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Q4 2021

Financial information

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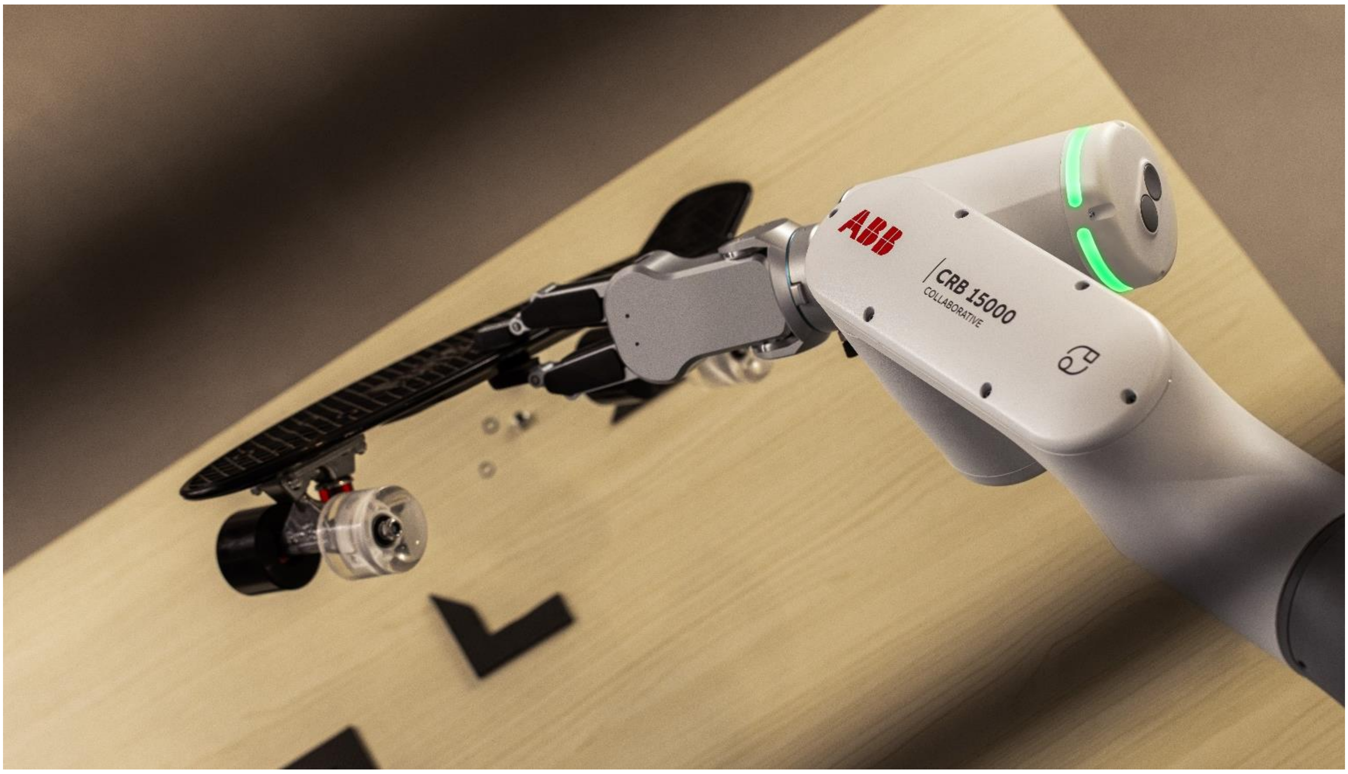

Key Figures

($ in millions, unless otherwise indicated)	Q4 2021	Q4 2020	CHANGE US$	CHANGE Comparable[(1)]
Orders	8,257	7,003	18%	21%
Order backlog (end December)	16,607	14,303	16%	21%
Revenues	7,567	7,182	5%	8%
Gross Profit	2,397	2,147	12%	
as % of revenues	31.7%	29.9%	+1.8 pts	
Income from operations	2,975	578	415%	
Operational EBITA[(1)]	988	825	20%	22%[(2)]
as % of operational revenues[(1)]	13.1%	11.5%	+1.6 pts	
Income from continuing operations, net of tax	2,703	127	n.a.	
Net income (loss) attributable to ABB	2,640	(79)	n.a.	
Basic earnings per share ($)	1.34	(0.04)	n.a.[(3)]	
Cash flow from operating activities[(4)]	1,020	1,182	-14%	
Cash flow from operating activities in continuing operations	1,033	1,225	-16%	

($ in millions, unless otherwise indicated)	FY 2021	FY 2020	CHANGE US$	CHANGE Comparable[(1)]
Orders	31,868	26,512	20%	17%
Revenues	28,945	26,134	11%	8%
Gross Profit	9,467	7,878	20%	
as % of revenues	32.7%	30.1%	+2.6 pts	
Income from operations	5,718	1,593	259%	
Operational EBITA[(1)]	4,122	2,899	42%	37%[(2)]
as % of operational revenues[(1)]	14.2%	11.1%	+3.1 pts	
Income from continuing operations, net of tax	4,730	345	n.a.	
Net income attributable to ABB	4,546	5,146	-12%	
Basic earnings per share ($)	2.27	2.44	-7%[(3)]	
Cash flow from operating activities[(4)]	3,330	1,693	97%	
Cash flow from operating activities in continuing operations	3,338	1,875	78%	

(1) For a reconciliation of non-GAAP measures see “Supplemental Reconciliations and Definitions” on page 38.
(2) Constant currency (not adjusted for portfolio changes).
(3) EPS growth rates are computed using unrounded amounts.
(4) Cash flow from operating activities includes both continuing and discontinued operations.

($ in millions, unless otherwise indicated)		Q4 2021	Q4 2020	CHANGE US$	Local	Comparable
Orders	**ABB Group**	**8,257**	**7,003**	**18%**	**20%**	**21%**
	Electrification	3,638	3,074	18%	20%	20%
	Motion	1,843	1,552	19%	21%	29%
	Process Automation	1,898	1,918	-1%	0%	0%
	Robotics & Discrete Automation	1,100	699	57%	60%	59%
	Corporate and Other (incl. intersegment eliminations)	(222)	(240)			
Order backlog (end December)	**ABB Group**	**16,607**	**14,303**	**16%**	**21%**	**21%**
	Electrification	5,458	4,358	25%	29%	29%
	Motion	3,749	3,320	13%	19%	20%
	Process Automation	6,079	5,805	5%	10%	10%
	Robotics & Discrete Automation	1,919	1,403	37%	43%	43%
	Corporate and Other (incl. intersegment eliminations)	(598)	(583)			
Revenues	**ABB Group**	**7,567**	**7,182**	**5%**	**7%**	**8%**
	Electrification	3,445	3,356	3%	4%	4%
	Motion	1,735	1,705	2%	3%	9%
	Process Automation	1,805	1,545	17%	19%	19%
	Robotics & Discrete Automation	799	801	0%	2%	-1%
	Corporate and Other (incl. intersegment eliminations)	(217)	(225)			
Income from operations	**ABB Group**	**2,975**	**578**			
	Electrification	418	444			
	Motion	2,464	258			
	Process Automation	193	28			
	Robotics & Discrete Automation	45	23			
	Corporate and Other (incl. intersegment eliminations)	(145)	(175)			
Income from operations %	**ABB Group**	**39.3%**	**8.0%**			
	Electrification	12.1%	13.2%			
	Motion	142.0%	15.1%			
	Process Automation	10.7%	1.8%			
	Robotics & Discrete Automation	5.6%	2.9%			
Operational EBITA	**ABB Group**	**988**	**825**	**20%**	**22%**	
	Electrification	507	522	-3%	-1%	
	Motion	278	285	-2%	-1%	
	Process Automation	247	103	140%	146%	
	Robotics & Discrete Automation	64	59	8%	10%	
	Corporate and Other (incl. intersegment eliminations)	(108)	(144)			
Operational EBITA %	**ABB Group**	**13.1%**	**11.5%**			
	Electrification	14.8%	15.6%			
	Motion	16.1%	16.8%			
	Process Automation	13.7%	6.8%			
	Robotics & Discrete Automation	8.1%	7.3%			
Cash flow from operating activities(1)	**ABB Group**	**1,020**	**1,182**			
	Electrification	715	882			
	Motion	416	424			
	Process Automation	370	196			
	Robotics & Discrete Automation	129	134			
	Corporate and Other (incl. intersegment eliminations)	(597)	(411)			
	Discontinued operations	(13)	(43)			

(1) Commencing Q1 2021, depreciation relating to certain real estate assets, previously reported in Corporate and Other, has been reallocated to the individual operating segments utilizing these assets. Comparatives have been restated.

($ in millions, unless otherwise indicated)		FY 2021	FY 2020	CHANGE US$	CHANGE Local	CHANGE Comparable
Orders	**ABB Group**	**31,868**	**26,512**	**20%**	**17%**	**17%**
	Electrification	14,381	11,884	21%	18%	18%
	Motion	7,616	6,574	16%	13%	14%
	Process Automation	6,779	6,144	10%	7%	7%
	Robotics & Discrete Automation	3,844	2,868	34%	29%	29%
	Corporate and Other (incl. intersegment eliminations)	(752)	(958)			
Order backlog (end December)	**ABB Group**	**16,607**	**14,303**	**16%**	**21%**	**21%**
	Electrification	5,458	4,358	25%	29%	29%
	Motion	3,749	3,320	13%	19%	20%
	Process Automation	6,079	5,805	5%	10%	10%
	Robotics & Discrete Automation	1,919	1,403	37%	43%	43%
	Corporate and Other (incl. intersegment eliminations)	(598)	(583)			
Revenues	**ABB Group**	**28,945**	**26,134**	**11%**	**8%**	**8%**
	Electrification	13,187	11,924	11%	8%	9%
	Motion	6,925	6,409	8%	5%	7%
	Process Automation	6,259	5,792	8%	5%	5%
	Robotics & Discrete Automation	3,297	2,907	13%	9%	9%
	Corporate and Other (incl. intersegment eliminations)	(723)	(898)			
Income from operations	**ABB Group**	**5,718**	**1,593**			
	Electrification	1,841	1,335			
	Motion	3,276	989			
	Process Automation	713	344			
	Robotics & Discrete Automation	269	(163)			
	Corporate and Other (incl. intersegment eliminations)	(381)	(912)			
Income from operations %	**ABB Group**	**19.8%**	**6.1%**			
	Electrification	14.0%	11.2%			
	Motion	47.3%	15.4%			
	Process Automation	11.4%	5.9%			
	Robotics & Discrete Automation	8.2%	-5.6%			
Operational EBITA	**ABB Group**	**4,122**	**2,899**	**42%**	**37%**	
	Electrification	2,121	1,681	26%	21%	
	Motion	1,183	1,075	10%	6%	
	Process Automation	801	451	78%	70%	
	Robotics & Discrete Automation	355	237	50%	43%	
	Corporate and Other[(1)] (incl. intersegment eliminations)	(338)	(545)			
Operational EBITA %	**ABB Group**	**14.2%**	**11.1%**			
	Electrification	16.1%	14.1%			
	Motion	17.1%	16.8%			
	Process Automation	12.8%	7.8%			
	Robotics & Discrete Automation	10.8%	8.2%			
Cash flow from operating activities[(2)]	**ABB Group**	**3,330**	**1,693**			
	Electrification	2,181	1,757			
	Motion	1,362	1,283			
	Process Automation	1,062	454			
	Robotics & Discrete Automation	374	378			
	Corporate and Other (incl. intersegment eliminations)	(1,641)	(1,997)			
	Discontinued operations	(8)	(182)			

(1) Corporate and Other includes Stranded corporate costs of $40 million for the year ended December 31, 2020.

(2) Commencing Q1 2021, depreciation relating to certain real estate assets, previously reported in Corporate and Other, has been reallocated to the individual operating segments utilizing these assets. Comparatives have been restated.

Operational EBITA

($ in millions, unless otherwise indicated)	ABB Q4 21	ABB Q4 20	Electrification Q4 21	Electrification Q4 20	Motion Q4 21	Motion Q4 20	Process Automation Q4 21	Process Automation Q4 20	Robotics & Discrete Automation Q4 21	Robotics & Discrete Automation Q4 20
Revenues	**7,567**	**7,182**	**3,445**	**3,356**	**1,735**	**1,705**	**1,805**	**1,545**	**799**	**801**
Foreign exchange/commodity timing differences in total revenues	(44)	(37)	(22)	(15)	(10)	(4)	(5)	(23)	(5)	3
Operational revenues	**7,523**	**7,145**	**3,423**	**3,341**	**1,725**	**1,701**	**1,800**	**1,522**	**794**	**804**
Income from operations	**2,975**	**578**	**418**	**444**	**2,464**	**258**	**193**	**28**	**45**	**23**
Acquisition-related amortization	59	66	29	29	7	13	2	1	21	20
Restructuring, related and implementation costs	79	220	34	62	4	24	33	88	1	12
Changes in obligations related to divested businesses	(7)	14	–	–	–	–	–	–	–	–
Gains and losses from sale of businesses	(2,184)	(2)	9	(2)	(2,195)	–	–	–	–	–
Acquisition- and divestment-related expenses and integration costs	58	31	34	31	7	–	18	1	–	–
Other income/expense relating to the Power Grids joint venture	–	5	–	–	–	–	–	–	–	–
Certain other non-operational items	40	(43)	8	(22)	–	4	(2)	–	–	2
Foreign exchange/commodity timing differences in income from operations	(32)	(44)	(25)	(20)	(9)	(14)	3	(15)	(3)	2
Operational EBITA	**988**	**825**	**507**	**522**	**278**	**285**	**247**	**103**	**64**	**59**
Operational EBITA margin (%)	**13.1%**	**11.5%**	**14.8%**	**15.6%**	**16.1%**	**16.8%**	**13.7%**	**6.8%**	**8.1%**	**7.3%**

($ in millions, unless otherwise indicated)	ABB FY 21	ABB FY 20	Electrification FY 21	Electrification FY 20	Motion FY 21	Motion FY 20	Process Automation FY 21	Process Automation FY 20	Robotics & Discrete Automation FY 21	Robotics & Discrete Automation FY 20
Revenues	**28,945**	**26,134**	**13,187**	**11,924**	**6,925**	**6,409**	**6,259**	**5,792**	**3,297**	**2,907**
Foreign exchange/commodity timing differences in total revenues	(1)	(41)	1	(13)	2	(7)	5	(30)	(7)	–
Operational revenues	**28,944**	**26,093**	**13,188**	**11,911**	**6,927**	**6,402**	**6,264**	**5,762**	**3,290**	**2,907**
Income (loss) from operations	**5,718**	**1,593**	**1,841**	**1,335**	**3,276**	**989**	**713**	**344**	**269**	**(163)**
Acquisition-related amortization	250	263	117	115	43	52	5	4	83	78
Restructuring, related and implementation costs	160	410	66	145	22	44	48	125	7	26
Changes in obligations related to divested businesses	9	218	–	15	–	–	–	–	–	–
Changes in pre-acquisition estimates	(6)	11	(6)	11	–	–	–	–	–	–
Gains and losses from sale of businesses	(2,193)	2	13	4	(2,196)	–	(13)	–	–	–
Fair value adjustment on assets and liabilities held for sale	–	33	–	33	–	–	–	–	–	–
Acquisition- and divestment-related expenses and integration costs	132	74	70	71	26	–	35	2	1	–
Other income/expense relating to the Power Grids joint venture	34	20	–	–	–	–	–	–	–	–
Certain other non-operational items	(18)	335	(5)	(27)	1	17	1	1	–	295
Foreign exchange/commodity timing differences in income from operations	36	(60)	25	(21)	11	(27)	12	(25)	(5)	1
Operational EBITA	**4,122**	**2,899**	**2,121**	**1,681**	**1,183**	**1,075**	**801**	**451**	**355**	**237**
Operational EBITA margin (%)	**14.2%**	**11.1%**	**16.1%**	**14.1%**	**17.1%**	**16.8%**	**12.8%**	**7.8%**	**10.8%**	**8.2%**

Depreciation and Amortization

($ in millions)	ABB		Electrification		Motion		Process Automation		Robotics & Discrete Automation	
	Q4 21	Q4 20	Q4 21	Q4 20	Q4 21	Q4 20	Q4 21	Q4 20	Q4 21	Q4 20
Depreciation(1)	141	147	74	68	29	32	13	17	16	13
Amortization	75	82	36	33	9	14	2	3	21	21
including total acquisition-related amortization of:	59	66	29	29	7	13	2	1	21	20

($ in millions)	ABB		Electrification		Motion		Process Automation		Robotics & Discrete Automation	
	FY 21	FY 20	FY 21	FY 20	FY 21	FY 20	FY 21	FY 20	FY 21	FY 20
Depreciation(1)	575	586	276	274	123	127	72	69	59	50
Amortization	318	329	149	138	49	55	11	11	85	81
including total acquisition-related amortization of:	250	263	117	115	43	52	5	4	83	78

(1) Commencing Q1 2021, depreciation related to certain real estate assets, previously reported in Corporate and Other, has been reallocated to the individual operating segments utilizing these assets. Comparatives have been restated.

