1. Organization of the Siemens Group and basis of presentation

Siemens is a technology group that is active in nearly all countries of the world, focusing on the areas of automation and digitalization in the process and manufacturing industries, intelligent infrastructure for buildings and distributed energy systems, smart mobility solutions for rail and road and medical technology and digital healthcare services.

Siemens comprises Siemens Aktiengesellschaft (Siemens AG), a stock corporation under the Federal laws of Germany, as the parent company, and its subsidiaries. Our Company is incorporated in Germany, with our corporate headquarters situated in Munich. As of September 30, 2021, Siemens had around 303,000 employees.

As of September 30, 2021, Siemens has the following reportable segments: **Digital Industries**, **Smart Infrastructure**, **Mobility** and **Siemens Healthineers**, which together form our "Industrial Business" and **Siemens Financial Services (SFS),** which supports the activities of our industrial businesses and also conducts its own business with external customers. Furthermore, we report results for **Portfolio Companies**, which comprises businesses that are managed separately to improve their performance.

Our reportable segments and Portfolio Companies may do business with each other, leading to corresponding orders and revenue. Such orders and revenue are eliminated on the Group level.

Non-financial matters of the Group and Siemens AG

Siemens has policies for environmental, employee and social matters, for the respect of human rights, and anti-corruption and bribery matters, among others. Our business model is described in chapters 1 and 3 of this Combined Management Report. Reportable information that is necessary for an understanding of the development, performance, position and the impact of our activities on these matters is included in this Combined Management Report, in particular in chapters 3 through 7. Forward-looking information, including risk disclosures, is presented in chapter 8. Chapter 9 includes additional information that is required to be reported in the Combined Management Report related to the parent company Siemens AG. As supplementary information, amounts reported in the Consolidated Financial Statements and the Annual Financial Statements of Siemens AG related to such non-financial matters, and additional explanations thereto, are included in Notes to Consolidated Financial Statements for fiscal 2021, Notes 17, 18, 22, 26 and 27, and in the Notes to the Annual Financial Statements for fiscal 2021, Notes 16, 17, 20, 21 and 25. In order to inform the users of the financial reports in a focused manner, these disclosures are not subject to a specific non-financial framework – in contrast to the disclosures in our separate "Sustainability Report 2021" document, which are based on the standards developed by the Global Reporting Initiative (GRI). Said document also includes detailed information on DEGREE, Siemens' new sustainability framework which was introduced during fiscal 2021. With DEGREE, Siemens intends to manage and track its progress on selected ambitions in the environmental, social and governance areas.

2. Financial performance system

2.1 Overview

The Siemens Financial Framework includes targets that we aim to achieve over a cycle of three to five years. During fiscal 2021, we modified this framework. The resulting changes became effective starting with fiscal 2022.

2.2 Revenue growth

In the Siemens Financial Framework, up to and including fiscal 2021, we aimed to achieve a revenue growth range of 4% to 5% per year on a comparable basis.

Our primary measure for managing and controlling our revenue growth is comparable growth, because it shows the development in our business net of currency translation effects, which arise from the external environment outside of our control, and portfolio effects, which involve business activities which are either new to or no longer a part of the respective business.

Currency translation effects are the difference between revenue for the current period calculated using the exchange rates of the current period and revenue for the current period calculated using the exchange rates of the comparison period. For calculating the percentage change year-over-year, this absolute difference is divided by revenue for the comparison period. A portfolio effect arises in the case of an acquisition or a disposition and is calculated as the change year-over-year in revenue related to the transaction. For calculating the percentage change, this absolute change is divided by revenue for the comparison period. Any portfolio effect is excluded for the 12 months following the relevant transaction after which both current and past reporting periods fully reflect the portfolio change. For orders, we apply the same calculations for currency translation and portfolio effects as described above.

Under the modified framework, we aim to achieve comparable revenue growth in the range of 5% to 7% per year over a cycle of three to five years.

2.3 Profitability and capital efficiency

Within the Siemens Financial Framework, we aim to achieve margins that are comparable to those of our relevant competitors. Therefore, we have defined profit margin ranges for our industrial businesses which also consider the profit margins of their respective relevant competitors. Profit margin is defined as profit of the respective business divided by its revenue.

For our industrial businesses, in fiscal 2021 profit represented EBITA adjusted for operating financial income (expenses), net, and amortization of intangible assets not acquired in business combinations (Adjusted EBITA).

The margin ranges for our industrial businesses were as follows:

Margin ranges until fiscal 2021

	Margin range
Digital Industries	**17 - 23%**
Smart Infrastructure	**10 - 15%**
Mobility	**9 - 12%**
Siemens Healthineers	**17 - 21%**
Industrial Business	**11 - 15%**
Siemens Financial Services (ROE after tax)	**17 - 22%**

Beginning with fiscal 2022, the profit definition no longer adjusts EBITA for operating financial income (expenses), net to present a more transparent view on operating earnings. Operating financial income, net for Industrial Business was €23 million in fiscal 2021, without a change to the reported margin.

The margin ranges were set as follows:

Margin ranges from fiscal 2022

	Margin range
Digital Industries	**17 - 23%**
Smart Infrastructure	**11 - 16%**
Mobility	**10 - 13%**
Siemens Healthineers	**17 - 21%**
Siemens Financial Services (ROE after tax)	**15 - 20%**

For Siemens Healthineers, we present the margin range we expect as that company's majority shareholder.

In line with common practice in the financial services business, our financial indicator for measuring capital efficiency at Siemens Financial Services is return on equity after tax, or ROE after tax. ROE is defined as Siemens Financial Services' profit after tax, divided by its average allocated equity.

For purposes of managing and controlling profit and profitability at the Group level, we use net income as our primary measure. This measure is the primary driver of basic earnings per share from net income (EPS).

Beginning with fiscal 2022, we will in addition report EPS before purchase price allocation accounting (EPS pre PPA) to increase transparency regarding our operating performance. EPS pre PPA is defined as basic earnings per share from net income adjusted for amortization of intangible assets acquired in business combinations and related income taxes. Like for EPS, EPS pre PPA includes the amounts attributable to shareholders of Siemens AG. We aim to achieve high-single-digit annual growth in EPS pre PPA over a cycle of three to five years. EPS pre PPA for fiscal 2021 was €8.32.

We seek to work profitably and as efficiently as possible with the capital provided by our shareholders and lenders. For purposes of managing and controlling our capital efficiency, we use return on capital employed, or ROCE, as our primary measure in our Siemens Financial Framework.

Beginning with fiscal 2022, ROCE excludes defined acquisition-related effects for Varian Medical Systems, Inc. (Varian), which was acquired by Siemens Healthineers in fiscal 2021, to further increase the transparency on our operating performance. Our goal is to achieve a ROCE within a range of 15% to 20% over a cycle of three to five years.

