ABB LTD
Form 6-K
July 19, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 6-K

REPORT OF FOREIGN PRIVATE ISSUER PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of July 2018

Commission File Number 001-16429

ABB Ltd

(Translation of registrant's name into English)

P.O. Box 1831, Affolternstrasse 44, CH-8050, Zurich, Switzerland

(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indication by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether the registrant by furnishing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-

This Form 6-K consists of the following:

1. Press release issued by ABB Ltd dated July 19, 2018 titled "Continued profitable growth".

2. Q2 2018 Financial Information.

3. Announcements regarding transactions in ABB Ltd's Securities made by the directors or the members of the Executive Committee.

The information provided by Item 2 above is hereby incorporated by reference into the Registration Statements on Form F-3 of ABB Ltd and ABB Finance (USA) Inc. (File Nos. 333-223907 and 333-223907-01) and registration statements on Form S-8 (File Nos. 333-190180, 333-181583, 333-179472, 333-171971 and 333-129271) each of which was previously filed with the Securities and Exchange Commission.

ZURICH, SWITZERLAND, JULY 19, 2018: SECOND QUARTER HIGHLIGHTS

Continued profitable growth

- Total orders +8%[1], up in all divisions and regions
- Base orders +9%, up in all divisions and regions
- Revenues +1%
- Book-to-bill ratio[2] at 1.07x, >1 in all divisions
- Operational EBITA margin[2] up 60bps to 13.0%
- Operational EPS[2] +27%[4]
- Net income $681 million, +30%
- Cash flow from operating activities $1,010 million; solid cash delivery for the full year expected

"In the second quarter, we drove order growth in all divisions and across all regions. Through our continued productivity efforts, we delivered margin improvement and double-digit operational EPS growth," said ABB CEO Ulrich Spiesshofer. "We completed the acquisition of GE Industrial Solutions within the committed time-frame and have started the integration at full speed together with our new colleagues."

"With disciplined focus on relentless execution, our four divisions are continuing their drive towards world-class efficiency and effectiveness," he added. "These results show that our transformation over the past years is delivering."

Key figures ($ in millions, unless otherwise indicated)	Q2 2018	Q2 2017	ChangE US$	ChangE Comparable[1]	H1 2018	H1 2017	ChangE US$	ChangE Comparable[1]
Orders	9,483	8,349	+14%	+8%	19,255	16,752	+15%	+7%
Revenues	8,889	8,454	+5%	+1%	17,516	16,308	+7%	+1%
Operational EBITA[2]	1,167	1,042	+12%	+8%[3]	2,227	1,985	+12%	+6%[3]

as % of operational revenues	13.0%	12.4%	+0.6pts		12.7%	12.3%	+0.4pts	
Net income	681	525	+30%		1,253	1,249	0%	
Basic EPS ($)	0.32	0.25	+30%[4]		0.59	0.58	+1%[4]	
Operational EPS[2] ($)	0.38	0.30	+28%[4]	+27%[4]	0.69	0.58	+19%[4]	+16%[4]
Cash flow from operating activities	1,010	467	+116%		492	976	-50%	

Short-term outlook

Macroeconomic signs are trending positively in Europe and the United States, with growth expected to continue in China. The overall global market is growing, with rising geopolitical uncertainties in various parts of the world. Oil prices and foreign exchange translation effects are expected to continue to influence the company’s results.

---

[1] Growth rates for orders, third-party base orders and revenues are on a comparable basis (local currency adjusted for acquisitions and divestitures). US$ growth rates are presented in Key Figures table.

[2] For non-GAAP measures, see the “Supplemental Financial Information” attachment to the press release.

[3] Constant currency (not adjusted for portfolio changes).

[4] EPS growth rates are computed using unrounded amounts. Comparable operational earnings per share is in constant currency (2014 exchange rates not adjusted for changes in the business portfolio).

1/7

Q2 2018 Group results

Orders

Total orders rose 8 percent (14 percent in US dollars), up in all divisions and regions compared to a year ago. Base orders (classified as orders below $15 million) increased 9 percent (14 percent in US dollars), up in all divisions and regions. Large orders represented 7 percent of total orders, compared to 8 percent in the same quarter of 2017. ABB’s comprehensive digital offering, ABB Ability™, was a significant contributor to the quarter’s order growth.

The book-to-bill ratio increased to 1.07x at the end of the quarter compared with 0.99x in the previous year.

Service orders were up 2 percent (5 percent in US dollars) on a tough comparable period. Service orders represent 19 percent of total orders, compared to 20 percent in the prior year period.

Changes in the business portfolio related to the acquisition of B&R resulted in a net positive impact of 3 percent on total reported orders. A stronger US dollar versus the prior year period provided a 3 percent positive translation impact on reported orders.

Market overview

ABB saw strong demand from all regions in the quarter:

Total orders from Europe rose 10 percent (22 percent in US dollars), with positive contribution from Germany, Italy, the UK, Norway, Spain and France more than offsetting declines in Sweden, Finland and Switzerland. Base orders rose 12 percent (24 percent in US dollars) with Italy and the UK as the main contributors.

The Americas delivered a 7 percent rise in total orders (7 percent in US dollars). Higher orders were recorded in the United States, Canada and Mexico. Base orders increased 7 percent (7 percent in US dollars). The United States grew, on a comparable basis, 6 percent (7 percent in US dollars) in total order terms and 7 percent (8 percent in US dollars) in base orders.

In Asia, Middle East and Africa (AMEA), total orders grew 7 percent (11 percent in US dollars) with good order demand from China, India and the UAE. Base orders rose 7 percent (12 percent in US dollars) with positive contributions from China, India and Australia more than offsetting lower intake from South Korea and South Africa. In China, total and base orders increased 20 percent and 23 percent (29 percent and 32 percent in US dollars) respectively.

Demand grew in the majority of ABB's key customer segments:

Utility demand was mixed in the second quarter. Activity related to grid integration for renewables and investments in improving grid reliability, particularly through digitalization, continued to grow. Larger grid investments, for example in long distance transmission, remained subdued.

Industrial demand grew well across a broad customer base in the quarter. Process industries, including oil and gas and mining, continued to increase investments, with capex concentrated on upgrading and automating brown-field assets. An ongoing focus on select industries such as food and beverage and automotive, proved beneficial for order momentum, particularly ABB's automation and robotics solutions.

Transport and infrastructure demand was solid, with good orders received for rail electrification, from the construction sector and in specialty vessels. Highlights for the quarter include continued strong growth in data centers and for electric vehicle fast-charging solutions.

Revenues

Revenues were up 1 percent (5 percent higher in US dollars), well-supported by continued solid growth in Robotics and Motion and Electrification Products. This was tempered by steady revenues in Industrial Automation and lower revenues in Power Grids due to the lower opening order backlog in both divisions.

Service revenues were up 13 percent (16 percent in US dollars), and represented 19 percent of total revenues, up from 17 percent in the prior year period. Services growth was bolstered by ABB's leading digital portfolio, ABB Ability™ solutions.

Change in exchange rates resulted in a positive translation impact on reported revenues of 2 percent. Business portfolio changes had a net positive effect of 2 percent on reported revenues.

Operational EBITA

Operational EBITA of $1,167 million increased 8 percent in local currencies (12 percent in US dollars) in the second quarter. The operational EBITA margin increased 60 basis points to 13 percent, supported by continued productivity efforts. ABB continued to invest in its sales, brand and ABB Ability™ over the quarter.

Net income, basic and operational earnings per share

Net income was $681 million, up 30 percent compared to the prior year's $525 million. ABB's operational net income[2] rose 27 percent to $810 million. Basic earnings per share of $0.32 was 30 percent higher year-on-year. Operational earnings per share of $0.38 was up 28 percent, and 27 percent better in constant currency terms[4].

Cash flow from operating activities

The cash flow from operating activities result of $1,010 million compares to $467 million in the second quarter of 2017. Relative to a year ago, cash flow primarily reflects a change in the timing of employee incentive payments paid in the first quarter this year which in 2017 were paid in the second quarter. ABB expects solid cash delivery for the full year.

Cash flow from operating activities

Q2 divisional performance

($ in millions, unless otherwise indicated)	Orders	Change		3rd party base orders	Change		Revenues	Change		
		US$	Comparable[1]		US$	Comparable[1]		US$	Comparable[1]	
Power Grids	2,577	+6%	+5%	2,128	+9%	+7%	2,354	-6%	-8%	9
Electrification Products	2,727	+9%	+6%	2,553	+7%	+4%	2,673	+7%	+4%	1
Industrial Automation	2,005	+34%	+15%	1,715	+30%	+9%	1,839	+17%	0%	1
Robotics and Motion	2,540	+15%	+11%	2,363	+20%	+16%	2,316	+11%	+8%	1
Corporate & other	(366)			35			(293)			
ABB Group	**9,483**	**+14%**	**+8%**	**8,794**	**+14%**	**+9%**	**8,889**	**+5%**	**+1%**	**1**

Effective January 1, 2018, management responsibility and oversight of certain remaining engineering, procurement and construction (EPC) business, previously included in the Power Grids, Industrial Automation, Robotics and Motion operating segments, were transferred to a new non-core operating business within Corporate and Other. Previously reported amounts have been reclassified consistent with this new structure.

Power Grids

Momentum in third-party base order growth continued, rising 7 percent (9 percent in US dollars). Total orders were up 5 percent (6 percent in US dollars). Power Up initiatives and ABB Ability™ solutions gained traction. Renewables, grid digitalization and pick up in industrial and transportation sectors contributed to the growth. At the end of the second quarter, the order backlog was 4 percent lower (6 percent in US dollars) versus the prior year period. Revenues were 8 percent lower (6 percent in US dollars), dampened by the lower opening order backlog. Operational EBITA margin was 9.7 percent, mainly due to lower revenues and investment in the ongoing Power Up program. Cost management initiatives are in place.

Electrification Products

Total orders increased 6 percent (9 percent in US dollars) and third-party base orders improved 4 percent (7 percent in US dollars). Order growth was broad based, with all business units, particularly products, performing well across all regions. Revenues increased 4 percent (7 percent in US dollars). Operational EBITA margins expanded 100 basis points year-on-year, benefiting from pricing actions and sustained productivity efforts.

Industrial Automation

Total orders (including B&R and currency effects) were up 34 percent and third-party base orders were up 30 percent compared to the prior year period. On a comparable basis, total orders rose 15 percent and third-party base orders increased 9 percent. Investments continued for specialty vessels as well as selective investments in process industries, particularly oil and gas. Base orders grew across all industries, with double digit growth in service. At the end of the second quarter, the order backlog was 4 percent lower (1 percent lower in US dollars) versus the prior year period. Revenues were stable in the quarter, reflecting revenues from strong product orders offsetting the lower opening order backlog. The operational EBITA margin improved by 70 basis points, supported by a positive mix and strong project execution.

Robotics and Motion

Third-party base orders increased 16 percent (20 percent in US dollars) and total orders increased 11 percent (15 percent in US dollars) in the quarter. Order growth was achieved across all business units and regions, with demand from process industries continuing the recovery trend. Revenues increased 8 percent (11 percent in US dollars). Operational EBITA margin expanded 100 basis points year-on-year to 16.1 percent, due to positive volumes and mix as well as continued productivity efforts.

Next Level strategy

Since 2014, ABB has been executing its Next Level strategy, focusing on profitable growth, relentless execution and business-led collaboration. In the past years, ABB has shaped its divisions into four market-leading, entrepreneurial units; has driven a quantum leap in digital through ABB Ability™; has accelerated momentum in operational excellence; and has strengthened ABB's brand.

All of ABB's divisions are driving profitable growth within key markets, with new and existing end-to-end digital ABB Ability™ solutions, able to close the loop with connected devices and build on the intelligent cloud. The divisions continue to focus on relentless execution, building on existing momentum and continuing to invest in growth, with stronger links between compensation and delivery of operational performance.

Today, ABB is better positioned in better markets, with a streamlined and strengthened portfolio that offers two clear value propositions: bringing electricity from any power plant to any plug, and automating industries from natural resources to finished products.

Profitable growth

ABB's digital solutions offering, ABB Ability™, is integral to the company's efforts to drive profitable growth. The offering includes more than 210 ABB Ability™ solutions, meeting the needs of customers in utilities, industry and transport & infrastructure. During the quarter ABB received an order from Danish green energy company Ørsted, to integrate offshore wind power with the UK power grid. As part of the order, ABB will supply its market-leading ABB Ability™ digital grid solutions to ensure power reliability and efficiency. As well, for example, ABB is working with China's Yitai Group, a chemicals company. ABB will supply end-to-end ABB Ability™ solutions that will enable top-tier productivity levels in their new plants. This is the first order in a series of digital projects for Yitai Group.

During the second quarter ABB announced an investment of €100 million in an R&D facility and training campus in Eggelsberg, Austria, which will drive innovation in machine and factory automation including artificial intelligence and machine learning. ABB also announced an investment of around $30 million in a new state-of-the-art manufacturing unit for Power Grids' transformer offering in Sweden.

Update on the acquisition of GE Industrial Solutions (GEIS)

Through ongoing portfolio management, ABB is shifting its center of gravity. The Group completed its acquisition of GE Industrial Solutions (GEIS) on June 30, 2018. By acquiring GEIS, ABB is strengthening the group's number two position in electrification globally, and increasing the group's exposure to the attractive North American market – already ABB's biggest market – and early cycle business. GEIS is being integrated into ABB's Electrification Products (EP) division as a new business unit called Electrification Products Industrial Solutions (EPIS). Headquartered in Atlanta, Georgia, EPIS has about 14,000 employees around the world.

Approximately $200 million of annual cost synergies are expected by year five. ABB will realize value through product and technology portfolio harmonization, particularly from coupling ABB Ability™ offerings with the extensive installed base. Synergies will also be extracted from footprint optimization, supply chain savings and SG&A cost reduction. It is expected that the integration of GEIS will have an approximately 60 basis points negative impact on ABB Group operating EBITA margins in the second half of 2018 and approximately 260 basis points on the EP operating EBITA margin. ABB aims to bring the margin for the EP division, after an initial dampening effect, back into its operational EBITA margin target range of fifteen to nineteen percent during 2020. The transaction includes a long-term strategic supply relationship with GE and allows ABB long-term use of the GE brand.

Relentless execution

ABB continues to benefit from its ongoing cost management and productivity efforts. During the quarter, pricing action and savings outpaced raw materials inflation supporting ABB's ongoing aim of offsetting three to five percent of the group's cost of sales each year.

The group focus on Quality and Operations is building on ABB's 1,000-day programs completed in 2017. Gaps in performance, informed by customer feedback, are rigorously identified and addressed using Lean Six Sigma methods. ABB currently has 1,500 continuous improvement projects underway, led from within each division.

Business-led collaboration

Strategic partnership developments in the second quarter include the formation of a global strategic alliance to provide industrial grade edge data center solutions between ABB and Rittal, building on the success of prior co-operation and a software alliance for collaborative robotics with Kawasaki Heavy Industries.

ABB continues to build strategic brand positioning through its partnership with the ABB Formula E electric car racing championship series, which provides a unique platform to demonstrate e-mobility leadership.

Short- and long-term outlook

Macroeconomic signs are trending positively in Europe and the United States, with growth expected to continue in China. The overall global market is growing, with rising geopolitical uncertainties in various parts of the world. Oil prices and foreign exchange translation effects are expected to continue to influence the company's results.