Orders received and revenues by region

($ in millions, unless otherwise indicated)	Orders received		CHANGE			Revenues		CHANGE		
	Q4 21	Q4 20	US$	Local	Com-parable	Q4 21	Q4 20	US$	Local	Com-parable
Europe	3,138	2,497	26%	31%	31%	2,756	2,710	2%	6%	6%
The Americas	2,640	2,002	32%	32%	38%	2,198	2,045	7%	7%	12%
of which United States	1,995	1,450	38%	38%	46%	1,579	1,497	5%	6%	11%
Asia, Middle East and Africa	2,479	2,504	-1%	-2%	-2%	2,613	2,427	8%	8%	7%
of which China	1,255	1,071	17%	14%	14%	1,233	1,231	0%	-3%	-2%
ABB Group	**8,257**	**7,003**	**18%**	**20%**	**21%**	**7,567**	**7,182**	**5%**	**7%**	**8%**

($ in millions, unless otherwise indicated)	Orders received		CHANGE			Revenues		CHANGE		
	FY 21	FY 20	US$	Local	Com-parable	FY 21	FY 20	US$	Local	Com-parable
Europe	11,857	9,559	24%	20%	20%	10,529	9,708	8%	5%	5%
The Americas	9,940	7,938	25%	24%	25%	8,686	7,936	9%	9%	10%
of which United States	7,453	5,962	25%	25%	27%	6,397	6,019	6%	6%	8%
Asia, Middle East and Africa	10,071	8,893	13%	8%	8%	9,730	8,382	16%	12%	12%
of which China	5,036	4,107	23%	15%	15%	4,932	4,091	21%	13%	14%
Intersegment orders/revenues(1)	–	122				–	108			
ABB Group	**31,868**	**26,512**	**20%**	**17%**	**17%**	**28,945**	**26,134**	**11%**	**8%**	**8%**

(1) Intersegment orders/revenues during the six months ended June 30, 2020, include sales to the Power Grids business which is presented as discontinued operations and thus these sales are not eliminated from Total orders/revenues.

Consolidated Financial Information

ABB Ltd Consolidated Income Statements (unaudited)

($ in millions, except per share data in $)	Year ended		Three months ended	
	Dec. 31, 2021	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2020**
Sales of products	23,745	21,214	6,101	5,823
Sales of services and other	5,200	4,920	1,466	1,359
Total revenues	**28,945**	**26,134**	**7,567**	**7,182**
Cost of sales of products	(16,364)	(15,229)	(4,275)	(4,182)
Cost of services and other	(3,114)	(3,027)	(895)	(853)
Total cost of sales	**(19,478)**	**(18,256)**	**(5,170)**	**(5,035)**
Gross profit	**9,467**	**7,878**	**2,397**	**2,147**
Selling, general and administrative expenses	(5,162)	(4,895)	(1,354)	(1,271)
Non-order related research and development expenses	(1,219)	(1,127)	(322)	(336)
Impairment of goodwill	–	(311)	–	–
Other income (expense), net	2,632	48	2,254	38
Income from operations	**5,718**	**1,593**	**2,975**	**578**
Interest and dividend income	51	51	14	12
Interest and other finance expense	(148)	(240)	(40)	(49)
Losses from extinguishment of debt	–	(162)	–	(162)
Non-operational pension (cost) credit	166	(401)	36	(129)
Income from continuing operations before taxes	**5,787**	**841**	**2,985**	**250**
Income tax expense	(1,057)	(496)	(282)	(123)
Income from continuing operations, net of tax	**4,730**	**345**	**2,703**	**127**
Income (loss) from discontinued operations, net of tax	(80)	4,860	(35)	(183)
Net income (loss)	**4,650**	**5,205**	**2,668**	**(56)**
Net income attributable to noncontrolling interests	(104)	(59)	(28)	(23)
Net income (loss) attributable to ABB	**4,546**	**5,146**	**2,640**	**(79)**
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	4,625	294	2,674	104
Income (loss) from discontinued operations, net of tax	(79)	4,852	(34)	(183)
Net income (loss)	4,546	5,146	2,640	(79)
Basic earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	2.31	0.14	1.35	0.05
Income (loss) from discontinued operations, net of tax	(0.04)	2.30	(0.02)	(0.09)
Net income (loss)	2.27	2.44	1.34	(0.04)
Diluted earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	2.29	0.14	1.34	0.05
Income (loss) from discontinued operations, net of tax	(0.04)	2.29	(0.02)	(0.09)
Net income (loss)	2.25	2.43	1.33	(0.04)
Weighted-average number of shares outstanding (in millions) used to compute:				
Basic earnings per share attributable to ABB shareholders	2,001	2,111	1,974	2,059
Diluted earnings per share attributable to ABB shareholders	2,019	2,119	1,991	2,071

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

See Notes to the Consolidated Financial Information

ABB Ltd Condensed Consolidated Statements of Comprehensive Income (unaudited)

	Year ended		Three months ended	
($ in millions)	Dec. 31, 2021	Dec. 31, 2020	Dec. 31, 2021	Dec. 31, 2020
Total comprehensive income, net of tax	**4,567**	**6,820**	**2,845**	**576**
Total comprehensive income attributable to noncontrolling interests, net of tax	(108)	(86)	(27)	(28)
Total comprehensive income attributable to ABB shareholders, net of tax	**4,459**	**6,734**	**2,818**	**548**

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

See Notes to the Consolidated Financial Information

ABB Ltd Consolidated Balance Sheets (unaudited)

($ in millions)	Dec. 31, 2021	Dec. 31, 2020
Cash and equivalents	4,159	3,278
Restricted cash	30	323
Marketable securities and short-term investments	1,170	2,108
Receivables, net	6,551	6,820
Contract assets	990	985
Inventories, net	4,880	4,469
Prepaid expenses	206	201
Other current assets	573	760
Current assets held for sale and in discontinued operations	136	282
Total current assets	**18,695**	**19,226**
Restricted cash, non-current	300	300
Property, plant and equipment, net	4,045	4,174
Operating lease right-of-use assets	895	969
Investments in equity-accounted companies	1,670	1,784
Prepaid pension and other employee benefits	892	360
Intangible assets, net	1,561	2,078
Goodwill	10,482	10,850
Deferred taxes	1,177	843
Other non-current assets	543	504
Total assets	**40,260**	**41,088**
Accounts payable, trade	4,921	4,571
Contract liabilities	1,894	1,903
Short-term debt and current maturities of long-term debt	1,384	1,293
Current operating leases	230	270
Provisions for warranties	1,005	1,035
Other provisions	1,386	1,519
Other current liabilities	4,367	4,181
Current liabilities held for sale and in discontinued operations	381	644
Total current liabilities	**15,568**	**15,416**
Long-term debt	4,177	4,828
Non-current operating leases	689	731
Pension and other employee benefits	1,025	1,231
Deferred taxes	685	661
Other non-current liabilities	2,116	2,025
Non-current liabilities held for sale and in discontinued operations	43	197
Total liabilities	**24,303**	**25,089**
Commitments and contingencies		
Stockholders' equity:		
Common stock, CHF 0.12 par value		
(2,053 million and 2,168 million shares issued at December 31, 2021 and 2020, respectively)	178	188
Additional paid-in capital	22	83
Retained earnings	22,477	22,946
Accumulated other comprehensive loss	(4,088)	(4,002)
Treasury stock, at cost		
(95 million and 137 million shares at December 31, 2021 and 2020, respectively)	(3,010)	(3,530)
Total ABB stockholders' equity	**15,579**	**15,685**
Noncontrolling interests	378	314
Total stockholders' equity	**15,957**	**15,999**
Total liabilities and stockholders' equity	**40,260**	**41,088**

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

See Notes to the Consolidated Financial Information

ABB Ltd Consolidated Statements of Cash Flows (unaudited)

($ in millions)	Year ended Dec. 31, 2021	Year ended Dec. 31, 2020	Three months ended Dec. 31, 2021	Three months ended Dec. 31, 2020
Operating activities:				
Net income (loss)	4,650	5,205	2,668	(56)
Loss (income) from discontinued operations, net of tax	80	(4,860)	35	183
Adjustments to reconcile net income (loss) to net cash provided by operating activities:				
Depreciation and amortization	893	915	216	229
Impairment of goodwill	–	311	–	–
Changes in fair values of investments	(123)	(99)	(9)	(13)
Pension and other employee benefits	(216)	50	(57)	77
Deferred taxes	(289)	(280)	(371)	(121)
Losses from extinguishment of debt	–	162	–	162
Loss (income) from equity-accounted companies	100	66	17	25
Net loss (gain) from derivatives and foreign exchange	49	(2)	(50)	(31)
Net loss (gain) from sale of property, plant and equipment	(38)	(37)	(16)	(13)
Net loss (gain) from sale of businesses	(2,193)	2	(2,184)	(2)
Fair value adjustment on assets and liabilities held for sale	–	33	–	–
Other	117	57	47	(12)
Changes in operating assets and liabilities:				
Trade receivables, net	(142)	(100)	40	(63)
Contract assets and liabilities	29	186	102	145
Inventories, net	(771)	196	(79)	397
Accounts payable, trade	659	(13)	298	85
Accrued liabilities	454	(92)	118	(34)
Provisions, net	(48)	243	31	147
Income taxes payable and receivable	117	(76)	209	2
Other assets and liabilities, net	10	8	18	118
Net cash provided by operating activities – continuing operations	3,338	1,875	1,033	1,225
Net cash used in operating activities – discontinued operations	(8)	(182)	(13)	(43)
Net cash provided by operating activities	**3,330**	**1,693**	**1,020**	**1,182**
Investing activities:				
Purchases of investments	(1,528)	(5,933)	(1,114)	49
Purchases of property, plant and equipment and intangible assets	(820)	(694)	(361)	(262)
Acquisition of businesses (net of cash acquired) and increases in cost- and equity-accounted companies	(241)	(121)	(14)	(22)
Proceeds from sales of investments	2,272	4,341	633	3,053
Proceeds from maturity of investments	81	11	1	10
Proceeds from sales of property, plant and equipment	93	114	57	46
Proceeds from sales of businesses (net of transaction costs and cash disposed) and cost- and equity-accounted companies	2,958	(136)	2,865	(3)
Net cash from settlement of foreign currency derivatives	(121)	138	(46)	44
Other investing activities	(23)	8	2	(3)
Net cash provided by (used in) investing activities – continuing operations	2,671	(2,272)	2,023	2,912
Net cash provided by (used in) investing activities – discontinued operations	(364)	9,032	(281)	(59)
Net cash provided by investing activities	**2,307**	**6,760**	**1,742**	**2,853**
Financing activities:				
Net changes in debt with original maturities of 90 days or less	(83)	(587)	(296)	(62)
Increase in debt	1,400	343	22	(17)
Repayment of debt	(1,538)	(3,459)	(775)	(2,796)
Delivery of shares	826	412	40	29
Purchase of treasury stock	(3,708)	(3,048)	(1,267)	(1,778)
Dividends paid	(1,726)	(1,736)	–	–
Dividends paid to noncontrolling shareholders	(98)	(82)	(7)	–
Other financing activities	(41)	(49)	(24)	18
Net cash used in financing activities – continuing operations	(4,968)	(8,206)	(2,307)	(4,606)
Net cash provided by financing activities – discontinued operations	–	31	–	–
Net cash used in financing activities	**(4,968)**	**(8,175)**	**(2,307)**	**(4,606)**
Effects of exchange rate changes on cash and equivalents and restricted cash	(81)	79	(6)	134
Net change in cash and equivalents and restricted cash	**588**	**357**	**449**	**(437)**
Cash and equivalents and restricted cash, beginning of period	3,901	3,544	4,040	4,338
Cash and equivalents and restricted cash, end of period	**4,489**	**3,901**	**4,489**	**3,901**
Supplementary disclosure of cash flow information:				
Interest paid	132	189	57	78
Income taxes paid	1,292	905	499	216

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

See Notes to the Consolidated Financial Information

ABB Ltd 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, 2020	**188**	**73**	**19,640**	**(5,590)**	**(785)**	**13,526**	**454**	**13,980**
Adoption of accounting standard update			(82)			**(82)**	(9)	**(91)**
Comprehensive income:								
Net income			5,146			**5,146**	59	**5,205**
Foreign currency translation adjustments, net of tax of $2				990		**990**	27	**1,017**
Effect of change in fair value of available-for-sale securities, net of tax of $3				7		**7**		**7**
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of $161				589		**589**		**589**
Change in derivative instruments and hedges, net of tax of $(2)				2		**2**		**2**
Total comprehensive income						**6,734**	**86**	**6,820**
Changes in noncontrolling interests		(16)				**(16)**	19	**3**
Change in noncontrolling interests in connection with divestments						**–**	(138)	**(138)**
Dividends to noncontrolling shareholders						**–**	(98)	**(98)**
Dividends to shareholders			(1,758)			**(1,758)**		**(1,758)**
Share-based payment arrangements		54				**54**		**54**
Purchase of treasury stock					(3,181)	**(3,181)**		**(3,181)**
Delivery of shares		(24)			436	**412**		**412**
Other		(3)				**(3)**		**(3)**
Balance at December 31, 2020	**188**	**83**	**22,946**	**(4,002)**	**(3,530)**	**15,685**	**314**	**15,999**
Balance at January 1, 2021	**188**	**83**	**22,946**	**(4,002)**	**(3,530)**	**15,685**	**314**	**15,999**
Comprehensive income:								
Net income			4,546			**4,546**	104	**4,650**
Foreign currency translation adjustments, net of tax of $0				(534)		**(534)**	4	**(530)**
Effect of change in fair value of available-for-sale securities, net of tax of $(4)				(15)		**(15)**		**(15)**
Unrecognized income (expense) related to pensions and other postretirement plans, net of tax of $22				467		**467**		**467**
Change in derivative instruments and hedges, net of tax of $(1)				(5)		**(5)**		**(5)**
Total comprehensive income						**4,459**	**108**	**4,567**
Changes in noncontrolling interests		(37)	(20)			**(57)**	55	**(2)**
Dividends to noncontrolling shareholders						**–**	(98)	**(98)**
Dividends to shareholders			(1,730)			**(1,730)**		**(1,730)**
Cancellation of treasury shares	(10)	(17)	(3,130)		3,157	**–**		**–**
Share-based payment arrangements		60				**60**		**60**
Purchase of treasury stock					(3,682)	**(3,682)**		**(3,682)**
Delivery of shares		(84)	(136)		1,046	**826**		**826**
Other		16				**16**		**16**
Balance at December 31, 2021	**178**	**22**	**22,477**	**(4,088)**	**(3,010)**	**15,579**	**378**	**15,957**

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

See Notes to the Consolidated Financial Information

Note 1
The Company and basis of presentation

ABB Ltd and its subsidiaries (collectively, the Company) together form a leading global technology company, connecting software to its electrification, robotics, automation and motion portfolio to drive performance to new levels.

The Company's 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 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, 2020.

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 Consolidated Financial Information. These accounting assumptions and estimates include:

- growth rates, discount rates and other assumptions used to determine impairment of long-lived assets and in testing goodwill for impairment,
- estimates to determine valuation allowances for deferred tax assets and amounts recorded for unrecognized tax benefits,
- assumptions used in determining inventory obsolescence and net realizable value,
- estimates and assumptions used in determining the initial fair value of retained noncontrolling interest and certain obligations in connection with divestments,
- estimates and assumptions used in determining the fair values of assets and liabilities assumed in business combinations,
- assumptions used in the determination of corporate costs directly attributable to discontinued operations,
- 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,
- estimates used to record expected costs for employee severance in connection with restructuring programs,
- estimates related to credit losses expected to occur over the remaining life of financial assets such as trade and other receivables, loans and other instruments,
- assumptions used in the calculation of pension and postretirement benefits and the fair value of pension plan assets, and
- assumptions and projections, principally related to future material, labor and project-related overhead costs, used in determining the percentage-of-completion on projects, as well as the amount of variable consideration the Company expects to be entitled to.

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 Consolidated Financial Information contains all necessary adjustments to present fairly the financial position, results of operations and cash flows for the reported periods. Management considers all such adjustments to be of a normal recurring nature. The Consolidated Financial Information is presented in United States dollars ($) unless otherwise stated. Due to rounding, numbers presented in the Consolidated Financial Information may not add to the totals provided.

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 reallocation of certain real estate assets, previously reported within Corporate and Other, into the operating segments which utilize the assets.

Adjustment related to prior periods
In the three months ended December 31, 2020, the Company corrected certain liabilities which were extinguished as part of the finalization of the purchase price of GEIS. The price agreement was reached in 2019 but the impact on these liabilities was not originally identified at that time by the Company. As a result, a gain of $28 million was recorded in the Interim Consolidated Income Statements for the three months ended December 31, 2020. As this gain results from the favorable resolution of a purchase price uncertainty with respect to the acquisition of GEIS, this amount has been excluded from the measure of segment performance, Operational EBITA (see Note 18) for the Electrification operating segment. The Company evaluated the impact of the correction on both a quantitative and qualitative basis under the guidance of ASC 250, Accounting Changes and Error Corrections, and determined that there were no material impacts on the trend of net income, cash flows or liquidity for previously issued annual financial statements.

