation expense is recognized over the period an employee is required to provide service based on the number of PSUs for which achievement of the performance objectives is probable. A summary of the 2018 activity for these PSUs follows:

(Performance share units in millions)	Number of performance share units	Weighted-average fair value per unit
Non-vested at January 1	0.1	$ 56.55
Granted	—	—
Vested	—	—
Forfeited	—	—
Non-vested at December 31	0.1	$ 56.55

Information related to PSUs follows:

	2018	2017
Pretax expense for PSUs	$ 28	$ 22
After-tax expense for PSUs	22	13

As of December 31, 2018, total compensation expense not yet recognized related to non-vested PSUs was $30 and the weighted average period in which the expense is to be recognized is 1.8 years. There was no excess tax benefit for PSUs in 2018 and 2017.

Stock Options

Under various plans, stock options have been granted to certain employees and directors to purchase ordinary shares at prices equal to fair market value on the date of grant. Substantially all of these options vest ratably during the three-year period following the date of grant and expire 10 years from the date of grant. Compensation expense is recognized for stock options based on the fair value of the options at the date of grant and amortized on a straight-line basis over the period the employee or director is required to provide service.

The Company uses a Black-Scholes option pricing model to estimate the fair value of stock options. The principal assumptions utilized in valuing stock options include the expected stock price volatility (based on the most recent historical period equal to the expected life of the option); the expected option life (an estimate based on historical experience); the expected dividend yield; and the risk-free interest rate (an estimate based on the yield of United States Treasury zero coupon with a maturity equal to the expected life of the option). A summary of the assumptions used in determining the fair value of stock options follows:

	2018	2017
Expected volatility	26%	27%
Expected option life in years	6.7	6.6
Expected dividend yield	3.0%	2.8%
Risk-free interest rate	2.6 to 2.9%	1.8 to 2.1%
Weighted-average fair value of stock options granted	$ 16.93	$ 15.11

A summary of stock option activity follows:

(Options in millions)	Weighted-average exercise price per option	Options	Weighted-average remaining contractual life in years	Aggregate intrinsic value
Outstanding at January 1, 2018	$ 62.43	4.6		
Granted	81.76	0.6		
Exercised	53.26	(0.6)		
Forfeited and canceled	—	—		
Outstanding at December 31, 2018	$ 65.96	4.6	6.2	$ 27.4
Exercisable at December 31, 2018	$ 63.39	3.2	5.2	$ 22.4
Reserved for future grants at December 31, 2018		13.2		

The aggregate intrinsic value in the table above represents the total excess of the $68.66 closing price of Eaton ordinary shares on the last trading day of 2018 over the exercise price of the stock option, multiplied by the related number of options outstanding and exercisable. The aggregate intrinsic value is not recognized for financial accounting purposes and the value changes based on the daily changes in the fair market value of the Company's ordinary shares.

Information related to stock options follows:

	2018	2017
Pretax expense for stock options	$ 11	$ 11
After-tax expense for stock options	9	8
Proceeds from stock options exercised	29	66
Income tax benefit related to stock options exercised		
Tax benefit classified in operating activities in the Consolidated Statements of Cash Flows	3	13
Excess tax benefit classified in financing activities in the Consolidated Statements of Cash Flows	—	—
Intrinsic value of stock options exercised	17	41
Total fair value of stock options vested	$ 11	$ 11
Stock options exercised, in millions of options	0.6	1.5

As of December 31, 2018, total compensation expense not yet recognized related to non-vested stock options was $10, and the weighted-average period in which the expense is expected to be recognized is 1.8 years.

Note 16. FAIR VALUE MEASUREMENTS

Fair value is measured based on an exit price, representing the amount that would be received to sell an asset or paid to satisfy a liability in an orderly transaction between market participants. Fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, a fair value hierarchy is established, which categorizes the inputs used in measuring fair value as follows: (Level 1) observable inputs such as quoted prices in active markets; (Level 2) inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and (Level 3) unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

A summary of financial instruments recognized at fair value, and the fair value measurements used, follows:

	Total	Quoted prices in active markets for identical assets (Level 1)	Other observable inputs (Level 2)	Unobservable inputs (Level 3)
2018				
Cash	$ 283	$ 283	$ —	$ —
Short-term investments	157	157	—	—
Net derivative contracts	14	—	14	—
2017				
Cash	$ 561	$ 561	$ —	$ —
Short-term investments	534	534	—	—
Net derivative contracts	36	—	36	—

Eaton values its financial instruments using an industry standard market approach, in which prices and other relevant information is generated by market transactions involving identical or comparable assets or liabilities. No financial instruments were measured using unobservable inputs.

Other Fair Value Measurements

Long-term debt and the current portion of long-term debt had a carrying value of $7,107 and fair value of $7,061 at December 31, 2018 compared to $7,745 and $8,048, respectively, at December 31, 2017. The fair value of Eaton's debt instruments was estimated using prevailing market interest rates on debt with similar creditworthiness, terms and maturities and is considered a Level 2 fair value measurement.

As discussed in Note 2, on July 31, 2017 Eaton sold a 50% interest in its heavy-duty and medium-duty commercial vehicle automated transmission business to Cummins, Inc. Eaton's remaining 50% interest was remeasured to a fair value of $600 on July 31, 2017 using a discounted cash flow model which is considered a Level 3 fair value measurement. The model includes estimates of future cash flows, future growth rates, terminal value amounts, and the applicable weighted-average cost of capital used to discount those estimated cash flows. Eaton accounts for its investment on the equity method of accounting.

Short-Term Investments

Eaton invests excess cash generated from operations in short-term marketable investments. A summary of the carrying value, which approximates the fair value due to the short-term maturities of these investments, follows:

	2018	2017
Time deposits and certificates of deposit with banks	$ 111	$ 435
Money market investments	46	99
Total short-term investments	$ 157	$ 534

Note 17. DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING ACTIVITIES

In the normal course of business, Eaton is exposed to certain risks related to fluctuations in interest rates, currency exchange rates and commodity prices. The Company uses various derivative and non-derivative financial instruments, primarily interest rate swaps, currency forward exchange contracts, currency swaps and, to a lesser extent, commodity contracts, to manage risks from these market fluctuations. The instruments used by Eaton are straightforward, non-leveraged instruments. The counterparties to these instruments are financial institutions with strong credit ratings. Eaton maintains control over the size of positions entered into with any one counterparty and regularly monitors the credit rating of these institutions. Such instruments are not purchased and sold for trading purposes.

Derivative financial instruments are accounted for at fair value and recognized as assets or liabilities in the Consolidated Balance Sheets. Accounting for the gain or loss resulting from the change in the fair value of the derivative financial instrument depends on whether it has been designated, and is effective, as part of a hedging relationship and, if so, as to the nature of the hedging activity. Eaton formally documents all relationships between derivative financial instruments accounted for as designated hedges and the hedged item, as well as its risk-management objective and strategy for undertaking the hedge transaction. This process includes linking derivative financial instruments to a recognized asset or liability, specific firm commitment, forecasted transaction, or net investment in a foreign operation. These financial instruments can be designated as:

- Hedges of the change in the fair value of a recognized fixed-rate asset or liability, or the firm commitment to acquire such an asset or liability (a fair value hedge); for these hedges, the gain or loss from the derivative financial instrument, as well as the offsetting loss or gain on the hedged item attributable to the hedged risk, are recognized in income during the period of change in fair value.
- Hedges of the variable cash flows of a recognized variable-rate asset or liability, or the forecasted acquisition of such an asset or liability (a cash flow hedge); for these hedges, the effective portion of the gain or loss from the derivative financial instrument is recognized in Other reserves and reclassified to income in the same period when the gain or loss on the hedged item is included in income.
- Hedges of the currency exposure related to a net investment in a foreign operation (a net investment hedge); for these hedges, the effective portion of the gain or loss from the derivative financial instrument is recognized in Other reserves and reclassified to income in the same period when the gain or loss related to the net investment in the foreign operation is included in income.

The gain or loss from a derivative financial instrument designated as a hedge that is effective is classified in the same line of the Consolidated Profit and Loss Accounts as the offsetting loss or gain on the hedged item. The change in fair value of a derivative financial instrument that is not effective as a hedge is immediately recognized in income. The cash flows resulting from these financial instruments are classified in operating activities on the Consolidated Statements of Cash Flows.

For derivatives that are not designated as a hedge, any gain or loss is immediately recognized in income. The majority of derivatives used in this manner relate to risks resulting from assets or liabilities denominated in a foreign currency and certain commodity contracts that arise in the normal course of business. During 2018 and 2017, Eaton recognized gains of $1 and $2, respectively, associated with these commodity hedge contracts. Gains and losses associated with commodity hedge contracts are classified in Cost of products sold.

Eaton uses certain of its debt denominated in foreign currency to hedge portions of its net investments in foreign operations against foreign currency exposure (net investment hedges). Foreign currency denominated debt designated as non-derivative net investment hedging instruments on an after-tax basis was $88 at December 31, 2018 and the notes were repaid in 2018, and designated on a pre-tax basis was $623 and $652 at December 31, 2018 and 2017, respectively. See Note 10 for additional information about debt.

Interest Rate Risk

Eaton has entered into fixed-to-floating interest rate swaps to manage interest rate risk of certain long-term debt. These interest rate swaps are accounted for as fair value hedges of certain long-term debt. The maturity of the swap corresponds with the maturity of the debt instrument as noted in the table of long-term debt in Note 10. Eaton also entered into several forward starting floating-to-fixed interest rate swaps to manage interest rate risk on a future anticipated debt issuance.

A summary of interest rate swaps outstanding at December 31, 2018, follows:

Fixed-to-Floating Interest Rate Swaps

Notional amount	Fixed interest rate received	Floating interest rate paid	Basis for contracted floating interest rate paid
$ 300	6.95%	7.29%	3 month LIBOR + 5.07%
25	8.88%	6.07%	6 month LIBOR + 3.84%
150	3.88%	4.14%	1 month LIBOR + 2.12%
275	3.47%	3.75%	1 month LIBOR + 1.74%
100	8.10%	7.92%	1 month LIBOR + 5.90%
1,400	2.75%	2.57%	1 month LIBOR + 0.58%
200	3.68%	3.05%	1 month LIBOR + 1.07%
25	7.63%	4.73%	6 month LIBOR + 2.48%
50	7.65%	4.84%	6 month LIBOR + 2.57%
25	5.45%	2.55%	6 month LIBOR + 0.28%

Forward Starting Floating-to-Fixed Interest Rate Swaps

Notional amount	Floating interest rate to be received	Fixed interest rate to be paid	Basis for contracted floating interest rate received
$ 50	—%	3.10%	3 month LIBOR + 0.00%
50	—%	3.06%	3 month LIBOR + 0.00%

Derivative Financial Statement Impacts

The fair value of derivative financial instruments recognized in the Consolidated Balance Sheets follows:

	Notional amount	Other current assets	Other noncurrent assets	Other current liabilities	Other noncurrent liabilities	Type of hedge	Term
December 31, 2018							
Derivatives designated as hedges							
Fixed-to-floating interest rate swaps	$ 2,550	$ —	$ 22	$ 1	$ 26	Fair value	3 months to 16 years
Forward starting floating-to-fixed interest rate swaps	100	—	—	—	3	Cash flow	34 years
Currency exchange contracts	951	19	2	11	8	Cash flow	1 to 36 months
Total		$ 19	$ 24	$ 12	$ 37		
Derivatives not designated as hedges							
Currency exchange contracts	$ 3,886	$ 40		$ 20			1 to 12 months
Total		$ 40		$ 20			
December 31, 2017							
Derivatives designated as hedges							
Fixed-to-floating interest rate swaps	$ 2,965	$ 1	$ 41	$ —	$ 17	Fair value	6 months to 17 years
Currency exchange contracts	924	7	7	22	2	Cash flow	1 to 36 months
Total		$ 8	$ 48	$ 22	$ 19		
Derivatives not designated as hedges							
Currency exchange contracts	$ 3,719	$ 39		$ 19			1 to 12 months
Commodity contracts	13	1		—			1 to 12 months
Total		$ 40		$ 19			

The currency exchange contracts shown in the table above as derivatives not designated as hedges are primarily contracts entered into to manage currency volatility or exposure on intercompany receivables, payables and loans. While Eaton does not elect hedge accounting treatment for these derivatives, Eaton targets managing 100% of the intercompany balance sheet exposure to minimize the effect of currency volatility related to the movement of goods and services in the normal course of its operations. This activity represents the great majority of these currency exchange contracts. For the year ended December 31, 2018, $110 of cash outflow resulting from the settlement of these derivatives has been classified in investing activities on the Consolidated Statement of Cash Flows. The net cash flow from the settlement of these derivatives has been presented in operating activities in prior periods and have not been restated as such amounts are not material.

The impact of derivative instruments to the Consolidated Profit and Loss Accounts and Other reserves follow:

	Gain (loss) recognized in Other reserves		Location of gain (loss) reclassified from Other reserves	Gain (loss) reclassified from Other reserves	
	2018	2017		2018	2017
Derivatives designated as cash flow hedges					
Forward starting floating-to-fixed interest rate swaps	$ (4)	$ (15)	Interest expense or Interest income	$ —	$ —
Interest rate locks	—	(9)	Interest expense or Interest income	—	—
Currency exchange contracts	(4)	—	Cost of products sold	(16)	(17)
Total	$ (8)	$ (24)		$ (16)	$ (17)

Amounts recognized in net income follow:

	2018	2017
Derivatives designated as fair value hedges		
Fixed-to-floating interest rate swaps	$ (30)	$ (33)
Related long-term debt converted to floating interest rates by interest rate swaps	30	33
	$ —	$ —

Gains and losses described above were recognized in Interest expense and Interest income, respectively.

