

September 1, 2022

CMD REVIEW

Alessandro Foletti

**ABB**

**BUY – PT CHF 35.2 (35.5)**

Lothar Lubinetzki

Bloomberg	ABBN SW
Market Cap.	CHF 54.4bn
Price (31.8.22)	CHF 27.0
Price Target	CHF 35.2 (35.5)
Rating	BUY

[Link to Accelleron CMD homepage](#)

## Accelleron: High Yields with Growth Optionality

We joined Accelleron Capital Market Day on August 31, 2022 in Baden where the company presented its Management Team, strategy, outlook and financial results of the last three years. Starting at the end: we are cutting ABB's price target by CHF 0.3 to CHF 35.2 as we were too optimistic on Accelleron potential valuation. We now think that Accelleron may fetch a market capitalisation of ~CHF 1.8–2.0bn, which means we cut our estimate by ~CHF 0.5bn or CHF 0.3 per ABB share. That said, we think that the equity story of Accelleron may have some attractions. We think of (1) a high share of service with above average margins, (2) low capital employed with strong cash flow high ROIC (>30%), and (3) ample room for a solid and sustainable dividend flow to shareholders. We think that the company did a good job in explaining why the energy transition may (against intuition) favour its future growth; however, we suspect that investors may want to see some growth track record (Accelleron targets 2–4% organic) before giving the company its full potential valuation. Back to ABB: we re-iterate our Buy recommendation with a Price Target of CHF 35.2.

### KEY POINTS: Growth Driven by Market Share Gains in the Energy Niche and by Transition to alternative (green) fuels in Marine

Accelleron Targets	2022E	Mid-Term
% Organic Growth	6%	2-4%
Op. EBITA	~24%	23-26%
Adj. Net Profit (USDm)	150m	
FCF Conversion	60-70%	90-100%
Leverage	0.7x	0.5-1.5x
Div. Policy	75m	50-70% <sup>(1)</sup> up to 100% <sup>(2)</sup>

(1) if leverage > or equal to 1x

(2) if leverage < 1x

Source: Accelleron

Accelleron Financials *	2019	2020	2021	2022 S**	2023 S**	2024 S**	2025 S**	31.8.2022 / AFO
<b>P&amp;L (USD m)</b>								
Revenues	783	711	756	801	833	858	876	
% USD growth		-9.2%	6.3%	6.0%	4.0%	3.0%	2.0%	
Cost of sales	-411	-406	-401	-480	-500	-471	-471	
Gross Profit	372	305	355	321	333	388	405	
% GP margin	47.5%	42.9%	47.0%	40.0%	40.0%	45.2%	46.2%	
SG&A	-126	-119	-121	-128	-131	-133	-136	
in % of sales	-16.1%	-16.7%	-16.0%	-16.0%	-15.7%	-15.5%	-15.5%	
R&D	-46	-48	-52	-53	-53	-54	-54	
in % of sales	-5.9%	-6.8%	-6.9%	-6.6%	-6.4%	-6.2%	-6.2%	
Other Income (Expense)	1	-1	3	0	0	0	0	
EBITDA	222	161	209	165	175	226	240	
% margin	28.4%	22.6%	27.6%	20.6%	21.0%	26.4%	27.4%	
Depreciation & Amort.	-21	-24	-24	-25	-25	-25	-26	
EBIT	201	137	185	140	150	201	215	
% margin	25.7%	19.3%	24.5%	17.5%	17.9%	23.4%	24.5%	
- Restructuring	-2	-8	-3	-57	-38	0	0	
- FX and RM hedging	1	-1	1	0	0	0	0	
Op. EBITA	202	146	187	197	188	201	215	
% margin	25.8%	20.5%	24.7%	24.6%	22.5%	23.4%	24.5%	
Financial Income (Exp)	0	1	-1	-3	-3	-2	-1	
Non-operational	0	0	0	0	0	0	0	
Pre Tax Income	201	137	184	137	147	199	214	
Tax	-42	-25	-40	-30	-33	-45	-48	
% Tax Rate	-20.9%	-18.2%	-21.7%	-22.0%	-22.2%	-22.4%	-22.6%	
Net Income b-Min	159	112	144	107	114	154	165	
Minorities	-4	-5	-6	-4	-5	-6	-7	
Net Income	155	107	138	103	109	148	158	
Adj. Net Income	157	114	140	149	139	148	158	
% margin	20.0%	16.0%	18.6%	18.5%	16.7%	17.3%	18.1%	

\* Accelleron reports under US GAAP

S\*\* = This is an Octavian Scenario, which has not been reviewed by the company. We don't have Estimates on Accelleron.

### Timeline

- Listing on October 3, 2022.
- ABB shareholders will receive 1 share of Accelleron for 20 shares of ABB.
- No capital increase.
- Listing prospectus on September 23, 2022.