2.4 Capital structure

Sustainable revenue and profit development is supported by a healthy capital structure. Accordingly, a key consideration within the Siemens Financial Framework is to maintain ready access to the capital markets through various debt products and preserve our ability to repay and service our debt obligations over time. Our primary measure for managing and controlling our capital structure is the ratio of Industrial net debt to EBITDA (continuing operations). This financial measure indicates the approximate amount of time in years that would be needed to cover Industrial net debt through income from continuing operations, without taking into account interest, taxes, depreciation and amortization. In fiscal 2021, we aimed to achieve a ratio of up to 1.0. Beginning with fiscal 2022, this ratio was raised to up to 1.5.

2.5 Liquidity and dividend

We intend to continue providing an attractive return to our shareholders under the Siemens Financial Framework. Beginning with fiscal 2022, this includes striving for a dividend per share that exceeds the amount of the preceding year, or that at least matches the prior-year-level.

As in the past, we intend to fund the dividend payout from Free cash flow. To provide an assessment of our ability to generate cash, and ultimately to pay dividends, in fiscal 2021 we used the cash conversion rate of Industrial Business, defined as the ratio of Free cash flow from Industrial Business to Adjusted EBITA Industrial Business. Because growth requires investments, we aimed to achieve a cash conversion rate of 1 minus the annual comparable revenue growth rate of Industrial Business.

Beginning with fiscal 2022, we use the cash conversion rate for the Siemens Group to reinforce our commitment to cash generation on a Group level. It is defined as the ratio of Free cash flow (continuing and discontinued operations) to Net income. We aim to achieve a cash conversion rate of 1 minus the annual comparable revenue growth rate for the Group over a cycle of three to five years.

At the Annual Shareholders' Meeting, the Managing Board, in agreement with the Supervisory Board, will submit the following proposal to allocate the unappropriated net income of Siemens AG for fiscal 2021: to distribute a dividend of €4.00 on each share of no par value entitled to the dividend for fiscal 2021 existing at the date of the Annual Shareholders' Meeting; the remaining amount is to be carried forward. Payment of the proposed dividend is contingent upon approval by Siemens shareholders at the Annual Shareholders' Meeting on February 10, 2022. The prior-year dividend was €3.50 per share.

2.6 Calculation of return on capital employed

Calculation of ROCE

	Fiscal year	
(in millions of €)	2021	2020
Net income	**6,697**	4,200
Less: Other interest expenses/income, net[1]	**(769)**	(692)
Plus: SFS Other interest expenses/income	**842**	806
Plus: Net interest expenses related to provisions for pensions and similar obligations	**53**	66
Less: Interest adjustments (discontinued operations)	**(11)**	100
Less: Taxes on interest adjustments (tax rate (flat) 30%)	**(34)**	(84)
(I) Income before interest after tax	**6,778**	4,397
(II) Average capital employed	**51,723**	56,190
(I) / (II) ROCE	**13.1%**	7.8%

[1] Item Other interest expenses/income, net primarily consists of interest relating to corporate debt, and related hedging activities, as well as interest income on corporate assets.

For purposes of calculating ROCE in interim periods, Income before interest after tax is annualized. Average capital employed is determined using the average of the respective balances as of the quarterly reporting dates for the periods under review.

Calculation of capital employed

Total equity
Plus: Long-term debt
Plus: Short-term debt and current maturities of long-term debt
Less: Cash and cash equivalents
Less: Current interest-bearing debt securities
Less: Fair value of foreign currency and interest hedges relating to short- and long-term debt
Plus: Provisions for pensions and similar obligations
Less: SFS debt
Plus: Adjustments from assets classified as held for disposal and liabilities associated with assets classified as held for disposal
Less: Adjustment for deferred taxes on net accumulated actuarial gains/losses on provisions for pensions and similar obligations
Capital employed (continuing and discontinued operations)

Beginning with fiscal 2022, ROCE will exclude defined Varian-related acquisition effects. For that purpose, in the numerator, Income before interest after tax is adjusted for effects resulting from purchase price allocation which are comprised of amortization of tangible and intangible assets, inventory step-ups, deferred revenue adjustments and related income taxes. The denominator Average capital employed is adjusted for goodwill and other intangible assets resulting from purchase price allocation. ROCE adjusted for Varian-related acquisition effects was 15.1% in fiscal 2021.

3. Segment information

3.1 Overall economic conditions

The global economic development in fiscal 2021 was still dominated by the coronavirus pandemic (COVID-19) and its many repercussions. After the recession in calendar 2020, in which global gross domestic product (GDP) contracted by 3.4%, calendar 2021 is expected to show a very strong rebound with global GDP increasing by 5.5%.

Global economic activity expanded at very high rates in the third quarter of calendar 2020 after the first wave of COVID-19 ebbed. Subsequent infection waves in winter months caused fears of a new global recession. But economic activity had already adapted to the pandemic and was supported by massive stimulus programs, especially in Europe and the U.S. Globally, governments allocated nearly USD 11 trillion in stimulus programs and more than USD 6 trillion in liquidity support to businesses and households in response to the pandemic. Central banks gave support with expansionary measures, in particular new quantitative easing programs, while short-term interest rates were at or near zero. Accordingly, the global economy continued to expand also in the fourth quarter of calendar 2020 and the first quarter of calendar 2021, despite renewed outbreaks and lockdowns. In December 2020, the first countries approved new COVID-19 vaccines, which were developed in a very short time and which are of paramount importance in order to solve the health crisis and economic challenges.

However, momentum again weakened in the first half of calendar 2021, due to increasing infections in many countries. The new Delta variant was more contagious than previous virus strains. Vaccine roll-out could not keep up with the spread of this new variant, especially in emerging countries. In addition, supply disruptions, which were both caused and magnified by the pandemic, impaired the recovery. Bottlenecks had impacts across the value chains from raw materials to high tech goods, especially semiconductors, and were exemplified by extraordinary disruptions in global logistics systems. In addition, many companies were surprised by the strong recovery and high demand for goods which often exceeded their production plans and short-term capacity. The extraordinarily high demand for goods was caused by consumers with high excess savings and limited spending alternatives as many service offerings were still not available ("services-to-products shift"). Limited supply, logistics bottlenecks and record high consumer demand for goods caused substantial increases of producer prices for many products, which partly translated to an increase of general inflation. In addition, energy prices increased, and base effects from reduced 2020 price levels as well as temporary effects (e.g. provisional changes in taxation) contributed to the elevated rate of inflation.

The Chinese economy – with the world's largest manufacturing sector – benefited particularly from the high global demand for goods and is expected to grow by 8.2% in calendar 2021. However, tensions in the property sector and energy shortages weighed on economic activity in the second half of calendar 2021.