Note 18. ACCOUNTS RECEIVABLE AND INVENTORY

Accounts Receivable

Eaton performs ongoing credit evaluation of its customers and maintains sufficient allowances for potential credit losses. The Company evaluates the collectability of its accounts receivable based on the length of time the receivable is past due and any anticipated future write-off based on historic experience. Accounts receivable balances are written off against an allowance for doubtful accounts after a final determination of uncollectability has been made. Accounts receivable are net of an allowance for doubtful accounts of $55 and $57 at December 31, 2018 and 2017.

Inventory

Inventory is carried at lower of cost or net realizable value, using the first-in, first-out (FIFO) method. Cost components include raw materials, purchased components, direct labor, indirect labor, utilities, depreciation, inbound freight charges, purchasing and receiving costs, inspection costs, warehousing costs, and costs of the distribution network.

The components of inventory follow:

	2018	2017
Raw materials	$ 1,077	$ 953
Work-in-process	500	471
Finished goods	1,208	1,196
Total inventory	$ 2,785	$ 2,620

Note 19. BUSINESS SEGMENT AND GEOGRAPHIC REGION INFORMATION

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated on a regular basis by the chief operating decision maker, or decision making group, in deciding how to allocate resources to an individual segment and in assessing performance. Eaton's segments are as follows:

Electrical Products and Electrical Systems and Services

The Electrical Products segment consists of electrical components, industrial components, residential products, single phase power quality, emergency lighting, fire detection, wiring devices, structural support systems, circuit protection, and lighting products. The Electrical Systems and Services segment consists of power distribution and assemblies, three phase power quality, hazardous duty electrical equipment, intrinsically safe explosion-proof instrumentation, utility power distribution, power reliability equipment, and services. The principal markets for these segments are industrial, institutional, governmental, utility, commercial, residential and information technology. These products are used wherever there is a demand for electrical power in commercial buildings, data centers, residences, apartment and office buildings, hospitals, factories, utilities, and industrial and energy facilities. The segments share several common global customers, but a large number of customers are located regionally. Sales are made directly to original equipment manufacturers, utilities, and certain other end users, as well as through distributors, resellers, and manufacturers' representatives.

Hydraulics

The Hydraulics segment is a global leader in hydraulics components, systems and services for industrial and mobile equipment. Eaton offers a wide range of power products including pumps, motors and hydraulic power units; a broad range of controls and sensing products including valves, cylinders and electronic controls; a full range of fluid conveyance products including industrial and hydraulic hose, fittings, and assemblies, thermoplastic hose and tubing, couplings, connectors, and assembly equipment; filtration systems solutions; industrial drum and disc brakes; and golf grips. The principal markets for the Hydraulics segment include renewable energy, marine, agriculture, oil and gas, construction, mining, forestry, utility, material handling, truck and bus, machine tools, molding, primary metals, and power generation. Key manufacturing customers in these markets and other customers are located globally. Products are sold and serviced through a variety of channels.

Aerospace

The Aerospace segment is a leading global supplier of aerospace fuel, hydraulics, and pneumatic systems for commercial and military use. Products include hydraulic power generation systems for aerospace applications including pumps, motors, hydraulic power units, hose and fittings, electro-hydraulic pumps; controls and sensing products including valves, cylinders, electronic controls, electromechanical actuators, sensors, aircraft flap and slat systems and nose wheel steering systems; fluid conveyance products, including hose, thermoplastic tubing, fittings, adapters, couplings, sealing and ducting; and fuel systems including fuel pumps, sensors, valves, adapters and regulators. The principal markets for the Aerospace segment are manufacturers of commercial and military aircraft and related after-market customers. These manufacturers and other customers operate globally. Products are sold and serviced through a variety of channels.

Vehicle

The Vehicle segment is a leader in the design, manufacture, marketing, and supply of: drivetrain, powertrain systems and critical components that reduce emissions and improve fuel economy, stability, performance, and safety of cars, light trucks and commercial vehicles. Products include transmissions, clutches, hybrid power systems, superchargers, engine valves and valve actuation systems, cylinder heads, locking and limited slip differentials, transmission controls, fuel vapor components, fluid connectors and conveyance products for the global vehicle industry. The principal markets for the Vehicle segment are original equipment manufacturers and aftermarket customers of heavy-, medium-, and light-duty trucks, SUVs, CUVs, passenger cars and agricultural equipment.

eMobility

The eMobility segment designs, manufactures, markets, and supplies electrical and electronic components and systems that improve the power management and performance of both on-road and off-road vehicles. Products include high voltage inverters, converters, fuses, onboard chargers, circuit protection units, vehicle controls, power distribution, fuel tank isolation valves, and commercial vehicle hybrid systems. The principle markets for the eMobility segment are original equipment manufacturers and aftermarket customers of passenger cars, commercial vehicles, and construction, agriculture, and mining equipment.

Other Information

No single customer represented greater than 10% of net sales in 2018 or 2017, respectively.

The accounting policies of the business segments are generally the same as the policies described in Note 1, except that operating profit only reflects the service cost component and the cost of any special termination benefits related to pensions and other postretirement benefits. Intersegment sales and transfers are accounted for at the same prices as if the sales and transfers were made to third parties. These intersegment sales are eliminated in consolidation. Operating profit includes the operating profit from intersegment sales.

For purposes of business segment performance measurement, the Company does not allocate items that are of a non-operating nature or are of a corporate or functional governance nature. Corporate expenses consist of transaction costs associated with the acquisition of certain businesses and corporate office expenses including compensation, benefits, occupancy, depreciation, and other administrative costs. Identifiable assets of the business segments exclude goodwill, other intangible assets, and general corporate assets, which principally consist of certain cash, short-term investments, deferred income taxes, certain accounts receivable, certain property, plant and equipment, and certain other assets.

Business Segment Information

	2018	2017
Net sales		
Electrical Products	$ 7,124	$ 6,917
Electrical Systems and Services	6,024	5,666
Hydraulics	2,756	2,468
Aerospace	1,896	1,744
Vehicle	3,489	3,326
eMobility	320	283
Total net sales	$ 21,609	$ 20,404
Segment operating profit		
Electrical Products	$ 1,311	$ 1,233
Electrical Systems and Services	896	770
Hydraulics	370	288
Aerospace	398	332
Vehicle	611	541
eMobility	44	50
Total segment operating profit	3,630	3,214
Corporate		
Amortization of intangible assets excluding software	(382)	(388)
Interest expense	(311)	(280)
Interest income	40	34
Pension and other postretirement benefits expense	(1)	(45)
Gain on sale of business	—	533
Arbitration decision expense	(275)	—
Other corporate expense	(277)	(244)
Income before income taxes	2,424	2,824
Income tax expense	278	271
Net income	2,146	2,553
Less net income for noncontrolling interests	(1)	(1)
Net income attributable to Eaton ordinary shareholders	$ 2,145	$ 2,552

Business segment operating profit was reduced by acquisition integration charges as follows:

	2018	2017
Electrical Products	$ —	$ 4
Total	$ —	$ 4

There were no corporate acquisition integration charges in 2018 and 2017. See Note 3 for additional information about acquisition integration charges.

	2018	2017
Identifiable assets		
Electrical Products	$ 2,451	$ 2,446
Electrical Systems and Services	2,243	2,141
Hydraulics	1,473	1,345
Aerospace	935	938
Vehicle	2,289	2,367
eMobility	139	136
Total identifiable assets	9,530	9,373
Goodwill	13,328	13,568
Other intangible assets	5,179	5,594
Corporate	3,349	4,310
Total assets	$ 31,386	$ 32,845
Capital expenditures for property, plant and equipment		
Electrical Products	$ 135	$ 130
Electrical Systems and Services	101	83
Hydraulics	106	96
Aerospace	38	37
Vehicle	143	141
eMobility	4	4
Total	527	491
Corporate	38	29
Total expenditures for property, plant and equipment	$ 565	$ 520
Depreciation of property, plant and equipment		
Electrical Products	$ 136	$ 138
Electrical Systems and Services	85	83
Hydraulics	64	61
Aerospace	26	26
Vehicle	104	109
eMobility	5	5
Total	420	422
Corporate	53	54
Total depreciation of property, plant and equipment	$ 473	$ 476

Geographic Region Information

Net sales are measured based on the geographic destination of sales. Long-lived assets consist of property, plant and equipment - net.

	2018	2017
Net sales		
United States	$ 12,034	$ 11,222
Canada	931	942
Latin America	1,442	1,485
Europe	4,553	4,394
Asia Pacific	2,649	2,361
Total	$ 21,609	$ 20,404
Long-lived assets		
United States	$ 1,898	$ 1,872
Canada	20	20
Latin America	286	290
Europe	723	769
Asia Pacific	540	551
Total	$ 3,467	$ 3,502

Note 20. EMPLOYEES

The average number of persons employed by Eaton follow:

(In thousands)	2018	2017
Electrical Products and Electrical Systems and Services	57	57
Hydraulics	13	12
Aerospace	6	6
Vehicle	13	13
eMobility	1	1
Corporate	7	7
Total average number of persons employed	97	96

Employee costs follow:

	2018	2017
Salaries and wages	$ 4,116	$ 3,973
Pension and other postretirement benefits	165	170
Share based compensation	98	99
Other benefits	1,178	1,158
Total employee costs	$ 5,557	$ 5,400

Note 21. DIRECTORS' REMUNERATION

Directors' remuneration is set forth in the table below. Mr. Arnold, the Chairman of the Board of Directors is also the Chief Executive Officer of Eaton Corporation (a wholly owned subsidiary of the Company). Mr. Fearon, a Director of Eaton Corporation plc, is also Chief Financial and Planning Officer of Eaton Corporation. The amounts below include compensation for Mr. Arnold's and Mr. Fearon's service as Chief Executive Officer, and Vice Chairman and Chief Financial and Planning Officer of Eaton Corporation, respectively, as well as compensation for all non-employee directors in their capacities as such.

	2018	2017
Aggregate emoluments in respect of qualifying services	$ 8	$ 7
Aggregate amount of the money or value of other assets under long term incentive plans in respect of qualifying services	3	5
Aggregate gains on the exercise of share options granted in respect of qualifying services	—	1
Total	$ 11	$ 13

Note 22. AUDITORS' REMUNERATION

Fees paid to Ernst & Young for services provided follow:

	2018	2017
Audit fees	$ 19	$ 19
Audit-related fees	1	—
Tax fees		
Tax compliance services	1	1
Tax advisory services	4	3
Reimbursement of auditor's expenses	1	1
Total	$ 26	$ 24

The fees paid to Ernst & Young Ireland in respect of the audit of the group accounts were $0.2 in each of 2018 and 2017. In addition, Ernst & Young Ireland received fees of $0.7 and $0.5 for other assurance services in 2018 and 2017, respectively. Ernst & Young Ireland did not receive any fees for non-audit services in 2018 or 2017. Ernst & Young Ireland received fees of $0.1 for tax advisory services in each of 2018 and 2017.

Note 23. SUBSIDIARY AND AFFILIATED UNDERTAKINGS

The principal subsidiaries of Eaton or affiliated companies where Eaton has an ownership of 20% or more are listed below:

Consolidated subsidiaries and equity accounted affiliates	Nature of business	Registered address	Percent ownership
Abeiron III Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
ADF Systemes SARL	Operations	82, Avenue Raymond Aron, 91300 Massy, France	22%
Aeroquip (UK) Limited	Operations	Thorns Road, Brierley Hill, Dudley, West Midlands, DY5 2LB, United Kingdom	100%
Aeroquip do Brasil Ltda.	Operations	Rodovia Prefeito Aristeu Vieira Vilela, 2755, Km 181, Rio Comprido, Guaratinguetá, São Paulo, 12522-010, Brazil	100%
Aeroquip Iberica S.L.	Operations	Ave. Juan Carlos I, Number 13, Torre Garena, Alcalá de Henares, 28806, Madrid, Spain	100%
Aeroquip Limited	Operations	Thorns Road, Brierley Hill, Dudley, West Midlands, DY5 2LB, United Kingdom	100%
Aeroquip-Vickers Canada Company	Operations	Suite 900, 1959 Upper Water Street, Halifax NS B3J 2X2, Canada	100%
Aeroquip-Vickers International S.a.r.L.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Aeroquip-Vickers Limited	Inactive	P.O. Box 4, New Lane, Havant, Hampshire, PO9 2NB, United Kingdom	100%
Arrow-Hart, S. de R.L. de C.V.	Operations	Carretera Municipal Tlalnepantla, Cuautitlan KM 17.8 Sin Numero, Villa Jardin, Cuautitlan, 54800, Mexico	100%
Ascensores Cutler-Hammer S.A.	Inactive	Caracas, Distrito Federal, Venezuela	100%
Azonix Corporation	Operations	900 Middlesex Turnpike, Suite 700, Billerica MA 01821	100%
Beijing Internormen-Filter Ltd. Co.	Operations	Mauhua Industry Park, Nancai, Shunyi District, Beijing 101300, China	100%
Beijing Yoosung Shinhwa Automobile Parts Co., Ltd.	Operations	M2-5. 10, Xinggu, Industrial Development Zone of Pinggu Dist, Beijing, China	100%
Blessing International B.V.	Inactive	Terhijdenseweg 465, Breda 4825 BK, The Netherlands	100%
Blinda Industria e Comercio Ltda.	Operations	Rodovia Marechal Rondon, km 125 - Parte D1, Soamin, Porto Feliz, SP, 18540-000, Brazil	100%
Bussmann do Brasil Ltda.	Operations	Rodovia Marechal Rondon, Km 125 - Soamin, Parte C, Porto Feliz, SP, 18540-000, Brazil	100%
Bussmann International Holdings, LLC	Operations	114 Old State Road, Ellisville MO 63021-5942	100%
Bussmann International, Inc.	Operations	1209 Orange Street, Wilmington DE 19801	100%
Bussmann, S. de R.L. de C.V.	Operations	Prolongación Hermanos Escobar 7750, Col. Partido Manuel Doblado, Chihuahua, Ciudad Juárez, 32310, Mexico	100%
Cambridge International Sarl	General Corporate Administration	12, rue Eugène Ruppert, L-2453 Luxembourg, LUXEMBOURG	100%
Cannon Technologies, Inc.	Operations	8301 Golden Valley Road, Suite 300, Golden Valley MN 55427, United States	100%
CBE Services, Inc.	General Corporate Administration	600 Travis, Suite 5400, Houston TX 77002, United States	100%
CEAG Notlichtsysteme GmbH	Operations	Senator-Schwartz-Ring 26, D-59494, Soest, Germany	100%
Centralion Industrial Inc.	Operations	9F, No. 135, Section 2, Da-Tong Road, Xi-Zhi City, Tapei, Taiwan	100%
Chagrin Highlands III Limited	General Corporate Administration	1400 West 6th Street, Suite 400, Cleveland OH 44113, United States	100%
Componentes de Iluminacion, S. de R.L. de C.V.	Operations	Magneto 1935 Parque Industrial Gema CD, Juarez, Chihuahua, 32648, Mexico	100%
Cooper (China) Co., Ltd.	General Corporate Administration	No. 955 Shengli Road, Pudong New Area, Shanghai, China	100%
Cooper (Ningbo) Electric Co., Ltd.	Operations	Hangzhou Wan Bay New Zone of, Cixi Economic Development Area, Zhejiang Province, China	80%