- The share of sales in Marine is 53%; the marine business is under pressure to reduce CO2 emissions. However, it is likely that this will not happen via a substitution of propulsion systems from combustion

to electrical motors (batteries are simply too heavy) but rather via a substitution of fuel (aways from diesel towards alternative green fuels; initially LNG and later H2, NH3, Synthetic or Biofuel). In any case, this is not a scenario where combustion propulsion disappears soon.

- **The share of sales in Energy is 43%**, in a very small niche which accounts only for 5% of global energy generation. In this niche, applications are mostly related do emergency power generation and power generation for network balancing. Also in this case, the company believes that combustion power generation (for this specific niche) may not be substituted but rather resort to alternative fuels.
- The remaining 4% of sales are in Rail and off-road vehicles. While the share of sales is small here, there is potentially a case for Accelleron to gain market share in segments where it is not well represented.
- For the short term, some sales growth may be driven by a cycle in shipbuilding, which is currently ongoing.

#### Sustainable margin

- With 75% related to services, the company will be able in our view to (1) maintain a high margin in the 20-25% range (EBIT) and (2) keep that margin relatively stable across economic cycles.
- An example of this ability, in our view, was delivered in the pandemic year 2020 where the company only lost 9% of sales and ended up with an EBIT margin of 19.3%. This is in our view a solid performance that beats that of many industrial companies.

#### Capital Employed

- Numbers tell that Accelleron business model is capital light. Although the company boasts a factory full of heavy machinery and equipment, it is (1) the only one in the world, (2) is focused and highly automated and (3) enjoys high volumes. In addition, Accelleron has virtually no goodwill and little intangible assets. Net working capital is at ~22-24% of sales, representing in our view the main swing factor to employed capital.
- In the past, ROIC (after-tax) was clearly above 30%. There is no visible material change to invested capital or margin structure, as such we think that - after the 2022-23 period which is impacted by USD 95m separation costs- ROIC will recover to past level above 30%.

Summary B/S (USD m)	2019	2020	2021	2022 S**	2023 S**	2024 S**	2025 S**
PPE	133	146	146	142	139	136	135
Goodwill	7	7	7	7	7	7	7
Other Intangibles	3	3	4	4	4	4	4
NWC	174	172	167	187	194	200	204
in % of sales	22.2%	24.2%	22.1%	23.3%	23.3%	23.3%	23.3%
Other Op. Assets	29	38	93	93	93	93	93
Invested Capital	345	366	417	432	437	440	442
ROIC (%)	46.0%	30.6%	34.7%	25.3%	26.6%	35.4%	37.5%
Provisions	-67	-65	-60	-60	-60	-60	-60
Net debt	-20	-26	-50	-150	-115	-74	-59
Equity	258	274	307	223	262	307	324
- ROE (%)	60%	39%	45%	46%	42%	48%	49%
- Equity Ratio (%)	49%	50%	45%	31%	36%	41%	43%
- Gearing (%)	8%	10%	16%	68%	44%	24%	18%

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#### Solid cash generation

- After a two year's period in which the company invested over 20m / year to modernise its offices, we think that CAPEX is set to return to lower levels (below 3% of sales).
- We believe that NWC may rise this year due to supply chain issues and

a general safety ordering behavior across most industries. However, we don't see working capital getting out of control and heading significantly above past levels (in % of sales).

Cash Flow (USD m)	2019	2020	2021	2022 S**	2023 S**	2024 S**	2025 S**
Net Profit b-Minorities	159	112	144	107	114	154	165
Depreciation & Amortis:	21	24	24	25	25	25	26
Changes in NWC	-16	27	7	-19	-7	-6	-4
Other non-cash Items	25	-12	-12	0	0	0	0
<b>Operational Cash Flow</b>	<b>189</b>	<b>151</b>	<b>163</b>	<b>112</b>	<b>132</b>	<b>174</b>	<b>187</b>
CAPEX	-23	-26	-29	-21	-22	-23	-24
<i>in % sales</i>	<i>-2.9%</i>	<i>-3.7%</i>	<i>-3.8%</i>	<i>-2.6%</i>	<i>-2.6%</i>	<i>-2.7%</i>	<i>-2.7%</i>
<b>Free Cash Flow</b>	<b>166</b>	<b>125</b>	<b>134</b>	<b>91</b>	<b>110</b>	<b>151</b>	<b>163</b>
<i>in % sales</i>	<i>21.2%</i>	<i>17.6%</i>	<i>17.7%</i>	<i>11.4%</i>	<i>13.2%</i>	<i>17.6%</i>	<i>18.6%</i>
<i>% conversion</i>	<i>107%</i>	<i>117%</i>	<i>97%</i>	<i>89%</i>	<i>101%</i>	<i>102%</i>	<i>103%</i>
Other Investing Activities	-5	0	-1	-51	0	0	0
Increase (decrease) debt	0	0	92	180	0	0	0
Other financing	-6	-5	-4	0	0	0	0
Dividends ***	-158	-119	-154	-140	-75	-109	-148
<i>in % of net profit</i>	<i>na</i>	<i>-77%</i>	<i>-144%</i>	<i>-102%</i>	<i>-50%</i>	<i>-100%</i>	<i>-100%</i>
FX changes	0	3	4	0	0	0	0
<b>Net Change in Cash</b>	<b>-4</b>	<b>4</b>	<b>71</b>	<b>80</b>	<b>35</b>	<b>42</b>	<b>15</b>

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\*\*\* Until Oct. 2022, and hence including the 2022 distribution, Accelleron was fully owned by ABB and consolidated in ABB.