Overall, the other major economies have experienced very strong economic rebounds and GDP is expected to grow strongly in calendar 2021: European Union (EU) 5.0%, U.S. 5.4%, Japan 2.3%, India 7.7%. For advanced countries in aggregate, calendar 2021 GDP is expected to expand by 4.9%. For emerging markets, the increase in calendar 2021 GDP is estimated at 6.4%.

The partly estimated figures presented here for GDP are based on an IHS Markit report dated October 15, 2021.

3.2 Digital Industries

Digital Industries offers a comprehensive product portfolio and system solutions for automation used in discrete and process industries; these offerings include automation systems and software for factories, numerical control systems, motors, drives and inverters and integrated automation systems for machine tools and production machines. Digital Industries also provides process control systems, machine-to-machine communication products, sensors (for measuring pressure, temperature, level, flow rate, distance or shape) and radio frequency identification systems. Furthermore, Digital Industries offers production and product lifecycle management (PLM) software, and software for simulation and testing of mechatronic systems. These leading software offerings are integrated with an electronic design automation (EDA) software portfolio, and the open, cloud-based industrial internet of things (IIoT) operating system MindSphere, which connects machines and physical infrastructure to the digital world. All these software offerings are complemented by the Mendix cloud-native low-code application development platform, which allows customers to significantly reduce app development times through visual representation of underlying code. Digital Industries also provides customers with lifecycle and data-driven services. During the first quarter of fiscal 2021, Digital Industries' stake in Bentley Systems, Inc. (Bentley) was transferred to Siemens Pension-Trust e.V. In August 2021, Digital Industries closed the acquisition of Supplyframe, Inc. (Supplyframe), a marketplace for the global electronics value chain, to significantly strengthen and accelerate growth of its offerings in digital marketplaces. For further information on the acquisition see Note 3 in Notes to Consolidated Financial Statements for fiscal 2021.

Taken together, Digital Industries' offerings enable customers to optimize entire value chains from product design and development through production and post-sale services. With its advanced software solutions in particular, Digital Industries supports customers in their evolution towards the "Digital Enterprise," resulting in increased flexibility and efficiency of production processes and reduced time to market for new products. The most important markets include the automotive industry, the machine building industry, the pharmaceutical and chemicals industry, the food and beverage industry and the electronics and semiconductor industry. Digital Industries serves its customers through a common regional sales organization spanning all its businesses, using various sales channels depending on the type of customer and industry and also enhancing customer choice across all channels. Changes in customer demand, especially for standard products, are driven strongly by macroeconomic cycles, and can lead to significant short-term fluctuation in Digital Industries' profitability. Volume from large contracts in the software business, particularly for EDA, may also result in strong fluctuations in quarterly volume and profitability. Starting in fiscal 2022, Digital Industries intends to transition parts of its software business, particularly PLM, from largely upfront revenue recognition towards Software as a Service (SaaS), which yields more predictable recurring revenue and offers growth opportunities by opening access to new customers, especially small and medium-sized companies seeking to reduce costs associated with owning complex IT infrastructure. During the transition, Digital Industries expects impacts on revenue growth rates and profit margin development in the software business. Competition with Digital Industries' business activities comes primarily from multinational corporations that offer a relatively broad portfolio and from smaller companies active only in certain geographic or product markets.

Digital Industries sees three **trends** influencing its business and providing long-term growth opportunities. Producers of investment goods in today's increasingly digital environment must modernize their production capacity, particularly to increase production flexibility and reduce time to market. This environment also spurs producers to complement their core products with vertical solutions and service offerings, which their customers either need or want in order to take full advantage of the investment goods. Finally, there is a trend from globalization to regionalization, to support local economic development or to better adapt solutions to local needs. This is increasingly accompanied by more differentiated regulatory requirements.

Research & Development (R&D) activities at Digital Industries are aimed at providing its customers with solutions that allow them to exploit the potential of data in their businesses and to combine the real and the digital worlds. Digital Industries is developing and integrating technologies such as artificial intelligence (AI), edge computing, cloud technologies, additive manufacturing and industrial 5G wireless technology. For example, Digital Industries cooperated with Schaeffler Group by combining its IIoT platform Sidrive IQ, which augments drive systems with AI-based analytics and digital content, with Schaeffler's products and services in the area of designing, manufacturing, and servicing bearings. Digital Industries introduced a new Industrial Edge Management system with which users can remotely monitor the status of every connected device and remotely install edge apps and software functions on distributed edge devices. Also in fiscal 2021, Digital Industries announced a cooperation with Google Cloud which aims at the integration of factory automation systems from Digital Industries with Google's data cloud, AI and machine learning technologies. In the field of additive manufacturing, Digital Industries worked with EOS and DyeMansion to present the first virtual additive manufacturing reference factory for selective laser sintering and industrial post-processing. During the 2021 Hanover Fair, Digital Industries demonstrated its first industrial 5G router and set up a private 5G campus network with a focus on industrial use cases such as automated guided vehicles, augmented reality, and autonomous mobile robots. Major **investments** of Digital Industries in fiscal 2021 relate to its own factory automation, motion control and process automation businesses, to further automate and digitalize facilities particularly in Germany, China and the Czech Republic.

	Fiscal year		% Change	
(in millions of €)	2021	2020	Actual	Comp.
Orders	**18,427**	15,896	16%	18%
Revenue	**16,514**	14,997	10%	13%
therein: software business	***4,290***	*4,144*	*4%*	*7%*
Adjusted EBITA	**3,362**	3,252	3%	
Adjusted EBITA margin	**20.4%**	21.7%		

Significant **order** growth for Digital Industries was driven by the automation businesses, particularly factory automation and motion control, on a recovery of their most important customer industries such as the automotive and machine building industries, which a year earlier were strongly impacted by effects related to COVID-19. Orders in the software business came in lower compared to fiscal 2020, which included a sharply higher volume from large orders, most notably in the EDA business. **Revenue** rose in all businesses, including significant growth contributions from the factory automation and motion control businesses and successful mitigation of supply chain risks primarily associated with electronics components. On a geographic basis, order and revenue were up in all regions with growth mainly driven by the region Asia, Australia, due primarily to substantial increases in China, and the region comprising Europe, Commonwealth of Independent States (C.I.S.), Africa, Middle East, including a strong growth contribution from Germany. **Adjusted EBITA** rose moderately even though the prior fiscal year included a €767 million positive effect related to Digital Industries' former stake in Bentley. The effect resulted mainly from revaluation of the stake following Bentley's public listing. Excluding this effect, Adjusted EBITA rose on double-digit increases in all businesses and improved profitability compared to the prior fiscal year, with the strongest growth contributions coming from the factory automation and motion control businesses. Adjusted EBITA improved also from successful execution of the cost structure improvement program in prior periods, which strengthened current profitability. Furthermore, severance charges, which resulted primarily from the ongoing program, fell substantially to €114 million from €210 million in the prior year. During the first half of fiscal 2021, Adjusted EBITA development benefited from expense reductions year-over-year related to COVID-19 restrictions, such as lower travel and marketing expenses. Digital Industries' order backlog was €7 billion at the end of the fiscal year, of which €6 billion are expected to be converted into revenue in fiscal 2022.