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Note 2
Recent accounting pronouncements

Applicable for current periods

Simplifying the accounting for income taxes

In January 2021, the Company adopted a new accounting standard update, which enhances and simplifies various aspects of the income tax accounting guidance related to intraperiod tax allocations, ownership changes in investments and certain aspects of interim period tax accounting. Depending on the amendment, the adoption was applied on either a retrospective, modified retrospective, or prospective basis. This update does not have a significant impact on the Company's consolidated financial statements.

Applicable for future periods

Facilitation of the effects of reference rate reform on financial reporting

In March 2020, an accounting standard update was issued which provides temporary optional expedients and exceptions to the current guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (LIBOR) and other interbank offered rates to alternative reference rates. This update, along with clarifications outlined in a subsequent update issued in January 2021, can be adopted and applied no later than December 31, 2022, with early adoption permitted. The Company does not expect this update to have a significant impact on its consolidated financial statements.

Business Combinations — Accounting for contract assets and contract liabilities from contracts with customers

In October 2021, an accounting standard update was issued which provides guidance on the accounting for revenue contracts acquired in a business combination. The update requires contract assets and liabilities acquired in a business combination to be recognized and measured at the date of acquisition in accordance with the principles for recognizing revenues from contracts with customers. This update is effective prospectively for the Company for annual and interim reporting periods beginning January 1, 2023, with early adoption permitted in any interim period. The Company will adopt this update prospectively as of January 1, 2022. The Company does not expect this update to have a significant impact on its consolidated financial statements.

Disclosures about government assistance

In November 2021, an accounting standard update was issued which requires entities to disclose certain types of government assistance. Under the update, the Company is required to annually disclose (i) the type of the assistance received, including any significant terms and conditions, (ii) its related accounting policy, and (iii) the effect such transactions have on its financial statements. The update is effective either prospectively for all in-scope transactions at the date of adoption or retrospectively, for annual periods beginning January 1, 2022, with early adoption permitted. The Company will adopt this update prospectively as of January 1, 2022. This update does not have a significant impact on the Company's consolidated financial statements.

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Note 3
Discontinued operations and assets held for sale

Divestment of the Power Grids business

On July 1, 2020, the Company completed the sale of 80.1 percent of its Power Grids business to Hitachi Ltd (Hitachi). The transaction was executed through the sale of 80.1 percent of the shares of Hitachi Energy Ltd, formerly Hitachi ABB Power Grids Ltd ("Hitachi Energy"). Cash consideration received at the closing date was $9,241 million net of cash disposed. Further, for accounting purposes, the 19.9 percent ownership interest retained by the Company was deemed to have been both divested and reacquired at its fair value on July 1, 2020. The Company also obtained a put option, exercisable with three-months' notice commencing in April 2023 (to be effective from July 2023), allowing the Company to require Hitachi to purchase the remaining interest for fair value, subject to a minimum floor price equivalent to a 10 percent discount compared to the price paid for the initial 80.1 percent. The combined fair value of the retained investment and the related put option, which was initially estimated at $1,808 million on July 1, 2020, and subsequently remeasured to $1,779 million in the three months ended December 31, 2020, was recorded as an equity-method investment and also accounted for as part of the proceeds for the sale of the entire Power Grids business (see Note 4).

In connection with the divestment, the Company recorded liabilities in discontinued operations for estimated future costs and other cash payments of $487 million for various contractual items relating to the sale of the business, including required future cost reimbursements payable to Hitachi Energy, costs to be incurred by the Company for the direct benefit of Hitachi Energy and an amount due to Hitachi Ltd in connection with the expected purchase price finalization of the closing debt and working capital balances. In October 2021, the Company and Hitachi concluded an agreement to settle the various amounts owing by the Company. The net difference between the agreed amounts and the amounts initially estimated by the Company was recorded in the three months ended December 31, 2021, in discontinued operations as an adjustment to "Net gain recognized on sale of the Power Grids business" in the table below. During the year and three months ended December 31, 2021, total cash payments (including the amounts paid under the settlement agreement) of $364 million and $281 million, respectively, were made in connection with these liabilities. In both the year and three months ended December 31, 2020, total cash payments made in connection with these liabilities amounted to $33 million. At December 31, 2021, the remaining amount recorded was $150 million.

As a result of the Power Grids sale, the Company recognized an initial net gain of $5,320 million, net of transaction costs, for the sale of the entire Power Grids business, in Income from discontinued operations, net of tax, in the year ended December 31, 2020. Certain amounts included in the net gain were estimated or otherwise subject to change and in the three months ended December 31, 2020, adjustments to decrease the net gain by $179 million were recorded. Included in the calculation of the net gain was a cumulative translation loss relating to the Power Grids business of $420 million which was reclassified from Accumulated other comprehensive loss (see Note 16). In the year and three months ended December 31, 2021, the Company has recorded further adjustments to the net gain, including the impacts of the agreed settlement amount referred to above, reducing the gain by $65 million and $33 million, respectively. Certain remaining minor obligations relating to the divestment continue to be subject to uncertainty and will be adjusted in future periods but these adjustments are not expected to have a material impact on the consolidated financial statements.

In the year ended December 31, 2020, the Company recorded $262 million, in Income tax expense within discontinued operations in connection with the reorganization of the legal entity structure of the Power Grids business required to facilitate the sale.

Certain entities of the Power Grids business for which the legal process or other regulatory delays resulted in the Company not yet having transferred legal titles to Hitachi were accounted for as being sold since control of the business as well as all risks and rewards of the business were fully transferred to Hitachi Energy. At December 31, 2021, substantially all of these delayed entities have been legally transferred to Hitachi. The proceeds for these entities are included in the cash proceeds described above and certain funds were placed in escrow pending completion of the transfer process. At December 31, 2021 and 2020, current restricted cash includes $12 million and $302 million, respectively, relating to these proceeds.

In connection with the divestment, the Company has recognized liabilities in discontinued operations for certain indemnities (see Note 11 for additional information) and has also recorded an initial liability of $258 million representing the fair value of the right granted to Hitachi Energy for the use of the ABB brand for up to 8 years.

Upon closing of the sale, the Company entered into various transition services agreements (TSAs). Pursuant to these TSAs, the Company and Hitachi Energy provide to each other, on an interim, transitional basis, various services. The services provided by the Company primarily include finance, information technology, human resources and certain other administrative services. Under the current terms, the TSAs will continue for up to 3 years, and can only be extended on an exceptional basis for business-critical services for an additional period which is reasonably necessary to avoid a material adverse impact on the business. In the year and three months ended December 31, 2021, the Company has recognized within its continuing operations, general and administrative expenses incurred to perform the TSA, offset by $173 million and $46 million, respectively, in TSA-related income for such services that is reported in Other income (expense). In the year and three months ended December 31, 2020, Other income (expense) included $91 million and $49 million, respectively, of TSA-related income for such services.

Discontinued operations

As a result of the sale of the Power Grids business, substantially all Power Grids-related assets and liabilities have been sold. As this divestment represented a strategic shift that would have a major effect on the Company's operations and financial results, the results of operations for this business have been presented as discontinued operations and the assets and liabilities are presented as held for sale and in discontinued operations for all periods presented. Certain of the business contracts in the Power Grids business continue to be executed by subsidiaries of the Company for the benefit/risk of Hitachi Energy. Assets and liabilities relating to, as well as the net financial results of, these contracts will continue to be included in discontinued operations until they have been completed or otherwise transferred to Hitachi Energy.

Prior to the divestment, interest expense that was not directly attributable to or related to the Company's continuing business or discontinued business was allocated to discontinued operations based on the ratio of net assets to be sold less debt that was required to be paid as a result of the planned disposal transaction to the sum of total net assets of the Company plus consolidated debt. General corporate overhead was not allocated to discontinued operations.

Operating results of the discontinued operations, are summarized as follows:

	Year ended		Three months ended	
($ in millions)	**Dec. 31, 2021**	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2020**
Total revenues	–	4,008	–	–
Total cost of sales	–	(3,058)	–	–
Gross profit	**–**	**950**	**–**	**–**
Expenses	(18)	(808)	(5)	(6)
Change to net gain recognized on sale of the Power Grids business	(65)	5,141	(33)	(179)
Income (loss) from operations	**(83)**	**5,282**	**(38)**	**(185)**
Net interest income (expense) and other finance expense	2	(5)	2	–
Non-operational pension (cost) credit	–	(94)	–	–
Income (loss) from discontinued operations before taxes	**(81)**	**5,182**	**(36)**	**(185)**
Income tax	1	(322)	1	2
Income (loss) from discontinued operations, net of tax	**(80)**	**4,860**	**(35)**	**(183)**

Of the total Income (loss) from discontinued operations before taxes in the table above, $(80) million and $5,170 million in the year ended December 31, 2021 and 2020, respectively, and $(35) million and $(185) million in the three months ended December 31, 2021 and 2020, respectively, are attributable to the Company, while the remainder is attributable to noncontrolling interests.

Until the date of the divestment, Income (loss) from discontinued operations before taxes excluded stranded costs which were previously able to be allocated to the Power Grids operating segment. As a result, for the year ended December 31, 2020, $40 million of allocated overhead and other management costs, which were previously included in the measure of segment profit for the Power Grids operating segment are reported as part of Corporate and Other. In the table above, Net interest income (expense) and other finance expense in the year ended December 31, 2020, included $20 million of interest expense which was recorded on an allocated basis in accordance with the Company's accounting policy election until the divestment date. In addition, as required by U.S. GAAP, subsequent to December 17, 2018, (the date of the original agreement to sell the Power Grids business) the Company has not recorded depreciation or amortization on the property, plant and equipment, and intangible assets reported as discontinued operations.

Included in the reported Total revenues of the Company for the year ended December 31, 2020, are revenues for sales from the Company's operating segments to the Power Grids business of $108 million, which represent intercompany transactions that, prior to Power Grids being classified as a discontinued operation, were eliminated in the Company's consolidated financial statements (see Note 18). Subsequent to the divestment, sales to Hitachi Energy are reported as third-party revenues.

In addition, the Company also has retained obligations (primarily for environmental and taxes) related to other businesses disposed or otherwise exited that qualified as discontinued operations. Changes to these retained obligations are also included in Income (loss) from discontinued operations, net of tax, above.

The major components of assets and liabilities held for sale and in discontinued operations in the Company's Consolidated Balance Sheets are summarized as follows:

($ in millions)	Dec. 31, 2021(1)	Dec. 31, 2020(1)
Receivables, net	131	280
Inventories, net	–	1
Other current assets	5	1
Current assets held for sale and in discontinued operations	**136**	**282**
Accounts payable, trade	71	188
Other liabilities	310	456
Current liabilities held for sale and in discontinued operations	**381**	**644**
Other non-current liabilities	43	197
Non-current liabilities held for sale and in discontinued operations	**43**	**197**

(1) At December 31, 2021 and 2020, the balances reported as held for sale and in discontinued operations pertain to Power Grids activities and other obligations which will remain with the Company until such time as the obligation is settled or the activities are fully wound down.

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Note 4
Acquisitions, divestments and equity-accounted companies

Acquisition of controlling interests
Acquisitions of controlling interests were as follows:

	Year ended December 31,		Three months ended December 31,	
($ in millions, except number of acquired businesses)	2021	2020	2021	2020
Purchase price for acquisitions (net of cash acquired)(1)	212	79	(3)	19
Aggregate excess of purchase price over fair value of net assets acquired(2)	161	92	2	23
Number of acquired businesses	2	3	–	1

(1) Excluding changes in cost- and equity-accounted companies
(2) Recorded as goodwill (see Note 9). For all periods presented, amounts include adjustments arising during the measurement period of acquisitions.

In the table above, the "Purchase price for acquisitions" and "Aggregate excess of purchase price over fair value of net assets acquired" amounts for the year ended December 31, 2021, relate primarily to the acquisition of ASTI Mobile Robotics Group (ASTI).

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 August 2, 2021, the Company acquired the shares of ASTI. ASTI is headquartered in Burgos, Spain, and is a global autonomous mobile robot (AMR) manufacturer. The resulting cash outflows for the Company amounted to $186 million (net of cash acquired of $7 million). The acquisition expands the Company's robotics and automation offering in its Robotics and Discrete Automation operating segment.

There were no significant business acquisitions for the year and three months ended December 31, 2020.

Investments in equity-accounted companies
In connection with the divestment of its Power Grids business to Hitachi (see Note 3), the Company retained a 19.9 percent interest in the business. For accounting purposes, the 19.9 percent interest is deemed to have been both divested and reacquired, with a fair value at the transaction date of $1,661 million. The fair value was based on a discounted cash flow model considering the expected results of the future business operations of Hitachi Energy and using relevant market inputs including a risk-adjusted weighted-average cost of capital. The Company also obtained a right to require Hitachi to purchase this investment (see Note 3) with a floor price equivalent to a 10 percent discount compared to the price paid by Hitachi for the initial 80.1 percent. This option was valued at $118 million using a standard option pricing model with inputs considering the nature of the investment and the expected period until option exercise. As this option is not separable from the investment the value has been combined with the value of the underlying investment and is accounted for together.

Hitachi also holds a call option which would require the Company to sell the remaining 19.9 percent interest in Hitachi Energy at a price consistent with what was paid by Hitachi to acquire the initial 80.1 percent or at fair value, if higher. The option is exercisable with three-months' notice from April 2023, to be effective from July 2023.

The Company has concluded that based on its continuing involvement with the Power Grids business, including membership in its governing board of directors, it has significant influence over Hitachi Energy. As a result, the investment (including the value of the option) is accounted for using the equity method.

The difference between the initial carrying value of the Company's investment in Hitachi Energy at fair value and its proportionate share of the underlying net assets, created basis differences of $8,570 million ($1,705 million for the Company's 19.9 percent ownership), which are allocated as follows:

($ in millions)	Allocated Amount	Weighted-average useful life
Inventories	169	5 months
Order backlog	727	2 years
Property, plant and equipment(1)	1,016	
Intangible assets(2)	1,731	9 years
Other contractual rights	251	2 years
Other assets	43	
Deferred tax liabilities	(942)	
Goodwill	6,026	
Less: Amount attributed to noncontrolling interest	(451)	
Basis difference	**8,570**	

(1) Property, plant and equipment includes assets subject to amortization having an initial fair value difference of $686 million and a weighted-average useful life of 14 years.
(2) Intangible assets include brand license agreement, technology and customer relationships.

For assets subject to depreciation or amortization, the Company amortizes these basis differences over the estimated remaining useful lives of the assets that gave rise to this difference, recording the amortization, net of related deferred tax benefit, as a reduction of income from equity accounted companies. Certain other assets are recorded as an expense as the benefits from the assets are realized. As of December 31, 2021, the Company determined that no impairment of its equity-accounted investments existed.

The carrying value of the Company's investments in equity-accounted companies and respective percentage of ownership is as follows:

	Ownership as of	Carrying value at	
($ in millions, except ownership share in %)	December 31, 2021	December 31, 2021	December 31, 2020
Hitachi Energy Ltd	19.9%	1,609	1,710
Others		61	74
Total		**1,670**	**1,784**

In the year and three months ended December 31, 2021 and 2020, the Company recorded its share of the earnings of investees accounted for under the equity method of accounting in Other income (expense), net, as follows:

	Year ended December 31,		Three months ended December 31,	
($ in millions)	2021	2020	2021	2020
Income from equity-accounted companies, net of taxes	38	29	27	17
Basis difference amortization (net of deferred income tax benefit)	(138)	(95)	(44)	(43)
Loss from equity-accounted companies	**(100)**	**(66)**	**(17)**	**(26)**

Business divestments

In the year and three months ended December 31, 2021, the Company received proceeds (net of transactions costs and cash disposed) of $2,958 million and $2,865 million, respectively, relating to divestments of consolidated businesses and recorded gains of $2,193 million and $2,184 million, respectively in "Other income (expense), net" on the sales of such businesses. These are primarily due to the divestment of the Company's Mechanical Power Transmission Division (Dodge) to RBC Bearings Inc. Certain amounts included in the net gain for the sale of the Dodge business are estimated or otherwise subject to change in value and, as a result, the Company may record additional adjustments to the gain in future periods which are not expected to have a material impact on the consolidated financial statements. In the years ended December 31, 2021 and 2020, "Income from continuing operations before taxes", included net income of $115 million and $96 million, respectively, from the Dodge business which, prior to its sale was part of the Company's Motion operating segment. In the three months ended December 31, 2021 and 2020, "Income from continuing operations before taxes", included net income of $9 million and $25 million, respectively, related to this business.

In 2020, the Company completed the sale of its Power Grids business (see Note 3 for details) and its solar inverters business.

