

# BSVI – SIEMENS EQUITY RESEARCH

Analysis date: 24/05/2024

## COMPANY OVERVIEW

*Under the Sector and Strategy division*

### Head of S&S Division:

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## INDUSTRY OVERVIEW

**Founded in 1847** by Werner von Siemens and Johann Georg Halske **in Berlin, Germany**, the company initially developed a telegraph system. Now headquartered in Munich, Germany, Siemens has 321,000 employees and reported a revenue of 81 billion USD in 2022. The company transitioned from manufacturing electrical equipment during World War II to focusing on digitalized products and energy. Consistently dedicated to energy and electricity, Siemens concentrated on digitalization and sustainable technologies, including renewable energy and energy efficiency solutions, in the late 20th and early 21st centuries.

Siemens operates in numerous segments, including power generation and distribution, intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. According to their products page, they now work in software services, mobility/transport, healthcare, finance, and energy, with many products focused on digitalizing industries or other products. Their hardware products include buildings and necessary infrastructure, metros, trains, railway systems, CT scanners, MRI, ultrasound technologies, logic controllers, and telecommunications systems. Siemens' **main competitors are GE, ABB, and Hitachi**. Siemens EDA (electronic design and automation of software and hardware systems) holds an estimated 6% market share.

# SIEMENS

## PORTER'S FIVE FORCES

### THREAT OF NEW ENTRY – RELATIVELY LOW

Seeing the **large amount of advanced technology and capital** amounts needed to participate in the electronics and energy sectors that Siemens operates in, there exist relatively high barriers to entry that would likely dissuade most small startups or companies from attempting to break into the market. On the other hand, the energy market is currently facing **large amounts of scrutiny** as humanity tackles the controversial issues of climate change and renewable energy. Due to this, the threat of entrants in the energy production sector specifically may be a problem.

Furthermore, the healthcare, energy production/distribution and industrial automation sectors all face large amounts of regulation and compliance. Seeing that these are all sectors that Siemens operates in with a large market share, it can benefit from the high barriers to entry.

### SUPPLIER POWER – MODERATELY LOW

From their website and based upon the fact that Siemens operates in many different industries and market sectors, it is clear that they work with **numerous suppliers**. According to their website Siemens works with 65,000 suppliers in over 140 countries globally. Due to the large variety of suppliers and industries, the **supplier power can be considered to be low**. On the other hand, looking at the numerous highly specialized industries that the company participates in, such as healthcare technologies, high-voltage electricity industry etc., it is clear that switching suppliers would be difficult.

Further analyzing the specific suppliers, one can understand that the supplier power is even lower due to the **vertical integration** that Siemens has undergone in an effort to create a sustainable value chain in its production. This is largely derived by the size of the company and its reach into different market sectors.

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## BUYER POWER – MODERATE/LOW

Once again, the buyer power depends largely on to the number of sectors that Siemens is active in. For instance, as aforementioned, **Siemens manufactures** a large number of highly **specific goods**, such as medical equipment and high voltage energy production and distributions systems that give buyers little to no buying power due to their complexity and little competition. Furthermore, it is likely, for compliance and simplicity purposes, that once a buyer has started purchasing from Siemens, they will likely benefit from continuing to purchase from them. In a market for highly specialized and complex goods, **Siemens buyers' have little buyer power.**

When analyzing, for example, its production of railways systems, large governments' purchasing items in bulk and relying on uniform systems will increase the buying power as little to no private companies buy such products. As a result, Siemens will have to contract in favor of governments in order to ensure sales. On the other hand, the governments it does sell to will likely not be so sensitive to price changes, due to inelastic demand, thus decreasing the buyer power.

## THREAT OF SUBSTITUTES – MODERATE

The main threat of substitute products lies within Siemens' position in the **renewable energy market**. Due to the nature of climate change and the ever growing demand for renewable energy, Siemens will continue to face high competition and therefore a high threat of substitute products. By 2025, 40% of energy and utilities companies will face a 50% increase in capital demands triggered by resource scarcity and soaring demands. This means that an increasing number of companies will be demanding energy alternatives as well as energy distribution solutions that Siemens provides. Overall, the threat of alternative energy sources implies a high threat of substitute products in this sector of Siemens' business.

