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Q3 2018

Financial information

Financial Information

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Key Figures

(\$ in millions, unless otherwise indicated)	Q3 2018	Q3 2017	US\$	CHANGE	
				US\$	Comparable ⁽¹⁾
Orders	8,941	8,157	10%		9%
Order backlog (end September)	23,480	23,424	0%		2%
Revenues	9,257	8,724	6%		3%
Operational EBITA ⁽¹⁾	1,118	1,124	-1%		4% ⁽²⁾
as % of operational revenues ⁽¹⁾	12.1%	12.9%	-0.8 pts		
Net income attributable to ABB	603	571	6%		
Basic earnings per share (\$)	0.28	0.27	6% ⁽³⁾		
Operational earnings per share ⁽¹⁾ (\$)	0.34	0.34	0% ⁽³⁾		4% ⁽³⁾
Cash flow from operating activities	565	954	-41%		

(\$ in millions, unless otherwise indicated)	9M 2018	9M 2017	US\$	CHANGE	
				US\$	Comparable ⁽¹⁾
Orders	28,196	24,909	13%		7%
Revenues	26,773	25,032	7%		2%
Operational EBITA ⁽¹⁾	3,345	3,109	8%		5% ⁽²⁾
as % of operational revenues ⁽¹⁾	12.5%	12.5%	0 pts		
Net income attributable to ABB	1,856	1,820	2%		
Basic earnings per share (\$)	0.87	0.85	2% ⁽³⁾		
Operational earnings per share ⁽¹⁾ (\$)	1.03	0.92	12% ⁽³⁾		12% ⁽³⁾
Cash flow from operating activities	1,057	1,930	-45%		

(1) For a reconciliation of non-GAAP measures see "Supplemental Reconciliations and Definitions" on page 37.

(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).

				CHANGE		
(\$ in millions, unless otherwise indicated)		Q3 2018	Q3 2017	US\$	Local	Comparable
Orders	ABB Group	8,941	8,157	10%	13%	9%
	Power Grids	2,207	2,072	7%	11%	11%
	Electrification Products	3,215	2,547	26%	30%	6%
	Industrial Automation	1,643	1,592	3%	7%	7%
	Robotics and Motion	2,276	2,031	12%	15%	15%
	Corporate and Other (incl. inter-division eliminations)	(400)	(85)			
Third-party base orders	ABB Group	8,271	7,384	12%	16%	7%
	Power Grids	1,802	1,654	9%	13%	13%
	Electrification Products	3,008	2,407	25%	29%	3%
	Industrial Automation	1,451	1,436	1%	4%	4%
	Robotics and Motion	2,012	1,857	8%	12%	12%
	Corporate and Other	(2)	30			
Order backlog (end September)	ABB Group	23,480	23,424	0%	4%	2%
	Power Grids	10,272	10,833	-5%	-1%	-1%
	Electrification Products	4,426	3,228	37%	42%	8%
	Industrial Automation	5,307	5,595	-5%	-2%	-2%
	Robotics and Motion	4,204	3,958	6%	10%	10%
	Corporate and Other (incl. inter-division eliminations)	(729)	(190)			
Revenues	ABB Group	9,257	8,724	6%	9%	3%
	Power Grids	2,336	2,449	-5%	0%	0%
	Electrification Products	3,199	2,596	23%	27%	3%
	Industrial Automation	1,758	1,780	-1%	3%	3%
	Robotics and Motion	2,281	2,197	4%	7%	7%
	Corporate and Other (incl. inter-division eliminations)	(317)	(298)			
Operational EBITA	ABB Group	1,118	1,124	-1%	4%	
	Power Grids	232	259	-10%	-2%	
	Electrification Products	431	417	3%	7%	
	Industrial Automation	246	237	4%	8%	
	Robotics and Motion	386	361	7%	9%	
	Corporate and Other (incl. inter-division eliminations)	(177)	(150)			
Operational EBITA %	ABB Group	12.1%	12.9%			
	Power Grids	10.0%	10.6%			
	Electrification Products	13.5%	16.1%			
	Industrial Automation	14.1%	13.4%			
	Robotics and Motion	17.0%	16.4%			
Income from operations	ABB Group	908	888			
	Power Grids	220	232			
	Electrification Products	391	393			
	Industrial Automation	223	164			
	Robotics and Motion	354	336			
	Corporate and Other (incl. inter-division eliminations)	(280)	(237)			
Income from operations %	ABB Group	9.8%	10.2%			
	Power Grids	9.4%	9.5%			
	Electrification Products	12.2%	15.1%			
	Industrial Automation	12.7%	9.2%			
	Robotics and Motion	15.5%	15.3%			
Cash flow from operating activities	ABB Group	565	954			
	Power Grids	(162)	182			
	Electrification Products	375	304			
	Industrial Automation	174	236			
	Robotics and Motion	300	247			
	Corporate and Other	(122)	(15)			

		CHANGE				
(\$ in millions, unless otherwise indicated)		9M 2018	9M 2017	US\$	Local	Comparable
Orders	ABB Group	28,196	24,909	13%	11%	7%
	Power Grids	7,264	6,823	6%	5%	5%
	Electrification Products	8,728	7,587	15%	13%	5%
	Industrial Automation	5,765	4,758	21%	17%	8%
	Robotics and Motion	7,395	6,426	15%	12%	12%
	<i>Corporate and Other</i> <i>(incl. inter-division eliminations)</i>	(956)	(685)			
Third-party base orders	ABB Group	25,816	22,663	14%	12%	7%
	Power Grids	5,922	5,378	10%	9%	9%
	Electrification Products	8,208	7,165	15%	12%	4%
	Industrial Automation	4,953	4,198	18%	15%	4%
	Robotics and Motion	6,688	5,814	15%	12%	12%
	<i>Corporate and Other</i>	45	108			
Order backlog (end September)	ABB Group	23,480	23,424	0%	4%	2%
	Power Grids	10,272	10,833	-5%	-1%	-1%
	Electrification Products	4,426	3,228	37%	42%	8%
	Industrial Automation	5,307	5,595	-5%	-2%	-2%
	Robotics and Motion	4,204	3,958	6%	10%	10%
	<i>Corporate and Other</i> <i>(incl. inter-division eliminations)</i>	(729)	(190)			
Revenues	ABB Group	26,773	25,032	7%	5%	2%
	Power Grids	7,075	7,307	-3%	-4%	-4%
	Electrification Products	8,366	7,398	13%	11%	3%
	Industrial Automation	5,456	4,868	12%	10%	1%
	Robotics and Motion	6,806	6,199	10%	7%	7%
	<i>Corporate and Other</i> <i>(incl. inter-division eliminations)</i>	(930)	(740)			
Operational EBITA	ABB Group	3,345	3,109	8%	5%	
	Power Grids	696	743	-6%	-6%	
	Electrification Products	1,238	1,112	11%	8%	
	Industrial Automation	768	654	17%	16%	
	Robotics and Motion	1,098	957	15%	12%	
	<i>Corporate and Other</i> <i>(incl. inter-division eliminations)</i>	(455)	(357)			
Operational EBITA %	ABB Group	12.5%	12.5%			
	Power Grids	9.8%	10.2%			
	Electrification Products	14.8%	15.1%			
	Industrial Automation	14.1%	13.5%			
	Robotics and Motion	16.1%	15.4%			
Income from operations	ABB Group	2,765	2,788			
	Power Grids	589	669			
	Electrification Products	1,069	1,034			
	Industrial Automation	683	584			
	Robotics and Motion	1,020	879			
	<i>Corporate and Other</i> <i>(incl. inter-division eliminations)</i>	(596)	(378)			
Income from operations %	ABB Group	10.3%	11.1%			
	Power Grids	8.3%	9.2%			
	Electrification Products	12.8%	14.0%			
	Industrial Automation	12.5%	12.0%			
	Robotics and Motion	15.0%	14.2%			
Cash flow from operating activities	ABB Group	1,057	1,930			
	Power Grids	(184)	449			
	Electrification Products	753	768			
	Industrial Automation	461	509			
	Robotics and Motion	724	731			
	<i>Corporate and Other</i>	(697)	(527)			

Operational EBITA

(\$ in millions, unless otherwise indicated)	ABB		Power Grids		Electrification Products		Industrial Automation		Robotics and Motion	
	Q3 18	Q3 17	Q3 18	Q3 17	Q3 18	Q3 17	Q3 18	Q3 17	Q3 18	Q3 17
Revenues	9,257	8,724	2,336	2,449	3,199	2,596	1,758	1,780	2,281	2,197
FX/commodity timing differences in total revenues	(50)	(3)	(23)	(4)	–	–	(13)	(15)	(4)	7
Operational revenues	9,207	8,721	2,313	2,445	3,199	2,596	1,745	1,765	2,277	2,204
Income from operations	908	888	220	232	391	393	223	164	354	336
Acquisition-related amortization	80	74	7	8	32	24	22	21	16	16
Restructuring and restructuring-related expenses ⁽¹⁾	44	92	7	12	19	(2)	2	40	11	2
Changes in retained obligations of divested businesses	75	–	–	–	–	–	–	–	–	–
Changes in pre-acquisition estimates	1	(2)	–	–	1	(2)	–	–	–	–
Gains and losses from sale of businesses	(66)	1	–	–	(83)	–	–	–	–	–
Acquisition-related expenses and integration costs	75	27	–	1	60	8	1	18	1	–
Certain other non-operational items	7	43	7	8	–	–	1	1	2	–
FX/commodity timing differences in income from operations	(6)	1	(9)	(2)	11	(4)	(3)	(7)	2	7
Operational EBITA	1,118	1,124	232	259	431	417	246	237	386	361
Operational EBITA margin (%)	12.1%	12.9%	10.0%	10.6%	13.5%	16.1%	14.1%	13.4%	17.0%	16.4%