The attractive long-term demand outlook in ABB's three major customer sectors – utilities, industry and transport & infrastructure – is driven by the Energy and Fourth Industrial Revolutions. ABB is well-positioned to tap into these opportunities for long-term profitable growth with its strong market presence, broad geographic and business scope, technology leadership and financial strength.

More information

The Q2 2018 results press release and presentation slides are available on the ABB News Center at www.abb.com/news and on the Investor Relations homepage at www.abb.com/investorrelations.

ABB will host a media call today starting at 10:00 a.m. Central European Time (CET) (9:00 a.m. BST, 4:00 a.m. EDT). The event will be accessible by conference call. Lines will be open 10-15 minutes before the start of the call. The media conference call dial-in numbers are:

UK +44 207 107 0613

Sweden +46 8 5051 0031

Rest of Europe, +41 58 310 5000

US and Canada +1 866 291 4166 (toll-free) or +1 631 570 5613 (long-distance charges)

A conference call and webcast for analysts and investors is scheduled to begin today at 2:00 p.m. CET (1:00 p.m. BST, 8:00 a.m. EST). Callers are requested to phone in 10 minutes before the start of the call. The analyst and investor conference call dial-in numbers are:

UK +44 207 107 0613

Sweden +46 8 5051 0031

Rest of Europe, +41 58 310 5000

US and Canada +1 866 291 4166 (toll-free) or +1 631 570 5613 (long-distance charges)

The call will also be accessible on the ABB website at: https://new.abb.com/investorrelations/second-quarter-2018-results-webcast. A recorded session will be available as a podcast one hour after the end of the conference call and can be downloaded from our website.

ABB (ABBN: SIX Swiss Ex) is a pioneering technology leader in power grids, electrification products, industrial automation and robotics and motion, serving customers in utilities, industry and transport & infrastructure globally. Continuing a history of innovation spanning more than 130 years, ABB today is writing the future of industrial digitalization with two clear value propositions: bringing electricity from any power plant to any plug and automating industries from natural resources to finished products. As title partner in ABB Formula E, the fully electric international FIA motorsport class, ABB is pushing the boundaries of e-mobility to contribute to a sustainable future. ABB operates in more than 100 countries with about 147,000 employees. www.abb.com

	Investor calendar 2018/2019
Third quarter 2018 results	October 25, 2018
Fourth quarter and full year 2018 results	February 2019

Important notice about forward-looking information

This press release includes forward-looking information and statements as well as other statements concerning the outlook for our business, including those in the sections of this release titled “Short-term outlook”, “Cash flow from operating activities”, “Next Level strategy” and “Short- and long-term outlook”. These statements are based on current expectations, estimates and projections about the factors that may affect our future performance, including global economic conditions, the economic conditions of the regions and industries that are major markets for ABB Ltd. These expectations, estimates and projections are generally identifiable by statements containing words such as “expects,” “believes,” “estimates,” “targets,” “plans,” “is lik “intends” or similar expressions. However, there are many risks and uncertainties, many of which are beyond our control, that could cause our actual results to differ materially from the forward-looking information and statements made in this press release and which could affect our ability to achieve any or all of our stated targets. The important factors that could cause such differences include, among others, business risks associated with the volatile global economic environment and political conditions, costs associated with compliance activities, market acceptance of new products and services, changes in governmental regulations and currency exchange rates and such other factors as may be discussed from time to time in ABB Ltd’s filings with the U.S. Securities and Exchange Commission, including its Annual Reports on Form 20-F. Although ABB Ltd believes that its expectations reflected in any such forward-looking statement are based upon reasonable assumptions, it can give no assurance that those expectations will be achieved.

Zurich, July 19, 2018

Ulrich Spiesshofer, CEO

—

For more information, please contact:

Media Relations	**Investor Relations**	**ABB Ltd**
Phone: +41 43 317 71 11	Phone: +41 43 317 71 11	Affolternstrasse 44
E-mail:	E-mail:	8050 Zurich
media.relations@ch.abb.com	investor.relations@ch.abb.com	Switzerland

1 Q2 2018 Financial Information

Key Figures

($ in millions, unless otherwise indicated)	**Q2 2018**	**Q2 2017**	CHANGE US$	CHANGE Comparable[1]
Orders	9,483	8,349	14%	8%
Order backlog (end June)	24,214	23,553	3%	-1%
Revenues	8,889	8,454	5%	1%
Operational EBITA[1]	1,167	1,042	12%	8%[2]
as % of operational revenues[1]	13.0%	12.4%	+0.6 pts	
Net income attributable to ABB	681	525	30%	
Basic earnings per share ($)	0.32	0.25	30%[3]	
Operational earnings per share[1] ($)	0.38	0.30	28%[3]	27%[3]
Cash flow from operating activities	1,010	467	116%	

($ in millions, unless otherwise indicated)	**H1 2018**	**H1 2017**	CHANGE US$	Comparable[1]
Orders	19,255	16,752	15%	7%
Revenues	17,516	16,308	7%	1%
Operational EBITA[1]	2,227	1,985	12%	6%[2]
as % of operational revenues[1]	12.7%	12.3%	+0.4 pts	
Net income attributable to ABB	1,253	1,249	0%	
Basic earnings per share ($)	0.59	0.58	1%[3]	
Operational earnings per share[1] ($)	0.69	0.58	19%[3]	16%[3]
Cash flow from operating activities	492	976	-50%	

(1) For a reconciliation of non-GAAP measures see “Supplemental Reconciliations and Definitions” on page 36.

(2) Constant currency (not adjusted for portfolio changes).

(3) Earnings per share growth rates are computed using unrounded amounts. Comparable Operational earnings per share growth is in constant currency (2014 foreign exchange rates and not adjusted for changes in the business portfolio).

					C
($ in millions, unless otherwise indicated)		**Q2 2018**	**Q2 2017**	US$	Loc
Orders	**ABB Group**	**9,483**	**8,349**	**14%**	**11**
	Power Grids	2,577	2,427	6%	5
	Electrification Products	2,727	2,512	9%	6
	Industrial Automation	2,005	1,492	34%	30
	Robotics and Motion	2,540	2,218	15%	11
	Corporate and Other (incl. inter-division eliminations)	(366)	(300)		
Third-party base orders	**ABB Group**	**8,794**	**7,681**	**14%**	**12**
	Power Grids	2,128	1,961	9%	7
	Electrification Products	2,553	2,393	7%	4
	Industrial Automation	1,715	1,321	30%	26
	Robotics and Motion	2,363	1,966	20%	16
	Corporate and Other	35	40		
Order backlog (end June)	**ABB Group**	**24,214**	**23,553**	**3%**	**4**
	Power Grids	10,471	11,085	-6%	-4
	Electrification Products	4,449	3,220	38%	39
	Industrial Automation	5,496	5,578	-1%	-1
	Robotics and Motion	4,262	4,056	5%	6
	Corporate and Other (incl. inter-division eliminations)	(464)	(386)		
Revenues	**ABB Group**	**8,889**	**8,454**	**5%**	**3**
	Power Grids	2,354	2,507	-6%	-8
	Electrification Products	2,673	2,509	7%	4
	Industrial Automation	1,839	1,575	17%	13
	Robotics and Motion	2,316	2,082	11%	8
	Corporate and Other (incl. inter-division eliminations)	(293)	(219)		
Operational EBITA	**ABB Group**	**1,167**	**1,042**	**12%**	**8**
	Power Grids	232	253	-8%	-9
	Electrification Products	430	373	15%	10
	Industrial Automation	260	211	23%	21
	Robotics and Motion	374	314	19%	15
	Corporate and Other (incl. inter-division eliminations)	(129)	(109)		
Operational EBITA %	**ABB Group**	**13.0%**	**12.4%**		
	Power Grids	9.7%	10.1%		
	Electrification Products	16.0%	15.0%		
	Industrial Automation	14.1%	13.4%		
	Robotics and Motion	16.1%	15.1%		
Income from operations	**ABB Group**	**962**	**877**		
	Power Grids	176	226		
	Electrification Products	343	334		
	Industrial Automation	223	209		
	Robotics and Motion	353	282		
	Corporate and Other (incl. inter-division eliminations)	(133)	(174)		
Income from operations %	**ABB Group**	**10.8%**	**10.4%**		

	Power Grids	7.5%	9.0%
	Electrification Products	12.8%	13.3%
	Industrial Automation	12.1%	13.3%
	Robotics and Motion	15.2%	13.5%
Cash flow from operating activities	**ABB Group**	**1,010**	**467**
	Power Grids	228	77
	Electrification Products	297	259
	Industrial Automation	208	153
	Robotics and Motion	351	221
	Corporate and Other	(74)	(243)

					C
($ in millions, unless otherwise indicated)		**H1 2018**	**H1 2017**	US$	Loc
Orders	**ABB Group**	**19,255**	**16,752**	**15%**	**10**
	Power Grids	5,057	4,751	6%	3
	Electrification Products	5,513	5,040	9%	4
	Industrial Automation	4,122	3,166	30%	23
	Robotics and Motion	5,119	4,395	16%	11
	Corporate and Other (incl. inter-division eliminations)	(556)	(600)		
Third-party base orders	**ABB Group**	**17,545**	**15,279**	**15%**	**10**
	Power Grids	4,120	3,724	11%	7
	Electrification Products	5,200	4,758	9%	4
	Industrial Automation	3,502	2,762	27%	20
	Robotics and Motion	4,676	3,957	18%	13
	Corporate and Other	47	78		
Order backlog (end June)	**ABB Group**	**24,214**	**23,553**	**3%**	**4**
	Power Grids	10,471	11,085	-6%	-4
	Electrification Products	4,449	3,220	38%	39
	Industrial Automation	5,496	5,578	-1%	-1
	Robotics and Motion	4,262	4,056	5%	6
	Corporate and Other (incl. inter-division eliminations)	(464)	(386)		
Revenues	**ABB Group**	**17,516**	**16,308**	**7%**	**3**
	Power Grids	4,739	4,858	-2%	-6
	Electrification Products	5,167	4,802	8%	3
	Industrial Automation	3,698	3,088	20%	14
	Robotics and Motion	4,525	4,002	13%	8
	Corporate and Other (incl. inter-division eliminations)	(613)	(442)		
Operational EBITA	**ABB Group**	**2,227**	**1,985**	**12%**	**6**
	Power Grids	464	484	-4%	-7
	Electrification Products	807	695	16%	8
	Industrial Automation	522	417	25%	19
	Robotics and Motion	712	596	19%	13
	Corporate and Other (incl. inter-division eliminations)	(278)	(207)		
Operational EBITA %	**ABB Group**	**12.7%**	**12.3%**		
	Power Grids	9.7%	10.0%		
	Electrification Products	15.6%	14.6%		
	Industrial Automation	14.1%	13.6%		
	Robotics and Motion	15.7%	14.9%		
Income from operations	**ABB Group**	**1,857**	**1,900**		
	Power Grids	369	437		
	Electrification Products	661	641		
	Industrial Automation	460	420		
	Robotics and Motion	666	543		
	Corporate and Other (incl. inter-division eliminations)	(299)	(141)		
Income from operations %	**ABB Group**	**10.6%**	**11.7%**		

	Power Grids	7.8%	9.0%
	Electrification Products	12.8%	13.3%
	Industrial Automation	12.4%	13.6%
	Robotics and Motion	14.7%	13.6%
Cash flow from operating activities	**ABB Group**	**492**	**976**
	Power Grids	(22)	267
	Electrification Products	378	464
	Industrial Automation	287	273
	Robotics and Motion	424	484
	Corporate and Other	(575)	(512)

Operational EBITA

($ in millions, unless otherwise indicated)	ABB		Power Grids		Electrification Products		Industrial Automation	
	Q2 18	**Q2 17**	**Q2 18**	**Q2 17**	**Q2 18**	**Q2 17**	**Q2 18**	**Q2 17**
Revenues	**8,889**	**8,454**	**2,354**	**2,507**	**2,673**	**2,509**	**1,839**	**1,575**
FX/commodity timing differences in total revenues	75	(26)	42	(13)	20	(16)	7	(2)
Operational revenues	**8,964**	**8,428**	**2,396**	**2,494**	**2,693**	**2,493**	**1,846**	**1,573**
Income from operations	**962**	**877**	**176**	**226**	**343**	**334**	**223**	**209**
Acquisition-related amortization	72	56	10	9	19	26	21	2
Restructuring and restructuring-related expenses(1)	6	84	7	18	(1)	13	–	5
Changes in retained obligations of divested businesses	–	–	–	–	–	–	–	–
Changes in pre-acquisition estimates	1	2	–	–	1	2	–	–
Gains and losses from sale of businesses	(1)	7	–	–	2	–	–	(2)
Acquisition-related expenses and integration costs	51	8	3	1	44	3	1	4
Certain other non-operational items	30	48	12	24	10	9	–	–
FX/commodity timing differences in income from operations	46	(40)	24	(25)	12	(14)	15	(7)
Operational EBITA	**1,167**	**1,042**	**232**	**253**	**430**	**373**	**260**	**211**
Operational EBITA margin (%)	**13.0%**	**12.4%**	**9.7%**	**10.1%**	**16.0%**	**15.0%**	**14.1%**	**13.4%**

($ in millions, unless otherwise indicated)	ABB		Power Grids		Electrification Products		Industrial Automation	
	H1 18	**H1 17**	**H1 18**	**H1 17**	**H1 18**	**H1 17**	**H1 18**	**H1 17**
Revenues	**17,516**	**16,308**	**4,739**	**4,858**	**5,167**	**4,802**	**3,698**	**3,088**
FX/commodity timing differences in total revenues	87	(105)	56	(41)	14	(27)	6	(15)
Operational revenues	**17,603**	**16,203**	**4,795**	**4,817**	**5,181**	**4,775**	**3,704**	**3,073**
Income from operations	**1,857**	**1,900**	**369**	**437**	**661**	**641**	**460**	**420**
Acquisition-related amortization	145	115	20	17	39	52	44	4
Restructuring and restructuring-related expenses(1)	17	132	11	21	3	13	2	9
Changes in retained obligations of divested businesses	–	94	–	–	–	–	–	
Changes in pre-acquisition estimates	1	2	–	–	1	2	–	
Gains and losses from sale of businesses	5	(331)	–	–	2	–	3	(2)
Acquisition-related expenses and integration costs	77	14	4	–	68	3	2	7
Certain other non-operational items	59	150	27	52	15	13	–	

FX/commodity timing differences in income from operations	66	(91)	33	(43)	18	(29)	11	(21)
Operational EBITA	**2,227**	**1,985**	**464**	**484**	**807**	**695**	**522**	**417**
Operational EBITA margin (%)	**12.7%**	**12.3%**	**9.7%**	**10.0%**	**15.6%**	**14.6%**	**14.1%**	**13.6%**

(1) Amounts in 2017 also include the incremental implementation costs in relation to the White Collar Productivity program.