Siemens invests largely in research and innovation in its medical technology solutions and as a result, competes with other top of the line technology companies fighting for contracts from the healthcare industry. Although Siemens competes with other companies, the technological solutions that they produce have little to no substitutes from other industries. This results in the **threat of substitute products being relatively low.**

## COMPETITION – MODERATELY HIGH

Siemens operates in several highly competitive markets, including energy, healthcare and industrial automation. These **industries often have a high degree of market saturation**, where growth may be minimal and competition is particularly intense. As a global giant, Siemens competes with other large conglomerates and specialized companies that continue to push the boundaries of innovation and efficiency. In the energy sector, for example, Siemens competes with other large companies offering end-to-end solutions in renewable energy, network infrastructure and digital energy services. Competition is intensifying as these companies seek to capitalize on the growing demand for sustainable and efficient energy solutions.

To maintain and strengthen its competitive position, **Siemens places great emphasis on differentiation** through innovation, high-quality customer service and technological advancement. The company invests significantly in research and development to remain at the forefront of technological innovation, as evidenced by the continuous introduction of new products and solutions across all operational departments. For example, Siemens Healthcare continues to introduce cutting-edge medical technologies that improve diagnostic accuracy and patient outcomes, differentiating itself from the competition.

# PEST ANALYSIS

## POLITICAL FACTORS

**Regulatory Compliance:** Siemens must adhere to a wide range of regulations, including environmental, health and safety, and quality standards across different countries.

**International Relations:** The company's operations in countries like China and Russia are influenced by the geopolitical climate and diplomatic relations with Germany and the EU.

**Government Contracts:** Siemens often engages in public sector projects, making it sensitive to changes in government investment and procurement policies.

## ECONOMIC FACTORS

**Market Fluctuations:** Siemens' financial performance is affected by the economic conditions in its key markets, particularly in the Eurozone and the United States.

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**Global Supply Chain:** The company's extensive supply chain is vulnerable to global economic pressures, such as trade disputes and material cost fluctuations.

**Investment in Innovation:** Economic incentives and funding for research and development can impact Siemens' ability to innovate.

### SOCIAL FACTORS

**Workforce Diversity:** As a global employer, Siemens focuses on creating an inclusive work environment and promoting diversity.

**Consumer Behavior:** Trends in consumer behavior, especially regarding green technologies and digital solutions, can influence Siemens' product development.

**Public Perception:** The company's reputation is shaped by its corporate social responsibility initiatives and response to social issues.

### TECHNOLOGICAL FACTORS

**Digital Transformation:** Siemens is at the forefront of the fourth industrial revolution, with significant investments in IoT, AI, and cloud computing.

**Sustainable Technologies:** The company is a leader in sustainable energy solutions, which aligns with the global shift towards renewable energy sources.

**Cybersecurity:** As Siemens expands its digital offerings, it must ensure robust cybersecurity measures to protect its operations and customer data.

## MARKET TRENDS & PREDICTIONS

One of the many trends that the technology sector faces as a whole is AI. As for any other company, the question remains for Siemens on **how they can make use of AI to increase their business and their product range**. As a first step to do so, Siemens has partnered with AWS and Microsoft to initiate partnerships in the field of AI directly and the hardware needed to implement large language models into their many software dependent products. In general, the performance of Siemens as a whole will likely depend on the company's flexibility and ability to adapt to the AI space as much of its competition will be taking advantage of it regardless of what Siemens chooses to do.

Seeing that in fiscal year 2023, Siemens reported an increase in revenue of 11% to €77.8 billion and a corresponding shift in net income to €8.5 billion, the company has the financial ability to continue to innovate through R&D and potentially AI. The year concluded with a record high free cash flow,

demonstrating strong financial health and effective capital management, all positive signs of growth in the short run.

As the company is diverting more and more resources to renewable energies and based on the current and possible geopolitical tensions, the company will likely face an increase in demand for its renewable energy products. The trend of countries diversifying away from non-renewable energy sources only bodes as good news for the company, as long as management recognizes the trend and is able to pivot to meet the corresponding demand hike.