Cooper Bermuda Investments Ltd.	General Corporate Administration	Canon's Court, 22 Victoria Street, Hamilton Bermuda, 12, Bermuda	100%
Cooper B-Line, Inc.	Operations	509 West Monroe Street, Highland IL 62249	100%
Cooper Bussmann (U.K.) Limited	Operations	Melton Road, Burton-On-The-Wolds, Leiceistershire, LE125TH, United Kingdom	100%
Cooper Bussmann, LLC	Operations	114 Old State Road, Ellisville MO 63021-5942, United States	100%
Cooper Capri S.A.S.	Operations	36-40 rue des Fontenils, 41600, Nouan-le-Fuzelier, France	100%
Cooper Controls Limited	Inactive	USK House, Llantarnam Park, Gwent, Cwmbran, NP44 3HD, United Kingdom	100%
Cooper Crouse-Hinds (LLC)	Operations	Cooper Middle East LLC Primary Address, Dubai	100%
Cooper Crouse-Hinds (UK) Ltd.	Operations	Dorset Road, Sheerness, ME12 1LP, United Kingdom	100%
Cooper Crouse-Hinds AS	Operations	Postboks 113, Manglerud, Oslo, 0612, Norway	100%
Cooper Crouse-Hinds B.V.	Operations	Sydneystraat 74, 3047 BP, Rotterdam, Netherlands	100%
Cooper Crouse-Hinds GmbH	Operations	Senator-Schwartz-Ring 26, D-59494, Soest, Germany	100%
Cooper Crouse-Hinds MTL, Inc.	Operations	4300 Fortune Place, Suite A, West Melbourne FL 32904, United States	100%
Cooper Crouse-Hinds, LLC	Operations	Wolf & 7th North Streets, Syracuse NY 13221-4999, United States	100%
Cooper Crouse-Hinds, S. de R.L. de C.V.	Operations	Av. Santa Fe 481 Piso 16, Col. Cruz Manca, Col. Cuajimalpa de Morelos, Cuajimalpa de Morelos, Ciudad de Mexico, Mexico	100%
Cooper Crouse-Hinds, S.A.	Operations	Avda. Santa Eulalia 290, 08223 Terrassa, Barcelona, Spain	100%
Cooper Csa Srl	Operations	SEGRATE (MI) VIA SAN BOVIO 3 CAP 20090, Italy	100%
Cooper Edison (Pingdingshan) Electronic Technologies Co., Ltd.	Operations	No. 336, Huanghe Road, High-tech Industrial Development Zone, Pingdingshan City, Henan Province, China	100%
Cooper Electric (Changzhou) Co., Ltd.	Operations	No. 189 Liuyanghe Road, Xinbei District, Changzhou City, Jiangsu Province, APAC, 213031, China	100%
Cooper Electric (Shanghai) Co., Ltd.	General Corporate Administration	Room 1-201, Floor 2, Business Building, No. 2001, Yanggao Road North, Waigaoqiao Free Trade Zone, Shanghai, 200131, P.R.C., China	100%
Cooper Electrical Australia Pty. Limited	Operations	10 Kent Road, Mascot NSW 2020, Australia	100%
Cooper Electrical International, LLC	General Corporate Administration	600 Travis, Suite 5400, Houston TX 77002, United States	100%
Cooper Electronic Technologies (Shanghai) Co., Ltd.	General Corporate Administration	Building B, Sheng Li Road #955, Pu Dong, Shanghai, China	100%
Cooper Enterprises LLC	General Corporate Administration	1209 Orange Street, Wilmington DE 19801	100%
Cooper Finance (Canada) L.P.	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Cooper Finance Group Ltd.	General Corporate Administration	Canon's Court, 22 Victoria Street, Hamilton Bermuda, 12, Bermuda	100%
Cooper Finance USA, Inc.	General Corporate Administration	600 Travis, Suite 5400, Houston TX 77002, United States	100%
Cooper Germany Holdings GmbH	Operations	Senator-Schwartz-Ring 26, D-59494 Soest, Germany	100%
Cooper Industries (Canada) Company	General Corporate Administration	Suite 900, 1959 Upper Water Street, Halifax NS B3J 3N2, Canada	100%
Cooper Industries (Electrical) Inc.	General Corporate Administration	100 King Street West, 1 First Canadian Place, Suite 1600, Toronto ON M5X 1G5, Canada	100%
Cooper Industries Colombia S.A.S.	Operations	Avenida 82, No. 10-62 P.5, Bogota, Colombia	100%
Cooper Industries Finance B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Cooper Industries Finanzierungs-GbR	General Corporate Administration	Senator-Schwartz-Ring 26, D-59494, Soest, Germany	100%
Cooper Industries FZE	Operations	P.O. Box 120939, Sharjah Airport International Free Zone, Sharjah, United Arab Emirates	100%

Cooper Industries Global B.V.	Operations	Ambacht 6, 5301 KW , Zaltbommel, Netherlands	100%
Cooper Industries International, LLC	General Corporate Administration	600 Travis, Suite 5400, Houston TX 77002, United States	100%
Cooper Industries Japan K.K.	Operations	7th FL, Unizo Nogizaka Bldg, 8-11-37 Akasaka, Minato-ku , Tokyo, Japan	100%
Cooper Industries Malaysia SDN BHD	Operations	Suite 18.01, 18th Floor, MWE Plaza, No. 8, Lebuh Farquhar, 10200 Penang, Malaysia	100%
Cooper Industries Middle East, LLC	Operations	1209 Orange Street, Wilmington DE 19801	100%
Cooper Industries Poland, LLC	Operations	1209 Orange Street, Wilmington DE 19801	100%
Cooper Industries Romania SRL	Operations	12, III str., Zona Industriala Vest Street, Arad, 312900, Romania	100%
Cooper Industries Russia LLC	Operations	Paveletskaya naberezhnaya 2,, building 1, office 313, 115114, Moscow, Russian Federation	100%
Cooper Industries Trading Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Cooper Industries UK Subco Limited	General Corporate Administration	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Cooper Industries Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Cooper Industries Vietnam, LLC	General Corporate Administration	1209 Orange Street,New Castle, Wilmington DE 19801	100%
Cooper Industries, LLC	General Corporate Administration	600 Travis, Suite 5400, Houston TX 77002, United States	100%
Cooper Interconnect, Inc.	Operations	750 West Ventura Blvd., Camarillo CA 93010	100%
Cooper International Holdings S.a.r.l	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Cooper Investment Group Ltd.	General Corporate Administration	Canon's Court, 22 Victoria Street, Hamilton Bermuda, 12, Bermuda	100%
Cooper Investment Group S a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Cooper Korea Ltd.	Operations	12th Floor Vision Tower, 707-2, Yeoksam-dong, Gangnam-gu, Seoul, Korea, Republic of	100%
Cooper Lighting de Mexico, S. de R.L. de C.V.	Operations	Ave Del Parque #1190, Monterrey Technology Park Ave Tecnologico, Cienega de Flores,Nuevo Leon, Monterrey, 65550, Mexico	100%
Cooper Lighting, LLC	Operations	1121 Highway 74 South, Peachtree City GA 30269, United States	100%
Cooper Menvier France SARL	Operations	Z.A. de la Graviere, Rue Beethoven, 63200, Riom, France	100%
Cooper Mexico Distribucion, S. de R.L. de C.V.	Operations	Avenida Del Parque 1190, Monterrey Technology Park, Esquina Con Avenida Tecnologico,Cienega de Flores, Neuvo Leon, 65550, Mexico	100%
Cooper Notification, Inc.	Operations	7246 16th St. E, Suite 105, Sarasota FL 34243	100%
Cooper Offshore Holdings S.a.r.l. (Luxembourg)	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Cooper Power Systems do Brasil Ltda.	Operations	Rodovia Marechal Rondon, km 125, Part A, Soamin, Porto Feliz, Sao Paulo, 18540-000, Brazil	100%
Cooper Power Systems, LLC	Operations	2300 Badger Drive, Waukesha WI 53188-5931, United States	100%
Cooper Pretronica Unipessoal Lda.	Operations	Parque Industrial Serra das Minas, Av. Irene Lisboa, lote 19, armazem C, piso 2, Alto do Forte, 2635-001, Rio de Mouro, Portugal	100%
Cooper Safety B.V.	Operations	Ambacht 6, 5301 KW , Zaltbommel, Netherlands	100%
Cooper Securite S.A.S.	Operations	Rue Beethoven, 63200, Riom, France	100%
Cooper Security Limited	Inactive	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Cooper Shanghai Power Capacitor Co., Ltd.	Operations	3 FL. YuAn Bldg., 738 Dongfang Road, Pudong, Shanghai, 200122, China	65%

Cooper Technologies Company	General Corporate Administration	600 Travis, Suite 5400, Houston TX 77002, United States	100%
Cooper Univel S.A.	Operations	7th Km. Old National Road, Katerinis-Thessalonikis, Komvos Korinou, Katerini, 60100, Greece	100%
Cooper Wheelock, Inc.	Operations	273 Branchport Avenue, Long Branch NJ 07740	100%
Cooper Wiring Devices de Mexico, S.A. de C.V.	Operations	Km. 17.8 Carr., Tlalnepantla-Cuautitlàn s/n. Esq., Cerrada 8 de Mayo, Col. Villa Jardin, Cuautitlà, Estado de Mèxico, 54800, Mexico	100%
Cooper Wiring Devices Manufacturing, S. de R.L. de C.V.	Operations	Carretera Tlalnepantla Cuautitlan KM 178, S N Villa Jardin, Mexico, 54800, Mexico	100%
Cooper Wiring Devices, Inc.	Operations	203 Cooper Circle, Peachtree City GA 30269	100%
Cooper Xi'an Fusegear Co., Ltd.	Operations	A0307 Chuang Ye square, No. 48 KeJi Road, Xi'an AHi-Tech Development Zone, Xi'an, RRC, Shanxi Province, China	100%
Cooper Yuhua (Changzhou) Electric Equipment Manufacturing Co., Ltd.	Operations	No. 60, Hehuan Road, Zhonglou Economic Development Zone, Jiangsu Province, Changzhou, China	100%
Crouse-Hinds de Venezuela, C.A.	Inactive	Av. Raul Leoni, Ed., Mara, piso 8, apto. 83, Caracas, 1061, Venezuela, Bolivarian Republic of	100%
CTI-VIENNA Gesellschaft zur Prüfung elektrotechnischer Industrieprodukte GmbH	Operations	Einzingergasse 4, 1210 Wien, Austria	100%
Cutler-Hammer Electrical Company	General Corporate Administration	PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands	100%
Cutler-Hammer Industries Ltd.	General Corporate Administration	PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands	100%
Cutler-Hammer, SRL	General Corporate Administration	Carretera Sanchez Km 18 1/2, San Cristobal Parque Industrial Itabo SA (PIISA), Haina, Dominican Republic	100%
Cyme International T & D Inc.	Operations	104 - 1485 rue Roberval, Saint-Bruno-de-Montarville Québec J3V3P8, Canada	100%
D.P. Eaton Electric	Operations	Ul. Bereznjakovskaja 29, 6 floor , Kiev, 02098, Ukraine	100%
Digital Lighting (Dong Guan) Co., Ltd.	Operations	Xinmin Village, Chang An Town, Guan Dong Province, Dong Guan City, Georgia, China	100%
Digital Lighting Co., Limited	Operations	Level 54, Hopewell Centre, 183 Queen's Road East , Hong Kong	100%
Digital Lighting Holdings Limited	Operations	Unit 1, 13/F, Delta House, 3 On Yin Street, Shatin, Hong Kong	100%
Dongguan Cooper Electronics Co. Ltd.	Operations	Xin Min Road, Xin Min District, Changan Town, Guangdong Province, Dongguan City, China, China	100%
Dongguan Wiring Devices Electronics Co., Ltd.	Operations	Yuan Shan Bei Vill, Changping Town, Dongguan, Guangdong, Guangdong, 523583, China	100%
Eagle Electric MFG. Co. Mexico, S.A. de C.V.	Inactive	Vasconcelos Oriente 617, Residencial Santa Engracia, Garza Garcia, Nuevo Leon, Mexico	100%
Eaton (China) Investments Co., Ltd.	General Corporate Administration	Eaton Center Shanghai, No. 3 Lane 280 Linhong Road, Shanghai, 200335, China	100%
Eaton Aeroquip LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Aerospace Limited	Inactive	P.O. Box 554, Abbey Park, Southampton Road, Titchfield, PO14 4QA, United Kingdom	100%
Eaton Aerospace LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Ann Arbor LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Automated Transmission Technologies Corporation	Operations	1000 Eaton Boulevard, Cleveland OH 44122	100%
Eaton Automation G.m.b.H	Operations	Spinnereistrasse 8-14, 9008, St. Gallen, Switzerland	100%
Eaton Automation Holding G.m.b.H.	General Corporate Administration	Spinnereistrasse 8-14, 9008, St. Gallen, Switzerland	100%
Eaton Automotive Components Spolka z o.o.	General Corporate Administration	Ul.30 Stycznia, No. 55, 83-110, Tczew, Poland	100%

