



March 2022

ABB

Market profile

Country	Switzerland
Sector	Industrial Products
Market cap (CHF million)	64'695
52-week high / low (CHF)	35.75 / 27.54
Price per share (CHF)	31.5

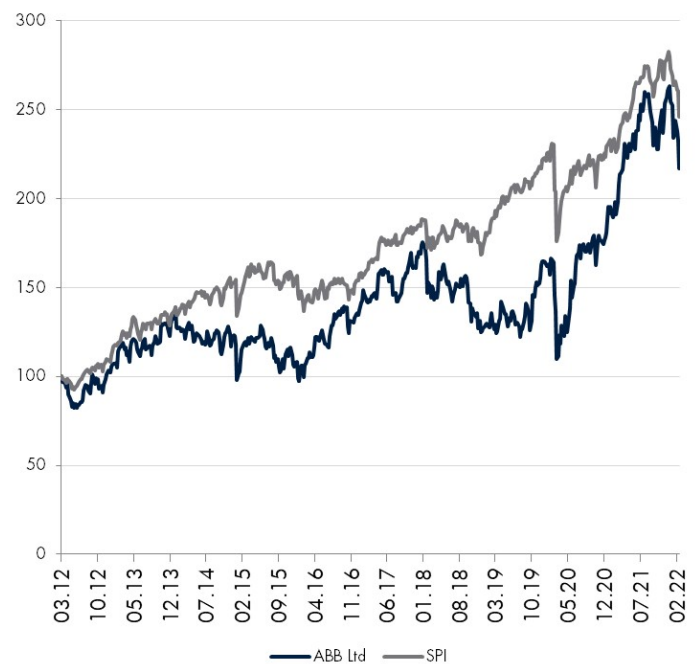
Key metrics (CHF)

	2021	2022e	2023e
EPS	1.43	1.56	1.77
PE	22.7	21.6	19.0
P/Book	4.22	4.19	3.83
Dividend yield	2.31%	2.63%	2.75%

Executive summary

The ABB Group was formed in 1988 through a merger between Asea AB and BBC Brown Boveri AG. Initially founded in 1883, Asea AB was a major participant in the introduction of electricity into Swedish homes and businesses and in the development of Sweden's railway network. Brown Boveri and Cie was formed in Switzerland in 1891 and initially specialised in power generation and turbines. In the early to mid-1990's it expanded its operations throughout Europe and broadened its business operations to include a wide range of electrical engineering activities. In February 1999, the ABB Group announced a group reconfiguration designed to establish a single parent holding company and a single class of shares. ABB Ltd was incorporated on March 5, 1999, under the laws of Switzerland. In June 1999, ABB Ltd became the holding company for the entire ABB Group.

Evolution of stock price with respect to benchmark (rebased)
Source: IAM



Investment case

ABB is a large-scale industrial manufacturer with one of the most appealing and diverse portfolios on record. Over the last few years, the company went through a rigorous restructuring process to realign its business with some of the most powerful trends that will shape the coming decades: electrification of vehicles, robotization and digitalization of operations. ABB may well be a major beneficiary of the huge capex pledged by governments worldwide to decarbonize their economies. The restructuring process was the opportunity for the company to pay a particular attention to capital allocation and R&D. This should enable ABB to maintain a leadership position in all its divisions and to improve its profitability. ABB expects to drive through-the-cycle revenue growth to 4-7% (3-5% organic and 1-2% acquired), in constant currency, and sharpened operational EBITA margin target to be at least 15% as from 2023, in any given year.

Company description and history

The ABB Group was formed in 1988 through a merger between Asea AB and BBC Brown Boveri AG. Initially founded in 1883, Asea AB was a major participant in the introduction of electricity into Swedish homes and businesses and in the development of Sweden’s railway network. Brown Boveri and Cie was formed in Switzerland in 1891 and initially specialised in power generation and turbines. In the early to mid-1990’s it expanded its operations throughout Europe and broadened its business operations to include a wide range of electrical engineering activities.