- As such, we believe that the company has the chance to reach its goal to convert 100% of net profit into free cash flow. In addition, the company should be in the measure to support its dividend policy, even if it should operate (smaller) acquisitions.

### Valuation scenarios

VALUATION SCENARIOS	2019	2020	2021	2022 S**	2023 S**	2024 S**	2025 S**
<i>a) Assuming 3% dividend yield (maybe too expensive)</i>					3%	4%	6%
Implied Market Cap	2500	2500	2500	2500	2500	2500	2500
<b>EV</b>	<b>2520</b>	<b>2526</b>	<b>2550</b>	<b>2650</b>	<b>2615</b>	<b>2574</b>	<b>2559</b>
EV/SALES (x)	3.2	3.6	3.4	3.3	3.1	3.0	2.9
EV/EBIT (x)	12.5	18.4	13.8	18.9	17.5	12.8	11.9
EV/EBITDA (x)	11.4	15.7	12.2	16.1	15.0	11.4	10.7
<b>ADJ. PE (x)</b>	<b>16.0</b>	<b>22.0</b>	<b>17.8</b>	<b>16.8</b>	<b>17.9</b>	<b>16.9</b>	<b>15.8</b>
<i>b) Assuming 4% dividend yield (maybe too cheap)</i>					4%	6%	8%
Implied Market Cap	1875	1875	1875	1875	1875	1875	1875
<b>EV</b>	<b>1895</b>	<b>1901</b>	<b>1925</b>	<b>2025</b>	<b>1990</b>	<b>1949</b>	<b>1934</b>
EV/SALES (x)	2.4	2.7	2.5	2.5	2.4	2.3	2.2
EV/EBIT (x)	9.4	13.9	10.4	14.5	13.3	9.7	9.0
EV/EBITDA (x)	8.5	11.8	9.2	12.3	11.4	8.6	8.0
<b>ADJ. PE (x)</b>	<b>12.0</b>	<b>16.5</b>	<b>13.4</b>	<b>12.6</b>	<b>13.5</b>	<b>12.6</b>	<b>11.8</b>

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- What will be the market cap of Accelleron at spin-off? We believe that the equity story, which is based on high cash and returns (including shareholder returns) with low growth can be assessed on the basis of the potential dividend yield. We too the assumption that 3% is maybe too low (i.e. too high market cap) but that 4% might not be surpassed.
- We hence see a potential market cap in the range of CHF 1.8-2.5bn.

### Conclusion Accelleron

- The Accelleron CMD was insightful, and the investment case may have some attractions. It seems clear that the shareholder base may see some reshuffles after the spin-off as not all ABB shareholders may want to keep the shares. However, after an initial adjustment we think that operational and financial delivery will allow the shares to gain their fair valuation.

### Conclusion ABB

- Another step in the transformational story is taking place. The changes in the estimate of Accelleron fair value at IPO is for the ABB case minor. We continue to believe that ABB will see higher growth on the back of a strong capex cycle and its reorganisation.
- At Adj. PE of 17.2x and EV/EBITDA of 10.7x (2023E) ABB trades below historic multiples. **We have a BUY with a PT of CHF 35.2 (35.5).**

ABB Ltd. - KEY FIGURES LAST UPDATE ON 31.8.2022 / AFO

MARKET CAPITALISATION (CHFm)	54,439
NET CASH / (DEBT) 2021 (USDm)	-821
ENTERPRISE VALUE 2021 (USDm)	75,089
NET SALES 2022E (USDm)	29,100
NET PROFIT 2022E (USDm)	3,006
EQUITY 2022E (USDm)	13,199
ACCOUNTING STANDARD	US GAAP
NEXT EVENT: CMD MO+PA:	16.-17.5.2022

*This financial model does not exclude (yet) the Power Conversion business. In our CFROEV valuation, we exclude its EBIT contribution and add back our estimated enterprise value. Turbocharging is now deconsolidated from the operating figures.*

SHARE PRICE ON 31.8.22	27.0
PRICE TARGET (CHF)	35.2
RATING	BUY
UPSIDE TO SHARE PRICE	31%
DIV. YIELD 2022E (%)	3.1
WACC (%)	7.0
PAR VALUE (CHF)	0.12
NR OF SHARES 2020 (m)	2,019
SHAREHOLDERS:	INVESTOR 10.1%
	CEVIAN 6.2%