Depreciation and Amortization

($ in millions)	**ABB**		**Power Grids**		**Electrification Products**		**Indust Automa**
	Q2 18	**Q2 17**	**Q2 18**	**Q2 17**	**Q2 18**	**Q2 17**	**Q2 18**
Depreciation	188	180	42	43	50	50	17
Amortization	92	78	16	15	21	29	23
including total acquisition-related amortization of:	72	56	10	9	19	26	21

($ in millions)	**ABB**		**Power Grids**		**Electrification Products**		**Indust Automa**
	H1 18	**H1 17**	**H1 18**	**H1 17**	**H1 18**	**H1 17**	**H1 18**
Depreciation	381	364	87	86	102	100	34
Amortization	184	157	33	30	44	58	47
including total acquisition-related amortization of:	145	115	20	17	39	52	44

Orders received and revenues by region

($ in millions, unless otherwise indicated)	**Orders received**		CHANGE			**Revenues**		CHANGE	
	Q2 18	**Q2 17**	US$	Local	Com-parable	**Q2 18**	**Q2 17**	US$	Local
Europe	3,469	2,843	22%	16%	10%	3,071	2,813	9%	4%
The Americas	2,601	2,441	7%	8%	7%	2,545	2,472	3%	4%
Asia, Middle East and Africa	3,413	3,065	11%	8%	7%	3,273	3,169	3%	0%
ABB Group	**9,483**	**8,349**	**14%**	**11%**	**8%**	**8,889**	**8,454**	**5%**	**3%**

($ in millions, unless otherwise indicated)	**Orders received**		CHANGE			**Revenues**		CHA	
	H1 18	**H1 17**	US$	Local	Com-parable	**H1 18**	**H1 17**	US$	Loca
Europe	7,051	5,970	18%	8%	3%	6,220	5,507	13%	4
The Americas	4,992	4,803	4%	4%	3%	4,935	4,804	3%	3
Asia, Middle East and Africa	7,212	5,979	21%	15%	13%	6,361	5,997	6%	1
ABB Group	**19,255**	**16,752**	**15%**	**10%**	**7%**	**17,516**	**16,308**	**7%**	**3**

Interim Consolidated Financial Information

ABB Ltd Interim Consolidated Income Statements (unaudited)

	Six
($ in millions, except per share data in $)	**Jun. 30,**
Sales of products	1
Sales of services and other	
Total revenues	**1**
Cost of sales of products	(1
Cost of services and other	(
Total cost of sales	**(12**
Gross profit	
Selling, general and administrative expenses	(
Non-order related research and development expenses	
Other income (expense), net	
Income from operations	
Interest and dividend income	
Interest and other finance expense	
Non-operational pension (cost) credit	
Income from continuing operations before taxes	
Provision for taxes	
Income from continuing operations, net of tax	
Income (loss) from discontinued operations, net of tax	
Net income	
Net income attributable to noncontrolling interests	
Net income attributable to ABB	
Amounts attributable to ABB shareholders:	
Income from continuing operations, net of tax	
Net income	
Basic earnings per share attributable to ABB shareholders:	
Income from continuing operations, net of tax	
Net income	
Diluted earnings per share attributable to ABB shareholders:	
Income from continuing operations, net of tax	
Net income	
Weighted-average number of shares outstanding (in millions) used to compute:	
Basic earnings per share attributable to ABB shareholders	

Diluted earnings per share attributable to ABB shareholders
Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Interim Consolidated Financial Information

ABB Ltd Interim Condensed Consolidated Statements of Comprehensive Income (unaudited)

	Six month
($ in millions)	**Jun. 30, 2018** J
Total comprehensive income, net of tax	**984**
Total comprehensive income attributable to noncontrolling interests, net of tax	(60)
Total comprehensive income attributable to ABB shareholders, net of tax	**924**

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Interim Consolidated Financial Information

ABB Ltd Interim Consolidated Balance Sheets (unaudited)

($ in millions, except share data)	**Jun.**
Cash and equivalents	
Marketable securities and short-term investments	
Receivables, net	
Contract assets	
Inventories, net	
Prepaid expenses	
Other current assets	
Total current assets	
Property, plant and equipment, net	
Goodwill	
Other intangible assets, net	
Prepaid pension and other employee benefits	
Investments in equity-accounted companies	
Deferred taxes	
Other non-current assets	
Total assets	
Accounts payable, trade	
Contract liabilities	
Short-term debt and current maturities of long-term debt	
Provisions for warranties	
Other provisions	
Other current liabilities	
Total current liabilities	
Long-term debt	
Pension and other employee benefits	
Deferred taxes	
Other non-current liabilities	
Total liabilities	
Commitments and contingencies	
Stockholders' equity:	
Capital stock (2,168,148,264 issued shares at June 30, 2018, and December 31, 2017)	
Additional paid-in capital	
Retained earnings	
Accumulated other comprehensive loss	
Treasury stock, at cost (36,372,358 and 29,541,775 shares at June 30, 2018, and December 31, 2017, respectively)	
Total ABB stockholders' equity	
Noncontrolling interests	

Total stockholders' equity
Total liabilities and stockholders' equity
Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Interim Consolidated Financial Information

ABB Ltd Interim Consolidated Statements of Cash Flows (unaudited)

($ in millions)	S Jun. 3
Operating activities:	
Net income	
Adjustments to reconcile net income to net cash provided by operating activities:	
Depreciation and amortization	
Deferred taxes	
Net loss (gain) from derivatives and foreign exchange	
Net loss (gain) from sale of property, plant and equipment	
Net loss (gain) from sale of businesses	
Share-based payment arrangements	
Other	
Changes in operating assets and liabilities:	
Trade receivables, net	
Contract assets and liabilities	
Inventories, net	
Trade payables	
Accrued liabilities	
Provisions, net	
Income taxes payable and receivable	
Other assets and liabilities, net	
Net cash provided by operating activities	
Investing activities:	
Purchases of marketable securities (available-for-sale)	
Purchases of short-term investments	
Purchases of property, plant and equipment and intangible assets	
Acquisition of businesses (net of cash acquired) and increases in cost- and equity-accounted companies	
Proceeds from sales of marketable securities (available-for-sale)	
Proceeds from maturity of marketable securities (available-for-sale)	
Proceeds from short-term investments	
Proceeds from sales of property, plant and equipment	
Proceeds from sales of businesses (net of transaction costs and cash disposed) and cost- and equity-accounted companies	
Net cash from settlement of foreign currency derivatives	
Other investing activities	
Net cash provided by (used in) investing activities	
Financing activities:	
Net changes in debt with original maturities of 90 days or less	
Increase in debt	
Repayment of debt	
Delivery of shares	
Purchase of treasury stock	
Dividends paid	

Dividends paid to noncontrolling shareholders
Other financing activities
Net cash provided by (used in) financing activities

Effects of exchange rate changes on cash and equivalents
Net change in cash and equivalents – continuing operations

Cash and equivalents, beginning of period
Cash and equivalents, end of period

Supplementary disclosure of cash flow information:
Interest paid
Taxes paid
Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Interim Consolidated Financial Information

ABB Ltd Interim Consolidated Statements of Changes in Stockholders' Equity (unaudited)

($ in millions)	Capital stock	Additional paid-in capital	Retained earnings	Total accumu- lated other comprehensive loss	Treasury stock	**Total ABI stockholde equity**
Balance at January 1, 2017	**192**	**24**	**19,925**	**(5,187)**	**(1,559)**	**13,3**
Comprehensive income:						
Net income			1,249			**1,2**
Foreign currency translation adjustments, net of tax of $(1)				564		**5**
Effect of change in fair value of available-for-sale securities, net of tax of $0				2		
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of $(13)				(51)		**(5**
Change in derivatives qualifying as cash flow hedges, net of tax of $2				5		
Total comprehensive income						**1,7**
Changes in noncontrolling interests						
Dividends to noncontrolling shareholders						
Dividends paid to shareholders			(1,622)			**(1,62**
Share-based payment arrangements		27				
Purchase of treasury stock					(251)	**(25**
Delivery of shares		(23)			109	
Balance at June 30, 2017	**192**	**27**	**19,552**	**(4,667)**	**(1,701)**	**13,4**
Balance at January 1, 2018	**188**	**29**	**19,594**	**(4,345)**	**(647)**	**14,8**
Cumulative effect of changes in accounting principles			(192)	(9)		**(20**
Comprehensive income:						
Net income			1,253			**1,2**
Foreign currency translation adjustments, net of tax of $1				(389)		**(38**
Effect of change in fair value of available-for-sale securities, net of tax of $(1)				(5)		
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of $25				84		

Change in derivatives qualifying as cash flow hedges, net of tax of $(3)				(19)		**(1**
Total comprehensive income						**9**
Changes in noncontrolling interests						
Dividends to noncontrolling shareholders						
Dividends paid to shareholders			(1,736)			**(1,73**
Share-based payment arrangements		28				
Purchase of treasury stock					(249)	**(24**
Delivery of shares		(30)			72	
Balance at June 30, 2018	**188**	**26**	**18,919**	**(4,683)**	**(824)**	**13,6**

Due to rounding, numbers presented may not add to the totals provided.

See Notes to the Interim Consolidated Financial Information

Notes to the Interim Consolidated Financial Information (unaudited)

Note 1

The Company and basis of presentation

ABB Ltd and its subsidiaries (collectively, the Company) together form a pioneering technology leader in power grids, electrification products, industrial automation and robotics and motion, serving customers in utilities, industry and transport & infrastructure globally.

The Company's Interim Consolidated Financial Information is prepared in accordance with United States of America generally accepted accounting principles (U.S. GAAP) for interim financial reporting. As such, the Interim Consolidated Financial Information does not include all the information and notes required under U.S. GAAP for annual consolidated financial statements. Therefore, such financial information should be read in conjunction with the audited consolidated financial statements in the Company's Annual Report for the year ended December 31, 2017.

The preparation of financial information in conformity with U.S. GAAP requires management to make assumptions and estimates that directly affect the amounts reported in the Interim Consolidated Financial Information. The most significant, difficult and subjective of such accounting assumptions and estimates include:

- estimates and assumptions used in determining the fair values of assets and liabilities assumed in business combinations,
- assumptions used in determining inventory obsolescence and net realizable value,
- estimates used to record expected costs for employee severance in connection with restructuring programs,

- assumptions and projections, principally related to future material, labor and project related overhead costs, used in determining the percentage of completion on projects,

- estimates of loss contingencies associated with litigation or threatened litigation and other claims and inquiries, environmental damages, product warranties, self-insurance reserves, regulatory and other proceedings,

- assumptions used in the calculation of pension and postretirement benefits and the fair value of pension plan assets,

- estimates to determine valuation allowances for deferred tax assets and amounts recorded for uncertain tax positions,

- growth rates, discount rates and other assumptions used to determine impairment of long lived assets and in testing goodwill for impairment,

- assessment of the allowance for doubtful accounts, and

- the estimated effective annual tax rate applicable to the interim financial information.

The actual results and outcomes may differ from the Company’s estimates and assumptions.

A portion of the Company’s activities (primarily long-term construction activities) has an operating cycle that exceeds one year. For classification of current assets and liabilities related to such activities, the Company elected to use the duration of the individual contracts as its operating cycle. Accordingly, there are accounts receivable, contract assets, inventories and provisions related to these contracts which will not be realized within one year that have been classified as current.

Basis of presentation

In the opinion of management, the unaudited Interim Consolidated Financial Information contains all necessary adjustments to present fairly the financial position, results of operations and cash flows for the reported interim periods. Management considers all such adjustments to be of a normal recurring nature.

The Company has retained obligations (primarily for environmental and taxes) related to businesses disposed or otherwise exited that qualified as discontinued operations. Changes to these retained obligations are recorded in income/loss from discontinued operations, net of tax.

The Interim Consolidated Financial Information is presented in United States dollars ($) unless otherwise stated. Due to rounding, numbers presented in the Interim Consolidated Financial Information may not add to the totals provided.

Reclassifications

Certain amounts reported in the Interim Consolidated Financial Information for prior periods have been reclassified to conform to the current year’s presentation. These changes primarily relate to:

- the reorganization of the Company’s operating segments (see Note 15), and
- as a result of the adoption of a number of accounting pronouncements (see Note 2):

(i) the reclassification of Unbilled receivables from Receivables to Contract assets,

(ii) the reclassification of Billings in excess of sales, Advances from customers, certain advances to customers previously reported as a reduction in Inventories, and deferred revenues previously reported in Other current liabilities, to Contract liabilities, and

(iii) the reclassification of certain net periodic pension and postretirement benefits costs/credits from Total cost of sales, Selling, general and administrative expenses and Non-order related research and development expenses to Non-operational pension (cost) credit.

Note 2

Recent accounting pronouncements

Applicable for current periods

Revenue from contracts with customers

As of January 1, 2018, the Company adopted a new accounting standard for recognizing revenues from contracts with customers. The new standard, which supersedes substantially all previously existing revenue recognition guidance, provides a single comprehensive model for recognizing revenues on the transfer of promised goods or services to customers for an amount that reflects the consideration that is expected to be received for those goods or services. The adoption of this standard resulted in only immaterial differences between the identification of performance obligations and the current unit of accounting determination. Therefore, the cumulative effect on retained earnings of retrospectively applying this standard was not significant. However, total assets and total liabilities increased by $196 million due to the reclassification of certain advances from customers, previously reported as a reduction in Inventories, to liabilities.

While comparative information has not been restated and continues to be measured and reported under the accounting standards in effect for those periods presented, the following prior period amounts have been reclassified in the Consolidated Balance Sheets to conform to the presentation requirements of the new standard:

	December 31, 2017				
($ in millions)	Previously reported	As adjusted		Previously reported	As adjusted
Consolidated Balance Sheet					
Current assets			**Current liabilities**		
Receivables, net(1)	10,416	8,267	Contract liabilities(2), (3), (4)	–	2,908
Contract assets(1)	–	2,149	Billings in excess of sales(2)	1,251	–
Inventories, net(3)	5,059	5,255	Advances from customers(2), (3)	1,367	–
			Other current liabilities(4)	4,385	4,291
Total assets	43,262	43,458	Total liabilities	27,913	28,109

(1) $2,149 million of unbilled receivables previously included in Receivables, have been reclassified to Contract assets.

(2) Amounts previously presented as billings in excess of sales and advances from customers, have been reclassified to Contract liabilities.

(3) $196 million of advances from customers, previously recorded net within Inventories, have been reclassified to advances from customers and recorded within Contract liabilities.

(4) Certain amounts recorded as deferred revenues totaling $94 million, have been reclassified from Other current liabilities to Contract liabilities.

Other than the reclassifications of 2017 balances in the table above and the additional disclosure requirements, the impact of the adoption on the Company's Interim Consolidated Financial Information for the six and three months ended June 30, 2018, was not significant.

Income taxes – Intra-entity transfers of assets other than inventory

In January 2018, the Company adopted an accounting standard update requiring it to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs instead of when the asset has been sold to an outside party. This update was applied on a modified retrospective basis and resulted in a net reduction in deferred tax assets of $201 million with a corresponding reduction in retained earnings.

Improving the presentation of net periodic pension cost and net periodic postretirement benefit cost

In January 2018, the Company adopted an accounting standard update which changes how employers that sponsor defined benefit pension plans and other postretirement plans present the net periodic benefit cost in the income statement. Under this standard, the Company is required to report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. Other components of net periodic benefit cost are required to be presented in the income statement separately from the service cost component and outside the subtotal of income from operations. Under the amendment only the current service cost component is allowed to be capitalized as a cost of internally manufactured inventory or a self-constructed asset. This update was applied retrospectively for the presentation requirements, and prospectively for the capitalization of the current service cost component requirements. The Company has used the practical expedient, as the amount of other components of net periodic benefit cost capitalized in inventory for prior periods is not significant.

For the six and three months ended June 30, 2017, the Company reclassified $14 million and $7 million, respectively, of income and presented it outside of income from operations relating to net periodic pension costs.

Recognition and measurement of financial assets and financial liabilities

In January 2018, the Company adopted two accounting standard updates enhancing the reporting model for financial instruments, which include amendments to address aspects of recognition, measurement, presentation and disclosure. The Company is required to measure equity investments (except those accounted for under the equity method) at fair value with changes in fair value recognized in net income. The adoption of these updates resulted in the reclassification of the net cumulative unrealized gains on available-for-sale equity securities of $9 million (net of tax) at December 31, 2017 from Total accumulated comprehensive loss to Retained earnings on January 1, 2018.