(\$ in millions, unless otherwise indicated)	ABB		Power Grids		Electrification Products		Industrial Automation		Robotics and Motion	
	9M 18	9M 17	9M 18	9M 17	9M 18	9M 17	9M 18	9M 17	9M 18	9M 17
Revenues	26,773	25,032	7,075	7,307	8,366	7,398	5,456	4,868	6,806	6,199
FX/commodity timing differences in total revenues	37	(108)	33	(45)	14	(27)	(7)	(30)	7	(3)
Operational revenues	26,810	24,924	7,108	7,262	8,380	7,371	5,449	4,838	6,813	6,196
Income from operations	2,765	2,788	589	669	1,069	1,034	683	584	1,020	879
Acquisition-related amortization	225	189	27	25	71	76	66	25	48	50
Restructuring and restructuring-related expenses ⁽¹⁾	61	224	18	33	22	11	4	49	13	29
Changes in obligations related to divested businesses	92	94	–	–	–	–	–	–	–	–
Changes in pre-acquisition estimates	2	–	–	–	2	–	–	–	–	–
Gains and losses from sale of businesses	(61)	(330)	–	–	(81)	–	3	(2)	–	–
Acquisition-related expenses and integration costs	152	41	4	1	128	11	3	25	1	–
Certain other non-operational items	49	193	34	60	(2)	13	1	1	7	–
FX/commodity timing differences in income from operations	60	(90)	24	(45)	29	(33)	8	(28)	9	(1)
Operational EBITA	3,345	3,109	696	743	1,238	1,112	768	654	1,098	957
Operational EBITA margin (%)	12.5%	12.5%	9.8%	10.2%	14.8%	15.1%	14.1%	13.5%	16.1%	15.4%

(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		Industrial Automation		Robotics and Motion	
	Q3 18	Q3 17	Q3 18	Q3 17	Q3 18	Q3 17	Q3 18	Q3 17	Q3 18	Q3 17
Depreciation	197	191	41	44	63	52	18	17	35	35
Amortization	106	96	14	16	41	27	22	23	17	19
including total acquisition-related amortization of:	80	74	7	8	32	24	22	21	16	16

(\$ in millions)	ABB		Power Grids		Electrification Products		Industrial Automation		Robotics and Motion	
	9M 18	9M 17	9M 18	9M 17	9M 18	9M 17	9M 18	9M 17	9M 18	9M 17
Depreciation	578	555	128	130	165	152	52	41	105	103
Amortization	290	253	47	46	85	85	69	29	52	59
including total acquisition-related amortization of:	225	189	27	25	71	76	66	25	48	50

Orders received and revenues by region

(\$ in millions, unless otherwise indicated)	Orders received		CHANGE			Revenues		CHANGE		
	Q3 18	Q3 17	US\$	Local	Com- parable	Q3 18	Q3 17	US\$	Local	Com- parable
Europe	3,037	2,760	10%	14%	15%	3,123	3,058	2%	6%	3%
The Americas	2,869	2,339	23%	26%	9%	2,882	2,400	20%	23%	6%
Asia, Middle East and Africa	3,035	3,058	-1%	2%	4%	3,252	3,266	0%	3%	1%
ABB Group	8,941	8,157	10%	13%	9%	9,257	8,724	6%	9%	3%

(\$ in millions, unless otherwise indicated)	Orders received		CHANGE			Revenues		CHANGE		
	9M 18	9M 17	US\$	Local	Com- parable	9M 18	9M 17	US\$	Local	Com- parable
Europe	10,088	8,730	16%	10%	7%	9,343	8,565	9%	5%	1%
The Americas	7,861	7,142	10%	11%	5%	7,817	7,204	9%	10%	4%
Asia, Middle East and Africa	10,247	9,037	13%	11%	8%	9,613	9,263	4%	1%	1%
ABB Group	28,196	24,909	13%	11%	7%	26,773	25,032	7%	5%	2%

Interim Consolidated Financial Information

ABB Ltd Interim Consolidated Income Statements (unaudited)

(\$ in millions, except per share data in \$)	Nine months ended		Three months ended	
	Sep. 30, 2018	Sep. 30, 2017	Sep. 30, 2018	Sep. 30, 2017
Sales of products	21,772	20,686	7,560	7,235
Sales of services and other	5,001	4,346	1,697	1,489
Total revenues	26,773	25,032	9,257	8,724
Cost of sales of products	(15,685)	(14,810)	(5,576)	(5,158)
Cost of services and other	(2,984)	(2,603)	(1,014)	(910)
Total cost of sales	(18,669)	(17,413)	(6,590)	(6,068)
Gross profit	8,104	7,619	2,667	2,656
Selling, general and administrative expenses	(4,455)	(4,085)	(1,553)	(1,402)
Non-order related research and development expenses	(1,027)	(968)	(328)	(358)
Other income (expense), net	143	222	122	(8)
Income from operations	2,765	2,788	908	888
Interest and dividend income	64	55	13	20
Interest and other finance expense	(244)	(227)	(91)	(74)
Non-operational pension (cost) credit	87	34	29	20
Income from continuing operations before taxes	2,672	2,650	859	854
Provision for taxes	(722)	(702)	(223)	(246)
Income from continuing operations, net of tax	1,950	1,948	636	608
Income (loss) from discontinued operations, net of tax	3	(6)	–	(5)
Net income	1,953	1,942	636	603
Net income attributable to noncontrolling interests	(97)	(122)	(33)	(32)
Net income attributable to ABB	1,856	1,820	603	571
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	1,853	1,826	603	576
Net income	1,856	1,820	603	571
Basic earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	0.87	0.85	0.28	0.27
Net income	0.87	0.85	0.28	0.27
Diluted earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	0.87	0.85	0.28	0.27
Net income	0.87	0.85	0.28	0.27
Weighted-average number of shares outstanding (in millions) used to compute:				
Basic earnings per share attributable to ABB shareholders	2,132	2,138	2,132	2,134
Diluted earnings per share attributable to ABB shareholders	2,140	2,147	2,138	2,142

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)

(\$ in millions)	Nine months ended		Three months ended	
	Sep. 30, 2018	Sep. 30, 2017	Sep. 30, 2018	Sep. 30, 2017
Total comprehensive income, net of tax	1,458	2,727	474	855
Total comprehensive income attributable to noncontrolling interests, net of tax	(74)	(139)	(14)	(36)
Total comprehensive income attributable to ABB shareholders, net of tax	1,384	2,588	460	819

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)	Sep. 30, 2018	Dec. 31, 2017
Cash and equivalents	2,604	4,526
Marketable securities and short-term investments	953	1,102
Receivables, net	8,935	8,267
Contract assets	2,350	2,149
Inventories, net	6,077	5,255
Prepaid expenses	316	189
Other current assets	720	647
Total current assets	21,955	22,135
Property, plant and equipment, net	5,580	5,363
Goodwill	12,426	11,199
Other intangible assets, net	2,894	2,622
Prepaid pension and other employee benefits	170	144
Investments in equity-accounted companies	168	158
Deferred taxes	962	1,250
Other non-current assets	497	587
Total assets	44,652	43,458
Accounts payable, trade	5,825	5,419
Contract liabilities	2,700	2,908
Short-term debt and current maturities of long-term debt	2,883	738
Provisions for warranties	1,184	1,231
Other provisions	1,733	1,882
Other current liabilities	4,233	4,291
Total current liabilities	18,558	16,469
Long-term debt	6,619	6,709
Pension and other employee benefits	1,760	1,882
Deferred taxes	1,190	1,099
Other non-current liabilities	1,876	1,950
Total liabilities	30,003	28,109
Commitments and contingencies		
Stockholders' equity:		
Common stock (2,168,148,264 issued shares at September 30, 2018, and December 31, 2017)	188	188
Additional paid-in capital	43	29
Retained earnings	19,522	19,594
Accumulated other comprehensive loss	(4,826)	(4,345)
Treasury stock, at cost (36,344,658 and 29,541,775 shares at September 30, 2018, and December 31, 2017, respectively)	(824)	(647)
Total ABB stockholders' equity	14,103	14,819
Noncontrolling interests	546	530
Total stockholders' equity	14,649	15,349
Total liabilities and stockholders' equity	44,652	43,458

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)	Nine months ended		Three months ended	
	Sep. 30, 2018	Sep. 30, 2017	Sep. 30, 2018	Sep. 30, 2017
Operating activities:				
Net income	1,953	1,942	636	603
Adjustments to reconcile net income to net cash provided by operating activities:				
Depreciation and amortization	868	808	303	287
Deferred taxes	38	40	(12)	(3)
Net loss (gain) from derivatives and foreign exchange	93	5	–	34
Net loss (gain) from sale of property, plant and equipment	(59)	(22)	(20)	(12)
Net loss (gain) from sale of businesses	(61)	(330)	(66)	1
Share-based payment arrangements	39	41	11	14
Other	(97)	21	(63)	(16)
Changes in operating assets and liabilities:				
Trade receivables, net	(261)	(148)	(119)	(5)
Contract assets and liabilities	(447)	(244)	(141)	(135)
Inventories, net	(623)	(306)	(176)	(72)
Accounts payable, trade	162	279	(56)	50
Accrued liabilities	178	101	337	234
Provisions, net	(107)	(87)	111	(66)
Income taxes payable and receivable	(96)	41	(9)	48
Other assets and liabilities, net	(523)	(211)	(171)	(8)
Net cash provided by operating activities	1,057	1,930	565	954
Investing activities:				
Purchases of marketable securities (available-for-sale)	(309)	(300)	(275)	(26)
Purchases of short-term investments	(24)	(133)	–	(59)
Purchases of property, plant and equipment and intangible assets	(674)	(620)	(239)	(203)
Acquisition of businesses (net of cash acquired) and increases in cost- and equity-accounted companies	(2,549)	(2,119)	(31)	(2,101)
Proceeds from sales of marketable securities (available-for-sale)	87	502	56	12
Proceeds from maturity of marketable securities (available-for-sale)	160	100	36	–
Proceeds from short-term investments	304	899	19	25
Proceeds from sales of property, plant and equipment	53	50	8	20
Proceeds from sales of businesses (net of transaction costs and cash disposed) and cost- and equity-accounted companies	127	664	136	(9)
Net cash from settlement of foreign currency derivatives	(39)	92	(10)	59
Other investing activities	(137)	29	(14)	7
Net cash used in investing activities	(3,001)	(836)	(314)	(2,275)
Financing activities:				
Net changes in debt with original maturities of 90 days or less	566	363	(677)	(47)
Increase in debt	1,915	901	14	11
Repayment of debt	(344)	(657)	(247)	(67)
Delivery of shares	42	86	–	–
Purchase of treasury stock	(250)	(251)	–	–
Dividends paid	(1,717)	(1,635)	–	–
Dividends paid to noncontrolling shareholders	(126)	(121)	–	(5)
Other financing activities	41	(14)	30	1
Net cash provided by (used in) financing activities	127	(1,328)	(880)	(107)
Effects of exchange rate changes on cash and equivalents	(105)	239	(50)	59
Net change in cash and equivalents – continuing operations	(1,922)	5	(679)	(1,369)
Cash and equivalents, beginning of period	4,526	3,644	3,283	5,018
Cash and equivalents, end of period	2,604	3,649	2,604	3,649
Supplementary disclosure of cash flow information:				
Interest paid	148	139	30	24
Taxes paid	781	651	250	208