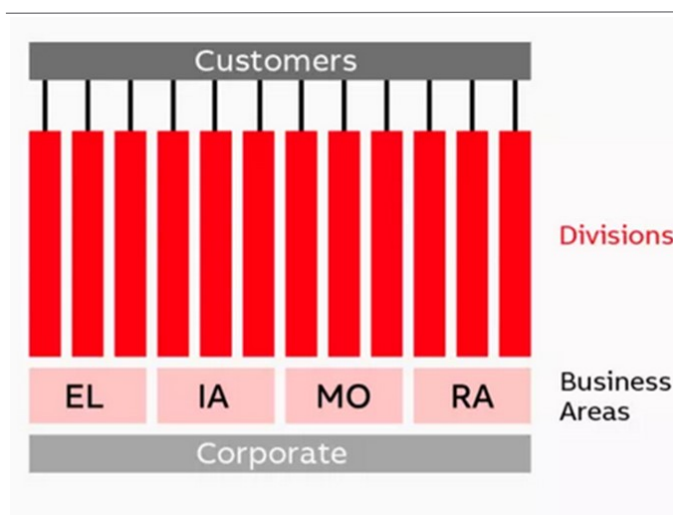
In January 1988, Asea AB and BBC Brown Boveri AG each contributed almost all of their businesses to the newly formed ABB Asea Brown Boveri Ltd, of which they each owned 50 percent. In 1996 Asea AB was renamed ABB AB and BBC Brown Boveri AG was renamed ABB AG. In February 1999, the ABB Group announced a group reconfiguration designed to establish a single parent holding company and a single class of shares. ABB Ltd was incorporated on March 5, 1999, under the laws of Switzerland. In June 1999, ABB Ltd became the holding company for the entire ABB Group.

Group structure

The company is managed through four Business Areas: Electrification, Industrial Automation, Motion, Robotics & Discrete Automation. The company has a decentralized business model. The divisions are the highest operational level in ABB, that is how the company get high speed in value creating business decisions close to customers. The Business Areas focus on governance and steering, performance and portfolio management of their Divisions. The Corporate focuses on portfolio evolution, capital

allocation, performance management, common policies, and the company’s brand.

Fig. 1: ABB Decentralised Business Model
Source: ABB



Electrification

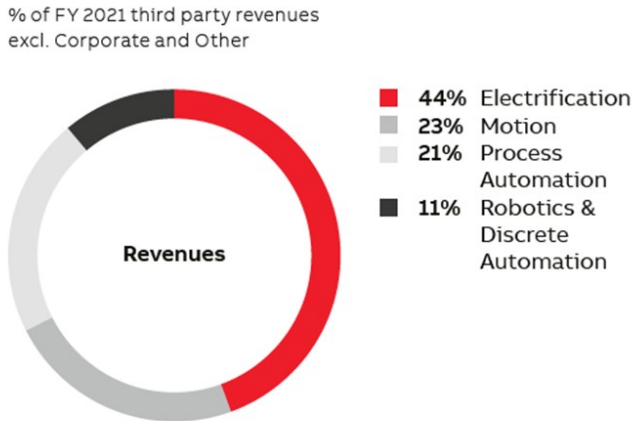
The products of the Electrification Business Area portfolio are designed to enable safe, smart, and sustainable electrification, with a full range of low and medium voltage products and solutions, along with pre-engineered packaged services and tailored solutions for intelligent protection and connection.

This Business Area had approximately 50’000 employees on December 31, 2021 and generated USD 13.2 billion of revenues in 2021.

The Electrification Business Area serves a wide range of customer segments, including residential, commercial, and industrial buildings, electric utilities, oil and gas, chemical, data centers, e-mobility, renewables, food and beverage, and other industries and infrastructure.

Fig.2: Revenue by Business Areas

Source: ABB



Industrial Automation

This Business Area offers customers in process and maritime industries, a broad range of industry-specific integrated automation, electrification and digital solutions that are designed to optimize the productivity, energy efficiency and safety of industrial processes and operations, based on the Business Area’s deep domain knowledge and expertise of each market. The solutions include turnkey engineering, control technologies, software and lifecycle services, measurement and analytics products, marine and turbocharging offerings, Human Machine Interface and integrated safety technology. The systems can link various process and information flows allowing customers to manage and control their entire business process based on real-time information. Additionally, the systems and solutions enable customers to increase production efficiency, optimize assets and reduce environmental impact.