KEY RATIOS	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022E	2023E	2024E
P/E	16.9	20.9	20.3	21.8	25.6	25.8	18.3	35.7	10.5	16.3	22.2	17.2	15.2
ADJ. P/E *	15.2	18.3	17.7	16.8	20.4	21.9	16.0	22.9	31.3	26.1	17.1	15.2	13.9
EV/EBITDA	9.6	10.9	10.4	10.7	12.8	13.8	12.4	17.1	22.0	11.4	13.3	10.7	9.4
EV/EBITDA*	11.5	13.0	12.5	11.8	14.7	16.2	12.1	17.3	18.5	18.2	12.6	11.7	10.4
EV/SALES	1.3	1.5	1.4	1.3	1.6	1.8	1.3	1.8	2.1	2.6	1.9	1.7	1.6
P/NAV	2.7	3.1	3.2	2.9	3.7	3.9	2.9	3.8	3.4	4.8	3.9	3.7	3.3
ROCE (%)	15.7	17.8	16.6	17.3	18.6	16.7	12.0	12.0	11.9	17.6	17.8	18.8	20.6
ROIC (%)	10.7	11.8	11.8	10.9	11.4	11.2	10.5	9.1	8.2	12.4	12.8	14.2	15.5
ROIC/ WACC	1.5	1.7	1.7	1.6	1.6	1.6	1.5	1.3	1.2	1.8	1.8	2.0	2.2
EV/CAPITAL EMPLOYED	1.7	2.2	2.1	1.8	2.4	2.5	1.5	1.9	2.3	3.2	2.3	2.2	2.1
FCF YIELD (%)	4.3%	4.5%	4.8%	5.3%	5.4%	5.3%	4.0%	2.8%	1.7%	4.3%	4.9%	5.8%	6.2%
PER SHARE DATA (CHF)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022E	2023E	2024E
EARNINGS	1.11	1.13	1.05	0.82	0.86	1.01	1.02	0.66	2.32	2.15	1.21	1.57	1.78
- CHANGE IN %	-10.0	1.4	-6.9	-21.3	4.0	17.8	1.0	-35.2	251.0	-7.5	-43.5	29.7	13.2
ADJ. EARNINGS	1.24	1.28	1.20	1.07	1.08	1.19	1.17	1.03	0.78	1.34	1.57	1.78	1.94
- CHANGE IN %	-6.3	3.7	-6.4	-10.7	0.4	10.6	-1.9	-11.8	-24.3	71.9	17.3	13.1	8.9
DIVIDEND (ADJUSTED)	0.68	0.70	0.72	0.74	0.76	0.78	0.80	0.80	0.80	0.82	0.84	0.86	0.88
- PAYOUT IN %	54.9	54.5	59.9	69.0	70.6	65.5	68.4	77.6	102.6	61.1	53.4	48.3	45.4
NET ASSET VALUE	6.94	7.54	6.57	6.18	5.96	6.77	6.55	6.21	7.07	7.35	6.91	7.29	8.21
- CHANGE IN %	13.0	8.7	-12.8	-6.0	-3.6	13.5	-3.2	-5.2	13.8	4.0	-6.1	5.5	12.6
WEIGHTED AVG. SHARES (DILUTED, M)	2285	2285	2266	2226	2168	2168	2132	2134	2019	1960	1873	1843	1843
USD / CHF	0.94	0.92	0.92	0.95	0.96	0.99	1.00	0.98	0.91	0.92	0.98	0.98	0.98
change in % YoY	5.5	-1.6	-0.8	3.8	1.1	3.1	1.1	-2.1	-7.1	1.6	5.9	0.0	0.0

*More buy backs in the cards*

\* Adjusted for amortisation of M&A related intangibles and extraordinary restructuring. EBITA is operational, but includes recurring restructuring.