Classification of certain cash receipts and cash payments in the statement of cash flows

In January 2018, the company adopted an accounting standard update which clarifies how certain cash receipts and cash payments, including debt prepayment or extinguishment costs, the settlement of zero coupon debt instruments, contingent consideration paid after a business combination, proceeds from insurance settlements, distributions from certain equity method investees and beneficial interests obtained in a financial asset securitization, should be presented and classified in the statement of cash flows. This update was applied retrospectively and did not have a significant impact on the consolidated financial statements.

Statement of cash flows - Restricted cash

In January 2018, the Company adopted an accounting standard update which clarifies the classification and presentation of changes in restricted cash on the statement of cash flows. It requires the inclusion of cash and cash equivalents that have restrictions on withdrawal or use in total cash and cash equivalents on the statement of cash flows. This update did not have a significant impact on the consolidated financial statements.

Clarifying the definition of a business

In January 2018, the Company adopted an accounting standard update which narrows the definition of a business. It also provides a framework for determining whether a set of transferred assets and activities involves a business. This update was applied prospectively and did not have a significant impact on the consolidated financial statements.

Clarifying the scope of asset derecognition guidance and accounting for partial sales of nonfinancial assets

In January 2018, the Company adopted an accounting standard update which clarifies the scope of asset derecognition guidance, adds guidance for partial sales of nonfinancial assets and clarifies recognizing gains and losses from the transfer of nonfinancial assets in contracts with noncustomers. This update was applied retrospectively and did not have a significant impact on the consolidated financial statements.

Compensation—Stock Compensation

In January 2018, the Company adopted an accounting standard update which clarifies when to account for a change to the terms or conditions of a share-based payment award as a modification. Under this update, modification accounting is required only if the fair value, the vesting conditions, or the classification of the award (as equity or liability) changes as a result of the change in terms or conditions. This update was applied prospectively and did not have a significant impact on the consolidated financial statements.

Applicable for future periods

Leases

In February 2016, an accounting standard update was issued that requires lessees to recognize lease assets and corresponding lease liabilities on the balance sheet for all leases with terms of more than 12 months. The update, which supersedes existing lease guidance, will continue to classify leases as either finance or operating, with the classification determining the pattern of expense recognition in the income statement. This update is effective for the Company for annual and interim periods beginning January 1, 2019, and is applicable on a modified retrospective basis with various optional practical expedients.

The Company currently expects the update will increase total assets and total liabilities by approximately $1.5 billion. The Company continues to evaluate the impacts of the adoption of this update and therefore the expected impacts are subject to change.

Measurement of credit losses on financial instruments

In June 2016, an accounting standard update was issued which replaces the existing incurred loss impairment methodology for most financial assets with a new “current expected credit loss” model. The new model will result in the immediate recognition of the estimated credit losses expected to occur over the remaining life of financial assets such as trade and other receivables, held-to-maturity debt securities, loans and other instruments. Credit losses relating to available-for-sale debt securities will be measured in a manner similar to current GAAP, except that the losses will be recorded through an allowance for credit losses rather than as a direct write-down of the security.

This update is effective for the Company for annual and interim periods beginning January 1, 2020, with early adoption permitted for annual and interim periods beginning January 1, 2019. The Company is currently evaluating the impact of this update on its consolidated financial statements.

Derivatives and Hedging—Targeted Improvements to Accounting for Hedging Activities

In August 2017, an accounting standard update was issued which expands and refines hedge accounting for both financial and non-financial risk components, aligns the recognition and presentation of the effects of hedging instruments and hedge items in the financial statements, and includes certain targeted improvements to ease the application of current guidance related to the assessment of hedge effectiveness. This update is effective for the Company for annual and interim periods beginning January 1, 2019. For cash flow and net investment hedges as of the adoption date, the guidance requires a modified retrospective approach. The amended presentation and disclosure guidance is required only prospectively. The Company will adopt this update as of January 1, 2019, and is currently evaluating the impact of this update on its consolidated financial statements.

Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

In February 2018, an accounting standard update was issued which allows a reclassification of the stranded tax effects in accumulated other comprehensive income resulting from the Tax Cuts and Jobs Act of 2017 to retained earnings. This update is effective for the Company for annual and interim periods beginning January 1, 2019, with early adoption in any interim period permitted. The updated guidance is to be applied in the period of adoption or retrospectively to each period in which the effect of the Tax Cuts and Jobs Act related to items remaining in accumulated other comprehensive income are recognized. The Company is currently evaluating the impact of this update on its consolidated financial statements.

Note 3

Acquisitions and Divestments

Acquisitions

Acquisitions were as follows:

($ in millions, except number of acquired businesses)	Six months ended June 30, 2018
Acquisitions (net of cash acquired)(1)	2,498
Aggregate excess of purchase price over fair value of net assets acquired(2)	1,367
Number of acquired businesses	1

(1) Excluding changes in cost and equity accounted companies

(2) Recorded as goodwill.

In the table above, the “Acquisitions” and “Aggregate excess of purchase price over fair value of net assets acquired” amounts for the six months ended June 30, 2018, relate primarily to the acquisition of GE Industrial Solutions (GEIS). Acquisitions for the six months ended June 30, 2017, were not significant.

Acquisitions of controlling interests have been accounted for under the acquisition method and have been included in the Company’s Consolidated Financial Statements since the date of acquisition.

While the Company uses its best estimates and assumptions as part of the purchase price allocation process to value assets acquired and liabilities assumed at the acquisition date, the purchase price allocation for acquisitions is preliminary for up to 12 months after the acquisition date and is subject to refinement as more detailed analyses are completed and additional information about the fair values of the assets and liabilities becomes available.

On June 30, 2018, the Company acquired through numerous share and asset transactions substantially all the revenues, assets and liabilities of GEIS, GE's global electrification solutions business. GEIS, headquartered in Atlanta, United States, provides technologies that distribute and control electricity and support the commercial, data center, health care, mining, renewable energy, oil and gas, water and telecommunications sectors. The resulting cash outflows for the Company amounted to $2,498 million (net of cash acquired of $178 million). The acquisition strengthens the Company's global position in electrification and expands its access to the North American market through strong customer relationships, large installed base and extensive distribution networks and consequently the goodwill acquired represents expected operating synergies and cost savings as well as intangible assets that are not separable such as employee know-how and expertise. Given the timing and complexity of the acquisition, the presentation of GEIS in the Company's Financial Statements, including the allocation of the purchase price, is preliminary and likely to change in future periods.

The aggregate preliminary allocation of the purchase consideration for business acquisitions (including measurement period adjustments) in the six months ended June 30, 2018, was as follows:

($ in millions)	**Allocated amounts**	**Weighted-average useful life**
Technology	87	7 years
Customer relationships	214	14 years
Trade names	122	13 years
Supply agreement	34	13 years
Intangible assets	457	
Fixed assets	427	
Deferred tax liabilities	(177)	
Inventory	454	
Other assets and liabilities, net	(30)	
Goodwill(1)	1,367	
Total consideration (net of cash acquired) (2)	**2,498**	

(1) The Company does not expect the majority of the goodwill recognized to be deductible for income tax purposes.

(2) Primarily relates to the acquisition of GEIS.

Business divestments

There were no significant gains or losses recognized relating to divestments in the six and three months ended June 30, 2018. For the six and three months ended June 30, 2017, the Company recorded net gains (including transaction costs) of $331 million and net losses (including transaction costs) of $7 million in "Other income (expense), net".

For the six months ended June 30, 2017, an associated tax expense of $28 million relating to the divestment of consolidated businesses was recorded in “Provision for taxes”. These are primarily due to the divestment in March 2017, of the Company’s high-voltage cable system and cable accessories businesses (the Cables business).

The Company has retained certain obligations of the Cables business and thus the Company remains directly or indirectly liable for these liabilities which existed at the date of the divestment. Subsequent to the divestment, in six months ended June 30, 2017, the Company recorded a loss of $94 million for changes in the amounts recorded for these obligations. In addition, the Company has provided certain performance guarantees to third parties which guarantee the performance of the buyer under existing contracts with customers as well as for certain capital expenditures of the divested business (see Note 7).

Changes in total goodwill were as follows:

($ in millions)	**Total Goodwill**
Balance at January 1, 2017	**9,501**
Goodwill acquired during the year(1)	1,337
Goodwill allocated to disposals(2)	(2)
Exchange rate differences and other	363
Balance at December 31, 2017	**11,199**
Goodwill acquired during the year(3)	1,367
Goodwill allocated to disposals	(1)
Exchange rate differences and other	(163)
Balance at June 30, 2018	**12,402**

(1) Includes primarily goodwill in respect of B&R, acquired in July 2017, which has been allocated to the Industrial Automation operating segment.

(2) Goodwill allocated to the high-voltage cable system business sold in March 2017, within Corporate and Other (formerly reported in the Power Grids operating segment) was reported as held-for-sale at December 31, 2016.

(3) Includes primarily goodwill in respect of GEIS, acquired in June 2018, which has been allocated to the Electrification Products operating segment.

Note 4

Cash and equivalents, marketable securities and short-term investments

Cash and equivalents, marketable securities and short-term investments consisted of the following:

	June 30, 2018					
($ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents	Mark sec and shor invest
Cash	1,776			**1,776**	1,776	
Time deposits	1,546			**1,546**	1,507	
Other short-term investments	297			**297**	–	
Debt securities available-for-sale:						
U.S. government obligations	212	–	(5)	**207**	–	
Corporate	92	–	(2)	**90**	–	
Equity securities available-for-sale	147	14	–	**161**	–	
Total	**4,070**	**14**	**(7)**	**4,077**	**3,283**	

	December 31, 2017					
($ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents	Mar se and sho inves
Cash	1,963			**1,963**	1,963	
Time deposits	2,853			**2,853**	2,563	
Other short-term investments	305			**305**	–	
Debt securities available-for-sale:						
U.S. government obligations	127	–	(2)	**125**	–	
Other government obligations	2	–	–	**2**	–	
Corporate	215	1	(1)	**215**	–	
Equity securities available-for-sale	152	13	–	**165**	–	
Total	**5,617**	**14**	**(3)**	**5,628**	**4,526**	

Other short-term investments at June 30, 2018, and December 31, 2017, are receivables of $297 million and $305 million, respectively, representing reverse repurchase agreements. These collateralized lendings, made to a financial institution, have maturity dates of less than one year.

Note 5

Derivative financial instruments

The Company is exposed to certain currency, commodity, interest rate and equity risks arising from its global operating, financing and investing activities. The Company uses derivative instruments to reduce and manage the economic impact of these exposures.

Currency risk

Due to the global nature of the Company's operations, many of its subsidiaries are exposed to currency risk in their operating activities from entering into transactions in currencies other than their functional currency. To manage such currency risks, the Company's policies require the subsidiaries to hedge their foreign currency exposures from binding sales and purchase contracts denominated in foreign currencies. For forecasted foreign currency denominated sales of standard products and the related foreign currency denominated purchases, the Company's policy is to hedge up to a maximum of 100 percent of the forecasted foreign currency denominated exposures, depending on the length of the forecasted exposures. Forecasted exposures greater than 12 months are not hedged. Forward foreign exchange contracts are the main instrument used to protect the Company against the volatility of future cash flows (caused by changes in exchange rates) of contracted and forecasted sales and purchases denominated in foreign currencies. In addition, within its treasury operations, the Company primarily uses foreign exchange swaps and forward foreign exchange contracts to manage the currency and timing mismatches arising in its liquidity management activities.

Commodity risk

Various commodity products are used in the Company's manufacturing activities. Consequently it is exposed to volatility in future cash flows arising from changes in commodity prices. To manage the price risk of commodities, the Company's policies require that the subsidiaries hedge the commodity price risk exposures from binding contracts, as well as at least 50 percent (up to a maximum of 100 percent) of the forecasted commodity exposure over the next 12 months or longer (up to a maximum of 18 months). Primarily swap contracts are used to manage the associated price risks of commodities.

Interest rate risk

The Company has issued bonds at fixed rates. Interest rate swaps are used to manage the interest rate risk associated with certain debt and generally such swaps are designated as fair value hedges. In addition, from time to time, the Company uses instruments such as interest rate swaps, interest rate futures, bond futures or forward rate agreements to manage interest rate risk arising from the Company's balance sheet structure but does not designate such instruments as hedges.

Equity risk

The Company is exposed to fluctuations in the fair value of its warrant appreciation rights (WARs) issued under its management incentive plan. A WAR gives its holder the right to receive cash equal to the market price of an equivalent listed warrant on the date of exercise. To eliminate such risk, the Company has purchased cash-settled call options, indexed to the shares of the Company, which entitle the Company to receive amounts equivalent to its obligations under the outstanding WARs.

Volume of derivative activity

In general, while the Company's primary objective in its use of derivatives is to minimize exposures arising from its business, certain derivatives are designated and qualify for hedge accounting treatment while others either are not designated or do not qualify for hedge accounting.

Foreign exchange and interest rate derivatives

The gross notional amounts of outstanding foreign exchange and interest rate derivatives (whether designated as hedges or not) were as follows:

Type of derivative	**Total notional amounts at**		
($ in millions)	**June 30, 2018**	**December 31, 2017**	**June 30, 2017**
Foreign exchange contracts	16,390	17,280	16,387
Embedded foreign exchange derivatives	1,676	1,641	2,089
Interest rate contracts	3,934	5,706	5,197

Derivative commodity contracts

The Company uses derivatives to hedge its direct or indirect exposure to the movement in the prices of commodities which are primarily copper, silver, aluminum and oil. The following table shows the notional amounts of outstanding derivatives (whether designated as hedges or not), on a net basis, to reflect the Company's requirements for these commodities:

Type of derivative	**Unit**	**Total notional amounts at**		
		June 30, 2018	**December 31, 2017**	**June 30, 2017**
Copper swaps	metric tonnes	49,886	44,145	39,292
Silver swaps	ounces	2,213,132	1,966,729	1,604,444
Aluminum swaps	metric tonnes	9,850	7,700	5,550
Crude oil swaps	barrels	120,139	170,331	153,067

Equity derivatives

At June 30, 2018, December 31, 2017, and June 30, 2017, the Company held 33 million, 37 million and 37 million cash-settled call options indexed to ABB Ltd shares (conversion ratio 5:1) with a total fair value of $15 million, $42 million and $33 million, respectively.

Cash flow hedges

As noted above, the Company mainly uses forward foreign exchange contracts to manage the foreign exchange risk of its operations, commodity swaps to manage its commodity risks and cash-settled call options to hedge its WAR liabilities. Where such instruments are designated and qualify as cash flow hedges, the effective portion of the changes in their fair value is recorded in “Accumulated other comprehensive loss” and subsequently reclassified into earnings in the same line item and in the same period as the underlying hedged transaction affects earnings. Any ineffectiveness in the hedge relationship, or hedge component excluded from the assessment of effectiveness, is recognized in earnings during the current period.

At June 30, 2018, and December 31, 2017, “Accumulated other comprehensive loss” included net unrealized losses of $7 million and net unrealized gains of $12 million, respectively, net of tax, on derivatives designated as cash flow hedges. Of the amount at June 30, 2018, net losses of $2 million are expected to be reclassified to earnings in the following 12 months. At June 30, 2018, the longest maturity of a derivative classified as a cash flow hedge was 67 months.