In fiscal 2021 the **market** environment for Digital Industries improved strongly as global manufacturing production recovered throughout the fiscal year from burdens related to COVID-19, which were most noticeable in the second and third quarter a year earlier. The rebound was faster and stronger than assumed and led to constraints in global value chains over the course of the fiscal year. The main driver of the upswing was China where the growth dynamic was extremely strong in the first half of the fiscal year. Other countries followed with a delay of around three to six months, but their recovery was less pronounced than in China resulting in moderate growth in the regions Americas and Europe, C.I.S., Africa, Middle East. Discrete industries recovered particularly quickly and strongly, benefiting in part from restocking effects, while recovery in the more project-related process industries was delayed. The automotive industry started strongly into fiscal 2021, but the recovery was held back by supply chain constraints which impacted production especially in the second half of the fiscal year. This led to slowing or even limited contraction of production during the last months of the fiscal year. The machine building industry also recovered faster than expected, with the recovery starting in China and benefiting from demand for general investment goods. This development was evident in demand for automation equipment which in addition benefited from the trend towards digitalization and from stock-building effects to mitigate risks from supply chain constraints. The pharmaceutical and the chemicals industries expanded during the entire fiscal year. While the pharmaceuticals industry benefited from COVID-19 vaccine demand among other factors, the chemicals industry steadily improved in line with the overall economic recovery. The development in the food and beverage industry followed a similar pattern and grew steadily throughout the fiscal year. Global production of electronics and semiconductors was not held back by effects related to COVID-19, and experienced strong growth during fiscal 2021. However, market shifts within the semiconductor industry led to global shortages of semiconductors for certain customer segments that grew worse through the fiscal year and increasingly affected the automotive and machine building industries. In addition, supply constraints for plastics, metals and freight delivery impacted Digital Industries' market environment. Price increases affected all markets and were stronger than usually experienced during periods of economic rebound. While prices started to surge in the first quarter of fiscal 2021 mainly in the raw material sector (e. g. copper), they spread further to intermediate goods and to all markets, including electrical equipment, in the following quarters. Digital Industries expects its primary markets, as described above, to show clear growth in fiscal 2022, with somewhat diminished momentum compared to fiscal 2021 and more geographic balance among the three reporting regions.

3.3 Smart Infrastructure

Smart Infrastructure offers products, systems, solutions, services and software to support a sustainable transition in energy generation sources, from fossil to renewable and a transition to smarter, more sustainable buildings and communities. This versatile portfolio is structured into three businesses: buildings, electrification and electrical products. The buildings business addresses the needs of operators, owners, occupants and users of buildings. It spans integrated building management systems and software; heating, ventilation and air conditioning (HVAC) controls; fire safety and security products and systems; and solutions and services such as energy and performance services. The electrification business makes grids more resilient, flexible and efficient. Its offerings cover grid simulation, operation and control software; substation automation and protection; medium-voltage primary and secondary switchgear (including SF6-free medium-voltage switchgear); and low-voltage switchboards and eMobility charging infrastructure. The electrical products business supplies electrification and buildings. Its offerings include low-voltage switching, measuring and control equipment; low-voltage distribution systems and switchgear; and circuit breakers, contactors and switching for medium-voltage. In fiscal 2021, Smart Infrastructure acquired C&S Electric Limited (C&S Electric), India, a provider of electrical and electronic equipment for infrastructure, power generation, transmission and distribution to strengthen its position in India as a supplier of low-voltage power distribution and electrical installation technology.

Smart Infrastructure's customer base is diverse. It encompasses infrastructure developers, construction companies and contractors; owners, operators and tenants of both public and commercial buildings including hospitals, campuses, airports and data centers; companies in heavy industries such as oil and gas, mining and chemicals; companies in discrete manufacturing industries such as automotive and machine building; and utilities and power grid network operators (transmission and distribution). Smart Infrastructure serves its customers through a broad range of channels, including its global sales organization, distributors and partners such as panel builders, original equipment manufacturers (OEM) and value-added resellers and installers, all complemented by direct sales such as through the branch offices of its regional solutions and services units worldwide and e-commerce channels. Smart Infrastructure's principal competitors consist mainly of large multinational companies and smaller manufacturers in emerging countries. Its solutions and services business also competes with local players such as system integrators and facility management firms. Smart Infrastructure's businesses are impacted by changes in the overall economic environment to varying degrees, depending on customer segment. While customer demand in discrete manufacturing industries changes quickly and strongly with macroeconomic cycles, it reacts more slowly in infrastructure, construction, heavy industries and the utilities sector. The building solutions business in particular is affected by economic cycles in the non-residential building construction markets with a time lag of two to four quarters. Overall, Smart Infrastructure has developed a balanced and resilient business mix with its diversified regional and vertical markets; its range of products, systems, solutions and services; and its participation in both long- and short-cycle markets. To further strengthen the resilience of its portfolio, Smart Infrastructure aims at increasing the share of service revenue and beginning with fiscal 2022 will report revenue generated from service activities.

Smart Infrastructure benefits from a number of favorable **trends**. These include urbanization, demographic change, climate change, and digitalization. Urbanization and demographic change drive a need for smarter and more human-centric buildings. Climate change drives the need for decarbonization. This results in an increasing demand for flexible and resilient energy infrastructures and rapid growth in electric mobility. Digitalization is an enabler for such changes in both buildings and grids, making it possible to develop smarter buildings and manage electricity distribution with a higher share of renewables. The markets served are experiencing shifts that present opportunities where building technologies and electrification meet.

Smart Infrastructure's **R&D activities** focus on sustainable and decarbonized infrastructures in electrification, distribution grids and buildings. It develops digital offerings for the energy market such as for integrating renewable energy into conventional grids. Furthermore, R&D efforts strengthen Smart Infrastructure's capabilities to create comfortable, safe and energy-efficient buildings and infrastructures that support increased efficiency for occupants, equipment and the use of building space. Smart Infrastructure is expanding its digital offerings such as cloud solutions using field data from controllers and IoT devices. Furthermore, it develops technologies for environmentally friendly and increasingly renewable-based energy systems, ranging from photovoltaic and battery storage inverters to charging solutions for e-mobility. In this regard, data from field devices is the basis for intelligent grid control and protection, providing grid stability and flexibility and continuously matching energy supply and demand while protecting grid assets. For electrical distribution systems and industrial plants, Smart Infrastructure continuously drives digitalization of its switching and control products with built-in intelligence, connectivity to the cloud, and increasingly remote diagnostics and edge computing capability. Its digital twins of products, building systems or grids deliver customer value from online configuration and parametrization, to operation, to maintenance planning. Smart Infrastructure also develops data-driven applications and digital services. To a large extent, its capital expenditures relate to the products businesses. Main **investment** areas are replacement of fixed assets and further digitalization of factories and technical equipment, with a strong focus on innovation.