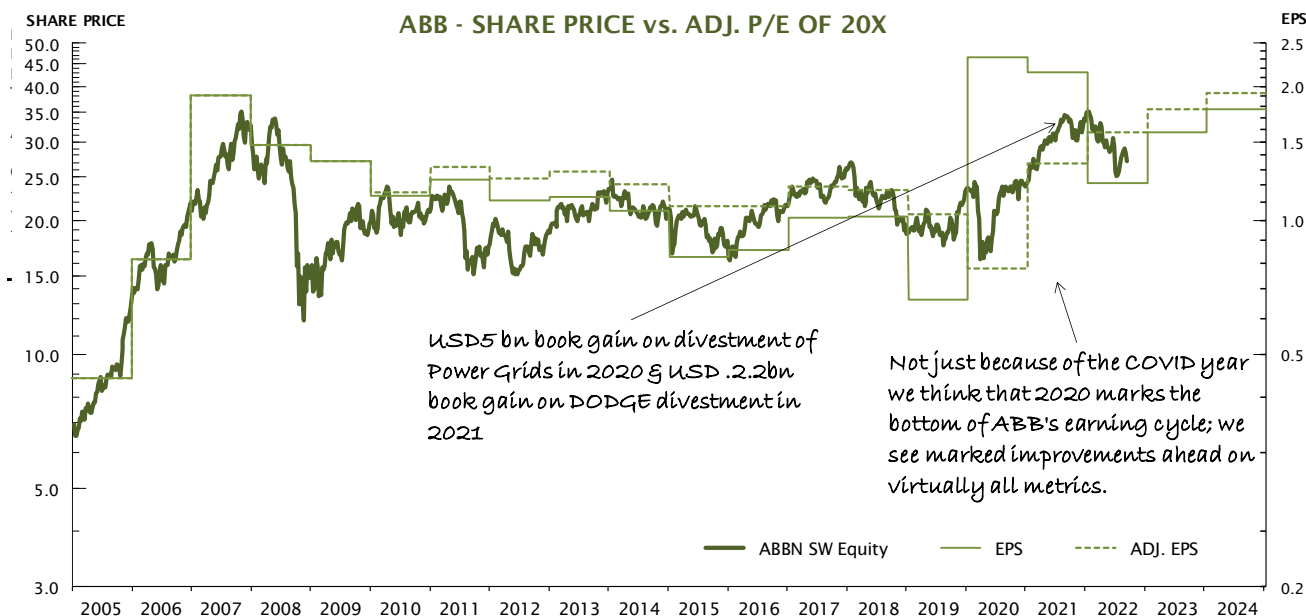






ABB - ORDERS RECEIVED (USD M)	2017	2018	2019	2020	2021	Q1 22	Q2 22	Q3 22E	Q4 22E	2022E	2023E	2024E
ROBOTICS & DISC.AUTOM.	8,465	3,808	3,260	2,868	3,844	1,308	1,109	1,043	1,192	4,651	4,419	4,861
- % CHANGE ORGANIC	7.8%	10.0%	-11.0%	-12.0%	29.0%	60.0%	23.0%	16.0%	11.9%	27.0%	-5.0%	10.0%
ELECTRIFICATION	10,143	11,867	13,050	11,884	14,381	4,397	4,037	3,730	3,698	15,862	15,386	16,002
- % CHANGE ORGANIC	5.0%	4.0%	4.0%	-6.0%	18.0%	29.0%	16.0%	10.0%	5.3%	15.0%	-3.0%	4.0%
PROCESS AUTOMATION	6,553	6,697	6,432	6,144	6,779	1,692	1,819	1,787	1,599	6,897	6,886	7,299
- % CHANGE ORGANIC	2.0%	8.0%	0.0%	-4.0%	7.0%	6.0%	25.0%	12.0%	-0.7%	10.0%	8.0%	6.0%
MOTION					7,616	2,202	2,079	1,814	1,919	8,014	8,415	8,751
- % CHANGE ORGANIC					14.0%	32.0%	26.0%	15.0%	8.8%	19.0%	5.0%	4.0%
CORPORATE/ELIMINATIONS	-987	-507	-936	-958	-752	-226	-237	-190	-187	-840	-857	-874
- in % of total	-3.0%	-1.8%	-3.3%	-3.6%	-2.4%	-2.4%	-2.7%	-2.3%	-2.3%	-2.4%	-2.5%	-2.4%
TOTAL ABB GROUP	33,387	28,590	28,588	26,512	31,868	9,373	8,807	8,184	8,220	34,584	34,249	36,039
- CHANGE IN % (USD)	0.0%	14.2%	0.0%	-7.3%	20.2%	20.8%	10.2%	4.0%	-0.4%	8.5%	-1.0%	5.2%
ABB - REVENUES (USD M)	2017	2018	2019	2020	2021	Q1 22	Q2 22	Q3 22E	Q4 22E	2022E	2023E	2024E
ROBOTICS & DISC.AUTOM.	8,396	3,611	3,314	2,907	3,297	730	732	829	841	3,132	3,508	4,034
- % CHANGE IN USD	6.4%	22.1%	-8.2%	-12.3%	13.4%	-14.4%	-12.0%	2.0%	5.2%	-5.0%	12.0%	15.0%
- % CHANGE ORGANIC	6.0%	6.0%	-4.0%	-13.0%	9.0%	-12.0%	-5.0%	8.0%	10.8%	1.0%	12.0%	15.0%
ELECTRIFICATION	10,094	11,686	12,728	11,924	13,187	3,327	3,531	3,452	3,537	13,846	14,677	15,338
- % CHANGE IN USD	1.8%	15.8%	8.9%	-6.3%	10.6%	6.0%	3.7%	8.0%	2.7%	5.0%	6.0%	4.5%
- % CHANGE ORGANIC	2.3%	3.0%	2.0%	-3.0%	9.0%	10.0%	10.0%	13.0%	7.3%	10.0%	6.0%	4.5%
PROCESS AUTOMATION	6,879	6,500	6,273	5,792	6,259	1,506	1,529	1,537	1,687	6,259	6,385	6,832
- % CHANGE IN USD	3.4%	0.4%	-3.5%	-7.7%	8.1%	7.0%	-0.7%	2.0%	-6.5%	0.0%	2.0%	7.0%
- % CHANGE ORGANIC	-2.6%	0.0%	0.0%	-7.0%	5.0%	8.0%	7.0%	7.0%	7.2%	8.0%	11.0%	7.0%
MOTION		6,463	6,533	6,409	6,925	1,572	1,626	1,557	1,847	6,602	7,064	7,417
- % CHANGE IN USD		10.0%	1.1%	-1.9%	8.1%	-5.7%	-12.1%	-7.0%	6.5%	-4.7%	7.0%	5.0%
- % CHANGE ORGANIC		10.0%	4.0%	-2.0%	7.0%	9.5%	3.0%	13.0%	11.7%	9.0%	7.0%	5.0%
CORPORATE/ELIMINATIONS	-1,085	-598	-870	-898	-723	-170	-167	-185	-218	-740	-760	-780