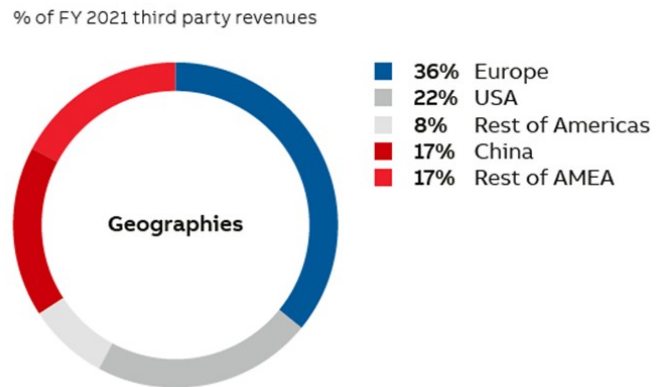
Industrial Automation had approximately 21’500 employees as of December 31, 2021, and generated revenues of USD 6.3 billion in 2021.

The customers include companies in the oil and gas, minerals and mining, metals, pulp and paper, chemicals, plastics, pharmaceuticals, food and beverage, power generation and maritime industries. These customers are looking for automation, electrification, instrumentation, and digitalization offerings that deliver value mainly

through lower capital costs, increased plant availability, lower life-cycle costs and lower project risks.

Fig.3.: Revenue by regions

Source: ABB



Motion

The Motion Business Area provides pioneering technology, products, solutions, and related services to industrial customers to increase energy efficiency, improve safety and reliability, and maintain precise control over processes. The portfolio includes motors, generators and drives for a wide range of applications in all industrial sectors. Motion manufactures and sells drives, motors, generators, traction converters and mechanical power transmission products.

The Motion Business Area had approximately 20’900 employees as of December 31, 2021 and generated around USD 6.9 billion of revenues in 2021.

This Business Area serves a wide range of customers in different industrial segments such as pulp and paper, oil and gas, metals and mining, food and beverage, transportation, power generation, marine and offshore.

Robotics & Discrete Automation

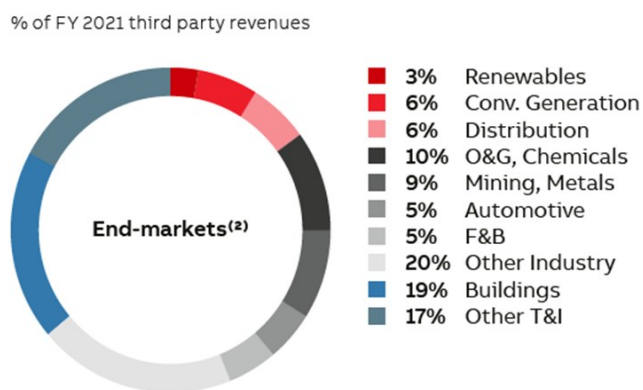
This Business Area provides robotics and machine and factory automation including products, software, solutions and services. Revenues are generated both form direct sales to end users as well as from indirect sales mainly through system integrators and machine builders. The division offers a wide range of products, solutions and services such as robots, robotics application cells and smart systems, field services, spare parts, digital services,

engineering and operations software. This offering provides productivity, quality, flexibility and simplicity for operations, e.g., to meet the challenge of making smaller lots of a larger number of specific products in shorter cycles for today's dynamic global markets and coping with increasing uncertainty.

The Robotics & Discrete Automation Business Area had approximately 10'300 employees as of December 31, 2021 and generated USD 3.3 billion of revenues in 2021.

The Business Area serves a wide range of customers. The main customers are active in industries such as automotive, machine building, metalworking, electronics, food and beverage and logistics. They include end-users such as manufacturers, system integrators and machine builders.

Fig.4: Revenues by End-markets
Source: ABB



ABB's markets

ABB is a leading global technology company with a comprehensive and increasingly digitalized offering of electrification, motion, and automation solutions. ABB's exposure to customers is geographically balanced while catering to multiple end-markets and segments. Through a full business cycle, the company estimates that its end-markets combined grow at around two percent per annum. ABB believes that its portfolio is well positioned to benefit from secular growth drivers, including urbanization, labor shortage, shift to electrification, automation and robotization, as well as other data and digitalization trends.

The majority of ABB businesses are market leaders within their respective segments with approximately two-thirds of revenues coming from the divisions where ABB holds a number one or two position in the relevant market. Market leadership is critical, as it provides an opportunity to be cost leader and to have the ability to invest more than competitors in research and development to sustain a technological leadership.

Industry Market

Approximately half of ABB's customers are industrial companies. ABB serves production facilities and factories all around the world for process industries such as oil and gas, pulp and paper as well as mining, to discrete industries (producing distinct products) including automotive, food and beverage and consumer electronics. Automation, software, and digital services that help customers achieve improved safety, uptime, energy efficiency and productivity are key to the success of ABB's offerings in this market.