	Fiscal year		% Change	
(in millions of €)	2021	2020	Actual	Comp.
Orders	**16,071**	14,734	9%	12%
Revenue	**15,015**	14,323	5%	8%
therein: products business	***5,769***	*5,182*	*11%*	*15%*
Adjusted EBITA	**1,743**	1,302	34%	
Adjusted EBITA margin	**11.6%**	9.1%		

Orders at Smart Infrastructure rose in all businesses on broad-based improvements in its main customer markets. The strongest growth contributions came from the products business, which saw a clear recovery in demand from industrial customers, and from the systems business, which won a number of significant contracts including orders from semiconductor manufacturers in the U.S. Orders in the solutions and services business grew slightly as the business saw first signs of recovery in relevant markets towards the end of the fiscal year. **Revenue** growth also was driven mainly by the products business and the systems business, while a slight decline in the solutions and services business was due to negative currency translation effects. Despite more challenging supply conditions, Smart Infrastructure maintained its delivery capacity by successfully avoiding major supply chain disruptions. On a geographic basis, orders and revenue were up in all regions, with double-digit volume growth in the region Asia, Australia including a particularly strong contribution from China. Volume growth in the Americas included strong demand from residential markets in the U.S. Overall, growth in this region was sharply impacted by negative currency translation effects, which eased towards the end of the fiscal year. **Adjusted EBITA** and profitability rose in all businesses, with the strongest growth contributions coming from the products business and the systems business on higher revenue and increased capacity utilization. Adjusted EBITA overall rose also due to cost savings related to prior execution of Smart Infrastructure's competitiveness program, while severance associated with the program fell sharply, to €47 million from €195 million a year earlier. Particularly during the first half of fiscal 2021, Adjusted EBITA development benefited from expense reductions year-over-year related to COVID-19 restrictions. These effects were only partly offset by negative currency effects. For comparison, Adjusted EBITA in fiscal 2020 benefited from a €159 million gain from the sale of a business. Smart Infrastructure's order backlog was €11 billion at the end of the fiscal year, of which €7 billion are expected to be converted into revenue in fiscal 2022.

Overall, **markets** served by Smart Infrastructure grew moderately in fiscal 2021, experiencing a recovery from COVID-19-related effects that had a strong impact on most customer industries a year earlier. Industrial markets developed well, with strong growth in the machine building and pharmaceutical industries, followed by the automotive, food and beverage, oil and gas and chemicals industries. Grid markets grew clearly as utilities continued to prioritize investments in making legacy networks more automated, intelligent, flexible and reliable. Ongoing strong demand for remote working and cloud services resulted in strong growth in the data center market. Conditions in non-residential construction markets were challenging, while residential construction markets, in which Smart Infrastructure has a significantly lower exposure, grew strongly. On a geographic basis, market growth in fiscal 2021 was mainly driven by the region Asia, Australia, which recovered earlier from impacts related to COVID-19, while market volume in the Americas declined. Smart Infrastructure also experienced a number of supply chain constraints, especially in the areas of base metals (copper, aluminum, steel), plastics, semiconductors and transportation services. Whereas the management of these constraints required additional effort, Smart Infrastructure's supply chains have proven to be resilient, so that major interruptions could be avoided and delivery ability was maintained. In fiscal 2022, markets served by Smart Infrastructure are expected to grow slightly faster than in fiscal 2021. Demand from the pharmaceutical industry, data centers and utilities are expected to be main growth drivers, while growth rates of the non-residential construction markets are expected to come in below the average growth of markets served by Smart Infrastructure. On a geographic basis, Asia, Australia is expected to continue to be the fastest-growing region. Growth in the region Europe, C.I.S., Africa, Middle East is expected to accelerate and markets in the region Americas are expected to return to growth.

3.4 Mobility

Mobility combines all Siemens businesses in the area of passenger and freight transportation. Within its rolling stock business, its offerings encompass trains for urban and regional transport such as vehicles for metro systems, trams and light rail, and commuter trains as well as trains and passenger coaches for intercity and long-distance services, such as high-speed rail. Rolling stock offerings furthermore include locomotives for freight or passenger transport and solutions for automated transportation such as automated people movers. Offerings in its rail infrastructure business include products and solutions for rail automation, such as automatic train control systems, interlocking, operations control and telematic systems, digital station solutions and railway communication systems, signaling on-board and crossing products and yard and depot solutions; for electrification such as AC and DC traction power supply, contact lines and network control; and intermodal solutions, such as platforms for fleet management, route planning, ticketing and payments solutions and data analytics. With its service business, Mobility provides customer services for rolling stock and rail infrastructure throughout the entire lifecycle, such as maintenance and digital services. In its turnkey business, it bundles consulting, planning, financing, construction, service and operation of completed mobility systems. Its intelligent traffic systems business provides solutions for traffic management such as autonomous driving, eHighway systems and tolling solutions. During fiscal 2021, Mobility carved out the intelligent traffic systems business to form a separately managed entity, which operates under the brand name Yunex Traffic.

Mobility sells its products, systems and solutions through its worldwide network of sales units. The principal customers of Mobility are public and state-owned companies in the transportation and logistics sectors, so its markets are driven primarily by public spending. Customers usually have multi-year planning and implementation horizons, and their contract tenders therefore tend to be independent of short-term economic trends. Large contracts in the rolling stock and the rail infrastructure business are often awarded together with service contracts, which start to generate revenue only after the respective products and solutions have been put in operation, which can be a number of years after the contract award. Mobility's principal competitors are multinational companies. Consolidation among Mobility's competitors is continuing: In January 2021, Alstom SA of France announced the closing of the acquisition of Bombardier Transportation. In August 2021, Hitachi Ltd., Japan, announced an agreement of Hitachi Rail to acquire the Ground Transportation Systems business of Thales. Market consolidation may lead to increased competitive pressure within the rail supply industry and also to fewer sourcing options for rail customers.

The main **trends** driving Mobility's markets are urbanization and the need to reduce emissions, particularly from transportation. Increasing populations in urban centers need daily mobility that is simpler, faster, and more flexible, reliable and affordable. At the same time, cities and national economies face the challenge of cutting CO_2 and noise emissions and reducing space requirements and costs of transportation. The pressure on mobility providers to meet all these needs is expected to rise continuously. Furthermore, improving availability, connectivity, and sustainability of rail infrastructures increasingly requires digital solutions, which provide growth opportunities. While a significant drop in ridership driven by COVID-19 has strongly impacted mobility operators, overall trends towards urbanization and decarbonization persist unchanged and recovery programs in many countries have been allocating significant funds to rail and public transport operators to address these trends.