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## FINANCIAL STATEMENT ANALYSIS

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## HISTORICAL ANALYSIS

In 2020, COVID-19 and the spin-off of Siemens Energy defined the year. The pandemic increased demand for digitalization while affecting key industries. Siemens completed the spin-off of Siemens Energy, creating specialized companies. Orders fell 7% due to postponed tenders, but Digital Industries maintained order levels. Revenue dropped 2%, mainly in automation. Adjusted EBITA for Industrial Business fell 3%, impacted by COVID-19 and higher severance charges. **Net income decreased to 4.2 billion, with discontinued operations reporting a loss. Industrial net debt to EBITDA rose to 1.3**, free cash flow increased 10% to 6.4 billion, and dividends fell to 3.50 per share.

Siemens focused on business refinement, spinning off Siemens Energy and divesting the Flender business in 2021. Acquisitions included C&S Electric, Varian, and Supplyframe. Post-recession recovery saw a 23% increase in orders, led by Mobility and Siemens Healthineers. Revenue grew 13%, with strong gains in Siemens Healthineers and Digital Industries. Adjusted EBITA for Industrial Business rose 17%, driven by antigen test demand and Smart Infrastructure. Net income increased 59%, with EPS up 54%, thanks to higher adjusted EBITA and lower losses. Industrial net debt to EBITDA rose to 1.5, free cash flow increased 29%, and dividends rose to 4.00 per share.

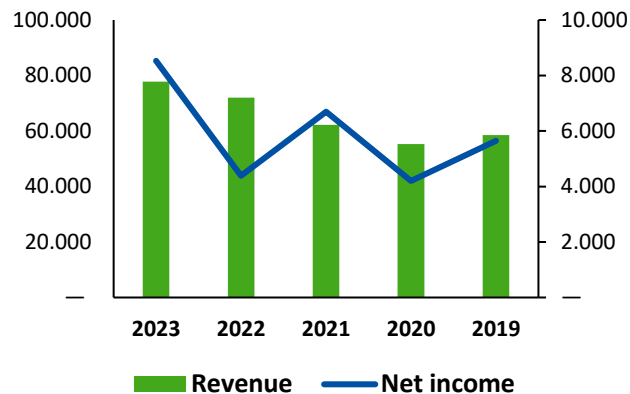
Siemens faced geopolitical and economic challenges in 2022, exiting Russia due to the Ukraine war and dealing with COVID-19 disruptions in China. Despite this, demand for automation, digitalization, and decarbonization grew. Siemens refined its portfolio with divestments and acquisitions, and launched

Siemens Xcelerator. Orders increased 25%, and revenue grew 16%, with significant contributions from Digital Industries and Smart Infrastructure. Profit in Industrial Businesses reached record highs, although Mobility's profit declined. Net income fell due to impairments and the Russia exit. Industrial net debt to EBITDA fell to 1.0, with high free cash flow and increased dividends at 4.25 per share.

In 2023, Siemens excelled in automation, electrification, and digitalization, enhancing resource efficiency and decarbonization. They sold their Commercial Vehicles business, formed Innometrics, and expanded Siemens Xcelerator. Despite market volatility and customer destocking, improved supply chains and high order backlogs led to increased orders and revenue. Significant growth was seen in Smart Infrastructure, Digital Industries, and Mobility, while Siemens Healthineers remained stable. **Profit margins hit record highs in Industrial Businesses, and net income nearly doubled.** Industrial net debt to EBITDA fell to 0.6, and free cash flow hit a record high, with dividends rising to 4.7 per share.

### INCOME STATEMENT

#### REVENUES AND NET INCOME



Despite the steadily increasing revenues, Siemens' profitability has shown fluctuations over the past years. Downturns in 2020 and 2022 were, however, attributable to external events that affected not just Siemens but the economy as a whole. In 2020, the company faced a sharp downturn in its industrial businesses, as the Covid pandemic induced a steep decline in demand for most of Siemens' industrial products, resulting in a decline of 26% in net income. Despite this downturn, the company managed to exceed its prior profitability the following year, with growth in all its business segments, led particularly by Siemens Healthineers. **In 2022**, however, the company once again faced difficulties, as **it exited business activities in Russia because of the war in Ukraine**, and

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further supply chain issues emerged as lockdowns occurred in China. This once again reduced profit levels to the pandemic era levels. The profit downturn, however, once again proved to be transitory, as Siemens' businesses benefited from long-term trends in automation, electrification, and digitalization, leading to the highest profit margin ever in its Industrial Businesses, led by Digital Industries and Smart Infrastructure. In 2023, the company nearly doubled its net income, achieving record levels of profitability with 8.5 billion euros of net income, 94% higher than the prior year and 51% higher than five years ago in 2019.