Eaton Automotive Spolka z o.o.	Operations	Ul. Rudawka 83, 43-382, Bielsko-Biała, Śląskie, Poland	100%
Eaton Automotive Systems Spolka z o.o.	Operations	Ul. Rudawka 83, 43-382, Bielsko-Biała, Śląskie, Poland	100%
Eaton B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Capital Global Holdings Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Capital Unlimited Co	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Controls (Luxembourg) S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Controls (UK) Limited	Operations	Brue Way, Walrow Industrial Estate, Highbridge, Somerset, TA9 4AW, United Kingdom	100%
Eaton Controls, S. de R.L. de C.V.	General Corporate Administration	Av. Chapultepec S / N, Parque Industrial Colonial, Reynosa, Tams., C.P. 88570, Mexico	100%
Eaton Corporation	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Cummins Automated Transmission Technologies LLC	Operations	Corporation Service Company, 251 Little Falls Drive, Wilmington DE 19808, United States	50%
Eaton Cummins Automated Transmission Technologies S. de R.L. de C.V.	Operations	Carretera 57 # 4380, San Luis Potosí City, San Luis Potosí State, 78395, Mexico	100%
Eaton Cummins Automated Transmission Technologies Sarl	Operations	Route de la Longeraie 7, 1110, Morges, Switzerland	50%
Eaton Electric & Engineering Services Limited	General Corporate Administration	Units 19-30, 19/F., Corporation Park, 11 On Lai Street, Siu Lek Yuen, Shatin, N.T., Hong Kong, Hong Kong	100%
Eaton Electric (Japan) Ltd.	Operations	Mainichi Intecio 12F, 3-4-5, Umeda, Kita-ku,Osaka City,, Japan	100%
Eaton Electric (Singapore) Pte. Ltd.	Operations	INTERLOCAL CENTRE, 100G Pasir Panjang Road, #07-08 Singapore 118523, Singapore, 118523, Singapore	100%
Eaton Electric (South Africa) Pty Ltd.	General Corporate Administration	Corner Esander and Osborne Roads, Wadeville, Gauteng, 1428, South Africa	100%
Eaton Electric (Thailand) Ltd	Operations	No. 89/1 Kasemsap Building, 4th Floor, Vibhavadi-Rangsit Road, Khwaeng Jompol, Khet Chatuchak, Bangkok, Thailand	100%
Eaton Electric ApS	Operations	Niels Bohrs Vej 2, DK-7100, Vejle, Denmark	100%
Eaton Electric AS	Operations	Ryensvingen 5-7, Oslo, 0680, Norway	100%
Eaton Electric Company Ltd.	Operations	No. 89/1 Kasemsap Building, 4th Floor, Vibhavadi-Rangsit Road, Khwaeng Jompol, Khet Chatuchak, Bangkok, Thailand	100%
Eaton Electric d.o.o.	Operations	Rumski drum 13, Sremska Mitrovica, 22000, Serbia, Republic of	100%
Eaton Electric G.m.b.H.	Operations	Hein-Moeller Straße 7-11, D-53115, Bonn, Germany	100%
Eaton Electric Holdings LLC	General Corporate Administration	1000 Eaton Boulevard, Cleveland OH 44122	100%
Eaton Electric Limited	General Corporate Administration	Reddings Lane, Tyseley, Birmingham, West Midlands, B11 3EZ, United Kingdom	100%
Eaton Electric Manufacturing Middle East LLC	Operations	P.O. Box 42278, Mussafah Esnaad Offshore Base, Abu Dhabi, United Arab Emirates	49%
Eaton Electric S.a.r.l.	General Corporate Administration	50, 52 Boulevard Abdellatif Benkaddour, Casablanca, 20050, Morocco	100%
Eaton Electric S.I.A.	Operations	2b Zemitana Street, Riga, 1012, Latvia	100%
Eaton Electric S.r.l.	Operations	Baneasa Business & Technologie Park Sos., Bucuresti-Ploiesti n° 42-44, Sector 1, Cladirea B2, etaj 3, Bucuresti, EMEA, 013696, Romania	100%
Eaton Electric s.r.o.	Operations	Komárovská 2406, Praha 9 - Horní Počernice, 193 00, Czech Republic	100%
Eaton Electric s.r.o.	Operations	Drieňová 1/B, Bratislava, 821 01, Slovakia	100%
Eaton Electric Spolka z.o.o.	Operations	Ul. Galaktyczna 30, 80-299, Gdansk, Poland	100%

Eaton Electric SPRL	Operations	Industrialaan 3, B-1702 Groot-Bijgaarden, Belgium	100%
Eaton Electrical Equipment Co Ltd	Operations	No. 1 West Hengtang River Road, Export-Oriented Development Area, Changzhou City, Jiangsu, China	100%
Eaton Electrical IP G.m.b.H. & Co. KG	General Corporate Administration	Airport Center Schönefeld, Mittelstrasse 5-5a, 12529, Schönefeld, Germany	100%
Eaton Electrical Ltd.	Operations	Lou Yang Rd. 2#, Suzhou Industrial Park, Suzhou, China	100%
Eaton Electrical Products Limited	Operations	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Eaton Electrical Srl	Operations	Moravia de la Antigua Entrada del Colegio, Saint Clare 300, Metros Al Oeste, San Jose, 10156-1000, Costa Rica	100%
Eaton Electrical Systems Limited	Operations	Wheatley Hall Road, Doncaster, South Yorkshire, DN2 4NB, United Kingdom	100%
Eaton Electrical, S.A.	Operations	Avenida Abraham Lincoln, Edificio Torre Domus, Piso 14, Piso 14, Oficina 14-A, Urbanización Sabana Grande, Libertador, Caracas, Venezuela	100%
Eaton Electro Productie S.r.l.	Operations	Str. Independentei Nr 8, Sârbi, 437157, Romania	100%
Eaton Elektrik Ticaret Limited Sirketi	Operations	Değirmen Sok. Nida Kule İş Merkezi No 18 Kat 17 , Kozyatağı Kadiköy, Istanbul, Turkey	100%
Eaton Elektrotechnika s.r.o.	Operations	Komárovská 2406, Praha 9 - Horní Počernice, 193 00, Czech Republic	100%
Eaton Enterprises (Hungary) Kft.	General Corporate Administration	Nagyenyed u. 8-14, Budapest, 1123, Hungary	100%
Eaton Enterprises Limited	Operations	Room 1604, 16/F, Kodak House II, 39 Healthy Street East,, North Point , HongKong, Hong Kong	100%
Eaton Enterprises, S. de R.L. de C.V.	General Corporate Administration	De La Montana, 128 Parque Industrial Queretaro, Queretaro, 76220, Mexico	100%
Eaton ETN Offshore Company	General Corporate Administration	Purdy's Wharf Tower One, 900-1959 Upper Water Street, Halifax NS B3J 2X2, Canada	100%
Eaton ETN Offshore II Company	General Corporate Administration	Purdy's Wharf Tower One, 900-1959 Upper Water Street, Halifax NS B3J 2X2, Canada	100%
Eaton Filtration (Denmark) ApS	Operations	Maglemolle 90, 4700, Naestved, Denmark	100%
Eaton Filtration (Italy) S.r.l.	Operations	Via Gaetano Donizetti 18, 20020, Lainate (MI), Italy	100%
Eaton Filtration (Poland) Sp. z o.o.	Operations	Milczany 79, 27 600, Sandomierz, Poland	100%
Eaton Filtration (Shanghai) Co. Ltd.	Operations	H2 6/F No. 17 Building, No. 33, Xiya Road, Waigaoqiao FTZ, Pudong New Area, Shanghai, China	100%
Eaton Filtration BVBA	General Corporate Administration	Eigenlostraat 21, 9100 Sint Niklaas, Belgium	100%
Eaton Filtration Ltd.	Operations	Uruma Kowa Building, 8-11-37 Akasaka, Minato-ku, Tokyo, 107-0052, Japan	100%
Eaton Fluid Power (Shanghai) Co., Ltd.	Operations	388, Aidu Road, Waigaoqiao FTZ, Pudong New Area, Shanghai, China	100%
Eaton Fluid Power Limited	Operations	145, off Mumbai-Pune Road, Pimpri, Pune, 411 018, India	98%
Eaton Fluid Power S.r.l.	General Corporate Administration	Via Matteotti, 8, 20060, Pessano con Bornago, Italy	100%
Eaton France Holding SAS	General Corporate Administration	11 avenue de l'Atantique les Ulis, 91955, Courtaboeuf, France	100%
Eaton Fu Li An (Changzhou) Electronics Co., Ltd.	Operations	No 60, Hehuan Road, Zhonglou economic development zone, Changzhou, APAC, China	100%
Eaton FZE	Operations	BBO3-BB04, Jebel Ali Free Zone South 5, Dubai, United Arab Emirates	100%
Eaton Germany G.m.b.H.	General Corporate Administration	Dr.-Reckeweg-Strasse 1, D-76532, Baden-Baden, Germany	100%
Eaton Germany Holdings GmbH	Operations	Hein-Moeller Straße 7-11, D-53115, Bonn, Germany	100%
Eaton Global Limited	General Corporate Administration	12-14 Finch Road, Douglas, IM1 2PT, Isle of Man	100%

Eaton Global Holdings II Limited	General Corporate Administration	12-14 Finch Road, Douglas, IM1 2PT, Isle of Man	100%
Eaton Global Holdings Limited	General Corporate Administration	12-14 Finch Road, Douglas, IM1 2PT, Isle of Man	100%
Eaton Holding (Austria) G.m.b.H.	Operations	Eugenia 1, A-3943, Schrems, Austria	100%
Eaton Holding (Netherlands) B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding (UK) II Limited	Operations	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Eaton Holding G.m.b.H.	General Corporate Administration	Wagramerstrasse 19, A-1220, Wien, Austria	100%
Eaton Holding I B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding I Limited	General Corporate Administration	PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands	100%
Eaton Holding II Limited	General Corporate Administration	PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands	100%
Eaton Holding II S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Holding III B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding III Limited	General Corporate Administration	PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands	100%
Eaton Holding IV S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Holding IX S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Holding Limited	General Corporate Administration	P.O. Box 4, New Lane, Havant, Hampshire, PO9 2NB, United Kingdom	100%
Eaton Holding LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Holding S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Holding SE & Co. KG	General Corporate Administration	Hein-Moeller Straße 7-11, D-53115, Bonn, Germany	100%
Eaton Holding SRL	General Corporate Administration	Whitepark House, White Park Road, Bridgetown, Barbados	100%
Eaton Holding Turlock B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding V B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding V S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Holding VI B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding VII B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding VIII B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Holding VIII S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Holding X, Inc.	General Corporate Administration	1000 Eaton Boulevard, Cleveland OH 44122	100%
Eaton Holec AB	Operations	Hammervagen 19, 20211, Malmo, Skane, Sweden	100%
Eaton Hydraulics (Luzhou) Co., Ltd.	Operations	Wangjiang Rd., Economic & Technology Development Zone, Luzhou, Sichuan, China	100%
Eaton Hydraulics (Ningbo) Co., Ltd.	Operations	1965, South Meixujiang Rd., Science and Technology Park, Ningbo, Zhejiang Province, China	100%