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)	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive loss	Treasury stock	Total ABB stockholders' equity	Non- controlling interests	Total stockholders' equity
Balance at January 1, 2017	192	24	19,925	(5,187)	(1,559)	13,395	502	13,897
Comprehensive income:								
Net income			1,820			1,820	122	1,942
Foreign currency translation adjustments, net of tax of \$1				850		850	17	867
Effect of change in fair value of available-for-sale securities, net of tax of \$1				3		3		3
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of \$(24)				(90)		(90)		(90)
Change in derivatives qualifying as cash flow hedges, net of tax of \$1				5		5		5
Total comprehensive income						2,588	139	2,727
Changes in noncontrolling interests		3				3	(4)	(1)
Dividends to noncontrolling shareholders						–	(128)	(128)
Dividends paid to shareholders			(1,622)			(1,622)		(1,622)
Share-based payment arrangements		41				41		41
Cancellation of treasury shares	(4)	(27)	(922)		953	–		–
Purchase of treasury stock					(251)	(251)		(251)
Delivery of shares		(33)			119	86		86
Call options		4				4		4
Balance at September 30, 2017	188	11	19,201	(4,418)	(738)	14,244	509	14,753
Balance at January 1, 2018	188	29	19,594	(4,345)	(647)	14,819	530	15,349
Cumulative effect of changes in accounting principles			(192)	(9)		(201)		(201)
Comprehensive income:								
Net income			1,856			1,856	97	1,953
Foreign currency translation adjustments, net of tax of \$(2)				(543)		(543)	(23)	(566)
Effect of change in fair value of available-for-sale securities, net of tax of \$(1)				(5)		(5)		(5)
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of \$33				98		98		98
Change in derivatives qualifying as cash flow hedges, net of tax of \$(4)				(22)		(22)		(22)
Total comprehensive income						1,384	74	1,458
Changes in noncontrolling interests						–	(23)	(23)
Noncontrolling interests recognized in connection with business combination						–	107	107
Dividends to noncontrolling shareholders						–	(142)	(142)
Dividends paid to shareholders			(1,736)			(1,736)		(1,736)
Share-based payment arrangements		39				39		39
Purchase of treasury stock					(249)	(249)		(249)
Delivery of shares		(31)			73	42		42
Call options		5				5		5
Balance at September 30, 2018	188	43	19,522	(4,826)	(824)	14,103	546	14,649

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 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					
	Previously reported	As adjusted		Previously reported	As adjusted
(\$ in millions)					
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 nine and three months ended September 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 nine and three months ended September 30, 2017, the Company reclassified \$34 million and \$20 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.

In July 2018, a further accounting standard update was issued, allowing the Company the additional option of adopting the standard retrospectively with the cumulative-effect of initially applying the new standard recognized at the date of adoption in retained earnings.

The Company will elect to adopt the standard using the additional option outlined above and 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.

Customer's accounting for implementation costs incurred in a cloud computing arrangement that is a service contract

In August 2018, an accounting standard update was issued which aligns the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. This update is effective for the Company for annual and interim periods beginning January 1, 2020, with early adoption in any interim period permitted. The Company is currently evaluating the impact of this update on its consolidated financial statements.

Disclosure Framework — Changes to the disclosure requirements for defined benefit plans

In August 2018, an accounting standard update was issued which modifies the disclosure requirements for defined benefit pension or other postretirement benefit plans. The update removes certain disclosures relating to (i) amounts expected to be recognized in net periodic benefit cost over the next twelve months, (ii) plan assets expected to be returned to the Company, (iii) a one-percentage-point change in assumed health care costs, and (iv) related parties, including insurance and annuity contracts. It clarifies the disclosure requirements for both the projected and accumulated benefit obligations, as well as requiring additional disclosures for cash balance plans and explanations for significant gains and losses related to changes in the benefit obligations. This update is effective for the Company for all annual periods, beginning with the year ending December 31, 2020, on a retrospective basis, with early adoption permitted. This update will modify the Company's disclosures but will not have a material effect on its consolidated financial statements.

Disclosure Framework — Changes to the disclosure requirements for fair value measurement

In August 2018, an accounting standard update was issued which modifies the disclosure requirements for fair value measurements. The update eliminates the requirements to disclose the amount of and reasons for transfers between Level 1 and 2 of the fair value hierarchy, the timing of transfers between levels and the Level 3 valuation process, while expanding the Level 3 disclosures to include the range and weighted average used to develop significant unobservable inputs and the changes in unrealized gains and losses on recurring fair value measurements. This update is effective for the Company for annual and interim periods beginning January 1, 2020, with early adoption permitted. The changes and modifications to the Level 3 disclosures are to be applied prospectively, while all other amendments are to be applied respectively. The Company is currently evaluating the impact of this update on its disclosures but does not expect that it will have a material effect on its consolidated financial statements.

Note 3

Acquisitions and Divestments

Acquisitions

Acquisitions were as follows:

(\$ in millions, except number of acquired businesses)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Acquisitions (net of cash acquired) ⁽¹⁾	2,525	2,108	27	2,099
Aggregate excess of purchase price over fair value of net assets acquired ⁽²⁾	1,429	1,338	62	1,334
Number of acquired businesses	3	4	2	2

(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 nine months ended September 30, 2018, relate primarily to the acquisition of GE Industrial Solutions (GEIS). The amounts for the nine and three months ended September 30, 2017, relate primarily to the acquisition of Bernecker + Rainer Industrie-Elektronik GmbH (B&R).

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 purchases 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 \$2,510 million (net of cash acquired of \$192 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 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.

On July 6, 2017, the Company acquired the shares of B&R. B&R is a worldwide provider of product- and software-based, open-architecture solutions for machine and factory automation. This acquisition closes a gap in the Company's industrial automation portfolio and consequently the goodwill acquired represents the future benefits associated with product portfolio expansion.

The aggregate preliminary allocation of the purchase consideration for business acquisitions (including measurement period adjustments) in the nine months ended September 30, 2018 and 2017, was as follows:

Nine months ended September 30, (\$ in millions)	2018			Weighted- average useful life	2017	
	Allocated amounts				Allocated amounts	Weighted- average useful life
	GEIS	Other	Total			
Technology	87	-	87	7 years	412	7 years
Customer relationships	214	-	214	14 years	267	19 years
Trade names	122	-	122	13 years	85	10 years
Supply agreement	34	-	34	13 years	-	
Order Backlog	-	-	-		1	3 months
Intangible assets	457	-	457		765	
Fixed assets	411	15	426		131	
Debt acquired	-	-	-		(50)	
Deferred tax liabilities	(182)	(6)	(188)		(221)	
Inventories	442	47	489		168	
Other assets and liabilities, net ⁽¹⁾	(23)	(65)	(88)		(23)	
Goodwill ⁽²⁾	1,405	24	1,429		1,338	
Total consideration (net of cash acquired)⁽³⁾	2,510	15	2,525		2,108	

(1) Gross receivables from the GEIS acquisitions totaled \$658 million; the fair value of which was \$624 million after adjusting for contractual cash flows not expected to be collected.

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

(3) Primarily relates to the acquisition of GEIS in 2018 and B&R in 2017. Cash acquired in the GEIS acquisition totaled \$192 million.

The Company's Consolidated Income Statement for the three months ended September 30, 2018, includes total revenues of \$634 million and a net loss of \$24 million in respect of GEIS since the date of acquisition.

The unaudited pro forma financial information in the table below summarizes the combined pro forma results of the Company and GEIS for the nine and three months ended September 30, 2018 and 2017, as if GEIS had been acquired on January 1, 2017.

(\$ in millions)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Total revenues	28,047	26,993	9,257	9,384
Income from continuing operations, net of tax	1,998	2,002	655	625

The pro forma results are for information purposes only and do not include any anticipated cost synergies or other effects of the planned integration of GEIS. Accordingly, such pro forma amounts are not necessarily indicative of the results that would have occurred had the acquisition been completed on the date indicated, nor are they indicative of the future operating results of the combined company.

The unaudited pro forma results above include certain adjustments related to the GEIS acquisition. The table below summarizes the adjustments necessary to present the pro forma financial information of the combined entity as if GEIS had been acquired on January 1, 2017.