## BALANCE SHEET

In the analysed period, Siemens has divested some of its business ventures, including the spin-off of Siemens Energy in 2020, while continuously investing in companies that enhance its other industrial businesses. This resulted in a significant variance in the company's goodwill and investments accounts, and a steady growth in total assets since 2020, broken only in 2023, when total assets declined by 4%. Siemens used its revenues to continuously increase its capital expenditure in the past four years, that resulted in the steady increase of property, plants, and equipment for the company. The source of financing for its operations remained relatively unchanged over the analysed period, as the capital structure remained largely constant over the years, as its **debt to asset ratio declined slightly from 0.66 in 2019 to 0.63 in 2023**. Additionally, despite the increasing inventories and receivables, the efficient use of Siemens' assets has improved significantly over the past five years, as its **operating cycle decreased significantly from 264.58 days in 2019 to 164.14 days in 2023**.

## RATIO ANALYSIS

### PROFITABILITY

The gross profit margin stability reflects consistent operational efficiency and cost management. The ROA range suggests moderate efficiency in asset utilisation to generate profit. The increase to 6% in 2023 indicates an improvement, but is still somewhat lower than the industry benchmark. **The ROE range of 8-16% indicate good returns for shareholders.**

Year	ROA	ROE	Gross profit margin
2019	4%	11%	37%
2020	3%	9%	36%
2021	5%	15%	37%
2022	3%	8%	36%
2023	6%	16%	38%

### LIQUIDITY

Year	Current ratio	Quick ratio
2019	1.39	1.1
2020	1.55	1.32
2021	1.31	1.09
2022	1.38	1.13
2023	1.35	1.09

The company has a healthy liquidity throughout the years, indicating sufficient liquid assets to cover its short-term liabilities. The values always remained in the safe range despite slight dips in 2021.

### EFFICIENCY

Year	Inventory turnover	Accounts receivable turnover	Total asset turnover
2019	2.49	3.1	0.39
2020	3.13	3.35	0.4
2021	4.75	4.21	0.47
2022	4.74	4.47	0.49
2023	4.34	4.56	0.52

The increased **inventory turnover** ratio demonstrates improved operational efficiency. **The value significantly surpassed the industry average in 2021**. The consistent increase in accounts receivable turnover ratio implies efficient collection processes and a reduced risk of bad debts. **By 2021**, Siemens' ratio was **on par with the industry average**, and in 2022 and 2023, it slightly exceeded the average. Meanwhile in terms of total asset turnover, Siemens

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still lags behind many of its industry peers in terms of asset utilization. However, the upward trend shows progress towards closing the gap.

## SOLVENCY

Year	Debt to equity	Debt to assets	Times interest earned
2019	1.95	0.66	8.18
2020	2.11	0.68	7.76
2021	1.83	0.65	12.64
2022	1.76	0.64	11.38
2021	1.73	0.63	9.16

The decreasing debt to equity values indicate a **decreased reliance on debt financing and lower financial risk**. Siemens showcases improved financial leverage and a stronger ability to manage debt obligations. The times interest earned ratio indicates that Siemens has been able to comfortably cover its interest expenses with operating income.

## FORECAST

### STRATEGIC GOALS

Siemens aims for a **5-7% annual revenue growth** on a comparable basis over a three to five-year cycle. For profitability, they focus on EBITA margins calculated as profits divided by revenue for each segment, targeting a capital efficiency ratio (ROCE) of 15-20% over the same period. The company's goal is to **maintain an industrial net debt to EBITDA ratio of up to 1.5**, ensuring a robust capital structure. Siemens plans to increase dividends yearly or at least maintain the previous year's level, funded from free cash flow, and aims for a cash conversion rate where free cash flow is equal to net income minus the annual comparable revenue growth rate.

### INVESTMENTS AND MARKET TRENDS

In 2024, Siemens expects a **significant increase in capital expenditures**, primarily for constructing and expanding high-tech production facilities in the US, China, and Singapore, along with expanding manufacturing capacities in Germany. Digital Industries, one of Siemens' key segments, serves various markets including automotive, machine-

building, pharmaceuticals, chemicals, food and beverage, and electronics. These industries experience strong demand fluctuations driven by macroeconomic cycles. Siemens identifies three long-term trends influencing their business: modernization of production capacities, the shift from globalization to regionalization, and differentiated regulatory requirements. High energy costs and increased interest rates also impact manufacturing and related industries.