- AS A % OF SALES	3.2%	2.2%	3.1%	3.4%	2.5%	2.4%	2.3%	2.6%	2.8%	2.5%	2.5%	2.4%
TOTAL ABB GROUP	34,312	27,662	27,978	26,134	28,945	6,965	7,251	7,190	7,694	29,100	30,875	32,841
- CHANGE IN %	1.4%	9.8%	1.1%	-6.6%	10.8%	0.9%	-2.7%	2.3%	1.7%	0.5%	6.1%	6.4%
ABB - OP. EBITA (USD M) *	2017	2018	2019	2020	2021	Q1 22	Q2 22	Q3 22E	Q4 22E	2022E	2023E	2024E
ROBOTICS & DISC.AUTOM	1,260	528	393	237	355	49	60	84	102	294	456	565
- MARGIN %	15.0%	14.6%	11.9%	8.2%	10.8%	6.7%	8.2%	10.1%	12.1%	9.4%	13.0%	14.0%
ELECTRIFICATION	1,510	1,626	1,688	1,681	2,121	510	599	594	549	2,252	2,431	2,577
- MARGIN %	15.0%	13.9%	13.3%	14.1%	16.1%	15.3%	17.0%	17.2%	15.5%	16.3%	16.6%	16.8%
PROCESS AUTOMATION	953	914	732	451	801	196	224	209	197	826	747	834
- MARGIN %	13.9%	14.1%	11.7%	7.8%	12.8%	13.0%	14.7%	13.6%	11.7%	13.2%	11.7%	12.2%
MOTION		1,023	1,082	1,075	1,183	274	266	260	289	1,089	1,173	1,239
- MARGIN %		15.8%	16.6%	16.8%	16.9%	17.4%	16.4%	16.7%	15.7%	16.5%	16.6%	16.7%
CORPORATE	-620	-1,086	-788	-545	-338	-32	-13	-80	-75	-200	-280	-280
TOTAL GROUP	4,130	3,005	3,107	2,899	4,122	997	1,136	1,066	1,062	4,262	4,527	4,934
- MARGIN %	12.0%	10.9%	11.1%	11.1%	14.2%	14.3%	15.7%	14.8%	13.8%	14.6%	14.7%	15.0%
ABB - REPORTED EBIT (USD M)	2017	2018	2019	2020	2021	Q1 22	Q2 22	Q3 22E	Q4 22E	2022E	2023E	2024E
ROBOTICS & DISC.AUTOM.	1,126	456	298	-163	269	22	43	55	72	191	366	475
- MARGIN %	13.4%	12.6%	9.0%	-5.6%	8.2%	3.0%	5.9%	6.6%	8.5%	6.1%	10.4%	11.8%
ELECTRIFICATION	1,352	1,290	1,049	1,335	1,841	506	465	487	456	1,914	2,271	2,417
- MARGIN %	13.4%	11.0%	8.2%	11.2%	14.0%	15.2%	13.2%	14.1%	12.9%	13.8%	15.5%	15.8%
PROCESS AUTOMATION	798	853	700	344	713	151	175	188	180	694	712	799
- MARGIN %	11.6%	13.1%	11.2%	5.9%	11.4%	10.0%	11.4%	12.2%	10.7%	11.1%	11.2%	11.7%
MOTION					3,276	254	231	237	270	992	1,123	1,189
- MARGIN %					47.3%	16.2%	14.2%	15.2%	14.6%	15.0%	15.9%	16.0%
CORPORATE	-759	-1,297	-1,118	-912	-381	-76	-327	-80	-79	-562	-395	-290
- MARGIN %	70.0%	216.9%	128.5%	101.6%	52.7%	44.7%	195.8%	43.2%	36.2%	75.9%	52.0%	37.2%
TOTAL GROUP	3,392	2,226	1,938	1,593	5,718	857	587	886	899	3,230	4,077	4,589
- MARGIN %	9.9%	8.0%	6.9%	6.1%	19.8%	12.3%	8.1%	12.3%	11.7%	11.1%	13.2%	14.0%

\* Operational EBITA is EBIT adjusted for restructuring, capital gains and losses, FX effects, M&A integration costs and amortization of M&A related intangibles.