(\$ in millions)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Impact on cost of sales from additional amortization of intangible assets	(10)	(16)	-	(5)
Impact on cost of sales from fair valuing acquired inventory	26	(26)	26	-
Impact on cost of sales from additional depreciation of fixed assets	(4)	(7)	-	(2)
Impact on selling, general and administrative expenses from additional amortization of intangible assets	(5)	(11)	-	(2)
Impact on selling, general and administrative expenses from acquisition-related costs	44	10	-	6
Impact on interest from financing costs	(15)	(48)	-	(15)
Taxation adjustments	(5)	26	(7)	6
Total pro forma adjustments	31	(72)	19	(12)

Business divestments

For the nine months ended September 30, 2017, the Company recorded net gains (including transaction costs) of \$330 million in "Other income (expense), net" and an associated tax expense of \$28 million in "Provision for taxes" relating primarily 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 nine months ended September 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⁾	1,429
Goodwill allocated to disposals	(31)
Exchange rate differences and other	(171)
Balance at September 30, 2018	12,426

(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 assets 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:

September 30, 2018						
(\$ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents	Marketable securities and short-term investments
Cash	1,908			1,908	1,908	–
Time deposits	715			715	696	19
Other short-term investments	295			295	–	295
Debt securities available-for-sale:						
U.S. government obligations	213	–	(5)	208	–	208
European government obligations	33	–	–	33	–	33
Corporate	92	–	(2)	90	–	90
Equity securities available-for-sale	297	11	–	308	–	308
Total	3,553	11	(7)	3,557	2,604	953

December 31, 2017						
(\$ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents	Marketable securities and short-term investments
Cash	1,963			1,963	1,963	–
Time deposits	2,853			2,853	2,563	290
Other short-term investments	305			305	–	305
Debt securities available-for-sale:						
U.S. government obligations	127	–	(2)	125	–	125
Other government obligations	2	–	–	2	–	2
Corporate	215	1	(1)	215	–	215
Equity securities available-for-sale	152	13	–	165	–	165
Total	5,617	14	(3)	5,628	4,526	1,102

Other short-term investments at September 30, 2018, and December 31, 2017, are receivables of \$295 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 (\$ in millions)	Total notional amounts at		
	September 30, 2018	December 31, 2017	September 30, 2017
Foreign exchange contracts	13,548	17,280	16,562
Embedded foreign exchange derivatives	1,492	1,641	1,845
Interest rate contracts	3,590	5,706	5,310

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, steel 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		
		September 30, 2018	December 31, 2017	September 30, 2017
Copper swaps	metric tonnes	57,251	44,145	44,013
Silver swaps	ounces	2,692,781	1,966,729	2,074,213
Aluminum swaps	metric tonnes	13,960	7,700	5,300
Steel swaps	metric tonnes	22,408	–	–
Crude oil swaps	barrels	106,363	170,331	173,398

Equity derivatives

At September 30, 2018, December 31, 2017, and September 30, 2017, the Company held 41 million, 37 million and 43 million cash-settled call options indexed to ABB Ltd shares (conversion ratio 5:1) with a total fair value of \$23 million, \$42 million and \$35 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 September 30, 2018, and December 31, 2017, "Accumulated other comprehensive loss" included net unrealized losses of \$10 million and net unrealized gains of \$12 million, respectively, net of tax, on derivatives designated as cash flow hedges. Of the amount at September 30, 2018, net losses of \$3 million are expected to be reclassified to earnings in the following 12 months. At September 30, 2018, the longest maturity of a derivative classified as a cash flow hedge was 64 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 nine and three months ended September 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)	
	Nine months ended September 30,		2018	2017
Type of derivative	2018	2017		
Foreign exchange contracts	(7)	8	Location	
			Total revenues	(2)
			Total cost of sales	3
Commodity contracts	(7)	6	Total cost of sales	5
Cash-settled call options	(20)	11	SG&A expenses ⁽¹⁾	9
Total	(34)	25	(8)	15

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

(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 nine and three months ended September 30, 2018 and 2017.

Net derivative losses of \$9 million and net derivative gains of \$11 million, both net of tax, were reclassified from "Accumulated other comprehensive loss" to earnings during the nine months ended September 30, 2018 and 2017, respectively. During the three months ended September 30, 2018 and 2017, net derivative gains of \$4 million and \$1 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 nine and three months ended September 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:

(\$ in millions)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Gains (losses) recognized in Interest and other finance expense:				
- on derivatives designated as fair value hedges	(36)	(3)	(16)	(3)
- on hedged item	37	5	17	2

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 (\$ in millions)	Location	Gains (losses) recognized in income			
		Nine months ended September 30,		Three months ended September 30,	
		2018	2017	2018	2017
Foreign exchange contracts	Total revenues	(231)	203	–	36
	Total cost of sales	104	(40)	18	(14)
	SG&A expenses ⁽¹⁾	10	(19)	6	(9)
	Non-order related research and development	(1)	–	(1)	–
	Other income (expense), net	–	(1)	–	–
	Interest and other finance expense	24	42	(13)	29
Embedded foreign exchange contracts	Total revenues	84	(30)	17	(7)
	Total cost of sales	(4)	1	(1)	1
	SG&A expenses ⁽¹⁾	2	5	–	–
Commodity contracts	Total cost of sales	(39)	31	(24)	13
Other	Interest and other finance expense	3	(2)	(5)	1
Total		(48)	190	(3)	50

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

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

(\$ in millions)	September 30, 2018			
	Derivative assets		Derivative liabilities	
	Current in “Other current assets”	Non-current in “Other non-current assets”	Current in “Other current liabilities”	Non-current in “Other non-current liabilities”
Derivatives designated as hedging instruments:				
Foreign exchange contracts	1	–	3	4
Commodity contracts	–	–	2	–
Interest rate contracts	–	19	–	17
Cash-settled call options	14	9	–	–
Total	15	28	5	21
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	134	20	186	37
Commodity contracts	10	1	24	–
Embedded foreign exchange derivatives	52	24	12	2
Total	196	45	222	39
Total fair value	211	73	227	60

(\$ in millions)	December 31, 2017			
	Derivative assets		Derivative liabilities	
	Current in “Other current assets”	Non-current in “Other non-current assets”	Current in “Other current liabilities”	Non-current in “Other non-current liabilities”
Derivatives designated as hedging instruments:				
Foreign exchange contracts	4	–	3	1
Commodity contracts	6	–	–	–
Interest rate contracts	–	42	–	4
Cash-settled call options	25	16	–	–
Total	35	58	3	5
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	142	25	190	63
Commodity contracts	35	1	6	–
Cross-currency interest rate swaps	–	–	2	–
Cash-settled call options	–	1	–	–
Embedded foreign exchange derivatives	32	16	22	7
Total	209	43	220	70
Total fair value	244	101	223	75

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 September 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 September 30, 2018, and December 31, 2017, information related to these offsetting arrangements was as follows:

(\$ in millions)					
September 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 asset exposure
Derivatives	208	(123)	–	–	85
Reverse repurchase agreements	295	–	–	(295)	–
Total	503	(123)	–	(295)	85

(\$ in millions)					
September 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	273	(123)	–	–	150
Total	273	(123)	–	–	150

(\$ 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 asset exposure
Derivatives	297	(172)	–	–	125
Reverse repurchase agreements	305	–	–	(305)	–
Total	602	(172)	–	(305)	125

(\$ 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:

(\$ in millions)	September 30, 2018			
	Level 1	Level 2	Level 3	Total fair value
Assets				
Available-for-sale securities in "Marketable securities and short-term investments":				
Equity securities	–	308	–	308
Debt securities—U.S. government obligations	208	–	–	208
Debt securities—European government obligations	33	–	–	33
Debt securities—Corporate	–	90	–	90
Derivative assets—current in "Other current assets"	–	211	–	211
Derivative assets—non-current in "Other non-current assets"	–	73	–	73
Total	241	682	–	923
Liabilities				
Derivative liabilities—current in "Other current liabilities"	–	227	–	227
Derivative liabilities—non-current in "Other non-current liabilities"	–	60	–	60
Total	–	287	–	287

(\$ in millions)	December 31, 2017			
	Level 1	Level 2	Level 3	Total fair value
Assets				
Available-for-sale securities in "Marketable securities and short-term investments":				
Equity securities	–	165	–	165
Debt securities—U.S. government obligations	125	–	–	125
Debt securities—Other government obligations	–	2	–	2
Debt securities—Corporate	–	215	–	215
Receivable in "Other non-current assets":				
Receivable under securities lending arrangement	79	–	–	79
Derivative assets—current in "Other current assets"	–	244	–	244
Derivative assets—non-current in "Other non-current assets"	–	101	–	101
Total	204	727	–	931
Liabilities				
Derivative liabilities—current in "Other current liabilities"	–	223	–	223
Derivative liabilities—non-current in "Other non-current liabilities"	–	75	–	75
Total	–	298	–	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 nine and three months ended September 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:

(\$ in millions)	September 30, 2018				
	Carrying value	Level 1	Level 2	Level 3	Total fair value
Assets					
Cash and equivalents (excluding available-for-sale securities with original maturities up to 3 months):					
Cash	1,908	1,908	–	–	1,908
Time deposits	696	–	696	–	696
Marketable securities and short-term investments (excluding available-for-sale securities):					
Time deposits	19	–	19	–	19
Receivables under reverse repurchase agreements	295	–	295	–	295
Other non-current assets:					
Loans granted	40	–	41	–	41
Restricted time deposits	36	36	–	–	36
Liabilities					
Short-term debt and current maturities of long-term debt (excluding capital lease obligations)	2,850	1,881	969	–	2,850
Long-term debt (excluding capital lease obligations)	6,460	5,828	721	–	6,549

(\$ in millions)	December 31, 2017				
	Carrying value	Level 1	Level 2	Level 3	Total fair value
Assets					
Cash and equivalents (excluding available-for-sale securities with original maturities up to 3 months):					
Cash	1,963	1,963	–	–	1,963
Time deposits	2,563	–	2,563	–	2,563
Marketable securities and short-term investments (excluding available-for-sale securities):					
Time deposits	290	–	290	–	290
Receivables under reverse repurchase agreements	305	–	305	–	305
Other non-current assets:					
Loans granted	32	–	33	–	33
Restricted time deposits	38	38	–	–	38
Liabilities					
Short-term debt and current maturities of long-term debt (excluding capital lease obligations)	704	400	304	–	704
Long-term debt (excluding capital lease obligations)	6,569	6,046	775	–	6,821

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 Brazilian Antitrust Authority (CADE) has opened an investigation into certain 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 September 30, 2018, and December 31, 2017, the Company had aggregate liabilities of \$242 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)	September 30, 2018	December 31, 2017
Performance guarantees	1,601	1,775
Financial guarantees	11	17
Indemnification guarantees	62	72
Total	1,674	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 September 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 September 30, 2018 and December 31, 2017, the maximum potential payable under these guarantees amounts to \$790 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 September 30, 2018, and December 31, 2017, the total outstanding performance bonds aggregated to \$7.4 billion and \$7.7 billion, respectively. There have been no significant amounts reimbursed to financial institutions under these types of arrangements in the nine and three months ended September 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	2017
Balance at January 1,	1,231	1,142
Net change in warranties due to acquisitions and divestments	11	30
Claims paid in cash or in kind	(268)	(247)
Net increase in provision for changes in estimates, warranties issued and warranties expired	258	184
Exchange rate differences	(48)	91
Balance at September 30,	1,184	1,200

During 2018, the Company recorded changes in the estimated amount for a product warranty relating to a divested business. This warranty liability was increased by a total of \$92 million during the nine months ended September 30, 2018, of which \$75 million was recorded in the three months ended September 30, 2018. The corresponding increases were included in Cost of sales of products and resulted in a decrease in earnings per share of \$0.03 (basic and diluted) for both the nine and three months ended September 30, 2018. As these costs relate to a divested business, they have been excluded from the Company's primary measure of segment performance, Operational EBITA (See Note 15). The warranty liability has been recorded based on the information currently available and is subject to change in the future.