### SEGMENT-SPECIFIC OUTLOOKS

**Digital industries:** The Digital Industries segment serves a diverse range of markets, including automotive, machine-building, pharmaceuticals, chemicals, food and beverage, and electronics and semiconductor industries. Demand in these markets is heavily influenced by macroeconomic cycles, which can lead to short-term fluctuations in profitability. Siemens identifies three key trends for long-term growth: modernization of production capacity, the shift from globalization to regionalization with more regulatory requirements, and the need for producers to complement their core products with vertical solutions and services.

This segment is expected to face slower market growth in 2024 due to rebalancing supply chains, trade conflicts, geopolitical tensions, cautious consumer spending, and inventory downsizing in distribution channels. Despite these challenges, Digital Industries anticipates revenue growth of 0-3% with a profit margin of 20-23%.

**Smart infrastructure:** The Smart Infrastructure segment serves infrastructure developers, construction companies, building owners, process industries, discrete manufacturing industries, and utilities. Business impact varies with economic conditions; electrical and building products are highly cyclical, while systems and solutions have a lagged response, and service demand is less affected. Major trends benefiting this segment include urbanization, demographic change, decarbonization, and digitalization. **In 2024, market growth is anticipated to slow** due to reduced inflationary effects and a cooling economic environment, influenced by supply chain rebalancing, trade conflicts, and geopolitical tensions. Smart Infrastructure forecasts a 7-10% revenue growth with a profit margin of 15-17%.

**Mobility:** Primarily serving public and state-owned transportation and logistics companies, Mobility's markets are driven by public spending and are less affected by short-term economic trends. Major trends include urbanization, decarbonization, and

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digitalization. **For 2024, Mobility anticipates robust growth supported** by public investment programs, projecting an 8-11% revenue growth and an 8-10% profit margin.

**Siemens Healthineers:** Siemens Healthineers serves public and private healthcare providers, with markets known for long-term stability but subject to health policy, regulatory changes, and macroeconomic developments. Recurring business forms a significant portion of revenue. The market is driven by demographic changes (aging global population), economic growth in emerging countries, increased non-communicable diseases, and the transformation of healthcare providers into networks. **Siemens Healthineers expects moderate market growth in 2024**, with a 4.5-6.5% revenue increase. Moderate market growth is expected in 2024.

**Siemens Financial Services:** Closely aligned with the industrial businesses, this segment's performance is influenced by the development of markets served by Digital Industries, Smart Infrastructure, and Mobility, along with macroeconomic factors like inflation or recession, which affect customer credit risk. The expected return on equity (ROE) is 15-20%.

**Portfolio companies:** Financial results depend on customer investment cycles and are influenced by geopolitical and economic uncertainties. Normalized growth is expected in 2024. The Portfolio Companies segment reacts more slowly to economic changes but depends heavily on customer investment cycles in key industries. Despite diverse markets, uncertainties in geopolitical and economic developments may cause customer caution. Normalized growth momentum is anticipated in most end-customer vertical markets in 2024.

## ECONOMIC EXPECTATIONS AND FINANCIAL TARGETS FOR 2024

**Global GDP growth is expected at 2.3%**, with varying regional impacts: 0.8% in the EU, 1.6% in the US, and 4.6% in China. Siemens expects productivity improvements and price adjustments to offset wage and material cost increases. Revenue growth is projected at 4-8%, with specific targets for each segment.

**Siemens targets a 15-20% ROCE**, with a goal to maintain an industrials **net debt to EBITDA ratio of 1.5**. Expected revenue growth for Digital Industries is 0-3% with a 20-23% profit margin; Smart Infrastructure 7-10% growth with a 15-17% margin; Mobility 8-11%

growth with an 8-10% margin; and Siemens Healthineers 4.5-6.5% growth. Siemens Financial Services aims for a 15-20% ROE, and Portfolio Companies target over 5% operational margin. The tax rate is expected to be 24-29%, with R&D and administrative expenses remaining steady. EPS pre-PPA is projected to rise to €10.40-11.00.