Divestment of the solar inverters business

In February 2020, the Company completed the sale of its solar inverters business for no consideration. Under the agreement, which was reached in July 2019, the Company was required to transfer $143 million of cash to the buyer on the closing date. In addition, payments totaling EUR 132 million ($145 million) are required to be transferred to the buyer from 2020 through 2025. In the year ended December 31, 2019, the Company recorded a loss of $421 million, representing the excess of the carrying value, which includes a loss of $99 million arising from the cumulative translation adjustment, over the estimated fair value of this business. During the year ended December 31, 2020, a loss of $33 million was included in "Other income (expense), net" for changes in fair value of this business of which $14 million was recorded in the three months. The loss in 2020 includes the $99 million reclassification from other comprehensive income of the currency translation adjustment related to the business.

The fair value was based on the estimated current market values using Level 3 inputs, considering the agreed-upon sale terms with the buyer. The solar inverters business, which includes the solar inverters business acquired as part of the Power-One acquisition in 2013, was part of the Company's Electrification segment.

As this divestment does not qualify as a discontinued operation, the results of operations for this business prior to its disposal are included in the Company's continuing operations for all periods presented.

Including the above loss of $33 million, in the year ended December 31, 2020, Income from continuing operations before taxes includes net losses of $63 million from the solar inverters business prior to its sale.

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Note 5
Cash and equivalents, marketable securities and short-term investments

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

	December 31, 2021					
($ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents and restricted cash	Marketable securities and short-term investments
Changes in fair value recorded in net income						
Cash	2,752			**2,752**	2,752	
Time deposits	2,037			**2,037**	1,737	300
Equity securities	569	18		**587**		587
	5,358	**18**	**–**	**5,376**	**4,489**	**887**
Changes in fair value recorded in other comprehensive income						
Debt securities available-for-sale:						
U.S. government obligations	203	7	(1)	**209**		209
Corporate	74	1	(1)	**74**		74
	277	**8**	**(2)**	**283**	**–**	**283**
Total	**5,635**	**26**	**(2)**	**5,659**	**4,489**	**1,170**
Of which:						
Restricted cash, current					30	
Restricted cash, non-current					300	

	December 31, 2020					
($ in millions)	Cost basis	Gross unrealized gains	Gross unrealized losses	Fair value	Cash and equivalents and restricted cash	Marketable securities and short-term investments
Changes in fair value recorded in net income						
Cash	2,388			**2,388**	2,388	
Time deposits	1,513			**1,513**	1,513	
Equity securities	1,704	12		**1,716**		1,716
	5,605	**12**	**–**	**5,617**	**3,901**	**1,716**
Changes in fair value recorded in other comprehensive income						
Debt securities available-for-sale:						
U.S. government obligations	274	19		**293**		293
European government obligations	24			**24**		24
Corporate	69	6		**75**		75
	367	**25**	**–**	**392**	**–**	**392**
Total	**5,972**	**37**	**–**	**6,009**	**3,901**	**2,108**
Of which:						
Restricted cash, current					323	
Restricted cash, non-current					300	

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Note 6
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 its 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 its 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 and cross-currency interest rate swaps are used to manage the interest rate and foreign currency risk associated with certain debt and generally such swaps are designated as fair value hedges. In addition, from time to time, the Company uses instruments such as interest rate swaps, interest rate futures, bond futures or forward rate agreements to manage interest rate risk arising from the Company's balance sheet structure but does not designate such instruments as hedges.

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

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

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

Type of derivative	Total notional amounts at	
($ in millions)	December 31, 2021	December 31, 2020
Foreign exchange contracts	11,276	12,610
Embedded foreign exchange derivatives	815	1,134
Cross-currency interest rate swaps	906	–
Interest rate contracts	3,541	3,227

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 and aluminum. 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	
		December 31, 2021	December 31, 2020
Copper swaps	metric tonnes	36,017	39,390
Silver swaps	ounces	2,842,533	1,966,677
Aluminum swaps	metric tonnes	7,125	8,112

Equity derivatives
At December 31, 2021 and 2020, the Company held 9 million and 22 million cash-settled call options indexed to ABB Ltd shares (conversion ratio 5:1) with a total fair value of $29 million and $21 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. The Company applies cash flow hedge accounting in only limited cases. In these cases, 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. For the year and three months ended December 31, 2021 and 2020, there were no significant amounts recorded for cash flow hedge accounting activities.

Fair value hedges
To reduce its interest rate exposure arising primarily from its debt issuance activities, the Company uses interest rate swaps and cross-currency 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".

The effect of derivative instruments, designated and qualifying as fair value hedges, on the Consolidated Income Statements was as follows:

		Year ended December 31,		Three months ended December 31,	
($ in millions)		2021	2020	2021	2020
Gains (losses) recognized in Interest and other finance expense:					
Interest rate contracts	Designated as fair value hedges	(55)	11	(15)	(10)
	Hedged item	56	(11)	15	9
Cross-currency interest rate swaps	Designated as fair value hedges	(37)	–	(10)	–
	Hedged item	34	–	9	–

Derivatives not designated in hedge relationships

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

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

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

Type of derivative not designated as a hedge		Gains (losses) recognized in income			
		Year ended December 31,		Three months ended December 31,	
($ in millions)	**Location**	2021	2020	2021	2020
Foreign exchange contracts	Total revenues	3	94	52	131
	Total cost of sales	(53)	–	(29)	(53)
	SG&A expenses[(1)]	11	(11)	5	(9)
	Non-order related research and development	(2)	(2)	–	(1)
	Interest and other finance expense	(173)	207	(52)	100
Embedded foreign exchange contracts	Total revenues	(7)	(34)	7	(30)
	Total cost of sales	(2)	(1)	1	1
Commodity contracts	Total cost of sales	78	56	31	44
Other	Interest and other finance expense	–	1	–	–
Total		**(145)**	**310**	**15**	**183**

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

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

	December 31, 2021			
	Derivative assets		Derivative liabilities	
($ in millions)	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	–	–	3	5
Interest rate contracts	9	20	–	–
Cross-currency interest rate swaps	–	–	–	109
Cash-settled call options	29	–	–	–
Total	**38**	**20**	**3**	**114**
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	108	14	107	7
Commodity contracts	19	–	5	–
Interest rate contracts	1	–	2	–
Embedded foreign exchange derivatives	10	7	16	10
Total	**138**	**21**	**130**	**17**
Total fair value	**176**	**41**	**133**	**131**

($ in millions)	December 31, 2020			
	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	2	4
Interest rate contracts	6	78	–	–
Cash-settled call options	10	11	–	–
Total	**16**	**90**	**2**	**4**
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	221	22	106	26
Commodity contracts	59	–	7	–
Interest rate contracts	2	–	2	–
Embedded foreign exchange derivatives	10	2	28	16
Total	**292**	**24**	**143**	**42**
Total fair value	**308**	**114**	**145**	**46**

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 December 31, 2021 and 2020, have been presented on a gross basis.

The Company's netting agreements and other similar arrangements allow net settlements under certain conditions. At December 31, 2021 and 2020, information related to these offsetting arrangements was as follows:

($ in millions)	December 31, 2021				
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	200	(104)	–	–	**96**
Total	**200**	**(104)**	**–**	**–**	**96**

($ in millions)	December 31, 2021				
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	238	(104)	–	–	**134**
Total	**238**	**(104)**	**–**	**–**	**134**

($ in millions)	December 31, 2020				
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	410	(106)	–	–	**304**
Total	**410**	**(106)**	**–**	**–**	**304**

($ in millions)	December 31, 2020				
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	147	(106)	–	–	**41**
Total	**147**	**(106)**	**–**	**–**	**41**

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Note 7
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 nature 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 exchange-traded equity securities, listed derivatives which are actively traded such as commodity futures, interest rate futures and 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, certain debt securities that are not actively traded, interest rate swaps, cross-currency 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:

	December 31, 2021			
($ in millions)	**Level 1**	**Level 2**	**Level 3**	**Total fair value**
Assets				
Securities in "Marketable securities and short-term investments":				
Equity securities		587		**587**
Debt securities—U.S. government obligations	209			**209**
Debt securities—Corporate		74		**74**
Derivative assets—current in "Other current assets"		176		**176**
Derivative assets—non-current in "Other non-current assets"		41		**41**
Total	**209**	**878**	**–**	**1,087**
Liabilities				
Derivative liabilities—current in "Other current liabilities"		133		**133**
Derivative liabilities—non-current in "Other non-current liabilities"		131		**131**
Total	**–**	**264**	**–**	**264**

	December 31, 2020			
($ in millions)	**Level 1**	**Level 2**	**Level 3**	**Total fair value**
Assets				
Securities in "Marketable securities and short-term investments":				
Equity securities		1,716		**1,716**
Debt securities—U.S. government obligations	293			**293**
Debt securities—European government obligations	24			**24**
Debt securities—Corporate		75		**75**
Derivative assets—current in "Other current assets"		308		**308**
Derivative assets—non-current in "Other non-current assets"		114		**114**
Total	**317**	**2,213**	**–**	**2,530**
Liabilities				
Derivative liabilities—current in "Other current liabilities"		145		**145**
Derivative liabilities—non-current in "Other non-current liabilities"		46		**46**
Total	**–**	**191**	**–**	**191**

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:

- 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 non-performance risk. The inputs used in present value techniques are observable and fall into the Level 2 category.

- Derivatives: The fair values of derivative instruments are determined using quoted prices of identical instruments from an active market, if available (Level 1 inputs). 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
The Company elects to record private equity investments without readily determinable fair values at cost, less impairment, adjusted by observable price changes. The Company reassesses at each reporting period whether these investments continue to qualify for this treatment. In the year ended December 31, 2021 and 2020, the Company recognized, in Other income (expense), net fair value gains of $108 million and $73 million, respectively, related to certain of its private equity investments based on observable market price changes for an identical or similar investment of the same issuer, of which a net gain of $2 million and a net gain of $1 million was recognized in the three months ended December 31, 2021 and 2020, respectively. The fair values were determined using level 2 inputs. The carrying values of these investments at December 31, 2021 and 2020, totaled $169 million and $105 million, respectively.

Based on valuations at July 1, 2020, the Company recorded goodwill impairment charges of $311 million in the third quarter of 2020. The fair value measurements used in the analyses were calculated using the income approach (discounted cash flow method). The discounted cash flow models were calculated using unobservable inputs, which classified the fair value measurement as Level 3 (see Note 9 for additional information including further detailed information related to these charges and significant unobservable inputs)

During the year ended December 31, 2020, the Company recorded a $33 million fair value adjustment for the solar inverters business which met the criteria to be classified as held for sale in June 2019 and was sold in February 2020 (see Note 4 for details).

Apart from the transactions above, there were no additional significant non-recurring fair value measurements during the year and three months ended December 31, 2021 and 2020.

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

		December 31, 2021			
($ in millions)	**Carrying value**	**Level 1**	**Level 2**	**Level 3**	**Total fair value**
Assets					
Cash and equivalents (excluding securities with original maturities up to 3 months):					
Cash	2,422	2,422			**2,422**
Time deposits	1,737		1,737		**1,737**
Restricted cash	30	30			**30**
Marketable securities and short-term investments (excluding securities):					
Time deposits	300		300		**300**
Restricted cash, non-current	300	300			**300**
Liabilities					
Short-term debt and current maturities of long-term debt (excluding finance lease obligations)	1,357	1,288	69		**1,357**
Long-term debt (excluding finance lease obligations)	4,043	4,234	58		**4,292**

		December 31, 2020			
($ in millions)	**Carrying value**	**Level 1**	**Level 2**	**Level 3**	**Total fair value**
Assets					
Cash and equivalents (excluding securities with original maturities up to 3 months):					
Cash	1,765	1,765			**1,765**
Time deposits	1,513		1,513		**1,513**
Restricted cash	323	323			**323**
Restricted cash, non-current	300	300			**300**
Liabilities					
Short-term debt and current maturities of long-term debt (excluding finance lease obligations)	1,266	497	769		**1,266**
Long-term debt (excluding finance lease obligations)	4,668	4,909	89		**4,998**

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

- Cash and equivalents (excluding securities with original maturities up to 3 months), Restricted cash, current and non-current, and Marketable securities and short-term investments (excluding securities): The carrying amounts approximate the fair values as the items are short-term in nature or, for cash held in banks, are equal to the deposit amount.
- Short-term debt and current maturities of long-term debt (excluding finance 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 finance lease obligations, approximate their fair values.
- Long-term debt (excluding finance 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).

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Note 8
Contract assets and liabilities

The following table provides information about Contract assets and Contract liabilities:

($ in millions)	December 31, 2021	December 31, 2020	December 31, 2019
Contract assets	990	985	1,025
Contract liabilities	1,894	1,903	1,719

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, primarily for 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:

	Year ended December 31,			
	2021		2020	
($ in millions)	Contract assets	Contract liabilities	Contract assets	Contract liabilities
Revenue recognized, which was included in the Contract liabilities balance at Jan 1, 2021/2020		(1,086)		(1,011)
Additions to Contract liabilities - excluding amounts recognized as revenue during the period		1,136		1,129
Receivables recognized that were included in the Contract asset balance at Jan 1, 2021/2020	(566)		(680)	

At December 31, 2021, the Company had unsatisfied performance obligations totaling $16,607 million and, of this amount, the Company expects to fulfill approximately 75 percent of the obligations in 2022, approximately 14 percent of the obligations in 2023 and the balance thereafter.

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Note 9
Goodwill

Goodwill is reviewed for impairment annually as of October 1, or more frequently if events or circumstances indicate that the carrying value may not be recoverable.

Goodwill is evaluated for impairment at the reporting unit level, which for the Company is determined to be one level below its operating segments.

When evaluating goodwill for impairment, the Company uses either a qualitative or quantitative assessment method for each reporting unit. The qualitative assessment involves determining, based on an evaluation of qualitative factors, if it is more likely than not that the fair value of a reporting unit is less than its carrying value. If, based on this qualitative assessment, it is determined to be more likely than not that the reporting unit's fair value is less than its carrying value, a quantitative impairment test (described below) is performed, otherwise no further analysis is required. If the Company elects not to perform the qualitative assessment for a reporting unit, then a quantitative impairment test is performed.

When performing a quantitative impairment test, the Company calculates the fair value of a reporting unit using an income approach based on the present value of future cash flows, applying a discount rate that represents the reporting unit's weighted-average cost of capital, and compares it to the reporting unit's carrying value. If the carrying value of the net assets of a reporting unit exceeds the fair value of the reporting unit then the Company records an impairment charge equal to the difference, provided that the loss recognized does not exceed the total amount of goodwill allocated to that reporting unit.

The changes in “Goodwill” were as follows:

($ in millions)	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Total
Balance at January 1, 2020	**4,372**	**2,436**	**1,615**	**2,381**	**21**	**10,825**
Goodwill acquired during the year	71	–	–	21	–	**92**
Impairment of Goodwill	–	–	–	(290)	(21)	**(311)**
Exchange rate differences and other	84	20	24	116	–	**244**
Balance at December 31, 2020(1)	**4,527**	**2,456**	**1,639**	**2,228**	**–**	**10,850**
Goodwill acquired during the year	11	–	–	150	–	**161**
Goodwill allocated to disposals	–	(338)	(7)	–	–	**(345)**
Exchange rate differences and other	(66)	(1)	(19)	(98)	–	**(184)**
Balance at December 31, 2021(1)	**4,472**	**2,117**	**1,613**	**2,280**	**–**	**10,482**

(1) At December 31, 2021 and 2020, gross goodwill amounted to $10,760 million and $11,152 million, respectively, and accumulated impairment charges, relating to the Robotics & Discrete Automation segment, amounted to $278 million and $302 million, respectively.

The Company adopted a new operating model on July 1, 2020, which resulted in a change to the identification of the goodwill reporting units. Previously, the reporting units were the same as the operating segments for Electrification, Motion and Robotics & Discrete Automation, while for the Process Automation operating segment the reporting units were determined to be at the Division level, which is one level below the operating segment. The new operating model provides the Divisions with full ownership and accountability for their respective strategies, performance and resources and based on these changes, the Company concluded that the reporting units would change and be the respective Divisions within each operating segment. This change resulted only in an allocation of goodwill within the operating segments and thus there is no change to segment level goodwill in the table above.

As a result of the new allocation of goodwill, an interim quantitative impairment test was conducted both before and after the changes which were effective July 1, 2020. In the “before” test, it was concluded that the fair value of the Company’s reporting units exceeded the carrying value under the historical reporting unit structure.

The impairment test was performed for the new reporting units and the fair value of each was determined using a discounted cash flow fair value estimate based on objective information available at the measurement date. The significant assumptions used to develop the estimates of fair value for each reporting unit included management’s best estimates of the expected future results and discount rates specific to the reporting unit. The fair value estimates were based on assumptions that the Company believed to be reasonable, but which are inherently uncertain and thus, actual results may differ from those estimates. The fair values for each of the individual reporting units and their associated goodwill were determined using Level 3 measurements.