Note 8

Contract assets and liabilities

The following table provides information about Contract Assets and Contract Liabilities:

(\$ in millions)	September 30, 2018	December 31, 2017	September 30, 2017
Contract assets	2,350	2,149	2,410
Contract liabilities	2,700	2,908	3,017

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)	Nine months ended September 30,			
	2018		2017	
	Contract assets	Contract liabilities	Contract assets	Contract liabilities
Revenue recognized, which was included in the Contract liabilities balance at Jan 1, 2018/2017		(2,084)		(1,869)
Additions to Contract liabilities - excluding amounts recognized as revenue during the period		1,690		2,712
Receivables recognized that were included in the Contract asset balance at Jan 1, 2018/2017	1,064		1,397	

The Company considers unfulfilled orders (order backlog) from customers to be unsatisfied performance obligations. At September 30, 2018, unfulfilled orders were \$23,480 million and, of this amount, the Company expects to recognize approximately 33 percent in 2018, approximately 45 percent in 2019 and the balance thereafter.

Note 9

Debt

The Company's total debt at September 30, 2018, and December 31, 2017, amounted to \$9,502 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)	September 30, 2018	December 31, 2017
Short-term debt	1,031	327
Current maturities of long-term debt	1,852	411
Total	2,883	738

Short-term debt primarily represented issued commercial paper and short-term loans from various banks. At September 30, 2018, and December 31, 2017, \$782 million and \$259 million, respectively, was outstanding under the \$2 billion commercial paper program in the United States. In addition, at September 30, 2018, \$87 million was outstanding under the \$2 billion Euro-commercial paper program.

Long-term debt

The Company's long-term debt at September 30, 2018, and December 31, 2017, amounted to \$6,619 million and \$6,709 million, respectively.

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

(in millions)	September 30, 2018				December 31, 2017			
	Nominal outstanding		Carrying value ⁽¹⁾		Nominal outstanding		Carrying value ⁽¹⁾	
Bonds:								
1.50% CHF Bonds, due 2018	CHF	350	\$	358	CHF	350	\$	358
2.625% EUR Instruments, due 2019	EUR	1,250	\$	1,448	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	\$	376	CHF	350	\$	378
5.625% USD Notes, due 2021	USD	250	\$	266	USD	250	\$	270
2.875% USD Notes, due 2022	USD	1,250	\$	1,226	USD	1,250	\$	1,256
3.375% USD Notes, due 2023	USD	450	\$	448				–
0.625% EUR Notes, due 2023	EUR	700	\$	809	EUR	700	\$	834
0.75% EUR Notes, due 2024	EUR	750	\$	862	EUR	750	\$	889
3.8% USD Notes, due 2028	USD	750	\$	746				–
4.375% USD Notes, due 2042	USD	750	\$	723	USD	750	\$	723
Total			\$	8,206			\$	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	
Nine months ended September 30,	2018	2017	2018	2017
Operational pension cost:				
Service cost	159	178	–	1
Operational pension cost	159	178	–	1
Non-operational pension cost (credit):				
Interest cost	168	193	3	3
Expected return on plan assets	(316)	(311)	–	–
Amortization of prior service cost (credit)	(11)	14	(3)	(3)
Amortization of net actuarial loss	72	69	(1)	(1)
Curtailments, settlements and special termination benefits	1	2	–	–
Non-operational pension cost (credit)	(86)	(33)	(1)	(1)
Net periodic benefit cost	73	145	(1)	–

(\$ in millions)	Defined pension benefits		Other postretirement benefits	
Three months ended September 30,	2018	2017	2018	2017
Operational pension cost:				
Service cost	51	56	–	1
Operational pension cost	51	56	–	1
Non-operational pension cost (credit):				
Interest cost	55	68	1	1
Expected return on plan assets	(104)	(109)	–	–
Amortization of prior service cost (credit)	(4)	(4)	(1)	(1)
Amortization of net actuarial loss	24	25	(1)	(1)
Curtailments, settlements and special termination benefits	1	1	–	–
Non-operational pension cost (credit)	(28)	(19)	(1)	(1)
Net periodic benefit cost	23	37	(1)	–

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	
Nine months ended September 30,	2018	2017	2018	2017
Total contributions to defined benefit pension and other postretirement benefit plans	152	145	6	7
Of which, discretionary contributions to defined benefit pension plans	10	–	–	–

(\$ in millions)	Defined pension benefits		Other postretirement benefits	
Three months ended September 30,	2018	2017	2018	2017
Total contributions to defined benefit pension and other postretirement benefit plans	57	50	2	3
Of which, discretionary contributions to defined benefit pension plans	10	–	–	–

The Company expects to make contributions totaling approximately \$220 million and \$12 million to its defined benefit pension plans and other postretirement benefit plans, respectively, for the full year 2018.

Note 11

Stockholders' equity

In the nine months ended September 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 nine months ended September 30, 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

	Nine months ended September 30,		Three months ended September 30,	
(\$ in millions, except per share data in \$)	2018	2017	2018	2017
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	1,853	1,826	603	576
Income (loss) from discontinued operations, net of tax	3	(6)	–	(5)
Net income	1,856	1,820	603	571
Weighted-average number of shares outstanding (in millions)	2,132	2,138	2,132	2,134
Basic earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	0.87	0.85	0.28	0.27
Income (loss) from discontinued operations, net of tax	–	–	–	–
Net income	0.87	0.85	0.28	0.27

Diluted earnings per share

	Nine months ended September 30,		Three months ended September 30,	
(\$ in millions, except per share data in \$)	2018	2017	2018	2017
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	1,853	1,826	603	576
Income (loss) from discontinued operations, net of tax	3	(6)	–	(5)
Net income	1,856	1,820	603	571
Weighted-average number of shares outstanding (in millions)	2,132	2,138	2,132	2,134
Effect of dilutive securities:				
Call options and shares	8	9	6	8
Adjusted weighted-average number of shares outstanding (in millions)	2,140	2,147	2,138	2,142
Diluted earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	0.87	0.85	0.28	0.27
Income (loss) from discontinued operations, net of tax	–	–	–	–
Net income	0.87	0.85	0.28	0.27

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	Pension and other postretirement plan adjustments	Unrealized gains (losses) of cash flow hedge derivatives	Total OCI
Balance at January 1, 2017	(3,592)	7	(1,601)	(1)	(5,187)
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	862	3	(156)	19	728
Amounts reclassified from OCI	–	–	60	(11)	49
Changes attributable to divestments	5	–	6	(3)	8
Total other comprehensive (loss) income	867	3	(90)	5	785
Less:					
Amounts attributable to noncontrolling interests	17	–	–	–	17
Balance at September 30, 2017⁽¹⁾	(2,741)	10	(1,691)	4	(4,418)

(\$ in millions)	Foreign currency translation adjustments	Unrealized gains (losses) on available-for-sale securities	Pension and other postretirement plan adjustments	Unrealized gains (losses) of cash flow hedge derivatives	Total OCI
Balance at January 1, 2018	(2,693)	8	(1,672)	12	(4,345)
Cumulative effect of changes in accounting principles	–	(9)	–	–	(9)
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	(547)	(5)	57	(31)	(526)
Amounts reclassified from OCI	(31)	–	41	9	19
Changes attributable to divestments	12	–	–	–	12
Total other comprehensive (loss) income	(566)	(5)	98	(22)	(495)
Less:					
Amounts attributable to noncontrolling interests	(23)	–	–	–	(23)
Balance at September 30, 2018	(3,236)	(6)	(1,574)	(10)	(4,826)

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

The following table reflects amounts reclassified out of OCI in respect of Foreign currency translation adjustments and Pension and other postretirement plan adjustments:

(\$ in millions)	Location of (gains) losses reclassified from OCI	Nine months ended September 30,		Three months ended September 30,	
Details about OCI components		2018	2017	2018	2017
Foreign currency translation adjustments:					
Gain on liquidation of foreign subsidiary	Other income (expense), net	(31)	–	(31)	–
Pension and other postretirement plan adjustments:					
Amortization of prior service cost (credit)	Non-operational pension (cost) credit ⁽¹⁾	(14)	11	(5)	(5)
Amortization of net actuarial loss	Non-operational pension (cost) credit ⁽¹⁾	71	68	23	24
Total before tax		57	79	18	19
Tax	Provision for taxes	(16)	(19)	(6)	(5)
Amounts reclassified from OCI		41	60	12	14

(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 nine and three months ended September 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 September 30, 2018, by expense type.