Eaton Hydraulics (Proprietary) Limited	General Corporate Administration	Corner Esander and Osborne Roads, Wadeville, Gauteng, 1428, South Africa	100%
Eaton Hydraulics LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Hydraulics Systems (Jining) Co., Ltd.	Operations	8 Kangtai Rd., High and New Tech Industrial Develop Area, Jining, China	100%
Eaton I Spolka z.o.o.	Operations	Ul. Rudawka 83, 43-382, Bielsko-Biała, Śląskie, Poland	100%
Eaton II LP	General Corporate Administration	Tay House, 300 Bath Street, Glasgow, G2 4NA, United Kingdom	100%
Eaton III LP	General Corporate Administration	Tay House, 300 Bath Street, Glasgow, G2 4NA, United Kingdom	100%
Eaton India Innovation Center LLP	General Corporate Administration	No.2, EVR Street, Sedarapet, Puducherry, APAC, 605111, India	100%
Eaton Industrial Clutches and Brakes (Shanghai) Co., Ltd.	Operations	East Side, 1 Floor, No. 34 Building, 281, Fasai Rd., Waigaoqiao FTZ, Shanghai, China	100%
Eaton Industrial Corporation	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Industrial IP G.m.b.H. & Co. KG	General Corporate Administration	Airport Center Schönefeld, Mittelstrasse 5-5a, 12529, Schönefeld, Germany	100%
Eaton Industrial Products Pvt. Ltd.	Operations	Plot No. 234, 235 and 245, Gala No. 2, 15 and 16 , India Land Global Industrial Park, , Hinjewadi, Pune, Maharashtra, 411057, India	100%
Eaton Industrial Systems Private Limited	General Corporate Administration	145, off Mumbai-Pune Road, Pimpri, Pune, 411 018, India	100%
Eaton Industries (Argentina) S.A.	General Corporate Administration	Lima 355, PB, Buenos Aires, South America, C1073AAG, Argentina	100%
Eaton Industries (Austria) G.m.b.H.	General Corporate Administration	Eugenia 1, A-3943, Schrems, Austria	100%
Eaton Industries (Belgium) BVBA	Operations	Industrialaan 1, B-1702 Groot-Bijgaarden, Belgium	100%
Eaton Industries (Canada) Company	General Corporate Administration	5050 Mainway, Burlington ON L7L 5Z1, Canada	100%
Eaton Industries (Chile) S.p.A.	General Corporate Administration	Panamericana Norte Km. 15 1/2, Comuna de Lampa, Región Metropolitana, Chile	100%
Eaton Industries (Colombia) S.A.S.	General Corporate Administration	Avenida 82, No. 10-62 P.5 Bogota, Colombia	100%
Eaton Industries (Egypt) LLC	Operations	Building No. 289 of the second admin sector, Fourth floor, El-Tesaen "90" St., Fifth District, New Cairo, Cairo, Egypt	100%
Eaton Industries (England) Limited	Operations	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Eaton Industries (France) S.A.S.	General Corporate Administration	110 Rue Blaise Pascal, Immeuble Le Viséo - Bâtiment A Innovallée, 38330, Montbonnot-St.-Martin, France	100%
Eaton Industries (Ireland) Limited	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries (Israel) Ltd.	General Corporate Administration	13 Zarhin , St. Ra’anana, 4366241, Israel	100%
Eaton Industries (Italy) S.r.l.	Operations	Via S. Bovio, 3, 20090 Segrate, Italy	100%
Eaton Industries (Japan) Ltd.	Operations	Uruma Kowa Building, 8-11-37 Akasaka, Minato-ku, Tokyo, 107-0052, Japan	100%
Eaton Industries (Jining) Co., Ltd	Operations	8 KangTai Road, Jining High Tech Industries Development Zone, Jining City, Shandong Province, 272023, China	100%
Eaton Industries (Korea) Limited	General Corporate Administration	601 Eonju-ro (Parkland Building, Nonhyun-dong), Gangnam-gu, Seoul, Korea	100%
Eaton Industries (Morocco) LLC	Operations	Zone Franche d'Exportation Midparc, Nouaceur, Casablanca, 27182, Morocco	100%
Eaton Industries (Netherlands) B.V.	General Corporate Administration	Postbus 23, 7550 AA, Hengelo Ov, Netherlands	100%
Eaton Industries (Philippines), LLC	Operations	1209 Orange Street, Wilmington DE 19801	100%

Eaton Industries (Shanghai) Co., Ltd	Operations	139 Fang Hua Road, Pudong New Area, Shanghai, 201204, China	100%
Eaton Industries (Spain) S.L.	General Corporate Administration	Plaça Europa, 9-11 2º planta, (Barcelona), 08908, L'Hospitalet de Llobregat , Spain	100%
Eaton Industries (Thailand) Ltd.	General Corporate Administration	No. 156 Moo 3, Ratchasima-Chokechai Road, Tambon Nong Bua Sala, Amphur Muang Nakornratchasima, Nakornratchasima Province, 30000, Thailand	100%
Eaton Industries (U.K.) Limited	Operations	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Eaton Industries (Wuxi) Co., Ltd.	Operations	Tsinghua Tongfang High Tech Park, Xishan Economic Development Area, Wuxi, China	100%
Eaton Industries Company	Operations	1st Floor, 106 Wrights Road, Addington, Christchurch, NZ, 8041, New Zealand	100%
Eaton Industries EOOD	Operations	83 Gioeshevo Str., Room 412, Floor 4 , Sofia, 1330, Bulgaria	100%
Eaton Industries G.m.b.H.	General Corporate Administration	Hein-Moeller Straße 7-11, D-53115, Bonn, Germany	100%
Eaton Industries Holding G.m.b.H.	General Corporate Administration	Airport Center Schönefeld, Mittelstrasse 5-5a, 12529, Schönefeld, Germany	100%
Eaton Industries Holdings Ltd.	General Corporate Administration	Canon's Court, 22 Victoria Street, Hamilton Bermuda, 12, Bermuda	100%
Eaton Industries I Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries II G.m.b.H.	Operations	Im Langhag 14, 8307, Illnau-Effretikon, Switzerland	100%
Eaton Industries II Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries III Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries IV Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries IX LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Industries KFT	Operations	Nagyenyed u. 8-14, Budapest, 1123, Hungary	100%
Eaton Industries LP	General Corporate Administration	Tay House, 300 Bath Street, Glasgow, G2 4NA, United Kingdom	100%
Eaton Industries Manufacturing G.m.b.H.	General Corporate Administration	Route de la Longeraie 7, 1110, Morges, Switzerland	100%
Eaton Industries Panama S.A.	Operations	Avenida Boulevard El Dorado, Edificio Centro Comercial Boulevard El Dorado Apto 33, El Dorado, Panama, Panama	100%
Eaton Industries Pte. Ltd.	General Corporate Administration	8 Marina Boulevard #05-02, Marina Bay Financial Centre, Tower 1, Singapore, 018981, Singapore	100%
Eaton Industries Pty. Ltd.	General Corporate Administration	105 HENDERSON ROAD, ROWVILLE VIC 3178, Australia	100%
Eaton Industries s.r.o.	General Corporate Administration	Karlovarská 5578, Chomutov, 430 01, Czech Republic	100%
Eaton Industries SAC	General Corporate Administration	Av. Víctor Andrés Belaúnde, 147 Toree real seis, piso 7, Sa Lima, Peru	100%
Eaton Industries Sdn. Bhd.	General Corporate Administration	Level 21, Suite 21.01, The Gardens South Tower, Mid Valley City, Lingkaran Syed Putra, 59200 Kuala Lumpur, Malaysia	100%
Eaton Industries V Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries VI Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries VII Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries VIII LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%

Eaton Industries X Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries XII Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries XIII Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries XIV Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries XIX Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries XV Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries XVI LLC	General Corporate Administration	1000 Eaton Boulevard, Cleveland OH 44122	100%
Eaton Industries XVIII Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Industries, S. de R.L. de C.V.	General Corporate Administration	Brecha E 99 SN, Parque Industrial Reynosa, Reynosa, Tamaulipas, 88670, Mexico	100%
Eaton Intelligent Power Limited	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton International B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton International Industries Nigeria Limited	Operations	7th floor, Marble House, 1 Kingsway. Ikoyi, Lagos, Lagos, Nigeria	100%
Eaton IV LP	General Corporate Administration	Tay House, 300 Bath Street, Glasgow, G2 4NA, United Kingdom	100%
Eaton Japan G.K.	General Corporate Administration	Unizo Nogizaka Building, 8-11-37 Akasaka, Minato-ku, Tokyo, 107-0052, Japan	100%
Eaton Leasing Corporation	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Eaton Limited	General Corporate Administration	Tay House, 300 Bath Street, Glasgow, G2 4NA, United Kingdom	100%
Eaton LLC	General Corporate Administration	33 Electrozavodskaya Str., Building 4, 107076, Moscow, Russia	100%
Eaton LP	General Corporate Administration	Tay House, 300 Bath Street, Glasgow, G2 4NA, United Kingdom	100%
Eaton Ltda.	General Corporate Administration	Rua Clark, 2061, Predio 54, Bairro Macuco, Valinhos, Sao Paulo, 13279-400, Brazil	100%
Eaton Madeira SGPS Lda.	General Corporate Administration	Rua Dr. Brito Câmara, nº20, 1st floor, 9000-039, Funchal, Portugal	100%
Eaton Management Services LLP	General Corporate Administration	145, Off Mumbai Pune Road,, Pimpri,, Pune, Pune, APAC, 411018, India	100%
Eaton Manufacturing G.m.b.H.	General Corporate Administration	Route de la Longeraie 7, 1110, Morges, Switzerland	100%
Eaton Manufacturing Hungary Kft.	Operations	Berkenyefa sor 7, Gyor, 9027, Hungary	100%
Eaton Manufacturing II G.m.b.H.	General Corporate Administration	Route de la Longeraie 7, 1110, Morges, Switzerland	100%
Eaton Manufacturing III G.m.b.H.	General Corporate Administration	Route de la Longeraie 7, 1110, Morges, Switzerland	100%
Eaton Manufacturing Limited	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Eaton Manufacturing LP	General Corporate Administration	Tay House, 300 Bath Street, Glasgow, G2 4NA, United Kingdom	100%
Eaton MEDC Limited	Operations	Unit B, Sutton Parkway, Oddicroft Lane, Sutton-In-Ashfield, NG17 5FB, United Kingdom	100%
Eaton Moeller B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
Eaton Moeller S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%

Eaton Phoenixtec MMPL Co. Ltd.	General Corporate Administration	No.269-1, Baodong Rd., Guanmiao Dist., Tainan City 71841, APAC, Taiwan	100%
Eaton Power (Shanghai) Trading Limited Partnership	General Corporate Administration	Room 209, No. 3, Lane 280, Linhong Road, Changning District,, APAC, China	100%
Eaton Power Quality (Shanghai) Co., Ltd.	Operations	Mid-west side of 34th factory building, 281 Fasai Rd., Waigaoqiao FTZ, Shanghai, China	100%
Eaton Power Quality AB	Operations	Kista Science Tower, 16451, Kista, Sweden	100%
Eaton Power Quality Limited	Operations	Room 04, 16th Floor - Kodak House II, 39 Healthy Street East, North Point, Hong Kong	100%
Eaton Power Quality OY (Finland)	Operations	Koskelontie 13, Espoo, FI-02920, Finland	100%
Eaton Power Quality Private Limited	Operations	No. 2, EVR Street, Sedarapet, Pondicherry, 605 111, India	100%
Eaton Power Quality S.A.S.	General Corporate Administration	110 Rue Blaise Pascal, Immeuble Le Viséo - Bâtiment A Innovallée, 38334, Montbonnot St Martin, France	100%
Eaton Power Solution Ltda.	Operations	Avenida Benedito Quina da Silva 271, Galpao 3 Loteamento Multivias, Bairro Jardim Ermida II, Jundiai, SA, 13212-141, Brazil	100%
Eaton Production International G.m.b.H.	Operations	Hein-Moeller Straße 7-11, D-53115, Bonn, Germany	100%
Eaton Protection Systems IP G.m.b.H. & Co. KG	General Corporate Administration	Airport Center Schönefeld, Mittelstrasse 5-5a, 12529, Schönefeld, Germany	100%
Eaton S.A.S.	General Corporate Administration	2 Rue Lavoisier, 78310, Coignieres, France	100%
Eaton S.r.l.	Operations	Corso Francesco Ferrucci, 112, 10138, Torino, Italy	100%
Eaton Safety IP G.m.b.H. & Co. KG	General Corporate Administration	Airport Center Schönefeld, Mittelstrasse 5-5a, 12529, Schönefeld, Germany	100%
Eaton Safety Limited	Operations	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Eaton SAMC (Shanghai) Aircraft Conveyance System Manufacturing Co., Ltd.	Operations	Building 3 No. 12 Jinwen Rd. Zhuqiao Zhen Pudong new distric, Shanghai, China	49%
Eaton Senstar Automotive Fluid Connector (Shanghai) Co., Ltd.	Operations	West side of the general factory, FM12-4, 388, Aidu Rd., Waigaoqiao FTZ, Shanghai, China	55%
Eaton Services S.a.r.L.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Solutions, S. de R.L. de C.V.	General Corporate Administration	De La Montana, 128 Parque Industrial Queretaro, Queretaro, QE 76220, Mexico	100%
Eaton Switzerland Holding I GmbH	General Corporate Administration	Route de la Longeraie 7, 1110, Morges, Switzerland	100%
Eaton Switzerland Holding II GmbH	General Corporate Administration	Route de la Longeraie 7, 1110, Morges, Switzerland	100%
Eaton Technologies (Australia) Pty Ltd	Operations	9/12 Billabong Street, Stafford QLD QLD 4053, Australia	100%
Eaton Technologies (Luxembourg) S.a.r.l.	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
Eaton Technologies G.m.b.H.	General Corporate Administration	Auf der Heide 2, Nettersheim, D-53947, Germany	100%
Eaton Technologies IP G.m.b.H. & Co. KG	General Corporate Administration	Airport Center Schönefeld, Mittelstrasse 5-5a, 12529, Schönefeld, Germany	100%
Eaton Technologies Private Limited	General Corporate Administration	Cluster C, Wing 1, EON Free Zone, Plot No. 1, Survey No. 77, MIDC Kharadi Knowledge Park, Kharadi, Pune, Maharashtra, 411 014, India	100%
Eaton Technologies S.A.	General Corporate Administration	Chemin de Pau, 64121, Serres-Castet, France	100%
Eaton Technologies, S. de R.L. de C.V.	General Corporate Administration	Avenida de la Montana Num 128, Parque Indusrtrial Queretaro, Santa Rosa Jauregui, Queretaro, Qro. C.P., 76220, Mexico	100%
Eaton Teorainn Unlimited Company	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%