Mobility's **R&D strategy** is focused on making trains and infrastructures more intelligent, thereby increasing its customers' return on investment, improving the passenger experience, and guaranteeing availability. Decarbonization and seamlessly connected (e-)mobility are also key factors for the future of transportation. Mobility's major R&D areas include the development of efficient vehicle platforms with optimized lifecycle cost and maximum customization flexibility; eco-friendly, alternative power supplies for trains (batteries, hydrogen, dual mode) and trucks (eHighway); digital services for railways via its Railigent application suite; "signaling in the cloud," a new system architecture for rail infrastructure and IoT/cloud-based technologies; solutions for more automated and autonomous driving for rail and road; innovative brake monitoring systems for freight trains; and digital technologies and IoT solutions including cyber security, connectivity, simulation and digital twin, data analytics and AI, additive manufacturing and software systems and processes. Mobility's **investments** focus mainly on maintaining or enhancing its production facilities, on meeting project demands and enhancing its depot services.

	Fiscal year		% Change	
(in millions of €)	2021	2020	Actual	Comp.
Orders	**12,696**	9,169	38%	41%
Revenue	**9,232**	9,052	2%	3%
therein: service business	***1,416***	*1,392*	*2%*	*3%*
Adjusted EBITA	**857**	822	4%	
Adjusted EBITA margin	**9.3%**	9.1%		

Orders grew on sharply higher volume from large orders, which Mobility won across the three reporting regions, highlighted by a €2.8 billion order for trainsets including dual powered and hybrid battery vehicles and associated services in the U.S., Mobility's largest-ever order in the Americas. Large contract wins in the region Europe, C.I.S., Africa, Middle East included an order for passenger coaches in the Czech Republic, an order for regional trains in Austria and an order for light rail vehicles in Germany, each worth €0.4 billion, and in the region Asia, Australia a €0.2 billion order for a signaling system in Taiwan. **Revenue** growth was driven by the rail infrastructure business, including significant growth in its mainline activities. On a geographic basis, revenue rose in the Americas due particularly to a significant growth contribution from the U.S., and in the region Europa, C.I.S., Africa, Middle East, including clear growth in Germany. These increases were only partly offset by lower revenue in the region Asia, Australia. **Adjusted EBITA** rose in the majority of the businesses, most strongly in the rail infrastructure business. For Mobility overall, impacts related to COVID-19, such as measures in the rolling stock business to safeguard employee health in manufacturing facilities, held back revenue and Adjusted EBITA growth, albeit to a lesser extent than a year earlier. Severance charges were €22 million, compared to €20 million a year earlier. Mobility's order backlog reached €36 billion at the end of the fiscal year, of which €9 billion are expected to be converted into revenue in fiscal 2022.

Markets served by Mobility grew moderately in fiscal 2021 as they partly recovered from impacts related to COVID-19. The market for rolling stock saw large orders across all segments, especially for high-speed trains, commuter trains and locomotives. The rail infrastructure market has seen growth both in urban and mainline segments due to the renewal and extension of mainline tracks and the ongoing trend towards automatic train protection (ATP), including communications-based train control (CBTC) and European train control system (ETCS) technologies. Service demand partly recovered from prior-year impacts related to COVID-19, due to growing installed bases which drove a corresponding increase in the spare parts and maintenance market. On a geographic basis, market development in Europe continued to be characterized by awards of mid-size to large orders, particularly in Germany, Denmark and in Switzerland. While demand in the Middle East rose, demand in Africa was held back by ongoing uncertainties related to budget constraints and political climates. In the Americas region, investment activities were driven by demand for urban and mainline transport, especially in the U.S. and Canada. Within the Asia, Australia region, markets saw ongoing rail investments, particularly in China. For fiscal 2022, markets served by Mobility are expected to further recover from impacts related to COVID-19 and to grow clearly, partly benefiting from fiscal stimulus and investment programs. Mobility anticipates that rail operators in Europe, particularly in Germany and in the U.K., will continue making significant investments and that customers in the Middle East and Africa will tender large turnkey systems, especially for additional rail lines in Egypt and Saudi Arabia. Markets in the Americas region are expected to remain strong, especially due to ongoing investments in urban and mainline transport and large investment programs dedicated to transportation and enhancements of existing infrastructure in the U.S. In China, investments in high-speed trains, urban transport, freight logistics and rail infrastructure are expected to continue to drive growth. In India, privatization is expected to drive infrastructure enhancements and upgrades and to lead to strong market growth through investments in mainline (high-speed, freight infrastructure, additional rolling stock), urban metro and rail electrification with ambitious electrification targets for the broad-gauge network. Despite an adverse short-term impact from COVID-19, rail transport and intermodal mobility solutions are expected to remain a high priority as urbanization continues to progress around the world. In emerging countries, rising incomes are expected to result in greater demand for public transport solutions.

In October 2021, Mobility closed the acquisition of SQCAP B.V. (Sqills), Netherlands, a provider of cloud-based inventory management, reservation, and ticketing software for public transport operators to enhance its offerings that increase the availability, capacity and utilization of public transportation. The purchase price is €537 million paid in cash plus a contingent consideration recognized at the acquisition date at its maximum amount of €79 million. For further information see Note 34 in Notes to Consolidated Financial Statements for fiscal 2021.

3.5 Siemens Healthineers

Siemens is majority shareholder in the publicly listed **Siemens Healthineers** AG, Germany (Siemens Healthineers). Siemens Healthineers is a global provider of healthcare solutions and services. It develops, manufactures, and sells a diverse range of innovative diagnostic and therapeutic products and services to healthcare providers. In addition, it also provides clinical consulting services, complemented by extensive training and service offerings. This comprehensive portfolio supports customers all along the care continuum, from prevention and early detection to diagnosis, treatment, and follow-up care. The customer spectrum ranges from public and private healthcare providers, including hospitals and hospital systems, public and private clinics and laboratories, universities, physicians/physician groups, public health agencies, state-run and private health insurers, to pharmaceutical companies and clinical research institutes. The imaging business provides imaging products, services and solutions. Its most important products are equipment for magnetic resonance, computed tomography, X-ray systems, molecular imaging, and ultrasound. The diagnostics business offers in-vitro diagnostic products and services to healthcare providers in laboratory, molecular and point-of-care diagnostics. The portfolio of the advanced therapies business consists of highly integrated products, solutions and services across multiple clinical fields that are designed to support image-guided minimally invasive treatments, in areas such as cardiology, interventional radiology and surgery. On April 15, 2021, Siemens acquired Varian, which is active in the field of cancer care, with solutions especially in radiation oncology and related digital solutions and applications. Varian thus offers a good complement to Siemens Healthineers' businesses in medical imaging, laboratory diagnostics and interventional procedures. The purchase price paid in cash amounted to USD 16.4 billion (€13.9 billion as of the acquisition date). To partially finance this acquisition, Siemens Healthineers carried out a capital increase during fiscal 2021 without the participation of Siemens, consequently reducing Siemens' stake in Siemens Healthineers from about 79% to slightly over 75%. Competition in the imaging, Varian and advanced therapies businesses consists mainly of a small number of large multinational companies, while the diagnostics market is fragmented with a variety of global players that compete with each other across market segments and also with several regional players and specialized companies in niche technologies. The business activities of Siemens Healthineers are to a certain extent resilient to short-term economic trends because large portions of its revenue stem from recurring business. They are, however, directly and indirectly dependent on trends in healthcare markets and on developments in health policy, and geopolitical developments around the world.