The amount of gains or losses, net of tax, reclassified into earnings due to the discontinuance of cash flow hedge accounting was not significant in the six and three months ended June 30, 2018 and 2017.

The pre-tax effects of derivative instruments, designated and qualifying as cash flow hedges, on “Accumulated other comprehensive loss” (OCI) and the Consolidated Income Statements were as follows:

($ in millions)	**Gains (losses) recognized in OCI on derivatives (effective portion)**			**Gains (losses) reclassified from OCI into income (effective portion)**	
Six months ended June 30,	**2018**	**2017**		**2018**	**2017**
Type of derivative			**Location**		

Foreign exchange contracts	(3)	10	Total revenues	3	(3)
			Total cost of sales	–	3
Commodity contracts	(5)	2	Total cost of sales	3	4
Cash-settled call options	(25)	12	SG&A expenses(1)	(17)	9
Total	**(33)**	**24**		**(11)**	**13**

($ in millions)	**Gains (losses) recognized in OCI on derivatives (effective portion)**			**Gains (losses) reclassified from OCI into income (effective portion)**	
Three months ended June 30,	**2018**	**2017**		**2018**	**2017**
Type of derivative			**Location**		
Foreign exchange contracts	(5)	8	Total revenues	1	(1)
			Total cost of sales	–	–
Commodity contracts	(1)	–	Total cost of sales	1	2
Cash-settled call options	(4)	4	SG&A expenses(1)	(3)	3
Total	**(10)**	**12**		**(1)**	**4**

(1) SG&A expenses represent “Selling, general and administrative expenses”.

The amounts in respect of gains (losses) recognized in income for hedge ineffectiveness and amounts excluded from effectiveness testing were not significant for the six and three months ended June 30, 2018 and 2017.

Net derivative losses of $13 million and net derivative gains of $10 million, both net of tax, were reclassified from “Accumulated other comprehensive loss” to earnings during the six months ended June 30, 2018 and 2017, respectively. During the three months ended June 30, 2018 and 2017, net derivative losses of $2 million and net derivative gains of $3 million, both net of tax, respectively, were reclassified from “Accumulated other comprehensive loss” to earnings.

Fair value hedges

To reduce its interest rate exposure arising primarily from its debt issuance activities, the Company uses interest rate swaps. Where such instruments are designated as fair value hedges, the changes in the fair value of these instruments, as well as the changes in the fair value of the risk component of the underlying debt being hedged, are recorded as offsetting gains and losses in “Interest and other finance expense”. Hedge ineffectiveness of instruments designated as fair value hedges for the six and three months ended June 30, 2018 and 2017, was not significant.

The effect of interest rate contracts, designated and qualifying as fair value hedges, on the Consolidated Income Statements was as follows:

	Six months ended June 30,		**Three months ended June 30,**	
($ in millions)	**2018**	**2017**	**2018**	**2017**
Gains (losses) recognized in Interest and other finance expense:				
- on derivatives designated as fair value hedges	(20)	–	5	(1)
- on hedged item	20	3	(6)	3

Derivatives not designated in hedge relationships

Derivative instruments that are not designated as hedges or do not qualify as either cash flow or fair value hedges are economic hedges used for risk management purposes. Gains and losses from changes in the fair values of such derivatives are recognized in the same line in the income statement as the economically hedged transaction.

Furthermore, under certain circumstances, the Company is required to split and account separately for foreign currency derivatives that are embedded within certain binding sales or purchase contracts denominated in a currency other than the functional currency of the subsidiary and the counterparty.

The gains (losses) recognized in the Consolidated Income Statements on derivatives not designated in hedging relationships were as follows:

Type of derivative not designated as a hedge	**Gains (losses) recognized in income**				
		Six months ended June 30,		**Three months ended June 30,**	
($ in millions)	**Location**	**2018**	**2017**	**2018**	**2017**
Foreign exchange contracts	Total revenues	(231)	167	(210)	60
	Total cost of sales	86	(26)	60	34
	SG&A expenses(1)	4	(10)	11	(7)
	Non-order related research and development	–	–	1	2
	Other income (expense), net	–	(1)	–	–
	Interest and other finance expense	37	13	12	19
Embedded foreign exchange contracts	Total revenues	67	(23)	51	(2)
	Total cost of sales	(3)	–	(2)	(1)
	SG&A expenses(1)	2	5	1	3
Commodity contracts	Total cost of sales	(15)	18	7	(8)
Other	Interest and other finance expense	8	(3)	5	2
Total		**(45)**	**140**	**(64)**	**102**

(1) SG&A expenses represent "Selling, general and administrative expenses".

The fair values of derivatives included in the Consolidated Balance Sheets were as follows:

	June 30,	
	Derivative assets	
($ in millions)	Current in “Other current assets”	Non-current in “Other non-current assets”
Derivatives designated as hedging instruments:		
Foreign exchange contracts	1	–
Commodity contracts	–	–
Interest rate contracts	–	25
Cash-settled call options	8	7
Total	**9**	**32**
Derivatives not designated as hedging instruments:		
Foreign exchange contracts	152	22
Commodity contracts	14	2
Cross-currency interest rate swaps	5	–
Embedded foreign exchange derivatives	48	31
Total	**219**	**55**
Total fair value	**228**	**87**

	December	
	Derivative assets	
($ in millions)	Current in “Other current assets”	Non-current in “Other non-current assets”
Derivatives designated as hedging instruments:		
Foreign exchange contracts	4	–
Commodity contracts	6	–
Interest rate contracts	–	42
Cash-settled call options	25	16
Total	**35**	**58**
Derivatives not designated as hedging instruments:		
Foreign exchange contracts	142	25
Commodity contracts	35	1
Cross-currency interest rate swaps	–	–
Cash-settled call options	–	1
Embedded foreign exchange derivatives	32	16
Total	**209**	**43**
Total fair value	**244**	**101**

Close-out netting agreements provide for the termination, valuation and net settlement of some or all outstanding transactions between two counterparties on the occurrence of one or more pre-defined trigger events.

Although the Company is party to close-out netting agreements with most derivative counterparties, the fair values in the tables above and in the Consolidated Balance Sheets at June 30, 2018, and December 31, 2017, have been presented on a gross basis.

The Company’s netting agreements and other similar arrangements allow net settlements under certain conditions. At June 30, 2018, and December 31, 2017, information related to these offsetting arrangements was as follows:

($ in millions)		June 30, 2018			
Type of agreement or similar arrangement	**Gross amount of recognized assets**	**Derivative liabilities eligible for set-off in case of default**	**Cash collateral received**	**Non-cash collateral received**	**Net as expos**
Derivatives	236	(160)	–	–	
Reverse repurchase agreements	297	–	–	(297)	
Total	**533**	**(160)**	**–**	**(297)**	

($ in millions) **June 30, 2018**

Type of agreement or similar arrangement	Gross amount of recognized liabilities	Derivative liabilities eligible for set-off in case of default	Cash collateral pledged	Non-cash collateral pledged	Net liability exposure
Derivatives	302	(160)	–	–	**142**
Total	**302**	**(160)**	**–**	**–**	**142**

($ in millions)		December 31, 2017			
Type of agreement or similar arrangement	**Gross amount of recognized assets**	**Derivative liabilities eligible for set-off in case of default**	**Cash collateral received**	**Non-cash collateral received**	**Net a expos**
Derivatives	297	(172)	–	–	
Reverse repurchase agreements	305	–	–	(305)	
Total	**602**	**(172)**	**–**	**(305)**	

($ in millions)		December 31, 2017			
Type of agreement or similar arrangement	**Gross amount of recognized liabilities**	**Derivative liabilities eligible for set-off in case of default**	**Cash collateral pledged**	**Non-cash collateral pledged**	**Net liability exposure**
Derivatives	269	(172)	–	–	**97**
Total	**269**	**(172)**	**–**	**–**	**97**

Note 6

Fair values

The Company uses fair value measurement principles to record certain financial assets and liabilities on a recurring basis and, when necessary, to record certain non-financial assets at fair value on a non-recurring basis, as well as to determine fair value disclosures for certain financial instruments carried at amortized cost in the financial statements. Financial assets and liabilities recorded at fair value on a recurring basis include foreign currency, commodity and interest rate derivatives, as well as cash-settled call options and available-for-sale securities. Non-financial assets recorded at fair value on a non-recurring basis include long-lived assets that are reduced to their estimated fair value due to impairments.

Fair value is the price that would be received when selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, the Company uses various valuation techniques including the market approach (using observable market data for identical or similar assets and liabilities), the income approach (discounted cash flow models) and the cost approach (using costs a market participant would incur to develop a comparable asset). Inputs used to determine the fair value of assets and liabilities are defined by a three-level hierarchy, depending on the reliability of those inputs. The Company has categorized its financial assets and liabilities and non-financial assets measured at fair value within this hierarchy based on whether the inputs to the valuation technique are observable or unobservable. An observable input is based on market data obtained from independent sources, while an unobservable input reflects the Company's assumptions about market data.

The levels of the fair value hierarchy are as follows:

Level 1: Valuation inputs consist of quoted prices in an active market for identical assets or liabilities (observable quoted prices). Assets and liabilities valued using Level 1 inputs include certain actively traded debt securities.

Level 2: Valuation inputs consist of observable inputs (other than Level 1 inputs) such as actively quoted prices for similar assets, quoted prices in inactive markets and inputs other than quoted prices such as interest rate yield curves, credit spreads, or inputs derived from other observable data by interpolation, correlation, regression or other means. The adjustments applied to quoted prices or the inputs used in valuation models may be both observable and unobservable. In these cases, the fair value measurement is classified as Level 2 unless the unobservable portion of the adjustment or the unobservable input to the valuation model is significant, in which case the fair value measurement would be classified as Level 3. Assets and liabilities valued or disclosed using Level 2 inputs include investments in certain funds, reverse repurchase agreements, certain debt securities that are not actively traded, interest rate swaps, commodity swaps, cash-settled call options, forward foreign exchange contracts, foreign exchange swaps and forward rate agreements, time deposits, as well as financing receivables and debt.

Level 3: Valuation inputs are based on the Company's assumptions of relevant market data (unobservable input).

Whenever quoted prices involve bid-ask spreads, the Company ordinarily determines fair values based on mid-market quotes. However, for the purpose of determining the fair value of cash-settled call options serving as hedges of the Company's management incentive plan, bid prices are used.

When determining fair values based on quoted prices in an active market, the Company considers if the level of transaction activity for the financial instrument has significantly decreased, or would not be considered orderly. In such cases, the resulting changes in valuation techniques would be disclosed. If the market is considered disorderly or if quoted prices are not available, the Company is required to use another valuation technique, such as an income approach.

Recurring fair value measures

The fair values of financial assets and liabilities measured at fair value on a recurring basis were as follows:

		June
($ in millions)	**Level 1**	**Level 2**
Assets		
Available-for-sale securities in "Marketable securities and short-term investments":		
Equity securities	–	161
Debt securities—U.S. government obligations	207	–
Debt securities—Corporate	–	90
Derivative assets—current in "Other current assets"	–	228
Derivative assets—non-current in "Other non-current assets"	–	87
Total	**207**	**566**
Liabilities		
Derivative liabilities—current in "Other current liabilities"	–	250
Derivative liabilities—non-current in "Other non-current liabilities"	–	66
Total	**–**	**316**

		Decem	
($ in millions)	Level 1	Level 2	L
Assets			
Available-for-sale securities in “Marketable securities and short-term investments”:			
Equity securities	–	165	
Debt securities—U.S. government obligations	125	–	
Debt securities—Other government obligations	–	2	
Debt securities—Corporate	–	215	
Receivable in “Other non-current assets”:			
Receivable under securities lending arrangement	79	–	
Derivative assets—current in “Other current assets”	–	244	
Derivative assets—non-current in “Other non-current assets”	–	101	
Total	**204**	**727**	
Liabilities			
Derivative liabilities—current in “Other current liabilities”	–	223	
Derivative liabilities—non-current in “Other non-current liabilities”	–	75	
Total	**–**	**298**	

The Company uses the following methods and assumptions in estimating fair values of financial assets and liabilities measured at fair value on a recurring basis:

- Available-for-sale securities in “Marketable securities and short-term investments” and “Other non-current assets”: If quoted market prices in active markets for identical assets are available, these are considered Level 1 inputs; however, when markets are not active, these inputs are considered Level 2. If such quoted market prices are not available, fair value is determined using market prices for similar assets or present value techniques, applying an appropriate risk-free interest rate adjusted for nonperformance risk. The inputs used in present value techniques are observable and fall into the Level 2 category. The fair value of the receivable under the securities lending arrangement has been determined based on the fair value of the security lent.

- Derivatives: The fair values of derivative instruments are determined using quoted prices of identical instruments from an active market, if available (Level 1). If quoted prices are not available, price quotes for similar instruments, appropriately adjusted, or present value techniques, based on available market data, or option pricing models are used. Cash-settled call options hedging the Company’s WAR liability are valued based on bid prices of the equivalent listed warrant. The fair values obtained using price quotes for similar instruments or valuation techniques represent a Level 2 input unless significant unobservable inputs are used.

Non-recurring fair value measures

There were no significant non-recurring fair value measurements during the six and three months ended June 30, 2018 and 2017.

Disclosure about financial instruments carried on a cost basis

The fair values of financial instruments carried on a cost basis were as follows:

		June 30, 2018		
($ in millions)	**Carrying value**	**Level 1**	**Level 2**	**Lev**
Assets				
Cash and equivalents (excluding available-for-sale securities with original maturities up to 3 months):				
Cash	1,776	1,776	–	
Time deposits	1,507	–	1,507	
Marketable securities and short-term investments (excluding available-for-sale securities):				
Time deposits	39	–	39	
Receivables under reverse repurchase agreements	297	–	297	
Other non-current assets:				
Loans granted	34	–	36	
Restricted time deposits	37	37	–	
Liabilities				
Short-term debt and current maturities of long-term debt (excluding capital lease obligations)	3,756	1,870	1,886	
Long-term debt (excluding capital lease obligations)	6,482	5,851	728	

		December 31, 201		
($ in millions)	Carrying value	Level 1	Level 2	Lev
Assets				
Cash and equivalents (excluding available-for-sale securities with original maturities up to 3 months):				
Cash	1,963	1,963	–	
Time deposits	2,563	–	2,563	
Marketable securities and short-term investments (excluding available-for-sale securities):				
Time deposits	290	–	290	
Receivables under reverse repurchase agreements	305	–	305	
Other non-current assets:				
Loans granted	32	–	33	
Restricted time deposits	38	38	–	
Liabilities				
Short-term debt and current maturities of long-term debt (excluding capital lease obligations)	704	400	304	
Long-term debt (excluding capital lease obligations)	6,569	6,046	775	

The Company uses the following methods and assumptions in estimating fair values of financial instruments carried on a cost basis:

- Cash and equivalents (excluding available-for-sale securities with original maturities up to 3 months), and Marketable securities and short-term investments (excluding available-for-sale securities): The carrying amounts approximate the fair values as the items are short-term in nature.

- Other non-current assets: Includes (i) loans granted whose fair values are based on the carrying amount adjusted using a present value technique to reflect a premium or discount based on current market interest rates (Level 2 inputs), and (ii) restricted time deposits whose fair values approximate the carrying amounts (Level 1 inputs).

- Short-term debt and current maturities of long-term debt (excluding capital lease obligations): Short-term debt includes commercial paper, bank borrowings and overdrafts. The carrying amounts of short-term debt and current maturities of long-term debt, excluding capital lease obligations, approximate their fair values.