ABB - CASH FLOW RETURN ON ENTREPRISE VALUE (USD M)	2020	2021	2022E	2023E	2024E
EBIT (UNDERLYING) <sup>(1)</sup>	1,643	5,798	3,295	4,127	4,624
- LESS: TURBOCHARGING	0	176	46	0	0
- LESS: EV-CHARGING	0	0	0	0	0
- LESS: POWER CONVERSION	0	60	63	66	69
+ DEPRECIATION AND AMORTIZATION	915	894	854	854	854
+ ADD BACK EXTRAORDINARY CHARGES <sup>(2)</sup>	681	-1,842	845	220	115
+ IMPAIRMENT OF INTANGIBLE ASSETS	311	0	0	0	0
- MAINTENANCE CAPEX	531	519	495	495	495
= ADJUSTED EBIT	3,019	4,095	4,389	4,639	5,028
- TAXES (UNDERLYING)	604	819	878	928	1,006
- MINORITIES	59	104	90	100	110
= SUSTAINABLE CASH FLOW AFTER TAX	2,356	3,172	3,421	3,611	3,912
EXPECTED RETURN (AFTER TAX)	7.0%	7.0%	7.0%	7.0%	7.0%
= FAIR EV	33,663	45,317	48,878	51,592	55,891
- NET DEBT (CASH), END OF YEAR <sup>(3)</sup>	1,113	821	2,614	2,162	355
- PENSION PROVISIONS, BEGINNING OF YEAR	871	133	133	133	133
+ NON CORE (19.9% of PG) & FINANCIAL ASSETS <sup>(4)</sup>	1,940	1,940	1,940	1,940	1,940
+ VALUE OF TURBOCHARGING (@ 12x EV/EBIT)	0	2,150	2,150	2,150	2,150
+ VALUE OF EV-CHARGING (@ 5x EV/SALES)	0	2,000	2,000	2,000	2,000
+ VALUE OF POWER CONVERSION (@ 17x EV/EBITDA)	0	1,500	1,500	1,500	1,500
+ ACCUMULATED DIVIDENDS OUTSTANDING	0	0	0	1,605	3,223
= FAIR MARKET CAPITALIZATION USD	33,619	51,953	53,721	58,492	66,216
= FAIR MARKET CAPITALIZATION CHF	30,594	48,005	52,646	57,322	64,892
CHF / USD Rate	0.91	0.92	0.98	0.98	0.98
FULLY DILUTED NO. OF SHARES (M) <sup>(5)</sup>	2019	1960	1873	1843	1843
FAIR VALUE PER SHARE (CHF)	16.3	25.6	28.1	31.1	35.2
IMPLIED P/E	20.8	19.1	17.9	17.5	18.2
CURRENT VALUE PER SHARE	27.0	27.0	27.0	27.0	27.0
UPSIDE (+) / DOWNSIDE (-) IN %	-40%	-5%	4%	15%	31%
STOCK PRICE VOLATILITY (IN %, BASED ON WEEKLY DATA)			-52 WEEKS 68.5	-104 WEEKS 57.5	-156 WEEKS 52.1

SENSITIVITY

SHARE PRICE AT VARIOUS RATES OF EXPECTED RETURN

YEAR	EXPECTED RETURN				
	6.0	6.5	7.0	7.5	8.0
2022	32.4	30.1	28.1	26.4	24.9
2023	35.7	33.2	31.1	29.3	27.7
2024	40.2	37.5	35.2	33.2	31.5

Notes:

- (1) Since 2021E, this is reported EBIT + add-back loss from discops & deduct est. EBIT of Turboch. (USD ~200m) & Power Conv. (~USD 65m)
- (2) We add back costs for restructuring (~USD 100m), ABB Way (~USD 150m) and Losses in Non-Core (EPC run-off; ~180m in 2022E)
- (3) After all cash payments related to restructuring, dividends, share buy back(s) and Dodge disposal (USD 2.5bn a-tax)
- (4) Includes (i) PwrGrids (USD 1.5bn for 19.9%), (ii) EV-Charging (USD 2bn), (iii) Turbocharging (USD 2.5bn), (iv) Power Conversion (USD 1.5bn)
- (5) Buy backs (m Shares): 115m (2020), 59m (2021), 86.7m (2022E), 29.5m (2023E). Cumulated pay out of ~USD 8.5bn