(\$ in millions)	Employee severance costs	Contract settlement, loss order and other costs	Total
Liability at January 1, 2015	–	–	–
Expenses	364	5	369
Cash payments	(34)	(1)	(35)
Liability at December 31, 2015	330	4	334
Expenses	232	3	235
Cash payments	(106)	(3)	(109)
Change in estimates	(102)	(1)	(103)
Exchange rate differences	(23)	–	(23)
Liability at December 31, 2016	331	3	334
Expenses	35	3	38
Cash payments	(110)	(5)	(115)
Change in estimates	(164)	–	(164)
Exchange rate differences	28	–	28
Liability at December 31, 2017	120	1	121
Cash payments	(56)	(1)	(57)
Change in estimates and exchange rate differences	(14)	1	(13)
Liability at September 30, 2018	50	1	51

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 nine months ended September 30, 2017, \$118 million of the 2017 change in estimates, was recorded primarily as reductions in Cost of sales of \$65 million and in Selling, general and administrative expenses of \$44 million and related to restructurings initiated in both 2015 and 2016. During the three months ended September 30, 2017, \$58 million of the 2017 change in estimates, was recorded primarily as reductions in Cost of sales of \$36 million and in Selling, general and administrative expenses of \$20 million and related to restructurings initiated in both 2015 and 2016.

The change in estimates for the nine months and three months ended September 30, 2017, of \$118 million and \$58 million, respectively, resulted in an increase in earnings per share (basic and diluted) of \$0.04 and \$0.02, in the respective periods.

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

(\$ in millions)	Net cost incurred Nine months ended September 30, 2017 ⁽¹⁾	Net cost incurred Three months ended September 30, 2017 ⁽¹⁾	Cumulative net cost incurred up to December 31, 2017 ⁽¹⁾
Power Grids	(25)	(14)	60
Electrification Products	(11)	(5)	72
Industrial Automation	(19)	(11)	106
Robotics and Motion	(10)	(7)	56
Corporate and Other	(27)	(10)	91
Total	(92)	(47)	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)	Nine months ended September 30, 2017 ⁽¹⁾	Three months ended September 30, 2017 ⁽²⁾	Cumulative costs incurred up to December 31, 2017
Employee severance costs	(94)	(48)	365
Estimated contract settlement, loss order and other costs	1	–	10
Inventory and long-lived asset impairments	1	1	10
Total	(92)	(47)	385

(1) Of which \$55 million was recorded in Total cost of sales and \$32 million in Selling, general and administrative expenses.

(2) Of which \$32 million was recorded in Total cost of sales and \$15 million in Selling, general and administrative expenses.

Other restructuring-related activities

In the nine months ended September 30, 2018 and 2017, the Company executed various other restructuring-related activities and incurred expenses of \$71 million and \$140 million, respectively. In the three months ended September 30, 2018 and 2017, expenses relating to these various other restructuring-related activities amounted to \$45 million and \$82 million, respectively. In the nine and three months ended September 30, 2018, these expenses mainly relate to employee severance costs, contract settlement and other costs and are primarily recorded in “Total cost of sales”, “Selling, general and administrative expenses” and “Other income (expense), net”. In the nine and three months ended September 30, 2017, these expenses mainly relate to employee severance costs, primary recorded in “Total cost of sales”.

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 divested businesses have been reclassified to Corporate and Other for all periods presented.

The segment information for the nine and three months ended September 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 solutions which are designed to provide smarter and safer electrical flow from the substation to the socket. The portfolio of increasingly digital and connected solutions includes electric vehicle charging infrastructure, solar power solutions, modular substation packages, distribution automation products, switchboard and panelboards, switchgear, UPS solutions, circuit breakers, measuring and sensing devices, control products, wiring accessories, enclosures and cabling systems and intelligent home and building solutions, designed to integrate and automate lighting, heating, ventilation, security and data communication networks.
- **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 obligations related to divested businesses occurring after the divestment date (changes in obligations related to 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 nine and three months ended September 30, 2018 and 2017, as well as total assets at September 30, 2018, and December 31, 2017.

Nine months ended September 30, 2018						
(\$ in millions)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corporate and Other	Total
Geographical markets						
Europe	1,980	2,833	2,320	2,143	67	9,343
The Americas	2,058	2,466	1,156	2,104	33	7,817
Asia, Middle East and Africa	2,649	2,710	1,877	2,189	188	9,613
	6,687	8,009	5,353	6,436	288	26,773
End Customer Markets						
Utilities	4,631	2,195	855	543	171	8,395
Industry	1,491	3,279	3,261	4,870	70	12,971
Transport & infrastructure	565	2,535	1,237	1,023	47	5,407
	6,687	8,009	5,353	6,436	288	26,773
Product type						
Products	3,808	6,965	1,775	4,639	63	17,250
Systems	1,667	437	1,407	786	225	4,522
Services and other	1,212	607	2,171	1,011	–	5,001
	6,687	8,009	5,353	6,436	288	26,773
Third-party revenues	6,687	8,009	5,353	6,436	288	26,773
Intersegment revenues	388	357	103	370	(1,218)	–
Total Revenues	7,075	8,366	5,456	6,806	(930)	26,773

Nine months ended September 30, 2017						
(\$ in millions)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corporate and Other	Total
Geographical markets						
Europe	2,045	2,565	1,936	1,895	124	8,565
The Americas	2,131	1,963	965	2,051	94	7,204
Asia, Middle East and Africa	2,646	2,517	1,856	1,864	380	9,263
	6,822	7,045	4,757	5,810	598	25,032
End Customer Markets						
Utilities	4,980	1,963	931	465	452	8,791
Industry	1,356	2,954	2,630	4,341	124	11,405
Transport & infrastructure	486	2,128	1,196	1,004	22	4,836
	6,822	7,045	4,757	5,810	598	25,032
Product type						
Products	3,926	6,140	1,197	4,190	72	15,525
Systems	1,915	440	1,569	718	519	5,161
Services and other	981	465	1,991	902	7	4,346
	6,822	7,045	4,757	5,810	598	25,032
Third-party revenues	6,822	7,045	4,757	5,810	598	25,032
Intersegment revenues	485	353	111	389	(1,338)	–
Total Revenues	7,307	7,398	4,868	6,199	(740)	25,032

Three months ended September 30, 2018						
(\$ in millions)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corporate and Other	Total
Geographical markets						
Europe	689	971	740	701	22	3,123
The Americas	673	1,119	373	705	12	2,882
Asia, Middle East and Africa	851	994	609	751	47	3,252
	2,213	3,084	1,722	2,157	81	9,257
End Customer Markets						
Utilities	1,550	950	273	188	45	3,006
Industry	455	1,141	1,079	1,621	19	4,315
Transport & infrastructure	208	993	370	348	17	1,936
	2,213	3,084	1,722	2,157	81	9,257
Product type						
Products	1,234	2,684	546	1,553	27	6,044
Systems	574	139	485	264	54	1,516
Services and other	405	261	691	340	–	1,697
	2,213	3,084	1,722	2,157	81	9,257
Third-party revenues	2,213	3,084	1,722	2,157	81	9,257
Intersegment revenues	123	115	36	124	(398)	–
Total Revenues	2,336	3,199	1,758	2,281	(317)	9,257

Three months ended September 30, 2017						
(\$ in millions)	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corporate and Other	Total
Geographical markets						
Europe	703	908	762	664	21	3,058
The Americas	690	670	332	687	21	2,400
Asia, Middle East and Africa	904	900	648	702	112	3,266
	2,297	2,478	1,742	2,053	154	8,724
End Customer Markets						
Utilities	1,642	695	309	180	117	2,943
Industry	474	1,114	998	1,570	31	4,187
Transport & infrastructure	181	669	435	303	6	1,594
	2,297	2,478	1,742	2,053	154	8,724
Product type						
Products	1,306	2,143	570	1,461	23	5,503
Systems	658	170	502	271	131	1,732
Services and other	333	165	670	321	–	1,489
	2,297	2,478	1,742	2,053	154	8,724
Third-party revenues	2,297	2,478	1,742	2,053	154	8,724
Intersegment revenues	152	118	38	144	(452)	–
Total Revenues	2,449	2,596	1,780	2,197	(298)	8,724

(\$ in millions)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Operational EBITA:				
Power Grids	696	743	232	259
Electrification Products	1,238	1,112	431	417
Industrial Automation	768	654	246	237
Robotics and Motion	1,098	957	386	361
Corporate and Other and Intersegment elimination	(455)	(357)	(177)	(150)
Consolidated Operational EBITA	3,345	3,109	1,118	1,124
Acquisition-related amortization	(225)	(189)	(80)	(74)
Restructuring and restructuring-related expenses ⁽¹⁾	(61)	(224)	(44)	(92)
Changes in obligations related to divested businesses	(92)	(94)	(75)	–
Changes in pre-acquisition estimates	(2)	–	(1)	2
Gains and losses from sale of businesses	61	330	66	(1)
Acquisition-related expenses and integration costs	(152)	(41)	(75)	(27)
Certain other non-operational items	(49)	(193)	(7)	(43)
Foreign exchange/commodity timing differences in income from operations:				
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(16)	138	50	(31)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(29)	40	(17)	22
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(15)	(88)	(27)	8
Income from operations	2,765	2,788	908	888
Interest and dividend income	64	55	13	20
Interest and other finance expense	(244)	(227)	(91)	(74)
Non-operational pension (cost) credit	87	34	29	20
Income from continuing operations before taxes	2,672	2,650	859	854

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

(\$ in millions)	Total assets ⁽¹⁾	
	September 30, 2018	December 31, 2017
Power Grids	8,350	8,387
Electrification Products	13,991	10,314
Industrial Automation	6,777	7,258
Robotics and Motion	8,674	8,134
Corporate and Other	6,860	9,365
Consolidated	44,652	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 nine and three months ended September 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

Division	Q3 2018 compared to Q3 2017							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Power Grids	7%	4%	0%	11%	-5%	5%	0%	0%
Electrification Products	26%	4%	-24%	6%	23%	4%	-24%	3%
Industrial Automation	3%	4%	0%	7%	-1%	4%	0%	3%
Robotics and Motion	12%	3%	0%	15%	4%	3%	0%	7%
ABB Group	10%	3%	-4%	9%	6%	3%	-6%	3%