- Long-term debt (excluding capital lease obligations): Fair values of bonds are determined using quoted market prices (Level 1 inputs), if available. For bonds without available quoted market prices and other long-term debt, the fair values are determined using a discounted cash flow methodology based upon borrowing rates of similar debt instruments and reflecting appropriate adjustments for non-performance risk (Level 2 inputs).

Note 7

Commitments and contingencies

Contingencies—Regulatory, Compliance and Legal

Antitrust

In April 2014, the European Commission announced its decision regarding its investigation of anticompetitive practices in the cables industry and granted the Company full immunity from fines under the European Commission's leniency program.

In Brazil, the Company's Gas Insulated Switchgear business is under investigation by the Brazilian Antitrust Authority (CADE) for alleged anticompetitive practices. In addition, the CADE has opened an investigation into certain other power businesses of the Company, including flexible alternating current transmission systems (FACTS) and power transformers. With respect to these matters, management is cooperating fully with the authorities. An informed judgment about the outcome of these investigations or the amount of potential loss or range of loss for the Company, if any, relating to these investigations cannot be made at this stage.

Suspect payments

As a result of an internal investigation, the Company self-reported to the Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States as well as to the Serious Fraud Office (SFO) in the United Kingdom concerning certain of its past dealings with Unaoil and its subsidiaries, including alleged improper payments made by these entities to third parties. The SFO has commenced an investigation into this matter. The Company is cooperating fully with the authorities. At this time, it is not possible for the Company to make an informed judgment about the outcome of these matters.

General

In addition, the Company is aware of proceedings, or the threat of proceedings, against it and others in respect of private claims by customers and other third parties with regard to certain actual or alleged anticompetitive practices. Also, the Company is subject to other various legal proceedings, investigations, and claims that have not yet been resolved. With respect to the above mentioned regulatory matters and commercial litigation contingencies, the Company will bear the costs of the continuing investigations and any related legal proceedings.

Liabilities recognized

At June 30, 2018, and December 31, 2017, the Company had aggregate liabilities of $236 million and $233 million, respectively, included in "Other provisions" and "Other non-current liabilities", for the above regulatory, compliance and legal contingencies, and none of the individual liabilities recognized was significant. As it is not possible to make an informed judgment on the outcome of certain matters and as it is not possible, based on information currently available to management, to estimate the maximum potential liability on other matters, there could be material adverse outcomes beyond the amounts accrued.

Guarantees

General

The following table provides quantitative data regarding the Company's third-party guarantees. The maximum potential payments represent a "worst-case scenario", and do not reflect management's expected outcomes.

Maximum potential payments ($ in millions)	**June 30, 2018**	**December 31, 2017**
Performance guarantees	1,607	1,775
Financial guarantees	12	17
Indemnification guarantees	63	72
Total	**1,682**	**1,864**

The carrying amount of liabilities recorded in the Consolidated Balance Sheets reflects the Company's best estimate of future payments, which it may incur as part of fulfilling its guarantee obligations. In respect of the above guarantees, the carrying amounts of liabilities at June 30, 2018, and December 31, 2017, were not significant.

The Company is party to various guarantees providing financial or performance assurances to certain third parties. These guarantees, which have various maturities up to 2027, mainly consist of performance guarantees whereby (i) the Company guarantees the performance of a third party's product or service according to the terms of a contract and (ii) as member of a consortium/joint-venture that includes third parties, the Company guarantees not only its own performance but also the work of third parties. Such guarantees may include guarantees that a project will be completed within a specified time. If the third party does not fulfill the obligation, the Company will compensate the guaranteed party in cash or in kind. The original maturity dates for the majority of these performance guarantees range from one to eight years.

In conjunction with the divestment of the high-voltage cable and cables accessories businesses, the Company has entered into various performance guarantees with other parties with respect to certain liabilities of the divested business. At June 30, 2018 and December 31, 2017, the maximum potential payable under these guarantees amounts to $792 million and $929 million, respectively, and these guarantees have various maturities ranging from one to ten years.

Commercial commitments

In addition, in the normal course of bidding for and executing certain projects, the Company has entered into standby letters of credit, bid/performance bonds and surety bonds (collectively “performance bonds”) with various financial institutions. Customers can draw on such performance bonds in the event that the Company does not fulfill its contractual obligations. The Company would then have an obligation to reimburse the financial institution for amounts paid under the performance bonds. At June 30, 2018, and December 31, 2017, the total outstanding performance bonds aggregated to $7.5 billion and $7.7 billion, respectively. There have been no significant amounts reimbursed to financial institutions under these types of arrangements in the six and three months ended June 30, 2018 and 2017.

Product and order-related contingencies

The Company calculates its provision for product warranties based on historical claims experience and specific review of certain contracts.

The reconciliation of the “Provisions for warranties”, including guarantees of product performance, was as follows:

($ in millions)	**2018**
Balance at January 1,	**1,231**
Net change in warranties due to acquisitions and divestments	11
Claims paid in cash or in kind	(179)
Net increase in provision for changes in estimates, warranties issued and warranties expired	110
Exchange rate differences	(37)
Balance at June 30,	**1,13[illegible]**

Note 8

Contract assets and liabilities

The following table provides information about Contracts assets and Contract liabilities with customers:

($ in millions)	**June 30, 2018**	**December 31, 2017**	**June 30, 2017**
Contract assets	2,281	2,149	2,310
Contract liabilities	2,757	2,908	3,033

Contract assets primarily relate to the Company's right to receive consideration for work completed but for which no invoice has been issued at the reporting date. Contract assets are transferred to receivables when rights to receive payment become unconditional.

Contract liabilities primarily relate to up-front advances received on orders from customers as well as amounts invoiced to customers in excess of revenues recognized predominantly on long-term projects. Contract liabilities are reduced as work is performed and as revenues are recognized.

The significant changes in the Contract assets and Contract liabilities balances were as follows:

($ in millions)	Co a
Revenue recognized, which was included in the Contract liabilities balance at Jan 1, 2018/2017	
Additions to Contract liabilities - excluding amounts recognized as revenue during the period	
Receivables recognized that were included in the Contract asset balance at Jan 1, 2018/2017	

The Company considers unfulfilled orders (order backlog) from customers to be unsatisfied performance obligations. At June 30, 2018, unfulfilled orders were $24,214 million and, of this amount, the Company expects to recognize approximately 53 percent in 2018, approximately 29 percent in 2019 and the balance thereafter.

Note 9

Debt

The Company’s total debt at June 30, 2018, and December 31, 2017, amounted to $10,447 million and $7,447 million, respectively.

Short-term debt and current maturities of long-term debt

The Company’s “Short-term debt and current maturities of long-term debt” consisted of the following:

($ in millions)	June 30, 2018	December 31, 2017
Short-term debt	1,937	327
Current maturities of long-term debt	1,849	411
Total	**3,786**	**738**

Short-term debt primarily represented issued commercial paper and short-term loans from various banks. At June 30, 2018, and December 31, 2017, $905 million and $259 million, respectively, was outstanding under the $2 billion commercial paper program in the United States. In addition, at June 30, 2018, $886 million was outstanding under the $2 billion Euro-commercial paper program.

Long-term debt

The Company's long-term debt at June 30, 2018, and December 31, 2017, amounted to $6,661 million and $6,709 million, respectively.

Outstanding bonds (including maturities within the next 12 months) were as follows:

(in millions)	June 30, 2018				December 31, 2017			
	Nominal outstanding		Carrying value(1)		Nominal outstanding		Carrying value(1)	
Bonds:								
1.50% CHF Bonds, due 2018	CHF	350	$	352	CHF	350	$	358
2.625% EUR Instruments, due 2019	EUR	1,250	$	1,455	EUR	1,250	$	1,493
2.8% USD Notes, due 2020	USD	300	$	299				–
4.0% USD Notes, due 2021	USD	650	$	645	USD	650	$	644
2.25% CHF Bonds, due 2021	CHF	350	$	371	CHF	350	$	378
5.625% USD Notes, due 2021	USD	250	$	267	USD	250	$	270
2.875% USD Notes, due 2022	USD	1,250	$	1,231	USD	1,250	$	1,256
3.375% USD Notes, due 2023	USD	450	$	448				–
0.625% EUR Notes, due 2023	EUR	700	$	817	EUR	700	$	834
0.75% EUR Notes, due 2024	EUR	750	$	871	EUR	750	$	889
3.8% USD Notes, due 2028	USD	750	$	747				–
4.375% USD Notes, due 2042	USD	750	$	723	USD	750	$	723
Total			**$**	**8,226**			**$**	**6,845**

(1) USD carrying values include unamortized debt issuance costs, bond discounts or premiums, as well as adjustments for fair value hedge accounting, where appropriate.

In April 2018, the Company issued the following notes with a principal of:

- $300 million, due 2020, paying interest semi-annually in arrears at a fixed rate of 2.8 percent per annum,

- $450 million, due 2023, paying interest semi-annually in arrears at a fixed rate of 3.375 percent per annum, and

- $750 million, due 2028, paying interest semi-annually in arrears at a fixed rate of 3.8 percent per annum.

The aggregate net proceeds of these bond issues, after underwriting discount and other fees, amounted to $1,494 million.

Note 10

Employee benefits

The Company operates defined benefit pension plans, defined contribution pension plans, and termination indemnity plans, in accordance with local regulations and practices. These plans cover a large portion of the Company’s employees and provide benefits to employees in the event of death, disability, retirement, or termination of employment. Certain of these plans are multi-employer plans. The Company also operates other postretirement benefit plans including postretirement health care benefits, and other employee-related benefits for active employees including long-service award plans. The measurement date used for the Company’s employee benefit plans is December 31. The funding policies of the Company’s plans are consistent with the local government and tax requirements.

Net periodic benefit cost of the Company’s defined benefit pension and other postretirement benefit plans consisted of the following:

($ in millions)	Defined pension benefits		Other postretirement benefits	
Six months ended June 30,	**2018**	**2017**	**2018**	**2017**
Operational pension cost:				
Service cost	108	122	–	–
Operational pension cost	**108**	**122**	**–**	**–**
Non-operational pension cost (credit):				
Interest cost	113	125	2	2
Expected return on plan assets	(212)	(202)	–	–
Amortization of prior service cost (credit)	(7)	18	(2)	(2)
Amortization of net actuarial loss	48	44	–	–
Curtailments, settlements and special termination benefits	–	1	–	–
Non-operational pension cost (credit)	**(58)**	**(14)**	**–**	**–**
Net periodic benefit cost	**50**	**108**	**–**	**–**

($ in millions)	Defined pension benefits		Other postretirement benefits	
Three months ended June 30,	**2018**	**2017**	**2018**	**2017**
Operational pension cost:				
Service cost	51	63	–	–
Operational pension cost	**51**	**63**	**–**	**–**
Non-operational pension cost (credit):				
Interest cost	54	64	1	1
Expected return on plan assets	(103)	(103)	–	–
Amortization of prior service cost (credit)	(3)	9	(1)	(1)
Amortization of net actuarial loss	24	22	–	–
Curtailments, settlements and special termination benefits	–	1	–	–
Non-operational pension cost (credit)	**(28)**	**(7)**	**–**	**–**
Net periodic benefit cost	**23**	**56**	**–**	**–**

The components of net periodic benefit cost other than the service cost component are included in the line "Non-operational pension (cost) credit" in the income statement.

Employer contributions were as follows:

($ in millions)	Defined pension benefits		Other postretirement benefits	
Six months ended June 30,	**2018**	**2017**	**2018**	**2017**
Total contributions to defined benefit pension and other postretirement benefit plans	95	95	4	4

($ in millions)	Defined pension benefits		Other postretirement benefits	
Three months ended June 30,	**2018**	**2017**	**2018**	**2017**
Total contributions to defined benefit pension and other postretirement benefit plans	49	48	2	2

The Company expects to make contributions totaling approximately $218 million and $11 million to its defined benefit pension plans and other postretirement benefit plans, respectively, for the full year 2018.

Note 11

Stockholders’ equity

In the six months ended June 30, 2018, the Company purchased on the open market an aggregate of 10 million of its own shares resulting in an increase in Treasury stock of $249 million. Also in the first half of 2018, the Company delivered, out of treasury stock, 2.4 million shares for options exercised in connection with its Management Incentive Plan.

At the Annual General Meeting of Shareholders on March 29, 2018, shareholders approved the proposal of the Board of Directors to distribute 0.78 Swiss francs per share to shareholders. The declared dividend amounted to $1,736 million and was paid in April 2018.

Note 12

Earnings per share

Basic earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the period. Diluted earnings per share is calculated by dividing income by the weighted-average number of shares outstanding during the period, assuming that all potentially dilutive securities were exercised, if dilutive. Potentially dilutive securities comprise outstanding written call options, and outstanding options and shares granted subject to certain conditions under the Company’s share-based payment arrangements.

Basic earnings per share

	Six months ended June 30,		Three months ended June 30,	
($ in millions, except per share data in $)	**2018**	**2017**	**2018**	**2017**
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	1,250	1,250	673	524

Income (loss) from discontinued operations, net of tax	3	(1)	8	1
Net income	**1,253**	**1,249**	**681**	**525**
Weighted-average number of shares outstanding (in millions)	**2,132**	**2,140**	**2,130**	**2,140**
Basic earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	0.59	0.58	0.32	0.24
Income (loss) from discontinued operations, net of tax	–	–	–	0.01
Net income	**0.59**	**0.58**	**0.32**	**0.25**

Diluted earnings per share

	Six months ended June 30,		**Thr mon ende 3**
($ in millions, except per share data in $)	**2018**	**2017**	**2018**
Amounts attributable to ABB shareholders:			
Income from continuing operations, net of tax	1,250	1,250	673
Income (loss) from discontinued operations, net of tax	3	(1)	8
Net income	**1,253**	**1,249**	**681**
Weighted-average number of shares outstanding (in millions)	2,132	2,140	2,130
Effect of dilutive securities:			
Call options and shares	10	9	8
Adjusted weighted-average number of shares outstanding (in millions)	**2,142**	**2,149**	**2,138**
Diluted earnings per share attributable to ABB shareholders:			
Income from continuing operations, net of tax	0.58	0.58	0.31
Income (loss) from discontinued operations, net of tax	–	–	0.01
Net income	**0.58**	**0.58**	**0.32**

Note 13

Reclassifications out of accumulated other comprehensive loss

The following table shows changes in “Accumulated other comprehensive loss” (OCI) attributable to ABB, by component, net of tax:

($ in millions)	Foreign currency translation adjustments	Unrealized gains (losses) on available-for-sale securities	Pensior o postretirer plan adjustm
Balance at January 1, 2017	**(3,592)**	**7**	**(1,**
Other comprehensive (loss) income:			
Other comprehensive (loss) income before reclassifications	572	2	
Amounts reclassified from OCI	–	–	
Changes attributable to divestments	5	–	
Total other comprehensive (loss) income	**577**	**2**	
Less:			
Amounts attributable to noncontrolling interests	13	–	
Balance at June 30, 2017	**(3,028)**	**9**	**(1,**

($ in millions)	Foreign currency translation adjustments	Unrealized gains (losses) on available-for-sale securities	Pensior o postretirer plan adjustm
Balance at January 1, 2018	**(2,693)**	**8**	**(1,**
Cumulative effect of changes in accounting principles	–	(9)	
Other comprehensive (loss) income:			
Other comprehensive (loss) income before reclassifications	(404)	(5)	
Amounts reclassified from OCI	–	–	
Changes attributable to divestments	11	–	
Total other comprehensive (loss) income	**(393)**	**(5)**	
Less:			
Amounts attributable to			

noncontrolling interests	(4)	–	
Balance at June 30, 2018	**(3,082)**	**(6)**	**(1,**

The following table reflects amounts reclassified out of OCI in respect of pension and other postretirement plan adjustments:

($ in millions) **Details about OCI components**	**Location of (gains) losses reclassified from OCI**	**Six mont ende June 3 2018**	**2**
Pension and other postretirement plan adjustments:			
Amortization of prior service cost (credit)	Non-operational pension (cost) credit(1)	(9)	
Amortization of net actuarial loss	Non-operational pension (cost) credit(1)	48	
Total before tax		**39**	
Tax	Provision for taxes	(10)	
Amounts reclassified from OCI		**29**	

(1)
These components are included in the computation of net periodic benefit cost (see Note 10

The amounts in respect of Unrealized gains (losses) on available-for-sale securities and Unrealized gains (losses) of cash flow hedge derivatives were not significant for the six and three months ended June 30, 2018 and 2017.