The 2020 interim quantitative impairment test indicated that the estimated fair values of the reporting units were substantially in excess of their carrying value for all reporting units except for the Machine Automation reporting unit within the Robotics & Discrete Automation operating segment. The contraction of the global economy in 2020, particularly in end-customer industries related to this reporting unit and considerable uncertainty around the continued pace of macroeconomic recovery generally led to a reduction in the fair values of the reporting units, thus affecting this reporting unit. Also, at the division level, this reporting unit does not benefit from shared cash flows generated within an entire operating segment. In addition, the book value of the Machine Automation Division includes a significant amount of intangible assets recognized in past acquisitions, resulting in a proportionately higher book value than the other reporting unit within the Robotics & Discrete Automation Business Area. With the fair value of the reporting unit lower due to the economic conditions, the existing book value of the intangible assets combined with the newly allocated reporting unit goodwill led to the carrying value of the Machine Automation reporting unit exceeding its fair value. During 2020, a goodwill impairment charge of $290 million was recorded to reduce the carrying value of this reporting unit to its implied fair value. The remaining goodwill for the Machine Automation reporting unit was $554 million as of December 31, 2020.

During 2021, certain reporting units were split into separate reporting units. For each change, an interim quantitative impairment test was conducted before and after the change and in all cases, it was concluded that the fair value of the relevant reporting units exceeded the carrying value by a significant amount.

At October 1, 2021 and 2020, respectively, the Company performed qualitative assessments and determined that it was not more likely than not that the fair value for each of these reporting units was below the carrying value. As a result, the Company concluded that it was not necessary to perform the quantitative impairment test.

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Note 10
Debt

The Company’s total debt at December 31, 2021 and 2020, amounted to $5,561 million and $6,121 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)	December 31, 2021	December 31, 2020
Short-term debt	78	153
Current maturities of long-term debt	1,306	1,140
Total	**1,384**	**1,293**

Short-term debt primarily represented issued commercial paper and short-term bank borrowings from various banks. At December 31, 2021 no amount was outstanding under the $2 billion commercial paper program in the United States, while $32 million was outstanding at December 31, 2020.

On June 15, 2021, the Company repaid at maturity its USD 650 million 4.0% Notes.
On October 11, 2021, the Company repaid at maturity its CHF 350 million 2.25 % Bonds, equivalent to $378 million on date of repayment.

Long-term debt

The Company's long-term debt at December 31, 2021 and 2020, amounted to $4,177 million and $4,828 million, respectively. Outstanding bonds (including maturities within the next 12 months) were as follows:

(in millions)	December 31, 2021 Nominal outstanding		Carrying value(1)		December 31, 2020 Nominal outstanding		Carrying value(1)	
Bonds:								
4.0% USD Notes, due 2021					USD	650	$	649
2.25% CHF Bonds, due 2021					CHF	350	$	403
2.875% USD Notes, due 2022	USD	1,250	$	1,258	USD	1,250	$	1,280
0.625% EUR Instruments, due 2023	EUR	700	$	800	EUR	700	$	875
0.75% EUR Instruments, due 2024	EUR	750	$	860	EUR	750	$	946
0.3% CHF Notes, due 2024	CHF	280	$	306	CHF	280	$	317
3.8% USD Notes, due 2028(2)	USD	383	$	381	USD	383	$	381
1.0% CHF Notes, due 2029	CHF	170	$	186	CHF	170	$	192
0% EUR Notes, due 2030	EUR	800	$	862				–
4.375% USD Notes, due 2042 (2)	USD	609	$	589	USD	609	$	589
Total			**$**	**5,242**			**$**	**5,632**

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

(2) Prior to completing a cash tender offer in November 2020, the original principal amount outstanding, on each of the 3.8% USD Notes, due 2028, and the 4.375% USD Notes, due 2042, was USD750 million.

In January 2021, the Company issued zero interest Notes having a principal amount of EUR 800 million and due in 2030. The Company recorded net proceeds (after underwriting fees) of EUR 791 million (equivalent to $960 million on the date of issuance). In line with the Company's policy of reducing its currency and interest rate exposures, cross-currency interest rate swaps have been used to modify the characteristics of the EUR 800 million Notes, due 2030. After considering the impact of these cross-currency interest rate swaps, the EUR Notes, due 2030, effectively became a floating rate U.S. dollar obligation.

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Note 11
Commitments and contingencies

Contingencies—Regulatory, Compliance and Legal

Regulatory

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. In May 2020, the SFO closed its investigation, which it originally announced in February 2017, as the case did not meet the relevant test for prosecution. The Company continues to cooperate with the U.S. authorities as requested. At this time, it is not possible for the Company to make an informed judgment about the outcome of this matter.

Based on findings during an internal investigation, the Company self-reported to the SEC and the DoJ, in the United States, to the Special Investigating Unit (SIU) and the National Prosecuting Authority (NPA) in South Africa as well as to various authorities in other countries potential suspect payments and other compliance concerns in connection with some of the Company's dealings with Eskom and related persons. Many of those parties have expressed an interest in, or commenced an investigation into, these matters and the Company is cooperating fully with them. The Company paid $104 million to Eskom in December 2020 as part of a full and final settlement with Eskom and the Special Investigating Unit relating to improper payments and other compliance issues associated with the Controls and Instrumentation Contract, and its Variation Orders for Units 1 and 2 at Kusile. The Company continues to cooperate fully with the authorities in their review of the Kusile project and is in discussions with them regarding a coordinated resolution. Although the Company believes that there could be an unfavorable outcome in one or more of these ongoing reviews, at this time it is not possible for the Company to make an informed judgment about the possible financial impact.

General

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 claims and legal proceedings, as well as investigations carried out by various law enforcement authorities. With respect to the above-mentioned claims, regulatory matters, and any related proceedings, the Company will bear the related costs, including costs necessary to resolve them.

Liabilities recognized

At December 31, 2021 and 2020, the Company had aggregate liabilities of $104 million and $100 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, or reasonably predict, 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 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)	December 31, 2021	December 31, 2020
Performance guarantees	4,540	6,726
Financial guarantees	52	339
Indemnification guarantees(1)	136	177
Total(2)	**4,728**	**7,242**

(1) Certain indemnifications provided to Hitachi in connection with the divestment of Power Grids are without limit.
(2) Maximum potential payments include amounts in both continuing and discontinued operations.

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 December 31, 2021 and 2020, amounted to $156 million and $135 million, respectively, the majority of which is included in discontinued operations.

The Company is party to various guarantees providing financial or performance assurances to certain third parties. These guarantees, which have various maturities up to 2035, 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 ten 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 December 31, 2021 and 2020, the maximum potential payable under these guarantees amounts to $911 million and $994 million, respectively, and these guarantees have various original maturities ranging from five to ten years.

The Company retained obligations for financial, performance and indemnification guarantees related to the Power Grids business sold on July 1, 2020 (see Note 3 for details). The performance and financial guarantees have been indemnified by Hitachi, at the same proportion of its ownership in Hitachi Energy Ltd (80.1 percent). These guarantees, which have various maturities up to 2035, primarily consist of bank guarantees, standby letters of credit, business performance guarantees and other trade-related guarantees, the majority of which have original maturity dates ranging from one to ten years. The maximum amount payable under the guarantees at December 31, 2021 and 2020, are approximately $3.2 billion and $5.5 billion, respectively, and the carrying amounts of liabilities (recorded in discontinued operations) at December 31, 2021 and 2020, amounted to $136 million and $135 million, respectively.

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 December 31, 2021 and 2020, the total outstanding performance bonds aggregated to $3.6 billion and $4.3 billion, respectively, of which $0.1 billion and $0.3 billion, respectively, relate to discontinued operations. There have been no significant amounts reimbursed to financial institutions under these types of arrangements in the year and three months ended December 31, 2021 and 2020.

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)	2021	2020
Balance at January 1,	**1,035**	**816**
Net change in warranties due to acquisitions, divestments and liabilities held for sale	1	8
Claims paid in cash or in kind	(222)	(209)
Net increase in provision for changes in estimates, warranties issued and warranties expired	226	369
Exchange rate differences	(35)	51
Balance at December 31,	**1,005**	**1,035**

During 2020, the Company recorded changes in a previously estimated amount for a product warranty relating to a divested business, increasing the related liability by $143 million during the year ended December 31, 2020. The corresponding increase was included in Cost of sales of products and 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 18). The warranty liability has been recorded based on the information currently available and is subject to change in the future.

Note 12
Income taxes

The effective tax rate of 18.3 percent in 2021 was lower than the effective tax rate of 59.0 percent in 2020, primarily because 2020 includes impacts of non-deductible goodwill impairment (see Note 9), the non-deductibility of the non-operational pension costs due to certain settlements in 2020 (see Note 13) as well as the impact of no tax benefit being recorded for the charge recorded in connection with changes in estimated warranty provisions relating to a divested business (see Note 11). The effective rate in 2020 was also higher as no tax benefit was recorded for amounts recorded on losses on extinguishment of debt. In addition, the rate in 2020 reflects a net benefit from a favorable resolution of an uncertain tax position during the first quarter as well as increases to the valuation allowance in certain countries. The effective tax rate In 2021 was lower as a substantial portion of the gain on sale of businesses was not subject to tax.

Note 13
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.

The following tables include amounts relating to defined benefit pension plans and other postretirement benefits for both continuing and discontinued operations.

During the year and three months ended December 31, 2020, the Company took steps to transfer certain defined benefit pension risks in three international countries to external financial institutions and thus settle these obligations for accounting purposes. In connection with these transactions the Company made net payments of $36 million in the three months ended December 31, 2020, and incurred non-operational pension costs of $141 million which are included in curtailments, settlements and special termination benefits in the table below. During the year ended December 31, 2020, the Company made net payments of $309 million and incurred non-operational pension costs of $520 million for similar settlements of pension obligations. The Company also made cash payments of $143 million and recorded non-operational pension charges of $101 million in 2020 for the Settlement of pension obligations in discontinued operations.

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	
	Switzerland		International			
Year ended December 31,	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
Operational pension cost:						
Service cost	61	74	47	92	1	1
Operational pension cost	**61**	**74**	**47**	**92**	**1**	**1**
Non-operational pension cost (credit):						
Interest cost	(5)	6	72	111	2	3
Expected return on plan assets	(116)	(123)	(178)	(253)	–	–
Amortization of prior service cost (credit)	(9)	(11)	(2)	2	(3)	(2)
Amortization of net actuarial loss	–	7	67	109	(2)	(3)
Curtailments, settlements and special termination benefits[1]	1	6	7	644	–	–
Non-operational pension cost (credit)	**(129)**	**(115)**	**(34)**	**613**	**(3)**	**(2)**
Net periodic benefit cost (credit)	**(68)**	**(41)**	**13**	**705**	**(2)**	**(1)**

($ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
Three months ended December 31,	**2021**	**2020**	**2021**	**2020**	**2021**	**2020**
Operational pension cost:						
Service cost	16	14	16	26	1	1
Operational pension cost	**16**	**14**	**16**	**26**	**1**	**1**
Non-operational pension cost (credit):						
Interest cost	(2)	3	20	20	1	1
Expected return on plan assets	(28)	(30)	(45)	(57)	–	–
Amortization of prior service cost (credit)	(3)	(1)	–	1	(2)	–
Amortization of net actuarial loss	–	1	14	30	–	(1)
Curtailments, settlements and special termination benefits	1	6	8	157	–	–
Non-operational pension cost (credit)	**(32)**	**(21)**	**(3)**	**151**	**(1)**	**–**
Net periodic benefit cost (credit)	**(16)**	**(7)**	**13**	**177**	**–**	**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. Net periodic benefit cost includes $121 million for the year ended December 31, 2020 related to discontinued operations.

Employer contributions were as follows:

($ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
Year ended December 31,	2021	2020	2021	2020	2021	2020
Total contributions to defined benefit pension and other postretirement benefit plans	63	228	124	611	9	12
Of which, discretionary contributions to defined benefit pension plans	–	152	61	520	–	–

($ in millions)	Defined pension benefits				Other postretirement benefits	
	Switzerland		International			
Three months ended December 31,	2021	2020	2021	2020	2021	2020
Total contributions to defined benefit pension and other postretirement benefit plans	17	12	82	133	1	3
Of which, discretionary contributions to defined benefit pension plans	–	–	50	104	–	–

During the year and three months ended December 31, 2021, total contributions included non-cash contributions of marketable debt securities having a fair value at the contribution date of $53 million. These non-cash contributions were made to certain of the Company's pension plans in Germany and the United Kingdom during the three months ended December 31, 2021. During the year and three months ended December 31, 2020, total contributions included non-cash contributions of marketable debt securities having a fair value at the contribution date of $224 million and $72 million, respectively. These non-cash contributions were made to certain of the Company's pension plans in Germany and the United Kingdom during the three months ended December 31, 2020, and to Switzerland in the previous quarter.

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Note 14
Stockholder's equity

At the Annual General Meeting of Shareholders (AGM) on March 25, 2021, shareholders approved the proposal of the Board of Directors to distribute 0.80 Swiss francs per share to shareholders. The declared dividend amounted to $1,730 million, with the Company disbursing a portion in March and the remaining amounts in April.

In March 2021, the Company completed its initial share buyback program which was launched in July 2020. The share buyback program was executed on a second trading line on the SIX Swiss Exchange. Through this buyback program, the Company purchased a total of approximately 129 million shares for approximately $3.5 billion, of which 20 million shares were purchased in the first quarter of 2021 (resulting in an increase in Treasury stock of $628 million). At the AGM on March 25, 2021, shareholders approved the cancellation of 115 million of the shares purchased under this buyback program and the cancellation was completed in the second quarter of 2021, resulting in a decrease in Treasury stock of $3,157 million and a corresponding total decrease in Capital stock, Additional paid-in capital and Retained earnings.

Also in March 2021, the Company announced a follow-up share buyback program of up to $4.3 billion. This buyback program, which was launched in April 2021, is being executed on a second trading line on the SIX Swiss Exchange and is planned to run until the Company's AGM in March 2022. Through this follow-up buyback program, the Company purchased, since this program's launch in April 2021, approximately 59 million shares in 2021, resulting in an increase in Treasury stock of $2,022 million. At the March 2022 AGM, the Company intends to request shareholder approval to cancel the shares purchased through this follow-up share buyback program as well as those shares purchased under the initial share buyback program that were not proposed for cancellation at the Company's AGM in March 2021.

In addition to the share buyback programs, the Company purchased 33 million of its own shares on the open market in the year ended December 31, 2021, mainly for use in connection with its employee share plans, resulting in an increase in Treasury stock of $1,032 million.

In the year ended December 31, 2021, the Company delivered, out of treasury stock, 36 million shares in connection with its Management Incentive Plan.

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Note 15
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

($ in millions, except per share data in $)	Year ended December 31, 2021	2020	Three months ended December 31, 2021	2020
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	4,625	294	2,674	104
Income (loss) from discontinued operations, net of tax	(79)	4,852	(34)	(183)
Net income (loss)	**4,546**	**5,146**	**2,640**	**(79)**
Weighted-average number of shares outstanding (in millions)	**2,001**	**2,111**	**1,974**	**2,059**
Basic earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	2.31	0.14	1.35	0.05
Income (loss) from discontinued operations, net of tax	(0.04)	2.30	(0.02)	(0.09)
Net income (loss)	**2.27**	**2.44**	**1.34**	**(0.04)**

Diluted earnings per share

($ in millions, except per share data in $)	Year ended December 31, 2021	2020	Three months ended December 31, 2021	2020
Amounts attributable to ABB shareholders:				
Income from continuing operations, net of tax	4,625	294	2,674	104
Income (loss) from discontinued operations, net of tax	(79)	4,852	(34)	(183)
Net income (loss)	**4,546**	**5,146**	**2,640**	**(79)**
Weighted-average number of shares outstanding (in millions)	2,001	2,111	1,974	2,059
Effect of dilutive securities:				
Call options and shares	18	8	17	12
Adjusted weighted-average number of shares outstanding (in millions)	**2,019**	**2,119**	**1,991**	**2,071**
Diluted earnings per share attributable to ABB shareholders:				
Income from continuing operations, net of tax	2.29	0.14	1.34	0.05
Income (loss) from discontinued operations, net of tax	(0.04)	2.29	(0.02)	(0.09)
Net income (loss)	**2.25**	**2.43**	**1.33**	**(0.04)**

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Note 16
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	Derivative instruments and hedges	Total OCI
Balance at January 1, 2020	**(3,450)**	**10**	**(2,145)**	**(5)**	**(5,590)**
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	498	24	(157)	2	**367**
Amounts reclassified from OCI	519	(17)	746	–	**1,248**
Total other comprehensive (loss) income	**1,017**	**7**	**589**	**2**	**1,615**
Less:					
Amounts attributable to noncontrolling interests	27	–	–	–	**27**
Balance at December 31, 2020	**(2,460)**	**17**	**(1,556)**	**(3)**	**(4,002)**
Other comprehensive (loss) income:					
Other comprehensive (loss) income before reclassifications	(521)	(10)	411	8	**(112)**
Amounts reclassified from OCI	(9)	(5)	56	(13)	**29**
Total other comprehensive (loss) income	**(530)**	**(15)**	**467**	**(5)**	**(83)**
Less:					
Amounts attributable to noncontrolling interests	4	–	–	–	**4**
Balance at December 31, 2021[(1)]	**(2,993)**	**2**	**(1,089)**	**(8)**	**(4,088)**

(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	Year ended December 31,		Three months ended December 31,	
Details about OCI components	**reclassified from OCI**	**2021**	**2020**	**2021**	**2020**
Foreign currency translation adjustments:					
Currency translation loss (gain): - Divestment of Power Grids business (see Note 3)	Income from discontinued operations, net of tax	–	420	–	(19)
Currency translation loss: - Divestment of solar inverters business (see Note 4)	Other income (expense), net	–	99	–	–
Currency translation gain: - Divestment of other businesses	Other income (expense), net	(9)	–	(9)	–
Amounts reclassified from OCI		(9)	**519**	(9)	**(19)**
Pension and other postretirement plan adjustments:					
Amortization of prior service cost (credit)	Non-operational pension (cost) credit(1)	(14)	(11)	(5)	(4)
Amortization of net actuarial loss	Non-operational pension (cost) credit(1)	65	113	14	30
Net gain (loss) from settlements and curtailments	Non-operational pension (cost) credit(1)	7	650	8	163
Reclassification of OCI relating to pensions on divestment of the Power Grids business	Income from discontinued operations, net of tax	–	186	–	100
Reclassification of OCI relating to pensions on divestment of other businesses	Other income (expense), net	(8)	–	(8)	–
Total before tax		**50**	**938**	**9**	**289**
Tax	Income tax expense	4	(157)	(5)	(30)
Reclassification of OCI relating to tax on pensions on divestment of the Power Grids business	Income from discontinued operations, net of tax	–	(35)	–	–
Reclassification of OCI relating to pensions on divestment of other businesses	Other income (expense), net	2	–	2	–
Amounts reclassified from OCI		**56**	**746**	**6**	**259**

(1) Amounts include total credits of $94 million for the year ended December 31, 2020, reclassified from OCI to Income from discontinued operations.