Eaton Trading Company, S. de R.L. de C.V.	General Corporate Administration	Avenida de la Montana Num 128, Parque Indusrtrial Queretaro, Santa Rosa Jauregui, Queretaro, Qro. C.P., 76220, Mexico	100%
Eaton Trading (FZC) LLC	General Corporate Administration	Sohar Free Zone, Sohar, North Al Batinah, 322, Oman	100%
Eaton Truck Components (Proprietary) Ltd.	Operations	Corner Esander and Osborne Roads, Wadeville, Gauteng, 1428, South Africa	100%
Eaton Truck Components Spolka z o.o.	Operations	Ul.30 Stycznia, No. 55, 83-110, Tczew, Poland	100%
Eaton Truck Components, S. de R.L. de C.V.	General Corporate Administration	Monterrey, Nuevo Leon, Federal District, Monterrey Cty; Federal District Rgn, Mexico	100%
Eaton Worldwide LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding GP I	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding GP II	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding GP III	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding GP IV	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding I LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding II LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding III LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding IV LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding V LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
EIC Holding VI LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Electromanufacturas, S. de R.L. de C.V.	Operations	Antiguo Camino a Tlajomulco 60, Santa Cruz de las Flores, Tlajomulco de Zuniga, Jalisco, 45640, Mexico	100%
ETN Asia International Limited	General Corporate Administration	Les Cascades Building, 4th Floor, Edith Cavell Street, Port Louis, Mauritius	100%
ETN Holding 1 Limited	General Corporate Administration	Les Cascades Building, 4th Floor, Edith Cavell Street, Port Louis, Mauritius	100%
ETN Holding 2 Limited	General Corporate Administration	Les Cascades Building, 4th Floor, Edith Cavell Street, Port Louis, Mauritius	100%
ETN Holding 3 Limited	General Corporate Administration	Les Cascades Building, 4th Floor, Edith Cavell Street, Port Louis, Mauritius	100%
Fast Eaton (Baoji) Light Duty Transmission Company Ltd.	Operations	No. 1 Shaan 6 Road Automobile Industry Zone High Technology, Baoji, APAC, China	49%
Fast Eaton (Xi'an) Drivetrain Company Ltd.	Operations	Xi'an Hi-Tech Development Zone, Xi'an, 710075, China	49%
FHF Bergbautechnik GmbH & Co. KG	Operations	Gewerbeallee 15-19, 45478 Mülheim an der Ruhr, Duisburg, Germany	100%
FHF Funke+Huster Fernsig GmbH	Operations	Gewerbeallee 15-19, 45478 Mülheim an der Ruhr, Duisburg, Germany	100%
FHF New World GmbH	Operations	Gewerbeallee 15-19, 45478 Mülheim an der Ruhr, Duisburg, Germany	100%
Funke+Huster GmbH	Operations	Gewerbeallee 15-19, 45478 Mülheim an der Ruhr, Duisburg, Germany	100%
Gardner-Denver International, C.A.	Inactive	Guarenas, Miranda State, Venezuela	100%
GeCma Components electronic GmbH	Operations	Heinrich-Hertz-Strasse 12, 50170, Kerpen, Germany	100%
Georgetown Financial Services Ltd.	General Corporate Administration	PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands	100%
Gitiesse Asia Pte. Ltd.	General Corporate Administration	Blk 196 Pandan Loop #04-15 Pantech Business Hub Singapore , 128384, Singapore	30%

Gitiesse S.r.l.	Operations	Via Ponte Polcevera 8/14 - 16161, Partita Iva, 01070220106, Genova, Italy	100%
Green Holding S.a.r.l.	General Corporate Administration	12, rue Eugène Ruppert, L-2453 Luxembourg, LUXEMBOURG	100%
Guangzhou Nittan Valve Co. Ltd.	Operations	No. 79, Junye Rd., East Area, Econo & Tech Dev. Zone, Guangzhou, Guangdong Province, China	100%
Hein Moeller Stiftung G.m.b.H.	General Corporate Administration	Hein-Moeller Straße 7-11, D-53115, Bonn, Germany	100%
Hernis Scan System do Brasil Comercio E Servicos LTDA	Operations	Rodovia BR 101 KM 263 - Loja 3, Rio Bonito, 2880-0000, Brazil	80%
Hernis Scan Systems - Asia Pte Ltd.	Operations	6th Changi North Street 1, 2nd level, Spanners Building, Singapore, 498825, Singapore	100%
Hernis Scan Systems A/S	Operations	Tangen Alle 41, P.O. Box 791 Stoa, Arendal, 4809, Norway	100%
Illumination Management Solutions, Inc.	Operations	18242 McDurmott West, Suite J, Irvine CA 92614	100%
Iluminacion Cooper de las Californias, S. de R.L. de C.V.	Operations	Calle Orbita No. 3 PIMSA II, Col. Gonzalez Ortega, C.P., Mexicali, B.C., 21600, Mexico	100%
Institute for International Product Safety G.m.b.H.	Operations	Hein-Moeller Straße 7-11, D-53115, Bonn, Germany	100%
Kaicheng Funke+Huster (Tangshan) Mining Electrical Co. Ltd.	Operations	No. 183 Huoju Road, New & Hi-tech Industrial Park, Trangshan, Hebei, 063020, China	60%
Lian Zheng Electronics (Shenzhen) Co., Ltd.	Operations	No. 4, Liufang Road, Office 67 Xin'an Streets, Bao'an District, Shenzhen City, Guangdong Province, China	100%
Martek Power F SAS	Operations	15 Rue Bicentenaire, de la Révolution, Z.A. Du Parc - Le Plessis - Pâté,Brétigny s/Orge, 91731, Paris, France	100%
Martek Power GmbH	Operations	Bachstrasse 6, 77883, Ottersweier, Germany	100%
Martek Power S.A. de C.V.	Operations	Calle Romano No. 13525-C, Fracc. Alcala, Tijuana, Baja California, Mexico	100%
Martek Power SA	General Corporate Administration	Rue Eugene Ruppert 12, L-2453 Luxembourg, Luxembourg	100%
McGraw-Edison Development Corporation	Operations	19, Mykinon Str., GR-166 74 Glyfada, Athens, Greece	100%
Menvier Limited	Inactive	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Menvier Overseas Holdings Limited	Operations	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Moeller Electric (Shanghai) Co., Ltd.	Operations	No. 3 Building, Lane 280 Lin Hong Road, Shanghai, 200335, China	100%
Moeller Electric Ltda.	Operations	Rua Clark, 2061 - Bairro Macuco , Valinhos , Sao Paulo, 13279-400, Brazil	100%
Moeller Industria de electro-electronicos do Amazonas Ltda.	Operations	Av Ephigenio Sales 86, Adrianopolis, Manaus - Amazonas, 69050-050, Brazil	100%
MP Group SAS	Operations	19, Rue des Campanules, 77185, Lognes, France	100%
MTL Instruments B.V.	Operations	Ambacht 6, 5301 KW , Zaltbommel, Netherlands	100%
MTL Instruments GmbH	Operations	Heinrich-Hertz-Strasse 12, 50170, Kerpen, Germany	100%
MTL Instruments LLC	Operations	1209 Orange Street, Wilmington DE 19801	100%
MTL Instruments Private Limited	Operations	No 3 Old Mahabalipuram Road, Sholinganallur, Chennai, 600 119, India	100%
MTL Instruments SARL	Operations	7 Rue des Rosieristes, CHAMPAGNE AU MONT D'OR, 69410 , France, France	100%
MTL Italia Srl	Operations	SEGRATE (MI) VIA SAN BOVIO 3 CAP 20090, Italy	100%
MTL Partners II, Inc.	Operations	1209 Orange Street, Wilmington DE 19801	100%
MTL Partners, Inc.	Operations	1209 Orange Street, Wilmington DE 19801	100%
Nittan BVI Co. Ltd.	General Corporate Administration	PO Box 957, Offshore Incorporation Centre, Road Town, Tortola, British Virgin Islands	100%
Nittan Euro Tech Spolka z o.o.	Operations	Ul. Rudawka 83, 43-382, Bielsko-Biała, Śląskie, Poland	49%

Nittan Global Tech Co., Ltd.	Operations	Nishi-Shinjuku Bldg. 2F, 8-4-2 Nishi-Shinjuku, Shinjuku-ku, Tokyo, 160-0023, Japan	49%
Nittan Valve Co., Ltd.	Operations	2-7-2 Yaesu, Chuo-ku, Tokyo 104 Japan	30%
Norex AS	Operations	Fekjan 7, Nesbru, 1378, Norway	50%
Oxalis Group Limited	Inactive	Unit B, Sutton Parkway, Oddicroft Lane, Sutton-In-Ashfield, NG17 5FB, United Kingdom	100%
Phoenixtec Electronics (Shenzhen) Co., Ltd.	Operations	Building 16 & 6-7F, Building 19 Free Trade Zone, Shatoujiao, Shenzhen, 518081, China	100%
Phoenixtec International Corp.	Operations	Offshore Incorporations Limited, P.O. Box 957, Offshore Incorporations Centre, Road Town, Tortola, Virgin Islands, British	100%
PKL, LLC	Operations	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	49%
Polimer Kaucuk Sanayi ve Pazarlama A.S.	General Corporate Administration	Huzur Mahallesi, İmam Çeşme Yolu Caddesi, Candan Sokak No: 3, Ayazağa-Sarıyer, Istanbul, 34396, Turkey	100%
Productos Eaton Livia S.L.	Operations	Ave. Juan Carlos I, Number 13, Torre Garena, Alcalá de Henares, 28806, Madrid, Spain	100%
PT Eaton Industries	General Corporate Administration	Menara Bidakara 2 Lantai 9 Unit 04, JI. Jend. Gatot Subroto Kav 71-73, Jakarta, Indonesia	100%
PT. Fluid Sciences Batam	Operations	Lot 512, Batamindo Industrial Park, Mukakuning, Batam, Riau, 29433, Indonesia	100%
Riseson International Limited	General Corporate Administration	Unit 902, Tower B, Hunghom Commercial Centre, 37-39 Ma Tau Wai Road, Hunghom, Kowloon, Hong Kong	100%
Rizhao Nittan Valve Co., Ltd.	Operations	No. 79 Shantu Road, Wuxi Road, Rizhao Economic Technological Development Area, Rizhao, Shandong Province, China, 276826	49%
Rizhao Yoosung Shinhwa Automobile Parts Co., Ltd.	Operations	M2-5, 11, Xinggu Industrial Develop, Beijing, 101200, China	100%
RTE Far East Corporation	Operations	No. 114, Sec. 2, , SiWan Road, Sijhih District, New Taipei City, 221, Taiwan	100%
Santak Electronic (Shenzhen) Co., Ltd.	Operations	No. 8 Baoshi Road, Block 72 Baoan District Shenzhen, China	100%
Santak Electronics Company Limited	Operations	Unit 902, Tower B, Hunghom Commercial Centre, 37-39 Ma Tau Wai Road, Hunghom, Kowloon, Hong Kong	100%
Saturn Insurance Company Ltd.	General Corporate Administration	Aon House, 30 Woodbourne Avenue, Pembroke HM, 08, Bermuda	100%
Scantronic Benelux BV	Operations	Ambacht 6, 5301 KW , Zaltbommel, Netherlands	100%
Scantronic Holdings Limited	Operations	6 Jephson Court, Tancred Close, Queensway, Royal Leamington Spa, Warwickshire, CV31 3RZ, United Kingdom	100%
Scoremax Limited	General Corporate Administration	Unit 902, Tower B, Hunghom Commercial Centre, 37-39 Ma Tau Wai Road, Hunghom, Kowloon, Hong Kong	100%
Sefelec GmbH	Operations	Bachstrasse 6, 77883, Ottersweier, Germany	100%
Sefelec SAS	Operations	19 rue des Campanules, Parc du Mandinet, 77185 Lognes, France	100%
Senyuan International Holdings Limited	General Corporate Administration	P.O. Box 2681 GT, George Town, Grand Cayman, Cayman Islands	100%
Senyuan International Investments Limited	General Corporate Administration	P.O. Box 957, Offshore Incorporations Centre, Road Town, Tortola, Virgin Islands, British	100%
Shinhwa Precision Co., Ltd.	Operations	1095-10, Shindang-dong, Dalseo-gu, Daegu, Korea, Republic of	30%
Shinhwa Takahashi Press Co. Ltd.	Operations	110-7, Cheomdangieop 5-ro,, Sandong-myeon, Gumi-si, Gyeongsangbuk-do, Korea, Korea, Republic of	51%
Silver Light International Limited	Operations	Leval 28 Three Pacific Place, 1 Queen's Road East, Hong Kong	100%
Silver Victory Hong Kong Limited	Operations	5/F East Asia Textile Building, 2 Ho Tin Street, Tuen Nun, New Territories, Hong Kong	100%

Standard Automation & Control LP	Operations	2450 South Shore Boulevard, Suite 210, League City TX 77573, United States	100%
Sure Power, Inc.	Operations	10189 SW Avery, Tualatin OR 97062, United States	100%
Taiwan Nittan Industrial Co., Ltd.	Operations	No.729, Changxing Rd., Bade City, Taoyuan County 334, Taiwan, Taiwan	49%
The MTL Instruments Group Limited	Operations	Great Marlings, Butterfield, Luton, Bedfordshire, LU2 8DL, United Kingdom	100%
TT (Ireland) Acquisition Limited	General Corporate Administration	Eaton House, 30 Pembroke Road, Dublin 4, D04 Y0C2, Ireland	100%
Turlock B.V.	General Corporate Administration	Europalaan 202, 7559 SC, Hengelo Ov, Netherlands	100%
U.S. Engine Valve Company	Operations	1209 Orange Street, Wilmington DE 19801, United States	49%
Ultronics Nordic Sales AB	Operations	Kista Science Tower, 16451, Kista, Sweden	100%
Vickers Systems Limited	Operations	Units 19-30, 19/F Corporation Park, 11 On Lai Street, Siu Lek Yuen, Shatin, N.T., Hong Kong	100%
Winner Hydraulics Ltd.	General Corporate Administration	CITCO B.V.I. Limited, Citco Building, Wickhams Cay, P.O. Box 662, Road Town, Tortola, Virgin Islands, British	100%
Wright Line Holding, Inc.	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Wright Line LLC	General Corporate Administration	Eaton Center, 1000 Eaton Boulevard, Cleveland OH 44122, United States	100%
Zhenjiang Daqo Eaton Electrical Systems Co., Ltd.	Operations	Development Area, Yangzhong, China	50%