Note 14

Restructuring and related expenses

White Collar Productivity program

In September 2015, the Company announced a two-year program aimed at making the Company leaner, faster and more customer-focused. Productivity improvements include the rapid expansion and use of regional shared service centers as well as the streamlining of global operations and head office functions, with business units moving closer to their respective key markets. In the course of this program, the Company has implemented and executed various restructuring initiatives across all operating segments and regions.

As of December 31, 2017, the Company had incurred substantially all costs related to the White Collar Productivity program.

Liabilities associated with the White Collar Productivity program are primarily included in “Other provisions”. The following table shows the activity from the beginning of the program to June 30, 2018, by expense type.

($ in millions)	**Employee severance costs**	**Contract settlement loss order and other cost**
Liability at January 1, 2015	–	
Expenses	364	
Cash payments	(34)	(1
Liability at December 31, 2015	**330**	**[illegible]**
Expenses	232	
Cash payments	(106)	(3
Change in estimates	(102)	(1
Exchange rate differences	(23)	
Liability at December 31, 2016	**331**	**[illegible]**
Expenses	35	
Cash payments	(110)	(5
Change in estimates	(164)	
Exchange rate differences	28	
Liability at December 31, 2017	**120**	
Cash payments	(47)	
Change in estimates and exchange rate differences	(12)	
Liability at June 30, 2018	**61**	

The change in estimates during 2016 of $103 million is due to significantly higher than expected rates of attrition and internal re-deployment and a lower than expected severance cost per employee for the employee groups affected by the first phase of restructuring initiated in 2015.

The change in estimates during 2017 of $164 million is mainly due to higher than expected rates of attrition and internal re-deployment. During the six months ended June 30, 2017, $60 million of the 2017 change in estimates, was recorded primarily as reductions in Cost of sales of $29 million and in Selling, general and administrative expenses of $24 million and related to restructurings initiated in both 2015 and 2016. During the three months ended June 30, 2017, $29 million of the 2017 change in estimates, was recorded primarily as reductions in Cost of sales of $13 million and in Selling, general and administrative expenses of $14 million and related to restructurings initiated in both 2015 and 2016.

The change in estimates for the six months and three months ended June 30, 2017, of $60 million and $29 million, respectively, resulted in an increase in earnings per share (basic and diluted) of $0.02 and $0.01, in the respective periods.

The following table outlines the net costs incurred in the six and three months ended June 30, 2017, and the cumulative net costs incurred to December 31, 2017:

($ in millions)	**Net cost incurred Six months ended June 30, 2017(1)**	**Net cost incurred Three months ended June 30, 2017(1)**	**Cumulative net cost incurred up to December 31, 2017(1)**
Power Grids	(11)	(4)	60
Electrification Products	(6)	(2)	72
Industrial Automation	(8)	(4)	106
Robotics and Motion	(3)	(3)	56
Corporate and Other	(17)	(10)	91
Total	**(45)**	**(23)**	**385**

(1) Net costs incurred in 2017 and Cumulative net costs incurred up to December 31, 2017 have been recast to reflect the reorganization of the Company's operating segments as outlined in Note 15.

The Company recorded the following expenses, net of changes in estimates, under this program:

($ in millions)	**Six months ended June 30,2017**[1]	**Three months end June 30, 2017**
Employee severance costs	(46)	(
Estimated contract settlement, loss order and other costs	1	
Inventory and long-lived asset impairments	–	
Total	**(45)**	**(2**

(1) Of which $23 million was recorded in Total cost of sales and $17 million in Selling, general and administrative expenses.

(2) Of which $9 million was recorded in Total cost of sales and $13 million in Selling, general and administrative expenses.

Other restructuring-related activities

In the six months ended June 30, 2018 and 2017, the Company executed various other restructuring-related activities and incurred expenses of $26 million and $58 million, respectively. In the three months ended June 30, 2018 and 2017, expenses relating to these various other restructuring-related activities amounted to $9 million and $45 million, respectively. These expenses mainly relate to employee severance costs, contract settlement and other costs, primarily recorded in “Other income (expense), net” in the three and six months ended June 30, 2018. These expenses mainly relate to employee severance costs, primary recorded in “Total cost of sales”, and long-lived asset impairments, recorded in “Other income (expense), net” in the three and six months ended June 30, 2017.

Note 15

Operating segment data

The Chief Operating Decision Maker (CODM) is the Chief Executive Officer. The CODM allocates resources to and assesses the performance of each operating segment using the information outlined below. The Company’s operating segments consist of Power Grids, Electrification Products, Industrial Automation, and Robotics and Motion. The remaining operations of the Company are included in Corporate and Other.

Effective January 1, 2018, management responsibility and oversight of certain remaining engineering, procurement and construction (EPC) businesses, previously included in the Power Grids, Industrial Automation and Robotics and Motion operating segments, were transferred to a new non-core operating business within Corporate and Other. In addition, the results of certain businesses divested which, prior to their divestment in March 2018, were included within the Industrial Automation segment have been reclassified to Corporate and Other for all periods presented.

The segment information for the six and three months ended June 30, 2017 and at December 31, 2017, has been recast to reflect these organizational changes.

A description of the types of products and services provided by each reportable segment is as follows:

- Power Grids: offers a range of products, systems, service and software solutions across the power value chain of generation, transmission and distribution, to utility, industry, transport & infrastructure customers. These offerings address existing and evolving grid needs such as the integration of renewables, digital substations, network control solutions, microgrids and asset management. The division portfolio includes AC and DC transmission systems, substations, as well as a wide range of power, distribution and traction transformers and an array of high-voltage products, such as circuit breakers, switchgear and capacitors.

- Electrification Products: manufactures and sells products and services including electric vehicle charging, solar inverters, modular substation packages, switchgear, UPS solutions, circuit breakers, control products, wiring accessories, enclosures and cabling systems, and intelligent home and building solutions designed to integrate and automate the lighting, heating and ventilation, and security and data communication networks. The Electrification Products segment will also include the operations of GEIS which was acquired on June 30, 2018.

- Industrial Automation: develops and sells integrated automation and electrification systems and solutions, such as process and discrete control solutions, advanced process control software and manufacturing execution systems, sensing, measurement and analytical instrumentation and solutions, electric ship propulsion systems, as well as solutions for modern machine and factory automation and large turbochargers. In addition, the division offers a comprehensive range of services ranging from repair to advanced services such as remote monitoring, preventive maintenance and cybersecurity services.

- Robotics and Motion: manufactures and sells robotics, motors, generators, drives, wind converters, components and systems for railways and related services and digital solutions for a wide range of applications in industry, transportation and infrastructure, and utilities.

- Corporate and Other: includes headquarters, central research and development, the Company's real estate activities, Group Treasury Operations, non-core operating activities, historical operating activities of certain divested businesses and other minor business activities.

The Company evaluates the profitability of its segments based on Operational EBITA, which represents income from operations excluding:

- amortization expense on intangibles arising upon acquisitions (acquisition-related amortization),

- restructuring and restructuring-related expenses,

• changes in the amount recorded for retained obligations of divested businesses occurring after the divestment date (changes in retained obligations of divested businesses),

• changes in estimates relating to opening balance sheets of acquired businesses (changes in pre-acquisition estimates),

• gains and losses from sale of businesses,

• acquisition-related expenses and integration costs,

• certain other non-operational items, as well as

• foreign exchange/commodity timing differences in income from operations consisting of: (a) unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives), (b) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (c) unrealized foreign exchange movements on receivables/payables (and related assets/liabilities).

The CODM primarily reviews the results of each segment on a basis that is before the elimination of profits made on inventory sales between segments. Segment results below are presented before these eliminations, with a total deduction for intersegment profits to arrive at the Company’s consolidated Operational EBITA. Intersegment sales and transfers are accounted for as if the sales and transfers were to third parties, at current market prices.

The following tables present disaggregated segment revenues from contracts with customers, Operational EBITA, and the reconciliations of consolidated Operational EBITA to Income from continuing operations before taxes for the six and three months ended June 30, 2018 and 2017, as well as total assets at June 30, 2018, and December 31, 2017.

	Six months ended June 30, 2018					
($ in millions)	**Power Grids**	**Electrification Products**	**Industrial Automation**	**Robotics and Motion**	**Corporate and Other**	**Total**
Geographical markets						
Europe	1,291	1,862	1,580	1,442	45	**6,220**
The Americas	1,385	1,347	783	1,399	21	**4,935**
Asia, Middle East and Africa	1,798	1,716	1,268	1,438	141	**6,361**
	4,474	**4,925**	**3,631**	**4,279**	**207**	**17,516**
End Customer Markets						
Utilities	3,081	1,182	582	355	126	**5,326**
Industry	1,036	2,208	2,182	3,249	51	**8,726**
Transport & infrastructure	357	1,535	867	675	30	**3,464**
	4,474	**4,925**	**3,631**	**4,279**	**207**	**17,516**
Product type						

Products	2,574	4,281	1,229	3,086	36	**11,206**
Systems	1,093	298	922	522	171	**3,006**
Services and other	807	346	1,480	671	–	**3,304**
	4,474	**4,925**	**3,631**	**4,279**	**207**	**17,516**
Third-party revenues	4,474	4,925	3,631	4,279	207	**17,516**
Intersegment revenues	265	242	67	246	(820)	**–**
Total Revenues	**4,739**	**5,167**	**3,698**	**4,525**	**(613)**	**17,516**

	Three months ended June 30, 2018					
($ in millions)	**Power Grids**	**Electrification Products**	**Industrial Automation**	**Robotics and Motion**	**Corporate and Other**	**Total**
Geographical markets						
Europe	618	925	772	733	23	**3,071**
The Americas	714	699	406	715	11	**2,545**
Asia, Middle East and Africa	897	916	629	746	85	**3,273**
	2,229	**2,540**	**1,807**	**2,194**	**119**	**8,889**
End Customer Markets						
Utilities	1,500	642	286	188	64	**2,680**
Industry	540	1,120	1,105	1,627	38	**4,430**
Transport & infrastructure	189	778	416	379	17	**1,779**
	2,229	**2,540**	**1,807**	**2,194**	**119**	**8,889**
Product type						
Products	1,257	2,196	590	1,575	20	**5,638**
Systems	542	161	458	278	99	**1,538**
Services and other	430	183	759	341	–	**1,713**
	2,229	**2,540**	**1,807**	**2,194**	**119**	**8,889**
Third-party revenues	2,229	2,540	1,807	2,194	119	**8,889**
Intersegment revenues	125	133	32	122	(412)	**–**
Total Revenues	**2,354**	**2,673**	**1,839**	**2,316**	**(293)**	**8,889**

($ in millions)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corporate and Other	Total
	Six months ended June 30, 2017					
Geographical markets						
Europe	1,342	1,657	1,174	1,231	103	**5,507**
The Americas	1,441	1,293	633	1,364	73	**4,804**
Asia, Middle East and Africa	1,742	1,617	1,208	1,162	268	**5,997**
	4,525	**4,567**	**3,015**	**3,757**	**444**	**16,308**
End Customer Markets						
Utilities	3,338	1,288	622	285	335	**5,868**
Industry	882	1,792	1,632	2,771	93	**7,170**
Transport & infrastructure	305	1,487	761	701	16	**3,270**
	4,525	**4,567**	**3,015**	**3,757**	**444**	**16,308**
Product type						
Products	2,620	3,997	627	2,729	49	**10,022**
Systems	1,257	270	1,067	447	388	**3,429**
Services and other	648	300	1,321	581	7	**2,857**
	4,525	**4,567**	**3,015**	**3,757**	**444**	**16,308**
Third-party revenues	4,525	4,567	3,015	3,757	444	**16,308**
Intersegment revenues	333	235	73	245	(886)	**–**
Total Revenues	**4,858**	**4,802**	**3,088**	**4,002**	**(442)**	**16,308**

($ in millions)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corporate and Other	Total
	Three months ended June 30, 2017					
Geographical markets						
Europe	694	853	584	624	59	**2,814**
The Americas	753	666	315	705	33	**2,472**
Asia, Middle East and Africa	891	866	636	625	150	**3,168**
	2,338	**2,385**	**1,535**	**1,954**	**242**	**8,454**
End Customer Markets						
Utilities	1,719	712	320	108	189	**3,048**
Industry	440	886	832	1,445	42	**3,645**
Transport & infrastructure	179	787	383	401	11	**1,761**
	2,338	**2,385**	**1,535**	**1,954**	**242**	**8,454**
Product type						
Products	1,420	2,074	329	1,417	49	**5,289**
Systems	579	149	533	239	193	**1,693**
Services and other	339	162	673	298	–	**1,472**
	2,338	**2,385**	**1,535**	**1,954**	**242**	**8,454**
Third-party revenues	2,338	2,385	1,535	1,954	242	**8,454**
Intersegment revenues	169	124	40	128	(461)	**–**
Total Revenues	**2,507**	**2,509**	**1,575**	**2,082**	**(219)**	**8,454**

($ in millions)	Six months ended June 30, 2018	Six months ended June 30, 2017	Three months ended June 30, 2018	Three month[s] ended June 30 20
Operational EBITA:				
Power Grids	464	484	232	2
Electrification Products	807	695	430	3
Industrial Automation	522	417	260	2
Robotics and Motion	712	596	374	3
Corporate and Other and Intersegment elimination	(278)	(207)	(129)	(10
Consolidated Operational EBITA	**2,227**	**1,985**	**1,167**	**1,0**
Acquisition-related amortization	(145)	(115)	(72)	(5
Restructuring and restructuring-related expenses(1)	(17)	(132)	(6)	(8
Changes in retained obligations of divested businesses	–	(94)	–	
Changes in pre-acquisition estimates	(1)	(2)	(1)	
Gains and losses from sale of businesses	(5)	331	1	
Acquisition-related expenses and integration costs	(77)	(14)	(51)	
Certain other non-operational items	(59)	(150)	(30)	(4
Foreign exchange/commodity timing differences in income from operations:				
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(66)	169	(46)	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(12)	18	(19)	
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	12	(96)	19	(6
Income from operations	**1,857**	**1,900**	**962**	**8**
Interest and dividend income	51	35	28	
Interest and other finance expense	(153)	(153)	(45)	(7
Non-operational pension (cost) credit	58	14	28	
Income from continuing operations before taxes	**1,813**	**1,796**	**973**	**8**

(1) Amounts in 2017 also include the incremental implementation costs in relation to the White Collar Productivity program.