The amounts in respect of Unrealized gains (losses) on available-for-sale securities and Derivative instruments and hedges were not significant for the year and three months ended December 31, 2021 and 2020.

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Note 17
Restructuring and related expenses

OS program

From December 2018 to December 2020, the Company executed a two-year restructuring program with the objective to simplify the Company's business model and structure through the implementation of a new organizational structure driven by its businesses. The program resulted in the elimination of the country and regional structures within the previous matrix organization, including the elimination of the three regional Executive Committee roles. The operating businesses are now responsible for both their customer-facing activities and business support functions, while the remaining Group-level corporate activities primarily focus on Group strategy, portfolio and performance management and capital allocation.

As of December 31, 2020, the Company had incurred substantially all costs related to the OS program.

Liabilities associated with the OS program are included primarily in Other provisions. The following table shows the activity from the beginning of the program to December 31, 2021, by expense type:

($ in millions)	Employee severance costs	Contract settlement, loss order and other costs	Total
Liability at January 1, 2018	**–**	**–**	**–**
Expenses	65	–	**65**
Liability at December 31, 2018	**65**	**–**	**65**
Expenses	111	1	**112**
Cash payments	(44)	(1)	**(45)**
Change in estimates	(30)	–	**(30)**
Exchange rate differences	(3)	–	**(3)**
Liability at December 31, 2019	**99**	**–**	**99**
Expenses	119	17	**136**
Cash payments	(91)	(15)	**(106)**
Change in estimates	(10)	–	**(10)**
Exchange rate differences	4	–	**4**
Liability at December 31, 2020	**121**	2	**123**
Expenses	12	2	**14**
Cash payments	(65)	(3)	**(68)**
Change in estimates	(10)	–	**(10)**
Exchange rate differences	(6)	–	**(6)**
Liability at December 31, 2021	**52**	1	**53**

The following table outlines the costs incurred in the year and three months ended December 31, 2020, and the cumulative net costs incurred to December 31, 2020:

	Net cost incurred		Cumulative net
($ in millions)	Year ended December 31, 2020	Three months ended December 31, 2020	cost incurred up to December 31, 2020
Electrification	35	2	85
Motion	18	8	25
Process Automation [1]	37	30	61
Robotics & Discrete Automation	10	1	18
Corporate and Other	49	22	114
Total	**149**	**63**	**303**

(1) Formerly named the Industrial Automation operating segment.

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

($ in millions)	Year ended December 31, 2020	Three months ended December 31, 2020	Cumulative costs incurred up to December 31, 2020
Employee severance costs	109	55	255
Estimated contract settlement, loss order and other costs	17	4	18
Inventory and long-lived asset impairments	23	4	30
Total	**149**	**63**	**303**

Expenses, net of changes in estimates, associated with this program are recorded in the following line items in the Consolidated Income Statements:

($ in millions)	Year ended December 31, 2020	Three months ended December 31, 2020
Total cost of sales	38	15
Selling, general and administrative expenses	37	27
Non-order related research and development expenses	4	4
Other income (expense), net	70	17
Total	**149**	**63**

Other restructuring-related activities
In addition, during 2021 and 2020, the Company executed various other restructuring-related activities and incurred the following charges, net of changes in estimates:

	Year ended December 31,		Three months ended December 31,	
($ in millions)	2021	2020	2021	2020
Employee severance costs	101	164	57	127
Estimated contract settlement, loss order and other costs	31	18	16	2
Inventory and long-lived asset impairments	24	12	7	8
Total	**156**	**194**	**80**	**137**

Expenses associated with these activities are recorded in the following line items in the Consolidated Income Statements:

	Year ended December 31,		Three months ended December 31,	
($ in millions)	2021	2020	2021	2020
Total cost of sales	71	95	35	82
Selling, general and administrative expenses	21	50	11	34
Non-order related research and development expenses	2	10	2	9
Other income (expense), net	62	39	32	12
Total	**156**	**194**	**80**	**137**

In 2021, the Company initiated a plan to fully exit a product group within one of its non-core businesses. The exit activities are expected to be completed by the end of 2022 and incur restructuring-related expenses of between $150 million and $200 million, primarily relating to contract settlements. In the year and three months ended December 31, 2021, $8 million has been recorded in Other income (expense), net, in relation to these exit activities. These costs will only be recorded in 2022 as certain required contractual elements will only be effective in 2022.

At December 31, 2021 and 2020, $212 million and $233 million, respectively, were recorded for other restructuring-related liabilities and were included primarily in Other provisions.

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Note 18
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 is organized into the following segments, based on products and services: Electrification, Motion, Process Automation, and Robotics & Discrete Automation. The remaining operations of the Company are included in Corporate and Other.

Effective January 1, 2021, the Industrial Automation segment was renamed the Process Automation segment. In addition, the Company changed its method of allocating real estate assets to its operating segments whereby these assets are now accounted for directly in the individual operating segment which utilizes the asset rather than as a cost recharged to the operating segment from Corporate and Other. As a result, while this change had no impact on segment revenues or profits (Operational EBITA), certain real estate assets previously reported within Corporate and Other have been allocated to the total segment assets of each individual operating segment. Total assets at December 31, 2020, has been recast to reflect this allocation change.

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

- Electrification: manufactures and sells electrical products and solutions which are designed to provide safe, smart and sustainable electrical flow from the substation to the socket. The portfolio of increasingly digital and connected solutions includes electric vehicle charging infrastructure, renewable 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. The products and services are delivered through six operating Divisions: Distribution Solutions, Smart Power, Smart Buildings, E-Mobility, Installation Products and Power Conversion.

- Motion: manufactures and sells drives, motors, generators, traction converters and mechanical power transmission products that are driving the low-carbon future for industries, cities, infrastructure and transportation. These products, digital technology and related services enable industrial customers to increase energy efficiency, improve safety and reliability, and achieve precise control of their processes. Building on over 130 years of cumulative experience in electric powertrains, the Business Area combines domain expertise and technology to deliver the optimum solution for a wide range of applications in all industrial segments. In addition, the Business Area, along with its partners, has a leading global service presence. These products and services are delivered through eight operating Divisions: Large Motors and Generators, IEC LV Motors, NEMA Motors, Drive Products, System Drives, Service, Traction and, until October 2021, Mechanical Power Transmission.

- Process Automation: develops and sells a broad range of industry-specific, integrated automation, electrification and digital systems and solutions, as well as digital solutions, lifecycle services, advanced industrial analytics and artificial intelligence applications and suites for the process, marine and hybrid industries. Products and solutions include control technologies, advanced process control software and manufacturing execution systems, sensing, measurement and analytical instrumentation, marine propulsion systems and turbochargers. In addition, the Business Area offers a comprehensive range of services ranging from repair to advanced services such as remote monitoring, preventive maintenance, asset performance management, emission monitoring and cybersecurity services. The products, systems and services are delivered through five operating Divisions: Energy Industries, Process Industries, Marine & Ports, Turbocharging, and Measurement & Analytics.

- Robotics & Discrete Automation: delivers its products, solutions and services through two operating Divisions: Robotics and Machine Automation. Robotics includes industrial robots, software, robotic solutions and systems, field services, spare parts, and digital services. Machine Automation specializes in solutions based on its programmable logic controllers (PLC), industrial PCs (IPC), servo motion, transport systems and machine vision. Both Divisions offer engineering and simulation software as well as a comprehensive range of digital solutions.

Corporate and Other: includes headquarter costs, the Company's corporate real estate activities, Corporate Treasury Operations, historical operating activities of certain divested businesses and other non-core operating activities.

The primary measure of profitability on which the operating segments are evaluated is Operational EBITA, which represents income from operations excluding:

- amortization expense on intangibles arising upon acquisition (acquisition-related amortization),
- restructuring, related and implementation costs,
- 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 (including fair value adjustment on assets and liabilities held for sale),
- acquisition- and divestment-related expenses and integration costs,
- other income/expense relating to the Power Grids joint venture,
- 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).

Certain other non-operational items generally includes certain regulatory, compliance and legal costs, certain asset write downs/impairments (including impairment of goodwill) and certain other fair value changes, as well as other items which are determined by management on a case-by-case basis.

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 year and three months ended December 31, 2021 and 2020, as well as total assets at December 31, 2021 and 2020.

	Year ended December 31, 2021					
($ in millions)	**Electrification**	**Motion**	**Process Automation**	**Robotics & Discrete Automation**	**Corporate and Other**	**Total**
Geographical markets						
Europe	4,517	2,015	2,416	1,578	3	**10,529**
The Americas	4,465	2,346	1,431	439	5	**8,686**
of which: United States	3,304	1,952	833	308	–	**6,397**
Asia, Middle East and Africa	3,975	2,111	2,367	1,270	7	**9,730**
of which: China	2,087	1,156	740	949	–	**4,932**
	12,957	**6,472**	**6,214**	**3,287**	**15**	**28,945**
Product type						
Products	10,706	5,555	1,496	2,159	4	**19,920**
Systems	1,367	–	1,802	645	11	**3,825**
Services and other	884	917	2,916	483	–	**5,200**
	12,957	**6,472**	**6,214**	**3,287**	**15**	**28,945**
Third-party revenues	12,957	6,472	6,214	3,287	15	**28,945**
Intersegment revenues	230	453	45	10	(738)	**–**
Total revenues(2)	**13,187**	**6,925**	**6,259**	**3,297**	**(723)**	**28,945**

($ in millions)	Year ended December 31, 2020 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Total
Geographical markets						
Europe	4,008	1,934	2,322	1,429	15	**9,708**
The Americas	4,050	2,173	1,321	385	7	**7,936**
of which: United States	3,093	1,846	805	270	5	**6,019**
Asia, Middle East and Africa	3,506	1,807	2,038	1,024	7	**8,382**
of which: China	1,820	926	628	714	3	**4,091**
	11,564	**5,914**	**5,681**	**2,838**	**29**	**26,026**
Product type						
Products	9,951	5,040	1,263	1,635	53	**17,942**
Systems	743	–	1,665	780	(24)	**3,164**
Services and other	870	874	2,753	423	–	**4,920**
	11,564	**5,914**	**5,681**	**2,838**	**29**	**26,026**
Third-party revenues	11,564	5,914	5,681	2,838	29	**26,026**
Intersegment revenues[(1)]	360	495	111	69	(927)	**108**
Total revenues[(2)]	**11,924**	**6,409**	**5,792**	**2,907**	**(898)**	**26,134**

($ in millions)	Three months ended December 31, 2021 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Total
Geographical markets						
Europe	1,160	532	700	377	(13)	**2,756**
The Americas	1,153	514	421	108	2	**2,198**
of which: United States	839	412	256	72	–	**1,579**
Asia, Middle East and Africa	1,070	557	673	313	–	**2,613**
of which: China	510	295	193	235	–	**1,233**
	3,383	**1,603**	**1,794**	**798**	**(11)**	**7,567**
Product type						
Products	2,600	1,353	399	520	(11)	**4,861**
Systems	543	–	544	153	–	**1,240**
Services and other	240	250	851	125	–	**1,466**
	3,383	**1,603**	**1,794**	**798**	**(11)**	**7,567**
Third-party revenues	3,383	1,603	1,794	798	(11)	**7,567**
Intersegment revenues	62	132	11	1	(206)	**–**
Total revenues[(2)]	**3,445**	**1,735**	**1,805**	**799**	**(217)**	**7,567**

($ in millions)	Three months ended December 31, 2020 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Total
Geographical markets						
Europe	1,156	538	617	398	1	**2,710**
The Americas	1,084	527	334	96	4	**2,045**
of which: United States	797	442	189	67	2	**1,497**
Asia, Middle East and Africa	1,054	522	578	291	(18)	**2,427**
of which: China	550	268	195	216	2	**1,231**
	3,294	**1,587**	**1,529**	**785**	**(13)**	**7,182**
Product type						
Products	2,876	1,338	399	435	4	**5,052**
Systems	160	–	399	229	(17)	**771**
Services and other	258	249	731	121	–	**1,359**
	3,294	**1,587**	**1,529**	**785**	**(13)**	**7,182**
Third-party revenues	3,294	1,587	1,529	785	(13)	**7,182**
Intersegment revenues[(1)]	62	118	16	16	(212)	**–**
Total revenues[(2)]	**3,356**	**1,705**	**1,545**	**801**	**(225)**	**7,182**

(1) Intersegment revenues until June 30, 2020, include sales to the Power Grids business which is presented as discontinued operations and therefore these sales are not eliminated from total revenues.
(2) Due to rounding, numbers presented may not add to the totals provided.

($ in millions)	Year ended December 31, 2021	Year ended December 31, 2020	Three months ended December 31, 2021	Three months ended December 31, 2020
Operational EBITA:				
Electrification	2,121	1,681	507	522
Motion	1,183	1,075	278	285
Process Automation	801	451	247	103
Robotics & Discrete Automation	355	237	64	59
Corporate and Other				
– Non-core and divested businesses	(39)	(133)	–	(26)
– Stranded corporate costs	–	(40)	–	–
– Corporate costs and Other Intersegment elimination	(299)	(372)	(108)	(118)
Total	**4,122**	**2,899**	**988**	**825**
Acquisition-related amortization	(250)	(263)	(59)	(66)
Restructuring, related and implementation costs[(1)]	(160)	(410)	(79)	(220)
Changes in obligations related to divested businesses	(9)	(218)	7	(14)
Changes in pre-acquisition estimates	6	(11)	–	–
Gains and losses from sale of businesses	2,193	(2)	2,184	2
Fair value adjustment on assets and liabilities held for sale	–	(33)	–	–
Acquisition- and divestment-related expenses and integration costs	(132)	(74)	(58)	(31)
Other income/expense relating to the Power Grids joint venture	(34)	(20)	–	(5)
Foreign exchange/commodity timing differences in income from operations:				
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(54)	67	52	45
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(2)	26	(7)	16
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	20	(33)	(13)	(17)
Certain other non-operational items:				
Costs for divestment of Power Grids	–	(86)	–	24
Regulatory, compliance and legal costs	–	(7)	3	(1)
Business transformation costs[(2)]	(92)	(37)	(33)	(18)
Favorable resolution of an uncertain purchase price adjustment	6	36	1	28
Certain other fair value changes, including asset impairments[(3)]	119	(239)	1	1
Other non-operational items	(15)	(2)	(12)	9
Income from operations	**5,718**	**1,593**	**2,975**	**578**
Interest and dividend income	51	51	14	12
Interest and other finance expense	(148)	(240)	(40)	(49)
Losses from extinguishment of debt	–	(162)	–	(162)
Non-operational pension (cost) credit	166	(401)	36	(129)
Income from continuing operations before taxes	**5,787**	**841**	**2,985**	**250**

(1) Amount includes implementation costs in relation to the OS program of $67 million and $20 million for the year and three months ended December 31, 2020, respectively.
(2) Amount includes ABB Way process transformation costs of $80 million and $28 million for the year and three months ended December 31, 2021, respectively.
(3) Amount in 2020 includes goodwill impairment charges of $311 million.