As of December 31, 2018, the Company had the following branches outside of Ireland:

Name	Type	Country
Blessing International B.V.	Branch	United Kingdom
BussDansk	Branch	Denmark
Bussmann India	Branch	India
Cooper (China) Co. Ltd	Representative Office	China
Cooper (China) Co., Ltd.	Branch	China
Cooper (China) Co., Ltd.	Branch	China
Cooper Crouse-Hinds B.V.	Branch	Belgium
Cooper Crouse-Hinds GmbH	Liason Office	India
Cooper Crouse-Hinds GmbH	Representative Office	Libya
Cooper Industries	Branch	South Africa
Cooper Industries Global B.V.	Branch	Kazakhstan
Cooper Industries International, LLC	Branch	Philippines
Cooper Industries Middle East, LLC	Branch	Kingdom of Bahrain
Cooper Industries Middle East, LLC	Branch	United Arab Emirates
Cooper Industries Middle East, LLC	Branch	Saudi Arabia
Cooper Industries Middle East, LLC	Branch	Saudi Arabia
Cooper Industries Middle East, LLC	Representative Office	Saudi Arabia
Cooper Industries Middle East, LLC	Representative Office	Saudi Arabia
Cooper Industries Middle East, LLC	Representative Office	Saudi Arabia
Cooper Industries Middle East, LLC	Representative Office	Qatar
Cooper Industries Poland, LLC	Branch	Poland
Cooper Industries Vietnam, LLC	Representative Office	Vietnam
Cooper Safety B.V.	Branch	Belgium
Cutler-Hammer Electrical Company	Branch	Puerto Rico
Cutler-Hammer Industries Ltd.	Branch	Dominican Republic
Dubai Techno Park	Branch	United Arab Emirates
Eaton Corporation	Branch	Czech Republic
Eaton Corporation	Representative Office	Indonesia
Eaton Corporation	Branch	Jordan
Eaton Corporation	Branch	Puerto Rico
Eaton Electric Limited	Representative Office	Kenya
Eaton Electric S.I.A.	Branch	Estonia
Eaton Electric S.I.A.	Representative Office	Lithuania
Eaton Electrical S.A.	Branch	El Salvador
Eaton Electrical S.A.	Branch	Guatemala
Eaton Electrical S.A.	Branch	Honduras
Eaton Electrical S.A.	Branch	Nicaragua
Eaton Electrical S.A.	Branch	Panama
Eaton Electrical Systems Limited	Branch	Ireland
Eaton Elektrotechnika s.r.o.	Representative Office	Kazakhstan
Eaton Enterprises (Hungary), Limited Liability Company	Branch	Switzerland
Eaton FZE	Representative Office	Jordan
Eaton FZE	Representative Office	Lebanon
Eaton FZE	Representative Office	Oman
Eaton Industries (Spain) SL	Branch	Portugal
Eaton Industries Manufacturing G.m.b.H.	Representative Office	Croatia
Eaton Industries Manufacturing G.m.b.H.	Branch	Korea
Eaton Industries Manufacturing GmbH	Branch	India

Eaton Industries Philippines, LLC	Branch	Philippines
Eaton Industries Pte Ltd	Representative Office	Vietnam
Eaton Manufacturing LP	Representative Office	Ivory Coast (Cote D'Ivoire)
Eaton Manufacturing LP	Branch	Algeria
Eaton Manufacturing LP	Branch	Greece
Eaton Manufacturing LP	Branch	Portugal
Eaton Power Quality OY	Branch	Denmark
Eaton Power Quality OY	Branch	Norway
Eaton Power Quality OY	Branch	Poland
Eaton Production International G.m.b.H.	Branch	United Kingdom
EIMG Global Sourcing	Representative Office	China
McGraw-Edison Development Corporation	Branch	Greece
Saudi Arabia Technical and Scientific	Branch	Saudi Arabia
Swiss Branch of Eaton Holding VIII S.a.r.l.	Branch	Switzerland
Swiss Branch of Eaton II LP	Branch	Switzerland
Swiss Branch of Eaton III LP	Branch	Switzerland
Swiss Branch of Eaton Industries LP	Branch	Switzerland
Swiss Branch of Eaton IV LP	Branch	Switzerland
Swiss Branch of Eaton LP	Branch	Switzerland
Swiss Branch of Eaton Manufacturing Limited Partnership	Branch	Switzerland
Swiss Branch of Eaton Services S.a.r.l	Branch	Switzerland

Eaton Corporation plc

Parent Company Financial Statements
For the Year Ended December 31, 2018

EATON CORPORATION plc
COMPANY STATEMENT OF FINANCIAL POSITION

(In thousands)	Note	December 31 2018	December 31 2017
Fixed Assets			
Financial Assets - Investment in Group Undertakings	4	$ 27,497,139	$ 27,396,800
Current Assets			
Cash at bank and in hand		558	264
Debtors (amounts falling due within one year)	5	1,511,984	3,132,193
		1,512,542	3,132,457
Total Assets		$ 29,009,681	$ 30,529,257
Capital and Reserves			
Called up share capital presented as equity	6	$ 4,298	$ 4,462
Share premium	7	605,755	575,261
Capital redemption reserve fund	7	616	441
Other reserves	7	535,094	438,186
Profit and loss account	7	25,985,592	28,590,669
Total Capital and Reserves		27,131,355	29,609,019
Creditors			
Creditors (amounts falling due after one year)	8	1,622,055	653,027
Creditors (amounts falling due within one year)	9	256,271	267,211
Total Liabilities		1,878,326	920,238
Total Capital and Reserves and Liabilities		$ 29,009,681	$ 30,529,257

The loss for the financial year amounted to $154,364 (2017 Profit of $10,788,811).

The accompanying notes are an integral part of the Company Statement of Financial Position.

The Financial Statements were approved by the Audit Committee of the Board of Directors and the Board of Directors on February 27, 2019 and signed on its behalf by:

Craig Arnold
Chairman of the Board of Directors

Gerald B. Smith
Director

EATON CORPORATION plc
COMPANY STATEMENT OF COMPREHENSIVE INCOME

(In thousands)	Note	December 31 2018	December 31 2017
Profit (loss) for the financial year	7	$ (154,364)	$ 10,788,811
Total other comprehensive income - gain arising on group reorganization	4, 7	—	11,353,330
Total comprehensive profit (loss) for the year		$ (154,364)	$ 22,142,141

EATON CORPORATION plc
COMPANY STATEMENT OF CHANGES IN EQUITY

(In thousands)	Share capital presented as equity	Share premium	Capital redemption reserve fund	Other reserves	Profit and loss account	Total
December 31, 2016	$ 4,557	$ 505,835	$ 326	$ 351,347	$ 8,370,489	$ 9,232,554
Profit and loss for the period	—	—	—	—	10,788,811	10,788,811
Other comprehensive income	—	—	—	—	11,353,330	11,353,330
Total comprehensive loss for the period	—	—	—	—	22,142,141	22,142,141
Dividends	—	—	—	—	(1,068,242)	(1,068,242)
Share based payment expense for the period	—	—	—	86,839	—	86,839
Issue of shares under share based payment plans	20	69,426	—	—	(3,668)	65,778
Repurchase and cancellation of Ordinary shares	(115)	—	115	—	(850,051)	(850,051)
December 31, 2017	4,462	575,261	441	438,186	28,590,669	29,609,019
Profit and loss for the period	—	—	—	—	(154,364)	(154,364)
Other comprehensive income	—	—	—	—	—	—
Total comprehensive income for the period	—	—	—	—	(154,364)	(154,364)
Dividends	—	—	—	—	(1,148,952)	(1,148,952)
Share based payment expense for the period	—	—	—	96,908	—	96,908
Issue of shares under share based payment plans	11	30,494	—	—	(1,752)	28,753
Repurchase and cancellation of Ordinary shares	(175)	—	175	—	(1,300,009)	(1,300,009)
December 31, 2018	$ 4,298	$ 605,755	$ 616	$ 535,094	$ 25,985,592	$ 27,131,355

Dollar amounts are in thousands unless indicated otherwise.

Note 1. AUTHORISATION OF FINANCIAL STATEMENTS AND STATEMENT OF COMPLIANCE

Eaton Corporation is a public limited company incorporated and domiciled in the Republic of Ireland. The registered office of the Company is 30 Pembroke Road, Ballsbridge, Dublin 4, Ireland and its incorporation number is 512978. The financial statements were prepared in accordance with FRS 102 The Financial Reporting Standard applicable in the UK and Republic of Ireland (FRS 102), issued by the Financial Reporting Council (Generally Accepted Accounting Practice in Ireland) as it applies to the financial statements of the Company for the year ended 31 December 2018.

The financial statements of Eaton Corporation plc for the year ended 31 December 2018 were authorised for issue by the Board of Directors on February 27, 2019.

Note 2. ACCOUNTING POLICIES

2.1 Basis of preparation

The financial statements are prepared under the historical cost convention in accordance with the Companies Act 2014 and are presented in United States dollars ($), which is also the functional currency.

The financial statements have been prepared on the going concern basis. The directors have taken into account all relevant information covering a period of at least twelve months from the date of approval of the financial statements. The directors believe that the Company is well placed to manage its business risks successfully despite the current uncertain economic outlook.

Eaton Corporation plc is availing of the reduced disclosure framework under FRS 102 on the basis that Eaton Corporation plc itself meets the definition of a qualifying entity, being a member of a group that prepare publicly available financial statements which give a true and fair view, and in which Eaton Corporation plc is consolidated. The consolidated financial statements, in which these Company financial statements are included are available to the public at its registered office.

Eaton Corporation plc has taken advantage of the following disclosure exemptions under FRS 102:

a. the requirements of section 4 Statement of Financial Position- paragraph 4.12 (a) (iv).
b. the requirements of section 7 Statement of Cash Flows and section 3 Financial Statement Presentation paragraph 3.17(d).
c. the requirements of section 26 Share Based Payment: paragraph 26.18 (b), 26.19 to 26.21 and 26.23.
d. requirements of section 33 Related Party Disclosures, paragraph 33.7.

The accounting policies which follow set out those policies which apply in preparing the financial statements for the year ended 31 December 2018.

2.2 Judgements and key sources of estimation uncertainty

The preparation of financial statements requires management to make judgements, estimates and assumptions that affect the amounts reported for assets and liabilities as at the statement of financial position date and the amounts reported for revenues and expenses during the year. However, the nature of estimation means that actual outcomes could differ from those estimates.

The following judgments have the most significant effect on amounts recognised in the financial statements.

Taxation

Management estimation is required to determine the amount of deferred tax assets that can be recognised based upon likely timing and level of future taxable profits together with assessment of the effect of future tax planning strategies.

Impairment of investments in group undertakings

Where there are indicators of impairment of investments in group undertakings, the Group performs impairment tests based on fair value less costs to sell or a value in use calculation. The fair value less costs to sell calculation is based on available data from binding sales transactions in an arm's length transaction on similar assets or observable market prices less incremental costs for disposing of the asset. The value in use calculation is based on a discounted cash flow model. The cash flows are derived from the budget for the next five years and do not include restructuring activities that the Group is not yet committed to or significant future investments that will enhance the asset's performance of the cash generating unit being tested. The recoverable amount is most sensitive to the discount rate used for the discounted cash flow model as well as the expected future cash flows and the growth rate used for extrapolation purposes.

2.3 Significant accounting policies

(a) Foreign currency

Transactions in foreign currencies are initially recorded in the entity's functional currency United States dollars by applying the spot exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are retranslated at the rate of exchange ruling at the statement of financial position date. All differences are taken to the income statement.

(b) Impairment of investments in group undertakings

The company assesses at each reporting date whether investments in group undertakings may be impaired. If any such indication exists, the company estimates recoverable amount of investments. If it is not possible to estimate the recoverable amount of the individual investments, the company estimates the recoverable amount of the cash-generating unit to which the investments belongs. The recoverable amount of an investment or cash-generating unit is the higher of its fair value less costs to sell and its value in use. If the recoverable amount is less than its carrying amount, the carrying amount of the investment is impaired and it is reduced to its recoverable amount through an impairment in the income statement unless the investment is carried at a revalued amount where the impairment loss of a revalued asset is a revaluation decrease.

An impairment loss recognised for investments in group undertaking, is reversed in a subsequent period if and only if the reasons for the impairment loss have ceased to apply. Management has determined that there are no indicators of impairment in the current year.

(c) Financial assets

Investments in group undertakings

Investments in subsidiaries are recognised at cost less impairment.

(d) Taxation

Corporation tax is provided on taxable profits at the current rates.

Deferred tax is recognised in respect of all timing differences which are differences between taxable profits and total comprehensive income that arise from the inclusion of income and expenses in tax assessments in periods different from those in which they are recognised in the financial statements, except that unrelieved tax losses and other deferred tax assets are recognised only to the extent that the directors consider that it probable that they will be recovered against the reversal of deferred tax liabilities or other future taxable profits. Deferred tax is measured on an undiscounted basis at the tax rates that are expected to apply in the periods in which timing differences reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date. Management has determined that as there are no future taxable profits against which to offset carried forward tax losses, a deferred tax asset has not been included in the financial statements.