ABB - DCF MODEL (USD M)	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	TV
REVENUES (GROUP)	27,300	28,875	30,841	32,538	34,165	35,702	37,130	38,430	39,583	40,572	41,181
- CHANGE %	-0.2	5.8	6.8	5.5	5.0	4.5	4.0	3.5	3.0	2.5	1.5
REPORTED EBIT (GROUP)	3,121	4,011	4,519	4,718	4,886	5,070	5,310	5,534	5,739	5,883	5,971
- IN% OF SALES	11.4	13.9	14.7	14.5	14.3	14.2	14.3	14.4	14.5	14.5	14.5
+ DEPRECIATION & REGULAR AMORTIZATION	624	624	624	722	771	814	855	895	931	964	988
- IN % OF CAPEX	83.2	82.6	82.1	92.5	94.0	95.0	96.0	97.0	98.0	99.0	100.0
+ M&A RELATED AMORTIZATION	230	230	184	147	118	94	75	60	48	39	31
EBITDA (GROUP)	3975	4865	5327	5588	5774	5978	6240	6489	6719	6886	6990
- CHANGE %	-37.7	22.4	9.5	4.9	3.3	3.5	4.4	4.0	3.5	2.5	1.5
- IN% OF SALES	14.6	16.8	17.3	17.2	16.9	16.7	16.8	16.9	17.0	17.0	17.0
. / . TAXES PAID	-712	-924	-1,052	-1,062	-1,099	-1,141	-1,195	-1,245	-1,291	-1,324	-1,344
- TAX IN % EBIT	22.2	22.5	22.8	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5
. / . CHANGE IN NET WORKING CAPITAL	392	44	-126	-50	-50	-50	-50	-50	-50	-50	-50
. / . CAPEX	-750	-755	-760	-781	-820	-857	-891	-922	-950	-974	-988
- CAP EX IN % OF NET SALES	2.7	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
<b>FREE CASH FLOW (BEFORE INTEREST)</b>	<b>2,824</b>	<b>3,149</b>	<b>3,310</b>	<b>3,615</b>	<b>3,725</b>	<b>3,850</b>	<b>4,025</b>	<b>4,191</b>	<b>4,347</b>	<b>4,458</b>	<b>4,529</b>
INVESTED CAPITAL	24,008	24,118	24,254	24,312	24,361	24,404	24,440	24,468	24,487	24,496	24,487
ROIC (%)	12.8	14.2	14.6	15.0	15.5	16.1	16.8	17.5	18.2	18.6	18.9
<b>WEIGHTED AVERAGE COST OF CAPITAL</b>											
RISK FREE INTEREST RATE (%)											3.0
EQUITY RISK PREMIUM (%)											5.0
BETA VS. SMI											1.1
COST OF EQUITY											8.4
AVG INTEREST RATE ON DEBT (%)											5.0
TAX RATE (%)											27.5
COST OF DEBT (TAX ADJUSTED)											3.6
DEBT IN % OF TOTAL VALUE											30.0
WACC (%)											7.0
NUMBER OF YEARS	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	10.0
DISCOUNT FACTOR	0.94	0.87	0.82	0.76	0.71	0.67	0.62	0.58	0.55	0.51	0.51
DISC. FREE OPERATING CASH FLOWS	2,641	2,753	2,705	2,763	2,662	2,573	2,515	2,449	2,375	2,277	2,313
<b>SUM OF DCF 2021 - 2030E</b>											<b>25,712</b>
<b>PERPETUAL GROWTH RATE (%)</b>											<b>1.50</b>
<b>TERMINAL VALUE</b>											<b>42,438</b>
<b>EV = DISCOUNTED FREE CASH FLOWS</b>											<b>68,150</b>
- NET DEBT (2020)											-821
- PENSION LIABILITY											133
- MINORITIES											-1,560
+ NON CORE & FINANCIAL ASSETS (19% of OG, TURBO, EV-CHARGE, PWR.COVERT.)											7,590
<b>TOTAL EQUITY VALUE (USD)</b>											<b>73,492</b>
<b>TOTAL EQUITY VALUE (CHF)</b>											<b>72,022</b>
<b>NO OF SHARES</b>											<b>1,960</b>
<b>VALUE PER SHARE (CHF)</b>											<b>36.2</b>
<b>VALUATION GAP IN % (EQUITY VALUE PER SHARE / SHARE PRICE)</b>											<b>34.1%</b>

We deduct Turbocharging, EV-Charging and Power conversion from Sales and EBIT and dd back their estimated EV (see CFROEV page for details).

**SENSITIVITY ANALYSIS**

		TV EBIT MARGIN (%)					
		0.5	1.0	1.5	2.0	2.5	TV
PRICE AT VARIOUS EBITDA MARGINS AND TV GROWTH RATES	0.5	31.4	32.1	32.7	33.3	33.9	34.6
	1.0	32.9	33.6	34.3	35.0	35.6	36.3
	1.5	34.7	35.4	36.2	36.9	37.7	38.4
	2.0	36.8	37.6	38.4	39.2	40.1	40.9
	2.5	39.3	40.3	41.2	42.1	43.0	44.0
	TV GROWTH RATE (%)						

		WACC (%)					
		6.0	6.5	7.0	7.5	8.0	8.5
PRICE AT VARIOUS WACC AND TV GROWTH RATES	0.5	38.7	35.4	32.7	30.3	28.3	26.5
	1.0	41.1	37.4	34.3	31.6	29.4	27.5
	1.5	44.2	39.7	36.2	33.2	30.7	28.5
	2.0	47.9	42.6	38.4	35.0	32.1	29.7
	2.5	52.8	46.3	41.2	37.1	33.8	31.1
	TV GROWTH RATE (%)						





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