Transport & Infrastructure Market

Approximately one third of ABB's customers operate in the transport & infrastructure market. ABB's expertise provides efficient, reliable, and sustainable solutions for these customers, with a focus on energy efficiency and reduced operating costs. These markets include EV charging, rail electrification and data centers.

Utilities Market

ABB delivers solutions mainly for distribution utilities and renewables customers, while continuing to service conventional power generation customers with control and automation solutions. Following the divestment of the Power Grids business to Hitachi in 2020, ABB's exposure to the utilities market has decreased significantly.



Strategy

In mid-2020, ABB launched the ABB Purpose initiative, which aims to capture what the company stands for today and what it aspires to be in the future. ABB believes that its technologies and products are well aligned to key market trends and customer needs such as the electrification of transport, automated manufacturing, digital solutions and increased sustainable productivity. The group is trusted by customers, holding number 1 or 2 market share positions in most of the segments in which it operates. The ABB purpose is summarized as:

- Success by the creation of superior value.
- Push the boundaries of technology to drive performance to new levels.
- Energize the transformation of society and industry to achieve a more productive, sustainable future.

Towards a more focused and profitable ABB

Over the last few years ABB has streamlined its business areas, gotten rid of the less profitable divisions (divestment of Mechanical Power Transmission) and acquired other companies such as ASTI to expand the Autonomous Mobile Robots division. Capital allocation and accelerated R&D investments in focus areas will also be instrumental to maintain technology leadership. ABB is showing encouraging progress towards achieving its 2023 operating margin target of 15%.

Fig.5: Towards a more profitable group

Source: ABB

Cement performance culture

- All divisions to take ownership of performance
 - Accountability, transparency & speed
 - Transparent reviews
 - Exposure to EC & Board
- Good leaders cooperate

Focus on growth

- Focused R&D spend driven by divisions
- Efficient growth through increasing channel sales
- Building M&A pipeline
- Grow software and embedded digital sales

Improve profitability

- Improve underperforming divisions
- Focus on quality of revenues
 - Better gross margin
 - Less tail risks
 - Reduced earnings volatility
- Continuous improvements

Portfolio management

- Progress with already announced exits and IPO
- Inside divisions: review of product group portfolio
- Work towards increased pace of acquisitions
- Strong balance sheet to support acquisitions

Reward shareholders

- Value creation through improved performance
- Create value by adding know-how/exposure through acquisitions
- Proposed 2021 DPS of CHF 0.82, in line with dividend policy
- Plan to continue share buybacks, also in excess of the PG capital return program

IPO of the E-Mobility division

ABB plans an IPO of its E-Mobility division on the SIX Swiss exchange during the second quarter 2022. ABB will keep a majority stake in the business after its floatation. The group expects proceeds of at least USD 750 million from selling shares of the profitable electric-car charging business. The cash will be used to fund acquisitions and organic growth as E-mobility expects to outgrow the market for EV chargers, as well as related installing and maintenance services by increasing its sales by 25% to 30% per year.

Fig.6: ABB Solutions for e-mobility

Source: ABB

ABB Solutions for e-mobility



Financial analysis

Revenues

Sales have increased by 10.8% in 2021, a nice rebound after a lacklustre 2020. In addition, the order backlog is very high at USD16.6bn. There is a noticeable trend favouring renewables and e-mobility. The automotive sector is accelerating its EV investments. Geographically, Europe (particularly Germany and Finland) and the USA have been strong whereas the AEMEA region was impacted by high comparison figures.