($ in millions)	Total assets(1) June 30, 2018	Total assets(1) December 31, 2017
Power Grids	8,250	8,387
Electrification Products	13,836	10,314
Industrial Automation	6,802	7,258
Robotics and Motion	8,490	8,134
Corporate and Other	7,813	9,365
Consolidated	**45,191**	**43,458**

(1) Total assets are after intersegment eliminations and therefore reflect third-party assets only.

Supplemental Reconciliations and Definitions

The following reconciliations and definitions include measures which ABB uses to supplement its Interim Consolidated Financial Information (unaudited) which is prepared in accordance with United States generally accepted accounting principles (U.S. GAAP). Certain of these financial measures are, or may be, considered non-GAAP financial measures as defined in the rules of the U.S. Securities and Exchange Commission (SEC).

While ABB’s management believes that the non-GAAP financial measures herein are useful in evaluating ABB’s operating results, this information should be considered as supplemental in nature and not as a substitute for the related financial information prepared in accordance with U.S. GAAP. Therefore these measures should not be viewed in isolation but considered together with the Interim Consolidated Financial Information (unaudited) prepared in accordance with U.S. GAAP as of and for the six and three months ended June 30, 2018.

On January 1, 2018, the Company adopted a new accounting standard, Revenue from contracts with customers, and consistent with the method of adoption elected, comparative information has not been restated and continues to be reported under the accounting standards previously in effect for those periods (see Note 2 to the Interim Consolidated Financial Information).

Comparable growth rates

Growth rates for certain key figures may be presented and discussed on a “comparable” basis. The comparable growth rate measures growth on a constant currency basis. Since we are a global company, the comparability of our operating results reported in U.S. dollars is affected by foreign currency exchange rate fluctuations. We calculate the impacts from foreign currency fluctuations by translating the current-year periods’ reported key figures into U.S. dollar amounts using the exchange rates in effect for the comparable periods in the previous year.

Comparable growth rates are also adjusted for changes in our business portfolio. Adjustments to our business portfolio occur due to acquisitions, divestments, or by exiting specific business activities or customer markets. The adjustment for portfolio changes is calculated as follows: where the results of any business acquired or divested have not been consolidated and reported for the entire duration of both the current and comparable periods, the reported key figures of such business are adjusted to exclude the relevant key figures of any corresponding quarters which are not comparable when computing the comparable growth rate. Certain portfolio changes which do not qualify as divestments under U.S. GAAP have been treated in a similar manner to divestments. Changes in our portfolio where we have exited certain business activities or customer markets are adjusted as if the relevant business was divested in the period when the decision to cease business activities was taken. We do not adjust for portfolio changes where the relevant business has annualized revenues of less than $50 million.

The following tables provide reconciliations of reported growth rates of certain key figures to their respective comparable growth rate.

Divisional comparable growth rate reconciliation

	Q2 2018 compared to Q2 2017						
	Order growth rate				**Revenue growth r**		
Division	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfoli changes**
Power Grids	6%	-1%	0%	**5%**	-6%	-2%	0%
Electrification Products	9%	-3%	0%	**6%**	7%	-3%	0%
Industrial Automation	34%	-4%	-15%	**15%**	17%	-4%	-13%
Robotics and Motion	15%	-4%	0%	**11%**	11%	-3%	0%
ABB Group	**14%**	**-3%**	**-3%**	**8%**	**5%**	**-2%**	**-2%**

	H1 2018 compared to H1 2017						
	Order growth rate				**Revenue growth r**		
Division	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfoli changes**
Power Grids	6%	-3%	0%	**3%**	-2%	-4%	0%
Electrification Products	9%	-5%	0%	**4%**	8%	-5%	0%
Industrial Automation	30%	-7%	-14%	**9%**	20%	-6%	-14%
Robotics and Motion	16%	-5%	0%	**11%**	13%	-5%	0%
ABB Group	**15%**	**-5%**	**-3%**	**7%**	**7%**	**-4%**	**-2%**

Regional comparable growth rate reconciliation

	Q2 2018 compared to Q2 2017						
	Order growth rate				Revenue grow		
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Por cha
Europe	22%	-6%	-6%	**10%**	9%	-5%	
The Americas	7%	1%	-1%	**7%**	3%	1%	
Asia, Middle East and Africa	11%	-3%	-1%	**7%**	3%	-3%	
ABB Group	**14%**	**-3%**	**-3%**	**8%**	**5%**	**-2%**	

	H1 2018 compared to H1 2017						
	Order growth rate				Revenue grow		
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Por cha
Europe	18%	-10%	-5%	**3%**	13%	-9%	
The Americas	4%	0%	-1%	**3%**	3%	0%	
Asia, Middle East and Africa	21%	-6%	-2%	**13%**	6%	-5%	
ABB Group	**15%**	**-5%**	**-3%**	**7%**	**7%**	**-4%**	

Order backlog growth rate reconciliation

	June 30, 2018 compared to June 30, 2017			
Division	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Power Grids	-6%	2%	0%	**-4%**
Electrification Products	38%	-33%	0%	**5%**
Industrial Automation	-1%	0%	-3%	**-4%**
Robotics and Motion	5%	1%	0%	**6%**
ABB Group	**3%**	**1%**	**-5%**	**-1%**

Other growth rate reconciliations

	Q2 2018 compared to Q2 2017				H1 2018 compared to H1 20			
	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Com
Large orders	3%	-1%	0%	**2%**	16%	-6%	-3%	
Base orders	14%	-2%	-3%	**9%**	15%	-5%	-3%	

Service orders	5%	-3%	0%	**2%**	10%	-5%	0%
Service revenues	16%	-3%	0%	**13%**	16%	-6%	1%

Division realignment

Effective January 1, 2018, management responsibility and oversight of certain remaining engineering, procurement and construction (EPC) businesses, previously included in the Power Grids, Industrial Automation and Robotics and Motion operating segments, were transferred to a new non-core operating business within Corporate and Other. See Note 15 to the Interim Consolidated Financial Information (unaudited) for further details on the realignment.

The following information presents a reconciliation of growth rates of orders and revenues for 2017 compared with 2016 to reflect these organizational changes:

Divisional comparable growth rate reconciliation

	Q2 2017 compared to Q2 2016						
	Order growth rate				Revenue growth r		
Division	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio change**
Power Grids	-6%	2%	0%	**-4%**	-1%	2%	0%
Electrification Products	-4%	3%	0%	**-1%**	-1%	3%	0%
Industrial Automation	6%	2%	0%	**8%**	-9%	2%	0%
Robotics and Motion	12%	3%	0%	**15%**	3%	2%	0%
ABB Group	**0%**	**3%**	**0%**	**3%**	**-3%**	**3%**	**1%**

	H1 2017 compared to H1 2016						
	Order growth rate				Revenue growth r		
Division	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio change**
Power Grids	-13%	2%	0%	**-11%**	1%	2%	0%
Electrification Products	-2%	3%	0%	**1%**	0%	2%	0%
Industrial Automation	-2%	2%	0%	**0%**	-8%	2%	0%
Robotics and Motion	8%	3%	0%	**11%**	3%	2%	0%
ABB Group	**-5%**	**3%**	**2%**	**0%**	**-2%**	**3%**	**1%**

Operational EBITA margin

Definition

Operational EBITA margin

Operational EBITA margin is Operational EBITA as a percentage of Operational revenues.

Operational EBITA

Operational earnings before interest, taxes and acquisition-related amortization (Operational EBITA) represents Income from operations excluding:

- acquisition-related amortization (as defined below),
- restructuring and restructuring-related expenses,
- changes in the amount recorded for retained obligations of divested businesses occurring after the divestment date (changes in retained obligations of divested businesses),
- changes in estimates relating to opening balance sheets of acquired businesses (changes in pre-acquisition estimates) ,
- gains and losses from sale of businesses,
- acquisition-related expenses and integration costs,
- certain other non-operational items, as well as
- foreign exchange/commodity timing differences in income from operations consisting of: (a) unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives), (b) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (c) unrealized foreign exchange movements on receivables/payables (and related assets/liabilities).

Operational EBITA is our measure of segment profit but is also used by management to evaluate the profitability of the Company as a whole.

Acquisition-related amortization

Amortization expense on intangibles arising upon acquisitions.

Operational revenues

The Company presents Operational revenues solely for the purpose of allowing the computation of Operational EBITA margin. Operational revenues are total revenues adjusted for foreign exchange/commodity timing differences in total revenues of: (i) unrealized gains and losses on derivatives, (ii) realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized, and (iii) unrealized foreign exchange movements on receivables (and related assets). Operational revenues are not intended to be an alternative measure to Total Revenues, which represent our revenues measured in accordance with U.S. GAAP.

Reconciliation

The following tables provide reconciliations of consolidated Operational EBITA to Net Income and Operational EBITA Margin by division.

Reconciliation of consolidated Operational EBITA to Net Income

	Six months ended June 30,		Three months ended Ju 30,	
($ in millions)	**2018**	**2017**	**2018**	**20**
Operational EBITA	**2,227**	**1,985**	**1,167**	**1,0**
Acquisition-related amortization	(145)	(115)	(72)	(5
Restructuring and restructuring-related expenses[1]	(17)	(132)	(6)	(8
Changes in retained obligations of divested businesses	–	(94)	–	
Changes in pre-acquisition estimates	(1)	(2)	(1)	
Gains and losses from sale of businesses	(5)	331	1	
Acquisition-related expenses and integration costs	(77)	(14)	(51)	
Certain other non-operational items	(59)	(150)	(30)	(4
Foreign exchange/commodity timing differences in income from operations:				
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(66)	169	(46)	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(12)	18	(19)	
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	12	(96)	19	(6
Income from operations	**1,857**	**1,900**	**962**	**8**
Interest and dividend income	51	35	28	
Interest and other finance expense	(153)	(153)	(45)	(7
Non-operational pension (cost) credit	58	14	28	
Income from continuing operations before taxes	**1,813**	**1,796**	**973**	**8**
Provision for taxes	(499)	(456)	(264)	(24
Income from continuing operations, net of tax	**1,314**	**1,340**	**709**	**5**

Income (loss) from discontinued operations, net of tax	3	(1)	8	
Net income	**1,317**	**1,339**	**717**	**5**

(1) Amounts in 2017 also include the incremental implementation costs in relation to the White Collar Productivity program.

Reconciliation of Operational EBITA margin by division

	Six months ended June 30, 201				
($ in millions, unless otherwise indicated)	**Power Grids**	**Electrification Products**	**Industrial Automation**	**Robotics and Motion**	**Corpor Ot Inters elin**
Total revenues	**4,739**	**5,167**	**3,698**	**4,525**	
Foreign exchange/commodity timing differences in total revenues:					
Unrealized gains and losses on derivatives	64	27	7	23	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	16	–	6	(1)	
Unrealized foreign exchange movements on receivables (and related assets)	(24)	(13)	(7)	(11)	
Operational revenues	**4,795**	**5,181**	**3,704**	**4,536**	
Income (loss) from operations	**369**	**661**	**460**	**666**	
Acquisition-related amortization	20	39	44	32	
Restructuring and restructuring-related expenses	11	3	2	2	
Changes in retained obligations of divested businesses	–	–	–	–	
Changes in pre-acquisition estimates	–	1	–	–	
Gains and losses from sale of businesses	–	2	3	–	
Acquisition-related expenses and integration costs	4	68	2	–	
Certain other non-operational items	27	15	–	5	
Foreign exchange/commodity timing differences in income from operations:					
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	39	22	1	4	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	10	1	7	–	
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(16)	(5)	3	3	
Operational EBITA	**464**	**807**	**522**	**712**	
Operational EBITA margin (%)	**9.7%**	**15.6%**	**14.1%**	**15.7%**	

					Six months ended June 30, 201
					Corpor Ot
($ in millions, unless otherwise indicated)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Inters elin
Total revenues	**4,858**	**4,802**	**3,088**	**4,002**	
Foreign exchange/commodity timing differences in total revenues:					
Unrealized gains and losses on derivatives	(79)	(42)	(27)	(19)	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(13)	–	(2)	1	
Unrealized foreign exchange movements on receivables (and related assets)	51	15	14	8	
Operational revenues	**4,817**	**4,775**	**3,073**	**3,992**	
Income (loss) from operations	**437**	**641**	**420**	**543**	
Acquisition-related amortization	17	52	4	34	
Restructuring and restructuring-related expenses(1)	21	13	9	27	
Changes in retained obligations of divested businesses	–	–	–	–	
Changes in pre-acquisition estimates	–	2	–	–	
Gains and losses from sale of businesses	–	–	(2)	–	
Acquisition-related expenses and integration costs	–	3	7	–	
Certain other non-operational items	52	13	–	–	
Foreign exchange/commodity timing differences in income from operations:					
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(92)	(39)	(36)	(17)	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(13)	–	(2)	–	
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	62	10	17	9	
Operational EBITA	**484**	**695**	**417**	**596**	
Operational EBITA margin (%)	**10.0%**	**14.6%**	**13.6%**	**14.9%**	

(1) Amounts in 2017 also include the incremental implementation costs in relation to the White Collar Productivity program.

	Three months ended June 30, 20				
($ in millions, unless otherwise indicated)	**Power Grids**	**Electrification Products**	**Industrial Automation**	**Robotics and Motion**	**Corpor Ot Inters elin**
Total revenues	**2,354**	**2,673**	**1,839**	**2,316**	
Foreign exchange/commodity timing differences in total revenues:					
Unrealized gains and losses on derivatives	47	31	11	19	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	12	–	3	(1)	
Unrealized foreign exchange movements on receivables (and related assets)	(17)	(11)	(7)	(8)	
Operational revenues	**2,396**	**2,693**	**1,846**	**2,326**	
Income (loss) from operations	**176**	**343**	**223**	**353**	
Acquisition-related amortization	10	19	21	16	
Restructuring and restructuring-related expenses	7	(1)	–	(2)	
Changes in retained obligations of divested businesses	–	–	–	–	
Changes in pre-acquisition estimates	–	1	–	–	
Gains and losses from sale of businesses	–	2	–	–	
Acquisition-related expenses and integration costs	3	44	1	–	
Certain other non-operational items	12	10	–	4	
Foreign exchange/commodity timing differences in income from operations:					
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	30	16	9	2	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	8	1	5	–	
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(14)	(5)	1	1	
Operational EBITA	**232**	**430**	**260**	**374**	
Operational EBITA margin (%)	**9.7%**	**16.0%**	**14.1%**	**16.1%**	

	Three months ended June 30, 20				
($ in millions, unless otherwise indicated)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corpor Ot Inters elin
Total revenues	**2,507**	**2,509**	**1,575**	**2,082**	
Foreign exchange/commodity timing differences in total revenues:					
Unrealized gains and losses on derivatives	(29)	(19)	(9)	(1)	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(8)	–	(2)	1	
Unrealized foreign exchange movements on receivables (and related assets)	24	3	9	2	
Operational revenues	**2,494**	**2,493**	**1,573**	**2,084**	
Income (loss) from operations	**226**	**334**	**209**	**282**	
Acquisition-related amortization	9	26	2	16	
Restructuring and restructuring-related expenses(1)	18	13	5	17	
Changes in pre-acquisition estimates	–	2	–	–	
Gains and losses from sale of businesses	–	–	(2)	–	
Acquisition-related expenses and integration costs	1	3	4	–	
Certain other non-operational items	24	9	–	–	
Foreign exchange/commodity timing differences in income from operations:					
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(51)	(23)	(19)	(7)	
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(10)	–	–	–	
Unrealized foreign exchange movements on receivables/payables (and related as					