## FINANCIAL FORECAST

**Siemens targets a 5-7% annual revenue growth rate on a comparable basis** over a three to five-year cycle. Profit margins, calculated as profits divided by revenue, vary by business segment, with industrial business profits adjusted for the amortization of intangible assets not acquired in business combinations. The primary capital efficiency ratio used by Siemens is ROCE (Return on Capital Employed), with a goal of achieving 15-20% over a cycle of three to five years.

Siemens aims to maintain an industrial net debt to EBITDA ratio of up to 1.5. **The company plans to pay dividends per share that exceed or match the previous year's dividends**, funded from free cash flow. For cash generation, Siemens focuses on the cash conversion rate, defined as the ratio of free cash flow to net income, aiming for a rate of 1 minus the annual comparable revenue growth rate.

**In 2024, Siemens expects a significant increase in capital expenditures**, including the construction and expansion of high-tech production facilities in the US, China, and Singapore, as well as the development of manufacturing capacities in Germany. The company anticipates improvements in productivity and price adjustments for its products to offset increased wages and higher raw material costs. Siemens is exposed to currency translation effects from the US dollar, British pound, and Chinese yuan, and as a net exporter from the Eurozone, benefits from a weak euro. Overall, Siemens expects revenue growth in the range of 4-8%.

Siemens expects a tax rate of 24-29%, with the R&D ratio to revenue projected to remain at 8% and selling and general administrative expenses to revenue at 18%. Severance charges are expected to be lower than the €0.4 billion recorded in fiscal 2023. The company anticipates an **increase in EPS pre-PPA**, excluding Siemens Energy Investment, **to a range of €10.40 to €11.00**, along with a corresponding increase in net income.

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## COMPANY VALUATION

*under the Finance Division*

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**Valentin Steinhauser**

To determine the appropriate growth rate for the DCF model, historical, fundamental, and analysts' estimated growth rates were analyzed.

The table below displays Siemens' historical and expected revenue. It is evident that Siemens experienced a significant revenue increase during the Covid pandemic. However, this growth has begun to taper off, and it is anticipated to return to normalized levels over the coming years. Revenue growth is expected to increase from relatively low levels during the initial two years of the forecast period before stabilizing at a rate of 6.04% for the subsequent three years. After the five-year horizon, a perpetual growth rate of 2% is assumed, aligning with the long-term inflation targets of both Germany and the US, which are the Siemens' primary sales markets.

Year	Revenues (in M €)	Growth rate
2020	€ 55'254	-
2021	€ 62'265	12.69%
2022	€ 71'977	15.60%
2023	€ 77'769	8.05%
2024E	€ 80'210	3.14%
2025E	€ 84'667	5.56%
2026E	€ 89' 778	6.04%
2027E	€ 95'198	6.04%
2028E	€ 100'944	6.04%

## WACC

### Cost of equity

The cost of equity is calculated using the Capital Asset Pricing Model (CAPM). A risk free rate of 3.40 % was selected, based on the average of German and US risk free. The 10-year German Bund yield was considered for German risk free rate, while the 10-year Treasury

Yield was used for US rate. A 3-year adjusted beta of 1.27 was used in the model, multiplied by a market risk premium of 4.60%. the latter value was computed as the average of German and US MRP, proposed by NYU Professor Aswath Damodaran (both values equal to 4.60%). Using the values computed above, we arrived at a conclusive cost of equity of 9.24%.

### Cost of debt

We initiate the computation of the cost of debt using the same risk-free rate assumed for the cost of equity (3.40%). We added to this value the default spread indicated by Siemens' corporate ratings from Fitch (A+), S&P (AA-), and Moody's (Aa3). These ratings correspond to a default spread of 0.92%. Consequently, a pre-tax cost of debt of 4.32% is established. We considered an average of German and US tax shield equal to 25.5% and therefore we computed an after-tax cost of debt of 3.22%.

### WACC

The Weighted Average Cost of Capital (WACC) is computed by weighing the cost of debt and the cost of equity according to their respective proportions in the capital structure.

As of December 31, 2023, Siemens holds 138,159 million EUR of outstanding equity (77.76%) and 39,522 million EUR of outstanding debt (22.24%). This computation yields a WACC of 7.90%. This relatively high value is primarily attributed to the more costly equity, which constitutes the main component of Siemens' capital structure.