Fig.7: Evolution of revenues

Source: ABB

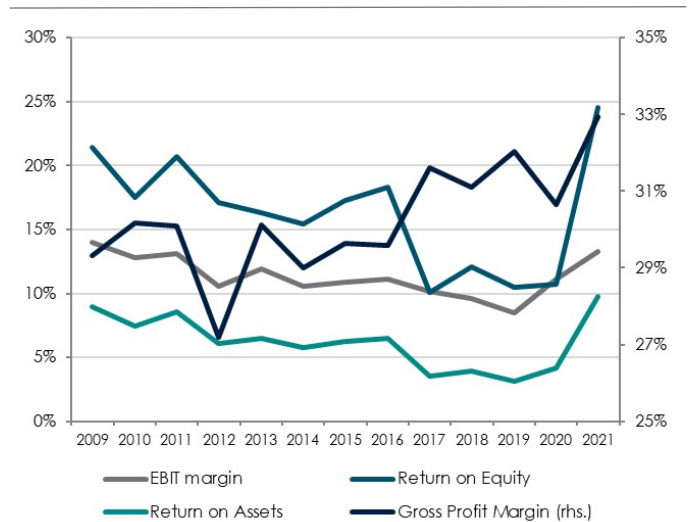


Profitability

The group's profitability has improved in 2021. Despite the impact from component shortages and higher input costs, ABB's margins were positively impacted by price development and efficiency gains. In addition, the divestments from less profitable businesses have structurally improved the group's profitability. The return on equity has also recovered nicely. This was driven by a higher EBIT and a lower adjusted group effective tax rate compared to 2020.

Fig.8: EBIT margin, RoE, RoA, Gross profit margin

Source: ABB

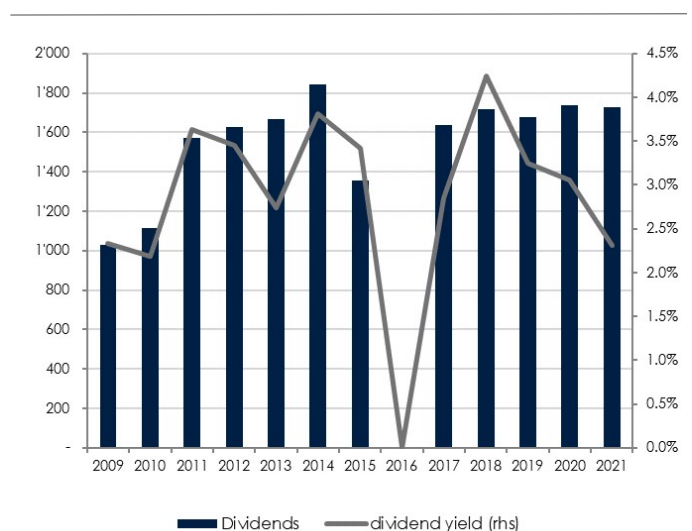


Capital distribution

ABB's dividend per share had not improved since 2018, staying at CHF 0.80 per share. In 2022, shareholder should receive CHF 0.82 per share, a 2.5% increase. However, as the free cash flow yield is now higher than the dividend yield, and provided the company continues to improve its profitability, there is room for a regular, if modest, dividend increase over the next few years. ABB's priority is to invest for growth and accelerated R&D in its focus areas.

Fig.9: Evolution of dividends

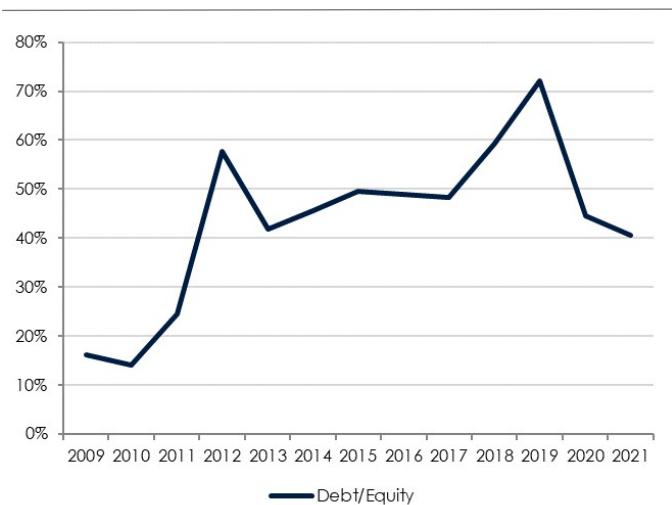
Source: ABB



Strong balance sheet

The company's balance sheet is very solid with a debt-to-equity ratio of 41%. The company's corporate bonds have a A- rating, reflecting the good cash flow generation and strong asset base of the group.

Fig.10: Dividends and dividend yields
Source: ABB



ESG considerations

ABB's 2030 sustainability strategy

Sustainability is at the center of the company Purpose and ABB has started to implement its 2030 sustainability strategy in 2020 with the focus on four key areas:

- Enabling a low carbon society
- Preserving resources
- Promoting social progress
- Integrity and transparency

Enabling a low carbon society

ABB works on three axes to achieve its decarbonization goals. First, the company will support its customers in reducing their annual CO₂ emissions by at least 100 megatons. This will be done through ABB's products and services, e-mobility, electrification, and process automation. Second, ABB wants to achieve carbon neutrality across its own operations. The company joined three

initiatives led by the international non-profit Climate Group to reduce its own emissions:

EV 100: ABB commits to electrifying its fleet of more than 10'000 vehicles by 2030.