Division	9M 2018 compared to 9M 2017							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Power Grids	6%	-1%	0%	5%	-3%	-1%	0%	-4%
Electrification Products	15%	-2%	-8%	5%	13%	-2%	-8%	3%
Industrial Automation	21%	-4%	-9%	8%	12%	-2%	-9%	1%
Robotics and Motion	15%	-3%	0%	12%	10%	-3%	0%	7%
ABB Group	13%	-2%	-4%	7%	7%	-2%	-3%	2%

Regional comparable growth rate reconciliation

Region	Q3 2018 compared to Q3 2017							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	10%	4%	1%	15%	2%	4%	-3%	3%
The Americas	23%	3%	-17%	9%	20%	3%	-17%	6%
Asia, Middle East and Africa	-1%	3%	2%	4%	0%	3%	-2%	1%
ABB Group	10%	3%	-4%	9%	6%	3%	-6%	3%

Region	9M 2018 compared to 9M 2017							
	Order growth rate				Revenue growth rate			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	16%	-6%	-3%	7%	9%	-4%	-4%	1%
The Americas	10%	1%	-6%	5%	9%	1%	-6%	4%
Asia, Middle East and Africa	13%	-2%	-3%	8%	4%	-3%	0%	1%
ABB Group	13%	-2%	-4%	7%	7%	-2%	-3%	2%

Order backlog growth rate reconciliation

Division	September 30, 2018 compared to September 30, 2017			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Power Grids	-5%	4%	0%	-1%
Electrification Products	37%	5%	-34%	8%
Industrial Automation	-5%	3%	0%	-2%
Robotics and Motion	6%	4%	0%	10%
ABB Group	0%	4%	-2%	2%

Other growth rate reconciliations

	Q3 2018 compared to Q3 2017				9M 2018 compared to 9M 2017			
	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US\$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Large orders	-13%	4%	60%	51%	6%	-2%	4%	8%
Base orders	12%	4%	-9%	7%	14%	-2%	-5%	7%
Service orders	10%	4%	-6%	8%	10%	-3%	-1%	6%
Service revenues	14%	4%	-7%	11%	15%	-2%	-2%	11%

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 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

Division	Q3 2017 compared to Q3 2016							
	Order growth rate				Revenue growth rate			
	US\$	Foreign	Portfolio	Comparable	US\$	Foreign	Portfolio	Comparable
	(as reported)	exchange impact			(as reported)	exchange impact		
Power Grids	-8%	-1%	0%	-9%	2%	-1%	0%	1%
Electrification Products	7%	0%	0%	7%	5%	0%	0%	5%
Industrial Automation	30%	-3%	-17%	10%	15%	-2%	-12%	1%
Robotics and Motion	5%	-1%	0%	4%	10%	-2%	0%	8%
ABB Group	8%	0%	-3%	5%	6%	-2%	-1%	3%

Division	9M 2017 compared to 9M 2016							
	Order growth rate				Revenue growth rate			
	US\$	Foreign	Portfolio	Comparable	US\$	Foreign	Portfolio	Comparable
	(as reported)	exchange impact			(as reported)	exchange impact		
Power Grids	-12%	2%	0%	-10%	1%	1%	0%	2%
Electrification Products	1%	2%	0%	3%	2%	1%	0%	3%
Industrial Automation	7%	1%	-5%	3%	-1%	1%	-4%	-4%
Robotics and Motion	7%	1%	0%	8%	5%	1%	0%	6%
ABB Group	-1%	1%	1%	1%	1%	1%	0%	2%

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 obligations related to divested businesses occurring after the divestment date (changes in obligations related to 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

(\$ in millions)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Operational EBITA	3,345	3,109	1,118	1,124
Acquisition-related amortization	(225)	(189)	(80)	(74)
Restructuring and restructuring-related expenses ⁽¹⁾	(61)	(224)	(44)	(92)
Changes in obligations related to divested businesses	(92)	(94)	(75)	–
Changes in pre-acquisition estimates	(2)	–	(1)	2
Gains and losses from sale of businesses	61	330	66	(1)
Acquisition-related expenses and integration costs	(152)	(41)	(75)	(27)
Certain other non-operational items	(49)	(193)	(7)	(43)
Foreign exchange/commodity timing differences in income from operations:				
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(16)	138	50	(31)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(29)	40	(17)	22
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(15)	(88)	(27)	8
Income from operations	2,765	2,788	908	888
Interest and dividend income	64	55	13	20
Interest and other finance expense	(244)	(227)	(91)	(74)
Non-operational pension (cost) credit	87	34	29	20
Income from continuing operations before taxes	2,672	2,650	859	854
Provision for taxes	(722)	(702)	(223)	(246)
Income from continuing operations, net of tax	1,950	1,948	636	608
Income (loss) from discontinued operations, net of tax	3	(6)	–	(5)
Net income	1,953	1,942	636	603

(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

Nine months ended September 30, 2018						
	Power Grids	Electrification Products	Industrial Automation	Robotics and Motion	Corporate and Other and Intersegment elimination	Consolidated
(\$ in millions, unless otherwise indicated)						
Total revenues	7,075	8,366	5,456	6,806	(930)	26,773
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	26	20	(15)	8	(3)	36
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	24	3	12	1	(5)	35
Unrealized foreign exchange movements on receivables (and related assets)	(17)	(9)	(4)	(2)	(2)	(34)
Operational revenues	7,108	8,380	5,449	6,813	(940)	26,810
Income (loss) from operations	589	1,069	683	1,020	(596)	2,765
Acquisition-related amortization	27	71	66	48	13	225
Restructuring and restructuring-related expenses	18	22	4	13	4	61
Changes in obligations related to divested businesses	–	–	–	–	92	92
Changes in pre-acquisition estimates	–	2	–	–	–	2
Gains and losses from sale of businesses	–	(81)	3	–	17	(61)
Acquisition-related expenses and integration costs	4	128	3	1	16	152
Certain other non-operational items	34	(2)	1	7	9	49
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	14	27	(19)	3	(9)	16
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	18	3	12	–	(4)	29
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(8)	(1)	15	6	3	15
Operational EBITA	696	1,238	768	1,098	(455)	3,345
Operational EBITA margin (%)	9.8%	14.8%	14.1%	16.1%	n.a.	12.5%

Nine months ended September 30, 2017						
	Power	Electrification	Industrial	Robotics	Corporate and Other and Intersegment	
(\$ in millions, unless otherwise indicated)	Grids	Products	Automation	and Motion	elimination	Consolidated
Total revenues	7,307	7,398	4,868	6,199	(740)	25,032
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(69)	(36)	(35)	(6)	(3)	(149)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(30)	–	(11)	2	–	(39)
Unrealized foreign exchange movements on receivables (and related assets)	54	9	16	1	–	80
Operational revenues	7,262	7,371	4,838	6,196	(743)	24,924
Income (loss) from operations	669	1,034	584	879	(378)	2,788
Acquisition-related amortization	25	76	25	50	13	189
Restructuring and restructuring-related expenses ⁽¹⁾	33	11	49	29	102	224
Changes in obligations related to divested businesses	–	–	–	–	94	94
Changes in pre-acquisition estimates	–	–	–	–	–	–
Gains and losses from sale of businesses	–	–	(2)	–	(328)	(330)
Acquisition-related expenses and integration costs	1	11	25	–	4	41
Certain other non-operational items	60	13	1	–	119	193
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(80)	(36)	(36)	(9)	23	(138)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(32)	–	(7)	2	(3)	(40)
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	67	3	15	6	(3)	88
Operational EBITA	743	1,112	654	957	-357	3,109
Operational EBITA margin (%)	10.2%	15.1%	13.5%	15.4%	n.a.	12.5%

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

Three months ended September 30, 2018						
	Power	Electrification	Industrial	Robotics	Corporate and Other and Intersegment	
(\$ in millions, unless otherwise indicated)	Grids	Products	Automation	and Motion	elimination	Consolidated
Total revenues	2,336	3,199	1,758	2,281	(317)	9,257
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(38)	(7)	(22)	(15)	(9)	(91)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	8	3	6	2	–	19
Unrealized foreign exchange movements on receivables (and related assets)	7	4	3	9	(1)	22
Operational revenues	2,313	3,199	1,745	2,277	(327)	9,207
Income (loss) from operations	220	391	223	354	(280)	908
Acquisition-related amortization	7	32	22	16	3	80
Restructuring and restructuring-related expenses	7	19	2	11	5	44
Changes in obligations related to divested businesses	–	–	–	–	75	75
Changes in pre-acquisition estimates	–	1	–	–	–	1
Gains and losses from sale of businesses	–	(83)	–	–	17	(66)
Acquisition-related expenses and integration costs	–	60	1	1	13	75
Certain other non-operational items	7	–	1	2	(3)	7
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(25)	5	(20)	(1)	(9)	(50)
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	8	2	5	–	2	17
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	8	4	12	3	–	27
Operational EBITA	232	431	246	386	(177)	1,118
Operational EBITA margin (%)	10.0%	13.5%	14.1%	17.0%	n.a.	12.1%

Three months ended September 30, 2017						
	Power	Electrification	Industrial	Robotics	Corporate and Other and Intersegment	
(\$ in millions, unless otherwise indicated)	Grids	Products	Automation	and Motion	elimination	Consolidated
Total revenues	2,449	2,596	1,780	2,197	(298)	8,724
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	10	6	(8)	13	9	30
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(17)	–	(9)	1	(1)	(26)
Unrealized foreign exchange movements on receivables (and related assets)	3	(6)	2	(7)	1	(7)
Operational revenues	2,445	2,596	1,765	2,204	(289)	8,721
Income (loss) from operations	232	393	164	336	(237)	888
Acquisition-related amortization	8	24	21	16	5	74
Restructuring and restructuring-related expenses ⁽¹⁾	12	(2)	40	2	40	92
Changes in pre-acquisition estimates	–	(2)	–	–	–	(2)
Gains and losses from sale of businesses	–	–	–	–	1	1
Acquisition-related expenses and integration costs	1	8	18	–	–	27
Certain other non-operational items	8	–	1	–	34	43
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	12	3	–	8	8	31
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(19)	–	(5)	2	–	(22)
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	5	(7)	(2)	(3)	(1)	(8)
Operational EBITA	259	417	237	361	(150)	1,124
Operational EBITA margin (%)	10.6%	16.1%	13.4%	16.4%	n.a.	12.9%

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

Operational EPS

Definition

Operational EPS

Operational EPS is calculated as Operational net income divided by the weighted-average number of shares outstanding used in determining basic earnings per share.