The addressable markets of Siemens Healthineers are shaped by four major **trends**. The first is demographic, in particular the growing and aging global population. This trend poses major challenges for global healthcare systems and, at the same time, offers opportunities for players in the healthcare industry as the demand for cost-efficient healthcare solutions continues to intensify. The second trend is economic development in emerging countries, which opens up improved access to healthcare for many people. Significant investment in the expansion of private and public healthcare systems will persist, driving overall demand for healthcare products and services and hence market growth. The third trend is the increase in chronic diseases as a consequence of an aging population and environmental and lifestyle-related changes. This trend results in far more patients with multiple morbidities, putting further pressure on healthcare systems and leading to higher costs; it also increases the need for new, more timely ways to detect and treat diseases. The fourth global trend, the transformation of healthcare providers, results from a combination of societal and market forces that are driving healthcare providers to operate and organize their businesses differently. Increasing cost pressure on the healthcare sector is prompting the introduction of new remuneration models for healthcare services, such as value-based rather than treatment-based reimbursement. Digitalization and artificial intelligence are thereby likely to be key enablers for healthcare providers as they increasingly focus on enhancing the overall patient experience, with better outcomes and overall reduction in cost of care. This development is driven partly by society's increasing resistance to healthcare costs, payers' increasing professionalization, burdens from chronic disease, rapid scientific progress and staff shortages. As a result of these factors, healthcare providers are consolidating into networked structures, resulting in larger clinic and laboratory chains, often operating internationally, which act increasingly like large corporations. Applying this industrial logic to the healthcare market can lead to systematic improvements in quality, while at the same time reducing costs.

R&D activities at Siemens Healthineers are aimed at delivering innovative, sustainable solutions to its customers while safeguarding and improving its competitiveness. Particularly in the field of digitalization and artificial intelligence, it has further expanded its activities and has 67 products and applications on the market that are designed to further improve its customers' productivity, while enabling clinical decisions to be more precise and tailored to the individual patient. Furthermore, Siemens Healthineers is continuously expanding its portfolio of digital services to support customers in their transition to value-based care. The teamplay digital health platform brings together data, applications and services to make better decisions for patients in an efficient way. In addition, in fiscal 2021 Siemens Healthineers extended its portfolio in the field of cancer care with the Varian acquisition. The combined company pursues an intelligent cancer care strategy, harnessing advanced technologies such as AI and data analytics to improve cancer treatment and expand global access to cancer care. In addition to continually updating its portfolio, Siemens Healthineers also improves existing products and solutions. Siemens Healthineers focuses its **investments** mainly on enhancing competitiveness and innovation. The main capital expenditures were for spending for factories to expand manufacturing and technical capabilities, in particular in China and the U.S., and for additions to intangible assets, including capitalized development expenses within the Atellica Solution and Central Lab product lines.

	Fiscal year		% Change	
(in millions of €)	2021	2020	Actual	Comp.
Orders	**20,320**	16,163	26%	18%
Revenue	**17,997**	14,460	24%	19%
Adjusted EBITA	**2,847**	2,184	30%	
Adjusted EBITA margin	**15.8%**	15.1%		

In fiscal 2021, Siemens Healthineers recorded double-digit growth both in **orders** and **revenue**, with both metrics developing similarly. While all businesses contributed to growth, the increases were highest in the diagnostics and imaging businesses. On a geographic basis, growth was particularly strong in the region Europe, C.I.S. Africa, Middle East. The reporting regions Asia, Australia and Americas also saw double-digit increases, the latter one despite significant currency translation effects. Portfolio effects primarily following the acquisition of Varian added twelve percentage points to order growth and nine percentage points to revenue growth. **Adjusted EBITA** was substantially higher year-over-year, due primarily to strong earnings development in the diagnostics business that was driven by high demand for rapid coronavirus antigen tests. The imaging business again posted strong earnings, which were higher than in the prior year. Varian delivered a positive contribution to earnings on an operating basis. In contrast, Adjusted EBITA in the advanced therapies business was lower year-over-year. Adjusted EBITA included subsequent measurement effects from purchase price allocation related to the Varian acquisition totaling €0.1 billion and expenses totaling €0.1 billion related to the closing of the Varian transaction and its ongoing integration. Profitability was also burdened by negative currency effects. Severance charges were €68 million in fiscal 2021 and €65 million in fiscal 2020. The order backlog for Siemens Healthineers was €27 billion at the end of the fiscal year, of which €9 billion are expected to be converted into revenue in fiscal 2022.

In general, the **markets** addressed by Siemens Healthineers showed significant growth in fiscal 2021. Nearly two years after the first case of COVID-19 was identified, the virus continues to impact health systems worldwide. Competition among the leading healthcare companies remained at elevated high levels. While the long-term market trends generally remained intact, the COVID-19 pandemic did reinforce some of these trends and has, for example, raised the already increasing cost pressure on health systems and customers to unprecedented levels. Especially in countries with severe COVID-19 outbreaks such as the U.S., India, and Brazil, a significant impact on healthcare economics was apparent in the form of additional cost increases combined with simultaneous revenue losses for hospitals. Staff shortages became more acute, leading to significant care disruptions at many hospitals and overburdening healthcare systems. The pandemic served to drive efforts toward innovation and digital transformation in healthcare. From a regional perspective, China is one of the biggest markets for medical technology and a major incremental growth driver. In the course of the last fiscal year, China's healthcare market recovered almost fully from effects related to the coronavirus pandemic during the fiscal year. In the region Europe, C.I.S., Africa, Middle East, public investment programs as well as a rise in COVID-19-related demand helped drive a market rise in several countries. The private market also began to recover. In the U.S., business began to return to normal as progress was made in the vaccination campaign.