($ in millions)	Total assets[(1)] December 31, 2021	Total assets[(1)] December 31, 2020
Electrification	12,831	12,800
Motion	5,936	6,495
Process Automation	5,009	5,008
Robotics & Discrete Automation	4,860	4,794
Corporate and Other[(2)]	11,624	11,991
Consolidated	**40,260**	**41,088**

(1) Total assets are after intersegment eliminations and therefore reflect third-party assets only.
(2) At December 31, 2021 and 2020, respectively, Corporate and Other includes $136 million and $282 million of assets in the Power Grids business which is reported as discontinued operations (see Note 3). In addition, at December 31, 2021 and 2020, Corporate and Other includes $1,609 million and $1,710 million, respectively, related to the equity investment in Hitachi Energy Ltd (see Note 4).

Supplemental Reconciliations and Definitions

The following reconciliations and definitions include measures which ABB uses to supplement its 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 Consolidated Financial Information (unaudited) prepared in accordance with U.S. GAAP as of and for the year and three months ended December 31, 2021.

On January 1, 2020, the Company adopted a new accounting update for the measurement of credit losses on financial instruments. Consistent with the method of adoption elected, comparable information has not been restated to reflect the adoption of this new standard and accounting update and continues to be measured and reported under the accounting standard in effect for those periods presented.

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.

Comparable growth rate reconciliation by Business Area

	Q4 2021 compared to Q4 2020							
	Order growth rate				Revenue growth rate			
Business Area	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**
Electrification	18%	2%	0%	**20%**	3%	1%	0%	**4%**
Motion	19%	2%	8%	**29%**	2%	1%	6%	**9%**
Process Automation	-1%	1%	0%	**0%**	17%	2%	0%	**19%**
Robotics & Discrete Automation	57%	3%	-1%	**59%**	0%	2%	-3%	**-1%**
ABB Group	**18%**	**2%**	**1%**	**21%**	**5%**	**2%**	**1%**	**8%**

	FY 2021 compared to FY 2020							
	Order growth rate				Revenue growth rate			
Business Area	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**
Electrification	21%	-3%	0%	**18%**	11%	-3%	1%	**9%**
Motion	16%	-3%	1%	**14%**	8%	-3%	2%	**7%**
Process Automation	10%	-3%	0%	**7%**	8%	-3%	0%	**5%**
Robotics & Discrete Automation	34%	-5%	0%	**29%**	13%	-4%	0%	**9%**
ABB Group	**20%**	**-3%**	**0%**	**17%**	**11%**	**-3%**	**0%**	**8%**

Regional comparable growth rate reconciliation

Regional comparable growth rate reconciliation for ABB Group - Quarter

	Q4 2021 compared to Q4 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	26%	5%	0%	**31%**	2%	4%	0%	**6%**
The Americas	32%	0%	6%	**38%**	7%	0%	5%	**12%**
of which: United States	38%	0%	8%	**46%**	5%	0%	6%	**11%**
Asia, Middle East and Africa	-1%	-1%	0%	**-2%**	8%	0%	-1%	**7%**
of which: China	17%	-3%	0%	**14%**	0%	-2%	0%	**-2%**
ABB Group	**18%**	**2%**	**1%**	**21%**	**5%**	**2%**	**1%**	**8%**

Regional comparable growth rate reconciliation by Business Area - Quarter

	Q4 2021 compared to Q4 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	15%	4%	0%	**19%**	1%	5%	0%	**6%**
The Americas	41%	-1%	0%	**40%**	7%	0%	0%	**7%**
of which: United States	42%	0%	0%	**42%**	6%	0%	0%	**6%**
Asia, Middle East and Africa	0%	-1%	0%	**-1%**	1%	-1%	0%	**0%**
of which: China	-3%	-3%	0%	**-6%**	-8%	-2%	0%	**-10%**
Electrification	**18%**	**2%**	**0%**	**20%**	**3%**	**1%**	**0%**	**4%**

	Q4 2021 compared to Q4 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	32%	6%	1%	**39%**	5%	5%	0%	**10%**
The Americas	15%	1%	21%	**37%**	-3%	1%	18%	**16%**
of which: United States	13%	0%	0%	**13%**	-6%	0%	0%	**-6%**
Asia, Middle East and Africa	9%	0%	0%	**9%**	3%	-1%	1%	**3%**
of which: China	4%	-3%	0%	**1%**	2%	-3%	0%	**-1%**
Motion	**19%**	**2%**	**8%**	**29%**	**2%**	**1%**	**6%**	**9%**

	Q4 2021 compared to Q4 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	7%	4%	0%	**11%**	13%	3%	0%	**16%**
The Americas	31%	2%	0%	**33%**	26%	1%	0%	**27%**
of which: United States	86%	0%	0%	**86%**	36%	0%	0%	**36%**
Asia, Middle East and Africa	-22%	-1%	0%	**-23%**	16%	1%	0%	**17%**
of which: China	89%	-2%	0%	**87%**	-1%	-2%	0%	**-3%**
Process Automation	**-1%**	**1%**	**0%**	**0%**	**17%**	**2%**	**0%**	**19%**

	Q4 2021 compared to Q4 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	70%	8%	-3%	**75%**	-8%	4%	-4%	**-8%**
The Americas	50%	1%	0%	**51%**	13%	1%	0%	**14%**
of which: United States	46%	0%	0%	**46%**	6%	-1%	0%	**5%**
Asia, Middle East and Africa	44%	-3%	0%	**41%**	7%	-2%	0%	**5%**
of which: China	39%	-5%	0%	**34%**	8%	-3%	0%	**5%**
Robotics & Discrete Automation	**57%**	**3%**	**-1%**	**59%**	**0%**	**2%**	**-3%**	**-1%**

Regional comparable growth rate reconciliation for ABB Group – Year to date

	FY 2021 compared to FY 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	24%	-4%	0%	**20%**	8%	-3%	0%	**5%**
The Americas	25%	-1%	1%	**25%**	9%	0%	1%	**10%**
of which: United States	25%	0%	2%	**27%**	6%	0%	2%	**8%**
Asia, Middle East and Africa	13%	-5%	0%	**8%**	16%	-4%	0%	**12%**
of which: China	23%	-8%	0%	**15%**	21%	-8%	1%	**14%**
ABB Group	**20%**	**-3%**	**0%**	**17%**	**11%**	**-3%**	**0%**	**8%**

Regional comparable growth rate reconciliation by Business Area – Year to date

	FY 2021 compared to FY 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	21%	-3%	0%	**18%**	10%	-2%	0%	**8%**
The Americas	29%	-1%	0%	**28%**	10%	-1%	1%	**10%**
of which: United States	27%	0%	0%	**27%**	7%	0%	0%	**7%**
Asia, Middle East and Africa	12%	-4%	0%	**8%**	11%	-4%	1%	**8%**
of which: China	18%	-7%	0%	**11%**	14%	-7%	0%	**7%**
Electrification	**21%**	**-3%**	**0%**	**18%**	**11%**	**-3%**	**1%**	**9%**

	FY 2021 compared to FY 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	18%	-4%	1%	**15%**	3%	-3%	0%	**0%**
The Americas	18%	-1%	4%	**21%**	8%	-1%	4%	**11%**
of which: United States	16%	0%	0%	**16%**	6%	0%	0%	**6%**
Asia, Middle East and Africa	12%	-5%	0%	**7%**	14%	-5%	1%	**10%**
of which: China	14%	-7%	0%	**7%**	21%	-8%	0%	**13%**
Motion	**16%**	**-3%**	**1%**	**14%**	**8%**	**-3%**	**2%**	**7%**

	FY 2021 compared to FY 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	11%	-5%	0%	**6%**	2%	-4%	0%	**-2%**
The Americas	21%	-1%	0%	**20%**	8%	-1%	0%	**7%**
of which: United States	36%	0%	0%	**36%**	3%	0%	0%	**3%**
Asia, Middle East and Africa	4%	-4%	0%	**0%**	15%	-4%	0%	**11%**
of which: China	39%	-8%	0%	**31%**	18%	-7%	0%	**11%**
Process Automation	**10%**	**-3%**	**0%**	**7%**	**8%**	**-3%**	**0%**	**5%**

	FY 2021 compared to FY 2020							
	Order growth rate				Revenue growth rate			
Region	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable	US$ (as reported)	Foreign exchange impact	Portfolio changes	Comparable
Europe	39%	-4%	-1%	**34%**	7%	-3%	-2%	**2%**
The Americas	37%	-2%	0%	**35%**	13%	-1%	0%	**12%**
of which: United States	34%	0%	0%	**34%**	13%	0%	0%	**13%**
Asia, Middle East and Africa	27%	-7%	0%	**20%**	23%	-6%	0%	**17%**
of which: China	25%	-8%	0%	**17%**	32%	-8%	0%	**24%**
Robotics & Discrete Automation	**34%**	**-5%**	**0%**	**29%**	**13%**	**-4%**	**0%**	**9%**

Order backlog growth rate reconciliation

	December 31, 2021 compared to December 31, 2020			
Business Area	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**
Electrification	25%	4%	0%	**29%**
Motion	13%	7%	0%	**20%**
Process Automation	5%	5%	0%	**10%**
Robotics & Discrete Automation	37%	6%	0%	**43%**
ABB Group	**16%**	**5%**	**0%**	**21%**

Other growth rate reconciliations

	Q4 2021 compared to Q4 2020							
	Service orders growth rate				**Services revenues growth rate**			
Business Area	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**
Electrification	7%	2%	0%	**9%**	-7%	2%	0%	**-5%**
Motion	9%	2%	0%	**11%**	1%	2%	0%	**3%**
Process Automation	19%	2%	0%	**21%**	16%	3%	0%	**19%**
Robotics & Discrete Automation	5%	2%	0%	**7%**	3%	3%	0%	**6%**
ABB Group	**14%**	**2%**	**0%**	**16%**	**8%**	**2%**	**0%**	**10%**

	FY 2021 compared to FY 2020							
	Service orders growth rate				**Services revenues growth rate**			
Business Area	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**	**US$ (as reported)**	**Foreign exchange impact**	**Portfolio changes**	**Comparable**
Electrification	11%	-3%	0%	**8%**	2%	-2%	0%	**0%**
Motion	9%	-3%	0%	**6%**	5%	-2%	0%	**3%**
Process Automation	15%	-3%	0%	**12%**	6%	-3%	0%	**3%**
Robotics & Discrete Automation	22%	-3%	0%	**19%**	14%	-2%	0%	**12%**
ABB Group	**14%**	**-3%**	**0%**	**11%**	**6%**	**-3%**	**0%**	**3%**

Operational EBITA as % of operational revenues (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, related and implementation costs,
- 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 (including fair value adjustment on assets and liabilities held for sale),
- acquisition- and divestment-related expenses and integration costs,
- other income/expense relating to the Power Grids joint venture,
- 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).

Certain other non-operational items generally includes certain regulatory, compliance and legal costs, certain asset impairments (including impairment of goodwill) and certain other fair value changes, as well as other items which are determined by management on a case-by-case basis.

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.

Restructuring, related and implementation costs

Restructuring, related and implementation costs consists of restructuring and other related expenses, as well as internal and external costs relating to the implementation of group-wide restructuring programs.

Other income/expense relating to the Power Grids joint venture

Other income/expense relating to the Power Grids joint venture consists of amounts recorded in Income from continuing operations before taxes relating to the divested Power Grids business including the income/loss under the equity method for the investment in Hitachi Energy Ltd. (Hitachi Energy), amortization of deferred brand income as well as changes in value of other obligations relating to the divestment.

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 business.

Reconciliation of consolidated Operational EBITA to Net Income

	Year ended December 31,		Three months ended December 31,	
($ in millions)	2021	2020	2021	2020
Operational EBITA	**4,122**	**2,899**	**988**	**825**
Acquisition-related amortization	(250)	(263)	(59)	(66)
Restructuring, related and implementation costs(1)	(160)	(410)	(79)	(220)
Changes in obligations related to divested businesses	(9)	(218)	7	(14)
Changes in pre-acquisition estimates	6	(11)	–	–
Gains and losses from sale of businesses	2,193	(2)	2,184	2
Fair value adjustment on assets and liabilities held for sale	–	(33)	–	–
Acquisition- and divestment-related expenses and integration costs	(132)	(74)	(58)	(31)
Other income/expense relating to the Power Grids joint venture	(34)	(20)	–	(5)
Certain other non-operational items(2)	18	(335)	(40)	43
Foreign exchange/commodity timing differences in income from operations	(36)	60	32	44
Income from operations	**5,718**	**1,593**	**2,975**	**578**
Interest and dividend income	51	51	14	12
Interest and other finance expense	(148)	(240)	(40)	(49)
Losses on extinguishment of debt	–	(162)	–	(162)
Non-operational pension (cost) credit	166	(401)	36	(129)
Income from continuing operations before taxes	**5,787**	**841**	**2,985**	**250**
Income tax expense	(1,057)	(496)	(282)	(123)
Income from continuing operations, net of tax	**4,730**	**345**	**2,703**	**127**
Income (loss) from discontinued operations, net of tax	(80)	4,860	(35)	(183)
Net income	**4,650**	**5,205**	**2,668**	**(56)**

(1) Amounts include implementation costs in relation to the OS program of $67 million and $20 million for the year and three months ended December 31, 2020, respectively.
(2) Amounts include goodwill impairment charges of $311 million for the year ended December 31, 2020

Reconciliation of Operational EBITA margin by business

	Three months ended December 31, 2021					
($ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
Total revenues	**3,445**	**1,735**	**1,805**	**799**	**(217)**	**7,567**
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(20)	(13)	(10)	(4)	(7)	**(54)**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	–	4	(1)	2	**6**
Unrealized foreign exchange movements on receivables (and related assets)	(3)	3	1	–	3	**4**
Operational revenues	**3,423**	**1,725**	**1,800**	**794**	**(219)**	**7,523**
Income (loss) from operations	**418**	**2,464**	**193**	**45**	**(145)**	**2,975**
Acquisition-related amortization	29	7	2	21	–	**59**
Restructuring, related and implementation costs	34	4	33	1	7	**79**
Changes in obligations related to divested businesses	–	–	–	–	(7)	**(7)**
Gains and losses from sale of businesses	9	(2,195)	–	–	2	**(2,184)**
Acquisition- and divestment-related expenses and integration costs	34	7	18	–	(1)	**58**
Other income/expense relating to the Power Grids joint venture	–	–	–	–	–	**–**
Certain other non-operational items	8	–	(2)	–	34	**40**
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(30)	(12)	(2)	(3)	(5)	**(52)**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	–	5	–	1	**7**
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	4	3	–	–	6	**13**
Operational EBITA	**507**	**278**	**247**	**64**	**(108)**	**988**
Operational EBITA margin (%)	**14.8%**	**16.1%**	**13.7%**	**8.1%**	**n.a.**	**13.1%**

In the three months ended December 31, 2021, Certain other non-operational items in the table above includes the following:

	Three months ended December 31, 2021					
($ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Consolidated
Certain other non-operational items:						
Regulatory, compliance and legal costs	–	–	–	–	(3)	**(3)**
Certain other fair values changes, including asset impairments	1	–	–	–	(2)	**(1)**
Business transformation costs(1)	10	–	–	–	23	**33**
Favorable resolution of an uncertain purchase price adjustment	–	–	(1)	–	–	**(1)**
Other non-operational items	(3)	–	(1)	–	16	**12**
Total	**8**	**–**	**(2)**	**–**	**34**	**40**

(1) Amounts include ABB Way process transformation costs of $28 million for the three months ended December 31, 2021.