The following tables display a comprehensive list of all the data points that were used in the computation of the Weighted Average Cost of Capital (WACC).

WACC	
MV of equity	138.3
MV of net debt	39.6
Tax rate	25,5%
E/(D+E)	77,8%
D/(D+E)	22,2%
WACC	7,9%

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Cost of equity	
Risk free rate	3,4%
MRP	4,6%
Beta	1,27
Ke	9,2%

Cost of debt	
Risk free rate	3,4%
Rating	AA-
Credit spread	0,92%
Kd	4,32%

## DISCOUNTED CASH FLOW MODEL

Discounting Siemens' projected cash flows with the above described WACC yields an **enterprise value of EUR 194.4 billion and an equity value of EUR 149.6 billion**. This corresponds to an intrinsic share price of EUR 187, representing a 5.6% increase over the current **share price** (as of 03/05/2024) of **EUR 177**. A more detailed overview of the DCF can be found in the appendix.

Recognizing the heavy reliance of the DCF model on underlying assumptions, we have decided to include a sensitivity analysis reflecting potential changes in the WACC and the perpetual growth rate, which are the two variables with the greatest impact on the DCF model.

## SENSITIVITY ANALYSIS

Share price sensitivity analysis					
g / WACC	6.9%	7.4%	7.9%	8.4%	8.9%
1.0%	194	174	157	143	130
1.5%	213	190	171	154	140
2.0%	237	209	187	167	151
2.5%	265	232	205	183	164
3.0%	301	260	228	201	179

In the above table we calculated the different price Siemens can assume changing the WACC and the perpetual growth rate we estimated. In the most pessimistic scenario, reflecting both a 1% decrease in the perpetual growth rate and a 1% increase in WACC compared to the base scenario, the resulting share price is EUR 130. Conversely, in the most optimistic

scenario, featuring a 1% higher perpetual growth rate and a 1% lower WACC, the calculated share price is EUR 301.

## PRECEDENT TRANS. ANALYSIS

To determine the correct valuation of Siemens, we also looked at comparable listed companies respectively their valuation multiples. It shall be noted that there are no perfect comparables due to Siemens' unique structure as conglomerate active in several distinct sectors. Nevertheless, we managed to find four akin conglomerates active in some of Siemens' sectors and in the same market cap category. To be precise, the comparable company multiple is based on the following four businesses: ABB, Schneider Electric, Dassault Systems, and Rockwell Automation.

In order to gain a valid understanding of the proper share price of Siemens, the revenue multiple, EBITDA multiple, and EBIT multiple were calculated using the median of the four companies – due to an outlier with higher multiples, the median was the more reliable choice. The resulting numbers were clear: **revenue multiple (EUR 307), EBITDA multiple (EUR 246) and EBIT multiple (EUR 205)** clearly indicate an intrinsic value above Siemens' current market price in line with the findings of our DCF analysis. It shall be cautioned though that the revenue multiple must be deemed the less expressive, often showing significant deviations. The whole picture and particularly the EBIT multiple are certainly clear indications.

## COMPARABLES ANALYSIS

Due the lack of precedent transactions of comparable conglomerates, an innovative approach had to be taken. Namely, an approximation approach was taken. In the first step, comparable transactions were found for four distinct sectors in which Siemens is active. Secondly, the median and average revenue, EBITDA, and EBIT multiple were calculated for each of the sectors. Thirdly, equally weighted multiples (each sector 25%) were calculated – for the sake of simplicity, due to the difficulty in clearly defining the borders of each of Siemens' operational fields, and the seemingly relatively balanced revenues among Siemens' revenue streams, this equal weight was used. Lastly, the intrinsic value per share was calculated based on it.

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While a detailed enumeration of all the deals taken into account and finally chosen as comparable transactions, the following criteria were taken into consideration:

- **Timing of transaction**
  - *last 5 years only*
- **EV of target**
  - *larger EUR 1.000 million*
- **Geography of target**
  - *preferably 1st world*
- **Type of deal I**
  - *ideally minority purchases*
- **Type of deal II**
  - *ideally financial buyer*
- **Type of company**
  - *ideally public business*
- **Further individual considerations**

Finally, average multiples were chosen for the sake of prudence – the EBITDA and EBIT multiple merited slightly lower intrinsic values. Applying this approximation approach, the following intrinsic values were reached:

- **Revenue M. = EUR 413**
- **EBITDA M. = 216**
- **EBIT M. = 191**

Overall, the values are clearly directionally in line with the values of DCF as well as of comparable companies. Especially a look at the most trustworthy EBIT multiple confirms this (DCF EUR 187, comparable company EUR 205, precedent transaction EUR 191).