Operational net income

Operational net income is calculated as Net income attributable to ABB adjusted for the following:

- (i) acquisition-related amortization,
- (ii) restructuring and restructuring-related expenses,
- (iii) non-operational pension cost (credit),
- (iv) changes in retained obligations of divested businesses,
- (v) changes in pre-acquisition estimates,
- (vi) gains and losses from sale of businesses,
- (vii) acquisition-related expenses and integration costs,
- (viii) certain other non-operational items,
- (ix) 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), and
- (x) The amount of income tax on operational adjustments either estimated using the Adjusted Group effective tax rate or in certain specific cases, computed using the actual income tax effects of the relevant item in (i) to (viii) above.

Acquisition-related amortization

Amortization expense on intangibles arising upon acquisitions.

Adjusted Group effective tax rate

The Adjusted Group effective tax rate is computed by dividing an adjusted provision for taxes by an adjusted income from continuing operations before taxes. Certain amounts recorded in income from continuing operations before taxes and the related provision for taxes (primarily gains and losses from sale of businesses) are excluded from the computation.

Constant currency Operational EPS adjustment and Operational EPS growth rate (constant currency)

In connection with ABB's 2015-2020 targets, Operational EPS growth is measured assuming 2014 as the base year and uses constant exchange rates. We compute the constant currency operational net income for all periods using the relevant monthly exchange rates which were in effect during 2014 and any difference in computed Operational net income is divided by the relevant weighted-average number of shares outstanding to identify the constant currency Operational EPS adjustment.

Reconciliation

(\$ in millions, except per share data in \$)	Nine months ended September 30,		
	2018	2017	Growth ⁽³⁾
Net income (attributable to ABB)	1,856	1,820	
Operational adjustments:			
Acquisition-related amortization	225	189	
Restructuring and restructuring-related expenses ⁽¹⁾	61	224	
Non-operational pension cost (credit)	(87)	(34)	
Changes in obligations related to divested businesses	92	94	
Changes in pre-acquisition estimates	2	–	
Gains and losses from sale of businesses	(61)	(330)	
Acquisition-related expenses and integration costs	152	41	
Certain other non-operational items	49	193	
FX/commodity timing differences in income from operations	60	(90)	
Tax on operational adjustments ⁽²⁾	(143)	(138)	
Operational net income	2,206	1,969	12%
Weighted-average number of shares outstanding (in millions)	2,132	2,138	
Operational EPS	1.03	0.92	12%
Constant currency Operational EPS adjustment	0.14	0.13	
Operational EPS (constant currency basis - 2014 exchange rates)	1.17	1.05	12%

(\$ in millions, except per share data in \$)	Three months ended September 30,		
	2018	2017	Growth ⁽³⁾
Net income (attributable to ABB)	603	571	
Operational adjustments:			
Acquisition-related amortization	80	74	
Restructuring and restructuring-related expenses ⁽¹⁾	44	92	
Non-operational pension cost (credit)	(29)	(20)	
Changes in obligations related to divested businesses	75	–	
Changes in pre-acquisition estimates	1	(2)	
Gains and losses from sale of businesses	(66)	1	
Acquisition-related expenses and integration costs	75	27	
Certain other non-operational items	7	43	
FX/commodity timing differences in income from operations	(6)	1	
Tax on operational adjustments ⁽²⁾	(57)	(62)	
Operational net income	727	725	0%
Weighted-average number of shares outstanding (in millions)	2,132	2,134	
Operational EPS	0.34	0.34	0%
Constant currency Operational EPS adjustment	0.05	0.03	
Operational EPS (constant currency basis - 2014 exchange rates)	0.39	0.37	4%

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

(2) Tax amount is computed by applying the Adjusted Group effective tax rate to the operational adjustments, except for gains and losses from sale of businesses for which the actual provision for taxes resulting from the gain or loss has been computed.

(3) Growth is computed using unrounded EPS amounts.

Net debt

Definition

Net debt

Net debt is defined as Total debt less Cash and marketable securities.

Total debt

Total debt is the sum of Short-term debt and current maturities of long-term debt, and Long-term debt.

Cash and marketable securities

Cash and marketable securities is the sum of Cash and equivalents, and Marketable securities and short-term investments.

Reconciliation

(\$ in millions)	September 30, 2018	December 31, 2017
Short-term debt and current maturities of long-term debt	2,883	738
Long-term debt	6,619	6,709
Total debt	9,502	7,447
Cash and equivalents	2,604	4,526
Marketable securities and short-term investments	953	1,102
Cash and marketable securities	3,557	5,628
Net debt	5,945	1,819

Net working capital as a percentage of revenues

Definition

Net working capital as a percentage of revenues

Net working capital as a percentage of revenues is calculated as Net working capital divided by Adjusted revenues for the trailing twelve months.

Net working capital

Net working capital is the sum of (i) receivables, net, (ii) contract assets, (iii) inventories, net, and (iv) prepaid expenses; less (v) accounts payable, trade, (vi) contract liabilities, and (vi) other current liabilities (excluding primarily: (a) income taxes payable, (b) current derivative liabilities, (c) pension and other employee benefits, and (d) payables under the share buyback program); and including the amounts related to these accounts which have been presented as either assets or liabilities held for sale.

Adjusted revenues for the trailing twelve months

Adjusted revenues for the trailing twelve months includes total revenues recorded by ABB in the twelve months preceding the relevant balance sheet date adjusted to eliminate revenues of divested businesses and the estimated impact of annualizing revenues of certain acquisitions which were completed in the same trailing twelve-month period.

Reconciliation

(\$ in millions, unless otherwise indicated)	September 30, 2018	September 30, 2017
Net working capital:		
Receivables, net	8,935	8,328
Contract assets	2,350	2,410
Inventories, net	6,077	5,491
Prepaid expenses	316	276
Accounts payable, trade	(5,825)	(5,081)
Contract liabilities	(2,700)	(3,017)
Other current liabilities ⁽¹⁾	(3,650)	(3,450)
Net working capital	5,503	4,957
Total revenues for the three months ended:		
September 30, 2018 / 2017	9,257	8,724
June 30, 2018 / 2017	8,889	8,454
March 31, 2018 / 2017	8,627	7,854
December 31, 2017 / 2016	9,280	8,993
Adjustment to annualize/eliminate revenues of certain acquisitions/divestments	1,622	366
Adjusted revenues for the trailing twelve months	37,675	34,391
Net working capital as a percentage of revenues (%)	14.6%	14.4%

(1) Amounts exclude \$583 million and \$622 million at September 30, 2018 and 2017, respectively, related primarily to (a) income taxes payable, (b) current derivative liabilities, and (c) pension and other employee benefits.

Free cash flow conversion to net income

Definition

Free cash flow conversion to net income

Free cash flow conversion to net income is calculated as Free cash flow divided by Net income attributable to ABB.

Free cash flow (FCF)

Free cash flow is calculated as net cash provided by operating activities adjusted for: (i) purchases of property, plant and equipment and intangible assets, (ii) proceeds from sales of property, plant and equipment, and (iii) changes in financing and other non-current receivables, net (included in other investing activities).

Free cash flow for the trailing twelve months

Free cash flow for the trailing twelve months includes free cash flow recorded by ABB in the twelve months preceding the relevant balance sheet date.

Net income for the trailing twelve months

Net income for the trailing twelve months includes net income recorded by ABB in the twelve months preceding the relevant balance sheet date.

Free cash flow conversion to net income

(\$ in millions, unless otherwise indicated)	Twelve months to	
	September 30, 2018	December 31, 2017
Net cash provided by operating activities	2,926	3,799
Adjusted for the effects of:		
Purchases of property, plant and equipment and intangible assets	(1,003)	(949)
Proceeds from sale of property, plant and equipment	69	66
Changes in financing receivables and other non-current receivables	(3)	10
Free cash flow	1,989	2,926
Net income attributable to ABB	2,249	2,213
Free cash flow conversion to net income	88%	132%

Reconciliation of the trailing twelve months to September 30, 2018

(\$ in millions)	Net cash provided by operating activities	Purchases of property, plant and equipment and intangible assets	Proceeds from sale of property, plant and equipment	Changes in financing receivables and other non-current receivables	Net income attributable to ABB
Q4 2017	1,869	(329)	16	3	393
Q1 2018	(518)	(238)	26	(1)	572
Q2 2018	1,010	(197)	19	1	681
Q3 2018	565	(239)	8	(6)	603
Total for the trailing twelve months to September 30, 2018	2,926	(1,003)	69	(3)	2,249

Finance net

Definition

Finance net is calculated as Interest and dividend income less Interest and other finance expense.

Reconciliation

(\$ in millions)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Interest and dividend income	64	55	13	20
Interest and other finance expense	(244)	(227)	(91)	(74)
Finance net	(180)	(172)	(78)	(54)

Book-to-bill ratio

Definition

Book-to-bill ratio is calculated as Orders received divided by Total revenues.

Reconciliation

(\$ in millions, unless otherwise indicated)	Nine months ended September 30,		Three months ended September 30,	
	2018	2017	2018	2017
Orders received	28,196	24,909	8,941	8,157
Total revenues	26,773	25,032	9,257	8,724
Book-to-bill ratio	1.05	1.00	0.97	0.94

ABB Ltd

Corporate Communications

P.O. Box 8131

8050 Zurich

Switzerland

Tel: +41 (0)43 317 71 11

Fax: +41 (0)43 317 79 58

www.abb.com