(e) Share based payments

The Company and its subsidiaries operate various share based payment plans. The Company issues Ordinary shares related to these employee equity share programs at various subsidiaries.

The share based payment expense associated with the share plans is recognized as an expense by the entity which receives services in exchange for the share based compensation. In these Company only accounts, the profit and loss account is charged with the expense related to the services received by the Company. The remaining portion of the share based payments expense represent a contribution to group entities and is added to the carrying amount of those investments.

Proceeds received from employees, if any, for the exercise of share based instruments increase the share capital and share premium accounts of the Company.

(f) Provisions and contingencies

The Company has guaranteed certain liabilities and credit arrangements of the group. These guarantees are accounted for in accordance with Section 21 Provisions and Contingencies of FRS 102. The Company reviews the status of these guarantees at each reporting date and considers whether it is required to make a provision for payment on those guarantees based on the probability of the commitment being called. The Board of Directors have assessed the likelihood that such guarantees will be called as remote. Considering this, the Board of Directors have decided to account for those financial guarantee contracts as contingent liabilities in the financial statements.

A provision is recognized when the Company has a legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation and the amount of the obligation can be estimated reliably.

(g) Dividends

Dividends on Ordinary shares are recognized as a liability in the period in which they are declared by the Company.

(h) Financial instruments

Cash at bank and in hand

Cash at bank and in hand in the statement of financial position comprise cash at banks and in hand and short term deposits with an original maturity date of three months or less.

Short-term debtors and creditors

Debtors and creditors with no stated interest rate and receivable or payable within one year are recorded at transaction price. Any losses arising from impairment are recognised in the income statement in operating expenses.

Debt

Debt is initially recorded in the statement of financial position at the net proceeds, defined as the fair value of the consideration received upon the issue of a capital instrument after deduction of issue costs.

The difference between the amount recognized and the total payments required to be made under the debt (interest and repayment of principal together with any premium) represents the total finance cost, which is accounted for over the term of the debt.

This finance cost is charged to the income statement over the term of the debt at a constant rate of interest on the outstanding amount of the debt. The carrying value of the debt is increased annually by the amount of the finance cost relating to that period, and reduced by the amount of payments made.

(i) Income statement

In accordance with Sections 304 (1) and 304 (2) of the Companies Act, 2014, the Company is availing of the exemption from presenting the individual profit and loss account. For 2018 and 2017, the Company's net (loss)/profit was $(154,364) and $10,788,811, respectively.

Note 3. HISTORY AND DESCRIPTION OF THE COMPANY

Eaton Corporation plc became the parent company of the Eaton Group following a reorganization that took place in 2012.

The principal activity of Eaton Corporation plc is an investment holding company. It owns all of the outstanding ordinary shares of Cooper Industries Unlimited Company and Eaton Intelligent Power Limited and a 10.1% (2017: 5.77%) partnership interest in Eaton GmbH & Co. KG.

The Company's registered office is located at 30 Pembroke Road, Ballsbridge, Dublin 4, Ireland.

Note 4. FINANCIAL ASSETS - Investment in Group Undertakings

December 31, 2016 - at cost	$ 27,120,976
Capital contribution for share based payment expense, including estimated forfeitures of $48 for dividends paid on unvested restricted stock awards	85,358
Capital contribution in cash to Eaton Industries (Ireland) Limited	90,466
Capital contribution in cash to Eaton Intelligent Power Limited	100,000
December 31, 2017 - at cost	27,396,800
Capital contribution for share based payment expense, including estimated forfeitures of $48 for dividends paid on unvested restricted stock awards	96,325
Increase in Partnership Interest in Eaton GmbH & Co. KG	4,014
December 31, 2018 - at cost	$ 27,497,139

At December 31, 2018, the Company had the following subsidiaries:

Company Name	% Shareholding	Registered Office	Nature of Business
Cooper Industries Unlimited Company	100% [1]	30 Pembroke Road, Ballsbridge, Dublin 4, Ireland	Investment Holding
Eaton Intelligent Power Limited	100% [2]	30 Pembroke Road, Ballsbridge, Dublin 4, Ireland	Intellectual property management
Eaton GmbH & Co. KG	10.1% [3]	Alegis Rheinland GmbH Steuerberatungsgesellschaft, Bornestrasse 10, 40211, Dusseldorf, Germany	Real Estate Holding Company

[1] 163,600,724 ordinary shares of $0.01 par value
[2] 1 ordinary shares of $1 par value
[3] The interest in Eaton GmbH & Co. KG represents a partnership interest with the remaining 89.9% being held indirectly by the Company.

As part of a re-organization of subsidiary undertakings during 2017, Cooper Industries Unlimited Company, a direct subsidiary of the Company, acquired from the Company its 100% interest in Eaton Industries (Ireland) Limited. This resulted in the Company owning a 100% interest in Eaton Industries (Ireland) Limited indirectly, through its investment in Cooper Industries Unlimited Company, rather than directly. The Company has adopted an accounting treatment consistent with the requirements of section 2.8 of FRS 102 which requires transactions to be accounted for and presented in accordance with their substance as opposed to their legal form. The carrying value of the investment in Eaton Industries (Ireland) Limited has been reclassified to form part of the carrying value of the investment in Cooper Industries Unlimited Company and no movement has been recognized in the value of the investment as the Company has the same interests in subsidiaries before and after the transaction.

As part of a re-organization of subsidiary undertakings during the current year, the Company's investment in Eaton GmbH & Co. KG increased to 10.1% (2017: 5.77%) at a cost of $4,014.

Note 5. DEBTORS (amounts falling due within one year)

	December 31	
	2018	2017
Amounts due from subsidiary undertakings	$ 1,511,984	$ 3,132,185
Prepayments and accrued income	—	8
	$ 1,511,984	$ 3,132,193

Amounts due from subsidiary undertakings includes a loan of $1.5 billion that is interest free and repayable on demand.

Note 6. CALLED UP SHARE CAPITAL

	December 31	
	2018	2017
Authorized		
750,000,000 Ordinary shares of $0.01 par value each	$ 7,500	$ 7,500
10,000,000 Serial preferred shares of $0.01 par value each	100	100
10,000 A Preferred shares of $1.00 par value each	10	10
40,000 Deferred ordinary shares of €1.00 par value each	52	52
	$ 7,662	$ 7,662
Allotted, called-up and fully paid share capital		
423,643,282 (2017: 439,981,585) Ordinary shares of $0.01 par value each	$ 4,236	$ 4,400
10,000 A Preferred shares of $1.00 par value each	10	10
40,000 Deferred ordinary shares of €1.00 par value each	52	52
	$ 4,298	$ 4,462

During the year, 1,187,288 ordinary shares of $0.01 par value each were issued under share based payment plans and 17,525,591 ordinary shares of $0.01 par value each were repurchased and cancelled.

The holders of Ordinary shares are entitled to dividends, have voting rights and participate pro rata in the total assets of the Company in the event of its winding up.

The holders of Deferred ordinary shares are not entitled to receive dividends or vote. Upon a return of assets, whether on liquidation or otherwise, the Deferred ordinary shares shall entitle the holder to the repayment of the amounts paid up on such shares after repayment of the capital paid up on the Ordinary shares, plus the payment of $5 million on each of the Ordinary shares and the holders of the Deferred ordinary shares shall not be entitled to any further participation in the assets or profits of the Company.

The A Preferred shares are non-voting, have the right to receive dividends at twice the dividend paid per Ordinary share. The holder of the shares has agreed that the A Preferred shares are to be subject to call by the Company at par value at any time 5 years after their issuance.

Note 7. RESERVES

	Share premium	Capital redemption reserve fund	Other reserves	Profit and loss account	Total
December 31, 2016	$ 505,835	$ 326	$ 351,347	$ 8,370,489	$ 9,227,997
Dividends	—	—	—	(1,068,242)	(1,068,242)
Share based payment expense for the period	—	—	86,839	—	86,839
Issue of shares under share based payment plans	69,426	—	—	(3,668)	65,758
Repurchase and cancellation of Ordinary shares	—	115	—	(850,051)	(849,936)
Profit and loss for the period	—	—	—	10,788,811	10,788,811
Gain arising on group reorganization (Note 4)				11,353,330	11,353,330
December 31, 2017	575,261	441	438,186	28,590,669	29,604,557
Dividends	—	—	—	(1,148,952)	(1,148,952)
Share based payment expense for the period	—	—	96,908	—	96,908
Issue of shares under share based payment plans	30,494	—	—	(1,752)	28,742
Repurchase and cancellation of Ordinary shares	—	175	—	(1,300,009)	(1,299,834)
Profit and loss for the period	—	—	—	(154,364)	(154,364)
December 31, 2018	$ 605,755	$ 616	$ 535,094	$25,985,592	$27,127,057

Share premium account

This reserve records the amount above the nominal value received for shares sold, less transaction costs.

Capital redemption reserve fund

This reserve represents the nominal value of shares cancelled.

Other reserves

This reserve is used to recognise the value of equity-settled share-based payments provided to employees of the group as part of their remuneration.

Profit and loss account

As part of the re-organization of subsidiary undertakings in 2017, as described in Note 4, the Company made a gain of $21,997,103 on the sale of Eaton Industries (Ireland) Limited to Cooper Industries Unlimited Company. $10,643,773 of this gain has been determined to be realized and has been recorded through the Company Profit and Loss account with the unrealized portion of the gain, $11,353,330, recorded through the Company Statement of Comprehensive Income in 2017.

Note 8. CREDITORS (amounts falling due after one year)

	December 31	
	2018	2017
Notes payable to subsidiary undertakings falling due after more than five years	$ 1,620,730	$ 651,640
Amounts due to subsidiary undertakings	1,325	1,387
Total creditors (amounts falling due after one year)	$ 1,622,055	$ 653,027

The notes payable are unsecured.

Note 9. CREDITORS (amounts falling due within one year)

	December 31	
	2018	2017
Accruals	$ 30,192	$ 712
Amounts due to subsidiary undertakings	30,922	1,164
Notes payable to subsidiary undertakings	195,157	265,335
Total creditors (amounts falling due within one year)	$ 256,271	$ 267,211

The notes payable are unsecured.

Note 10. LOANS

Loans repayable, included within creditors, are analysed as follows:

	December 31	
	2018	2017
Repayable within one year	$ 195,157	$ 265,335
Repayable within two to five years	997,402	—
Repayable after more than five years	623,328	651,640
	$ 1,815,887	$ 916,975

Details of loans are as follows:

	December 31	
	2018	2017
Interest at 3.74% repayable in 2023	$ 497,402	$ —
Interest at 4.12% repayable in 2023	500,000	—
Repayable within two to five years	$ 997,402	$ —

	December 31	
	2018	2017
Interest at 0.92% repayable in 2024	$ 623,328	$ 651,640
Repayable in more than five years	$ 623,328	$ 651,640

Note 11. SHARE BASED PAYMENTS

The Income statement includes $0.631 million for 2018 and $1.529 million for 2017 of share based Directors' fees. The remaining portion of the share based payment expense of $96.325 million, including estimated forfeitures of $48 for dividends paid on unvested restricted stock awards, for 2018 and $85.358 million share based payment expense, including estimated forfeitures of $48 for dividends paid on unvested restricted stock awards, for 2017 has been included as a capital contribution in Investment in Subsidiaries (Note 4). As required in accordance with FRS 102 section 26.18(a) a description of each type of share-based payment arrangement that existed at any time during the period, including the general terms and conditions of each arrangement, such as vesting requirements, the maximum term of options granted, and the method of settlement is included in Note 15 to the Consolidated financial statements.

Note 12. RELATED PARTY TRANSACTIONS

Directors' fees and expenses

The Income statement includes $8.276 million for 2018 and $8.737 million for 2017 of Directors' fees and expenses, including share based Directors' fees.

In accordance with section 33 paragraph 1A of FRS 102, disclosures need not be given of transactions entered into between two or more members of a group, provided that any subsidiary which is a party to the transaction is wholly owned by such a member. The Company has availed of this exemption.

Note 13. TAXATION

The company has incurred tax losses in the year that are available indefinitely for offset against future taxable profits. A deferred tax asset has not been recognised in respect to these losses as it is not probable that they will be recovered against future taxable profits.

Note 14. EVENTS AFTER THE REPORTING PERIOD

On February 27, 2019, Eaton's Board of Directors declared a quarterly dividend of $0.71 per ordinary share, an 8% increase over the dividend paid in the fourth quarter of 2018. The dividend is payable on March 22, 2019 to shareholders of record on March 9, 2019.

Agreement to acquire controlling interest of Ulusoy Elektrik Imalat Taahhut ve Ticaret A.S.

On January 31, 2019, Eaton reached a definitive agreement to acquire an 82.275% controlling interest in Ulusoy Elektrik Imalat Taahhut ve Ticaret A.S., a leading manufacturer of electrical switchgear based in Ankara, Turkey, with a primary focus on medium voltage solutions for industrial and utility customers. Its sales for the 12 months ended September 30, 2018 were $126 million. The purchase price for the shares is approximately $214 million on a cash and debt free basis. As required by the Turkish capital markets legislation, Eaton plans to file an application to execute a mandatory tender offer for the remaining shares shortly after the transaction closes. The transaction is subject to customary closing conditions and regulatory approvals.

Note 15. AUDITOR'S REMUNERATION

The fees paid to Ernst & Young Ireland in respect of the audit of the Company individual accounts were $0.1 million in each of 2018 and 2017. In addition, Ernst & Young Ireland received fees of $0.8 million and $0.6 million for other assurance services in each of 2018 and 2017, respectively. Ernst & Young Ireland did not receive any fees for non-audit services in 2018 and 2017 and received $0.1 million in each of 2018 and 2017 for tax advisory services. Note 22 to the Consolidated Financial Statements provides additional information regarding Auditors' remuneration.