## CONCLUSION

All the conducted analysis suggest an undervaluation of Siemens as a company. Taking the most conservative path, we see a slight **undervaluation of 5.6% as of 03/05/2024**.

Though, caution shall be applied. Siemens' status as conglomerate may be one factor explaining this price differentials. After all, some conglomerate theories suggest a conglomerate discount due to factors like the inability to use the ideal capital structure for each conglomerate part or the preference of investors to diversify themselves and tailor their portfolio more closely to their needs.

**Fair Price = €187**  
**VS**  
**Current Price = €177**

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## DCF APPENDIX

(EUR m)	Historicals		Explicit forecast				
	2023	2024	2025	2026	2027	2028	
<b>Sales</b>	<b>77.769 €</b>	<b>80.210 €</b>	<b>84.667 €</b>	<b>89.778 €</b>	<b>95.198 €</b>	<b>100.944 €</b>	
<i>Growth</i>		3,14%	5,56%	6,04%	6,04%	6,04%	
Cost of goods sold (COGS) (excluded D&A)		51.092 €	54.186 €	57.428 €	60.820 €	64.491 €	
<i>% of sales</i>		63,70%	64,00%	63,97%	63,89%	63,89%	
<b>Gross profit (excluded D&amp;A)</b>		<b>29.118 €</b>	<b>30.481 €</b>	<b>32.350 €</b>	<b>34.378 €</b>	<b>36.453 €</b>	
Other SG&A espenses		14.523 €	14.546 €	14.900 €	15.399 €	15.823 €	
<b>EBITDA</b>		<b>14.595 €</b>	<b>15.935 €</b>	<b>17.450 €</b>	<b>18.979 €</b>	<b>20.630 €</b>	
<i>Margin</i>		18,20%	18,82%	19,44%	19,94%	20,44%	
D&A		3.327 €	3.408 €	3.493 €	3.704 €	3.927 €	
<b>EBIT</b>		<b>11.268 €</b>	<b>12.527 €</b>	<b>13.957 €</b>	<b>15.276 €</b>	<b>16.702 €</b>	
<i>Margin</i>		14,05%	14,80%	15,55%	16,05%	16,55%	

Cash flows	2023	2024	2025	2026	2027	2028	Terminal value
EBIT		11.268 €	12.527 €	13.957 €	15.276 €	16.702 €	
(Operational taxes)		-2.873 €	-3.194 €	-3.559 €	-3.895 €	-4.259 €	
<b>NOPAT</b>		<b>8.395 €</b>	<b>9.333 €</b>	<b>10.398 €</b>	<b>11.380 €</b>	<b>12.443 €</b>	
Depreciation		3.327 €	3.408 €	3.493 €	3.704 €	3.927 €	
<b>Gross cash flows</b>		<b>11.722 €</b>	<b>12.741 €</b>	<b>13.891 €</b>	<b>15.084 €</b>	<b>16.371 €</b>	
Change in noncash WC		-422 €	-422 €	-422 €	-422 €	-422 €	
CAPEX		-2.771 €	-3.590 €	-4.050 €	-3.470 €	-3.470 €	
<b>FCFF</b>		<b>8.529 €</b>	<b>8.729 €</b>	<b>9.419 €</b>	<b>11.192 €</b>	<b>12.479 €</b>	<b>12.728 €</b>
year		1	2	3	4	5	
Discount factor		0,9627	0,8922	0,8268	0,7663	0,7102	
PV FCFF		8.211 €	7.788 €	7.788 €	8.576 €	8.862 €	
terminal value							215.656 €
PV terminal value							153.153 €
<b>Enterprise value</b>		<b>194.379 €</b>					
Net debt		-39.522 €					
Non-controlling interests		-5.270 €					
<b>Equity value</b>		<b>149.586,66 €</b>					
NOSH		802					
<b>Share Price</b>		<b>186,52 €</b>					
Current Share Price		173 €					
<b>Reccomendation</b>		<b>BUY</b>					

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