	Three months ended December 31, 2020					
($ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
Total revenues	**3,356**	**1,705**	**1,545**	**801**	**(225)**	**7,182**
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(25)	(8)	(21)	(2)	–	**(56)**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(2)	–	(15)	(1)	(2)	**(20)**
Unrealized foreign exchange movements on receivables (and related assets)	12	4	13	6	4	**39**
Operational revenues	**3,341**	**1,701**	**1,522**	**804**	**(223)**	**7,145**
Income (loss) from operations	**444**	**258**	**28**	**23**	**(175)**	**578**
Acquisition-related amortization	29	13	1	20	3	**66**
Restructuring, related and implementation costs	62	24	88	12	34	**220**
Changes in obligations related to divested businesses	–	–	–	–	14	**14**
Gains and losses from sale of businesses	(2)	–	–	–	–	**(2)**
Acquisition- and divestment-related expenses and integration costs	31	–	1	–	(1)	**31**
Other income/expense relating to the Power Grids joint venture	–	–	–	–	5	**5**
Certain other non-operational items	(22)	4	–	2	(27)	**(43)**
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(22)	(16)	(12)	(1)	6	**(45)**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(2)	–	(11)	(1)	(2)	**(16)**
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	4	2	8	4	(1)	**17**
Operational EBITA	**522**	**285**	**103**	**59**	**(144)**	**825**
Operational EBITA margin (%)	**15.6%**	**16.8%**	**6.8%**	**7.3%**	**n.a.**	**11.5%**

In the three months ended December 31, 2020, Certain other non-operational items in the table above includes the following:

	Three months ended December 31, 2020					
($ in millions, unless otherwise indicated)	Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Consolidated
Certain other non-operational items:						
Costs for planned divestment of Power Grids	–	–	–	–	(24)	**(24)**
Regulatory, compliance and legal costs	–	–	–	–	1	**1**
Certain other fair values changes, including asset impairments	–	–	–	–	(1)	**(1)**
Business transformation costs	4	4	–	2	8	**18**
Favorable resolution of an uncertain purchase price adjustment	(28)	–	–	–	–	**(28)**
Other non-operational items	2	–	–	–	(11)	**(9)**
Total	**(22)**	**4**	**–**	**2**	**(27)**	**(43)**

($ in millions, unless otherwise indicated)	Year ended December 31, 2021 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
Total revenues	**13,187**	**6,925**	**6,259**	**3,297**	**(723)**	**28,945**
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	17	4	9	1	(4)	**27**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	3	1	2	(2)	–	**4**
Unrealized foreign exchange movements on receivables (and related assets)	(19)	(3)	(6)	(6)	2	**(32)**
Operational revenues	**13,188**	**6,927**	**6,264**	**3,290**	**(725)**	**28,944**
Income (loss) from operations	**1,841**	**3,276**	**713**	**269**	**(381)**	**5,718**
Acquisition-related amortization	117	43	5	83	2	**250**
Restructuring, related and implementation costs	66	22	48	7	17	**160**
Changes in obligations related to divested businesses	–	–	–	–	9	**9**
Changes in pre-acquisition estimates	(6)	–	–	–	–	**(6)**
Gains and losses from sale of businesses	13	(2,196)	(13)	–	3	**(2,193)**
Acquisition- and divestment-related expenses and integration costs	70	26	35	1	–	**132**
Other income/expense relating to the Power Grids joint venture	–	–	–	–	34	**34**
Certain other non-operational items	(5)	1	1	–	(15)	**(18)**
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	33	14	15	(2)	(6)	**54**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	1	–	4	(1)	(2)	**2**
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	(9)	(3)	(7)	(2)	1	**(20)**
Operational EBITA	**2,121**	**1,183**	**801**	**355**	**(338)**	**4,122**
Operational EBITA margin (%)	**16.1%**	**17.1%**	**12.8%**	**10.8%**	**n.a.**	**14.2%**

In the year ended December 31, 2021, Certain other non-operational items in the table above includes the following:

($ in millions, unless otherwise indicated)	Year ended December 31, 2021 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Consolidated
Certain other non-operational items:						
Certain other fair values changes, including asset impairments	(15)	–	–	–	(104)	**(119)**
Business transformation costs[(1)]	17	–	–	–	75	**92**
Favorable resolution of an uncertain purchase price adjustment	(5)	–	(1)	–	–	**(6)**
Other non-operational items	(2)	1	2	–	14	**15**
Total	**(5)**	**1**	**1**	**–**	**(15)**	**(18)**

(1) Amounts include ABB Way process transformation costs of $80 million for the year ended December 31, 2021.

($ in millions, unless otherwise indicated)	Year ended December 31, 2020 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other and Intersegment elimination	Consolidated
Total revenues	**11,924**	**6,409**	**5,792**	**2,907**	**(898)**	**26,134**
Foreign exchange/commodity timing differences in total revenues:						
Unrealized gains and losses on derivatives	(11)	(5)	(15)	(3)	4	**(30)**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(2)	–	(20)	1	(8)	**(29)**
Unrealized foreign exchange movements on receivables (and related assets)	–	(2)	5	2	13	**18**
Operational revenues	**11,911**	**6,402**	**5,762**	**2,907**	**(889)**	**26,093**
Income (loss) from operations	**1,335**	**989**	**344**	**(163)**	**(912)**	**1,593**
Acquisition-related amortization	115	52	4	78	14	**263**
Restructuring, related and implementation costs	145	44	125	26	70	**410**
Changes in obligations related to divested businesses	15	–	–	–	203	**218**
Changes in pre-acquisition estimates	11	–	–	–	–	**11**
Gains and losses from sale of businesses	4	–	–	–	(2)	**2**
Fair value adjustment on assets and liabilities held for sale	33	–	–	–	–	**33**
Acquisition- and divestment-related expenses and integration costs	71	–	2	–	1	**74**
Other income/expense relating to the Power Grids joint venture	–	–	–	–	20	**20**
Certain other non-operational items	(27)	17	1	295	49	**335**
Foreign exchange/commodity timing differences in income from operations:						
Unrealized gains and losses on derivatives (foreign exchange, commodities, embedded derivatives)	(31)	(28)	(14)	(3)	9	**(67)**
Realized gains and losses on derivatives where the underlying hedged transaction has not yet been realized	(2)	–	(16)	1	(9)	**(26)**
Unrealized foreign exchange movements on receivables/payables (and related assets/liabilities)	12	1	5	3	12	**33**
Operational EBITA	**1,681**	**1,075**	**451**	**237**	**(545)**	**2,899**
Operational EBITA margin (%)	**14.1%**	**16.8%**	**7.8%**	**8.2%**	**n.a.**	**11.1%**

In the year ended December 31, 2020, Certain other non-operational items in the table above includes the following:

($ in millions, unless otherwise indicated)	Year ended December 31, 2020 Electrification	Motion	Process Automation	Robotics & Discrete Automation	Corporate and Other	Consolidated
Certain other non-operational items:						
Costs for planned divestment of Power Grids	–	–	–	–	86	**86**
Regulatory, compliance and legal costs	–	–	–	–	7	**7**
Certain other fair values changes, including asset impairments	–	–	–	290	(51)	**239**
Business transformation costs	7	16	–	5	9	**37**
Favorable resolution of an uncertain purchase price adjustment	(36)	–	–	–	–	**(36)**
Other non-operational items	2	1	1	–	(2)	**2**
Total	**(27)**	**17**	**1**	**295**	**49**	**335**

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, Restricted cash (current and non-current) and Marketable securities and short-term investments.

Reconciliation

	December 31,		
($ in millions)	2021	2020	2019
Short-term debt and current maturities of long-term debt	1,384	1,293	2,287
Long-term debt	4,177	4,828	6,772
Total debt	**5,561**	**6,121**	**9,059**
Cash and equivalents	4,159	3,278	3,508
Restricted cash - current	30	323	36
Marketable securities and short-term investments	1,170	2,108	566
Restricted cash - non-current	300	300	–
Cash and marketable securities	**5,659**	**6,009**	**4,110**
Net debt (cash)	**(98)**	**112**	**4,949**

Net debt/Equity ratio

Definition

Net debt/Equity ratio

Net debt/Equity ratio is defined as Net debt divided by Equity.

Equity

Equity is defined as Total stockholders' equity.

Reconciliation

($ in millions, unless otherwise indicated)	December 31, 2021	December 31, 2020
Total stockholders' equity	15,957	15,999
Net debt (cash) (as defined above)	(98)	112
Net debt (cash) / Equity ratio	**-0.01**	**0.01**

Net debt/EBITDA ratio

Definition

Net debt/EBITDA ratio

Net debt/EBITDA ratio is defined as Net debt divided by EBITDA.

EBITDA

EBITDA is defined as Income from operations for the trailing twelve months preceding the balance sheet date before depreciation and amortization for the same trailing twelve-month period.

Reconciliation

($ in millions, unless otherwise indicated)	December 31, 2021	December 31, 2020
Income from operations	5,718	1,593
Depreciation and Amortization	893	915
EBITDA	**6,611**	**2,508**
Net debt (cash) (as defined above)	**(98)**	**112**
Net debt (cash) / EBITDA	**-0.01**	**0.04**

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 (vii) other current liabilities (excluding primarily: (a) income taxes payable, (b) current derivative liabilities, (c) pension and other employee benefits, (d) payables under the share buyback program and (e) liabilities related to the divestment of the Power Grids business); and including the amounts related to these accounts which have been presented as either assets or liabilities held for sale but excluding any amounts included in discontinued operations.

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

	December 31,		
($ in millions, unless otherwise indicated)	2021	2020	2019
Net working capital:			
Receivables, net	6,551	6,820	6,434
Contract assets	990	985	1,025
Inventories, net	4,880	4,469	4,184
Prepaid expenses	206	201	191
Accounts payable, trade	(4,921)	(4,571)	(4,353)
Contract liabilities	(1,894)	(1,903)	(1,719)
Other current liabilities(1)	(3,509)	(3,283)	(3,069)
Net working capital in assets and liabilities held for sale	–	–	(34)
Net working capital	**2,303**	**2,718**	**2,659**
Total revenues for the twelve months ended	28,945	26,134	27,978
Adjustment to annualize/eliminate revenues of certain acquisitions/divestments	(517)	(167)	(113)
Adjusted revenues for the trailing twelve months	**28,428**	**25,967**	**27,865**
Net working capital as a percentage of revenues (%)	**8.1%**	**10.5%**	**9.5%**

(1) Amounts exclude $835 million, $898 million and $692 million at December 31, 2021, 2020 and 2019, respectively, related primarily to (a) income taxes payable, (b) current derivative liabilities, (c) pension and other employee benefits, (d) payables under the share buyback program and (e) liabilities related to the divestment of the Power Grids business.

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 Adjusted net income attributable to ABB.

Adjusted net income attributable to ABB

Adjusted net income attributable to ABB is calculated as net income attributable to ABB adjusted for: (i) impairment of goodwill, (ii) losses from extinguishment of debt, and (iii) the gains arising on the sale of both the Mechanical Power Transmission Division (Dodge) and Power Grids business, the latter being included in discontinued operations.

Free cash flow

Free cash flow is calculated as net cash provided by operating activities adjusted for: (i) purchases of property, plant and equipment and intangible assets and (ii) proceeds from sales of property, plant and equipment.

Free cash flow conversion to net income

	Twelve months to	
($ in millions, unless otherwise indicated)	December 31, 2021	December 31, 2020
Net cash provided by operating activities – continuing operations	**3,338**	**1,875**
Adjusted for the effects of continuing operations:		
Purchases of property, plant and equipment and intangible assets	(820)	(694)
Proceeds from sale of property, plant and equipment	93	114
Free cash flow from continuing operations	**2,611**	**1,295**
Net cash provided by (used in) operating activities – discontinued operations	**(8)**	**(182)**
Adjusted for the effects of discontinued operations:		
Purchases of property, plant and equipment and intangible assets	–	(108)
Proceeds from sale of property, plant and equipment	–	1
Free cash flow	**2,603**	**1,006**
Adjusted net income attributable to ABB[(1)]	**2,416**	**478**
Free cash flow conversion to net income	**108%**	**210%**

(1) Adjusted net income attributable to ABB for the year ended December 31, 2021, is adjusted to exclude the gain on the sale of Dodge of $2,195 million and reductions to the gain on the sale of Power Grids of $65 million. For the year ended December 31, 2020, Adjusted net income attributable to ABB is adjusted to exclude the goodwill impairment charges of $311 million, loss from extinguishment of debt of $162 million, and the gain on the sale of the Power Grids business included in discontinued operations of $5,141 million.

Net finance expenses

Definition
Net finance expenses is calculated as Interest and dividend income less Interest and other finance expense and Losses from extinguishment of debt.

Reconciliation

	Year ended December 31,		Three months ended December 31,	
($ in millions)	2021	2020	2021	2020
Interest and dividend income	51	51	14	12
Interest and other finance expense	(148)	(240)	(40)	(49)
Losses on extinguishment of debt	–	(162)	–	(162)
Net finance expenses	**(97)**	**(351)**	**(26)**	**(199)**

Book-to-bill ratio

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

Reconciliation

	Year ended December 31,					
	2021			2020		
($ in millions, except Book-to-bill presented as a ratio)	Orders	Revenues	Book-to-bill	Orders	Revenues	Book-to-bill
Electrification	14,381	13,187	**1.09**	11,884	11,924	**1.00**
Motion	7,616	6,925	**1.10**	6,574	6,409	**1.03**
Process Automation	6,779	6,259	**1.08**	6,144	5,792	**1.06**
Robotics & Discrete Automation	3,844	3,297	**1.17**	2,868	2,907	**0.99**
Corporate and Other *(incl. intersegment eliminations)*	(752)	(723)	**n.a.**	(958)	(898)	**n.a.**
ABB Group	**31,868**	**28,945**	**1.10**	**26,512**	**26,134**	**1.01**

	Three months ended December 31,					
	2021			2020		
($ in millions, except Book-to-bill presented as a ratio)	Orders	Revenues	Book-to-bill	Orders	Revenues	Book-to-bill
Electrification	3,638	3,445	**1.06**	3,074	3,356	**0.92**
Motion	1,843	1,735	**1.06**	1,552	1,705	**0.91**
Process Automation	1,898	1,805	**1.05**	1,918	1,545	**1.24**
Robotics & Discrete Automation	1,100	799	**1.38**	699	801	**0.87**
Corporate and Other *(incl. intersegment eliminations)*	(222)	(217)	**n.a.**	(240)	(225)	**n.a.**
ABB Group	**8,257**	**7,567**	**1.09**	**7,003**	**7,182**	**0.98**

Return on Capital employed (ROCE)

Definition

Return on Capital employed (ROCE)

Return on Capital employed is calculated as Operational EBITA after tax, divided by the average of the period's opening and closing Capital employed, adjusted to reflect impacts from the timing of significant acquisitions/divestments occurring during the period.

Capital employed

Capital employed is calculated as the sum of Adjusted total fixed assets and Net working capital (as defined above).

Adjusted total fixed assets

Adjusted total fixed assets is the sum of (i) property, plant and equipment, net, (ii) goodwill, (iii) other intangible assets, net, (iv) investments in equity-accounted companies, and (v) operating lease right-of-use assets, less (vi) deferred tax liabilities recognized in certain acquisitions.

Notional tax on Operational EBITA

The Notional tax on Operational EBITA is computed using the adjusted group effective tax rate multiplied by Operational EBITA.

Adjusted Group effective tax rate

The Adjusted Group effective tax rate is computed by dividing an adjusted income tax expense by an adjusted pre-tax income. Certain amounts recorded in income before taxes and the related income tax expense (primarily due to gains and losses from sale of businesses) are removed from the reported amounts when computing these adjusted amounts. Certain other amounts recorded in income tax expense are also excluded from the computation to determine the Adjusted Group effective tax rate.

Reconciliation

	December 31,					
($ in millions, unless otherwise indicated)	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**
Adjusted total fixed assets:						
Property, plant and equipment, net	4,045	4,174	3,972	4,133	3,804	3,325
Goodwill	10,482	10,850	10,825	10,764	9,536	7,953
Other intangible assets, net	1,561	2,078	2,252	2,607	2,425	1,821
Investments in equity-accounted companies	1,670	1,784	33	87	72	77
Operating lease right-of-use assets	895	969	994	–	–	–
Fixed assets included in assets held for sale(1)	–	–	69	–	–	448
Total fixed assets	**18,653**	**19,855**	**18,145**	**17,591**	**15,837**	**13,624**
Less: Deferred taxes recognized in certain acquisitions(2)	(417)	(597)	(663)	(765)	(821)	(653)
Adjusted total fixed assets	**18,236**	**19,258**	**17,482**	**16,826**	**15,016**	**12,971**
Net working capital - (as defined above)	**2,303**	**2,718**	**2,659**	**2,584**	**2,490**	**2,616**
Capital employed	**20,539**	**21,976**	**20,141**	**19,410**	**17,506**	**15,587**
Average Capital employed:						
Capital employed at the end of the previous year	21,976	20,141	20,606(3)	17,506	15,587	
Capital employed at the end of the current year	20,539	21,976	20,141	19,410	17,506	
	21,258	**21,059**	**20,374**	**18,458**	**16,547**	
Adjusted for acquisitions/divestments	224	–	–	–	–	
Average Capital employed	**21,482**	**21,059**	**20,374**	**18,458**	**16,547**	
Operational EBITA for the year ended	4,122	2,899	3,107	3,005	2,817	
Notional tax on Operational EBITA	(929)	(731)	(848)	(772)	(797)	
Operational EBITA after tax	**3,193**	**2,168**	**2,259**	**2,233**	**2,020**	
Return on Capital employed (ROCE)(4)	**14.9%**	**10.3%**	**11.1%**	**12.1%**	**12.2%**	

(1) Amounts included in held for sale relate in 2019 to the solar inverters business and in 2016 to the Cables business.
(2) Amount relates to GEIS acquired in 2018, B&R acquired in 2017, Power-One acquired in 2013, Thomas & Betts acquired in 2012 and Baldor acquired in 2011.
(3) Adjusted to include $1,196 million of operating lease right-of-use assets, recorded on adoption of the new lease accounting standard on January 1, 2019.
(4) 2021, 2020 and 2019 are not comparable to 2018 and 2017 due to the adoption of the new lease accounting standard in 2019.

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