RE 100: ABB commits to sourcing 100% renewable electricity by 2030.

EP 100: ABB commits to establishing energy efficiency targets and continuing to deploy energy management systems at its sites.

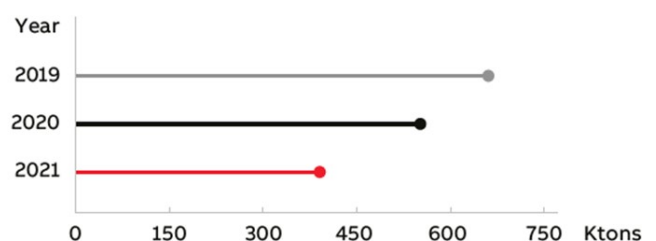
Then ABB wants to reduce CO₂ emissions in its supply chain through a systematic approach with impactful suppliers.

ABB's carbon reduction targets received approval by the Science Based Targets Initiative (SBTI) confirming that they are in line with the 1.5°C Campaign, a global coalition of UN agencies, business, and industry leaders, led by the UN Global Compact (UNGC).

Fig.11: Carbon reduction
Source: ABB

CO₂ scope 1 & 2

Ktons of CO₂ equivalent emissions



Preserving resources

ABB's target is to cover at least 80% of its products with its circularity approach; to reduce waste sent to landfills to zero and to implement a supplier sustainability framework including environment for at least 80% of supply spend.

Promoting social progress

ABB aims for zero harm to employees and contractors.

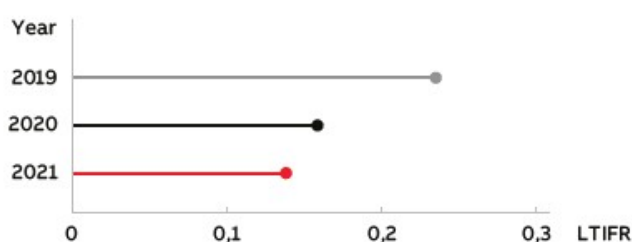
The company also wants to double the number of women in senior management positions to 25%. In addition, ABB is implementing a supplier sustainability framework including human rights for at least 80% of supply spend.

Fig.12: Lost Time Injury Frequency Rate

Source: ABB

Lost Time Injury Frequency Rate

LTIFR, frequency/200,000 working hours



Integrity and transparency

ABB has extended its code of conduct-based approach to projects and counterparties. It includes compliance with the company's supplier code of conduct in procurement terms and conditions. In terms of governance, sustainability targets have been included in senior management incentives.

Investment case

ABB is a large-scale industrial manufacturer with one of the most appealing and diverse portfolios on record. Over the last few years, the company went through a rigorous restructuring process to realign its business with some of the most powerful trends that will shape the coming decades: electrification of vehicles, robotization and digitalization of operations. ABB may well be a major beneficiary of the huge capex pledged by governments worldwide to decarbonize their economies. The restructuring process was the opportunity for the company to pay a particular attention to capital allocation and R&D. This should enable ABB to maintain a leadership position in all its divisions and to improve its profitability. The long-term targets have been lifted as ABB expects to drive through-the-cycle revenue growth to 4-7% (3-5% organic and 1-2% acquired), in constant currency, and sharpened operational EBITA margin target to be at least 15% as from 2023, in any given year. We consider

these targets as credible, as ABB can rely on a highly competent management team and governance processes to implement its strategy and in addition has a very solid balance sheet to support it.

SWOT analysis

Strengths

- ABB has a portfolio of leading-edge technologies. The group is well positioned in the growing sectors of electrification and digitalization.
- Strong management processes with a focus on capital allocation and sustainability.
- Strong balance sheet and credit profile.

Weaknesses

- The business is cyclical and depends on investment budgets.
- The scale of ABB may limit its flexibility.

Opportunities

- Further reduction of corporate cost structure and better efficiency.
- ABB can strongly benefit from the growing trends of decarbonization, digitalization, and e-mobility.
- External growth following the proposed IPO of the E-Mobility.

Threats

- Increased Chinese competition in some markets.
- Impact of a probable economic slowdown following the sharp increase in energy prices.