Markets addressed by the imaging business grew significantly, mainly due to large COVID 19-driven demand for computer tomography systems and initial signs of normalization in all other modalities. For the Imaging market, it is expected that a normalization of growth to pre-COVID-19 levels will occur in fiscal year 2022. In the diagnostics business, the markets for point-of-care tests for patient monitoring and for lab tests increased in fiscal 2021. On the one hand, the backlog of purchasing decisions and capital expenditure by laboratories and hospitals from the previous year dissipated while, on the other, demand for certain diagnostic reagents, particularly tests for routine care, increased. The markets for combating the COVID-19 pandemic posted sharp growth. Vaccination rates in the population and further COVID-19 implications such as future waves and testing guidelines are key factors for determining expected growth in the market for the diagnostics business. Siemens Healthineers expects demand for tests for acute infection with SARS-CoV-2 to decrease sharply. In the Varian business, growth was driven primarily by new and replacement business. In markets such as the U.S. and Western Europe, product innovations led to higher customer investment. The market for Varian is expected to continue to grow throughout fiscal 2022. The recovery in the advanced therapies markets was made possible through a combination of a resumption in elective surgical procedures and the gradual return of patients. The expectation is that the slight market recovery already seen in fiscal 2021 will continue on a broad basis in fiscal 2022.

3.6 Siemens Financial Services

Siemens Financial Services provides financing solutions for Siemens' customers as well as other companies in the form of debt and equity investments. Based on its comprehensive financing know-how and specialist technology expertise in the areas of Siemens businesses, SFS supports its customers' investments with leasing, lending and working capital financing solutions as well as equipment, project and structured financing. In addition, SFS supports Siemens' industrial businesses via a joint go-to-market that includes SFS's risk management expertise, such as to assess the risk profiles of projects or business models. Furthermore, SFS collaborates with the industrial businesses to co-develop new digital business models. Recent examples include energy as a service or pay-per-use and pay-for-outcome options that give customers more financial flexibility.

	Fiscal year	
(in millions of €)	2021	2020
Earnings before taxes (EBT)	**512**	345
therein: equity business	***49***	*82*
ROE (after taxes)	**15.4%**	11.7%

(in millions of €)	Sep 30, 2021	Sep 30, 2020
Total assets	**30,384**	28,946

A high earnings contribution from the debt business resulted in a sharp increase in **Earnings before taxes** and was also the main factor for the increase of the ROE. The improvement was due mainly to sharply lower expenses for credit risk provisions compared to fiscal 2020, when results were significantly influenced by effects related to COVID-19. However, results from the equity business were affected by high ongoing uncertainty in the macroeconomic environment. Additionally, sales of investments in the previous fiscal year lifted profit for that period. This led also, along with seasonal effects on offshore wind-farm projects, to a lower share of profit from investments accounted for using the equity method in fiscal 2021. For comparison, results in the equity business in fiscal 2020 included a loss of €98 million from an impairment of an equity investment in the U.S.

The increase in **total assets** since the end of fiscal 2020 was due to growth in the debt business and positive currency translation effects.

Net cash from operations (defined as the sum of cash flows from operating and investing activities) amounted to €105 million compared to €(284) million in fiscal 2020. In fiscal 2021 and fiscal 2020, net cash from operations comprised Free cash flow of €820 million and €611 million, respectively, and remaining cash flows from investing activities, including from change in receivables from financing activities, of €(715) million and €(895) million, respectively.

SFS is de-risking its business profile by reducing exposure in connection with energy-related equity investments as a consequence of the spin-off of Siemens Energy. This has the additional benefit of more tightly focusing SFS's business scope and capital allocation on areas of intense domain know-how closely aligned with Siemens' customers and markets, particularly for Digital Industries, Smart Infrastructure and Mobility. Accordingly, SFS is influenced by the business development of the markets served by our industrial businesses, among other factors, including effects related to COVID-19. In addition to its high level of diversification across industries, SFS has a strong regional footprint in investment-grade countries, with the highest share in the U.S. SFS intends to maintain a highly diversified portfolio across regions, while participating in the strong economic development of selected Asian markets.

3.7 Portfolio Companies

Portfolio Companies comprise businesses which deliver a broad range of customized and application-specific products, software, solutions, systems and services for different industries including oil and gas, chemical, mining, cement, logistics, energy, marine, water and fiber. Unrealized potential within these businesses requires adjustment in their approach using defined measures including internal re-organization, digitalization, cost improvements, and optimizing procurement, production and service activities. After achieving certain threshold performance targets, businesses may be transferred to one of Siemens industrial businesses, combined with an external business from the same industry, sold or placed into an external private equity partnership.

In March 2021 Siemens sold Flender GmbH, Germany, (Flender) to Carlyle Group Inc., U.S. During the first quarter of fiscal 2021 the businesses of Flender (previously reported in Portfolio Companies) were classified as held for disposal and discontinued operations. Prior-period amounts are presented on a comparable basis. For further information see Note 3 in Notes to Consolidated Financial Statements for fiscal 2021.

After this disposal, Portfolio Companies consists mainly of three fully consolidated, separately managed units at the end of fiscal 2021. Large Drives Applications, which offers electric motors, converters and solutions for mining, will be carved out beginning with fiscal 2022 to increase its entrepreneurial freedom and thereby unlock its full potential. Similarly, Siemens Logistics, which offers sorting technology and solutions, will be reorganized to separate its mail and parcel activities from its airport logistics activities, which focuses on baggage and cargo handling. The third fully consolidated unit, Siemens Energy Assets, comprises certain regional remaining business activities of the former Gas and Power segment; as part of the Siemens Energy carve-out these activities remained with Siemens due to country-specific regulatory restrictions or economic considerations. Portfolio Companies also holds an at-equity investment in Valeo Siemens eAutomotive GmbH.

Demand within the industries served by Portfolio Companies mainly shows a delayed response to changes in the overall economic environment. The results of fully consolidated units are strongly dependent, however, on customer investment cycles in their key industries. In commodity-based industries such as oil and gas or mining, these cycles are driven mainly by commodity price fluctuations rather than changes in produced volumes. The broad range of fully consolidated units and their heterogonous industrial customer base are reflected in the use of various sales and marketing channels, requiring a dedicated sales approach based on in-depth understanding of specific industries and customer requests.

	Fiscal year		% Change	
(in millions of €)	2021	2020	Actual	Comp.
Orders	**3,516**	3,024	16%	20%
Revenue	**3,058**	3,209	(5)%	(2)%
Adjusted EBITA	**(85)**	(673)	87%	
Adjusted EBITA margin	**(2.8)%**	(21.0)%		

Even though volume development was held back by adverse currency translation effects and impacts related to COVID-19, **orders** still increased significantly, driven by Siemens Logistics and Large Drives Applications. However, Portfolio Companies recorded lower **revenue** compared to fiscal 2020, as Large Drives Applications in particular could not offset these headwinds. Fully consolidated units made good progress with profitability and delivered overall a sharply improved earnings performance, even though Portfolio Companies recorded higher severance charges of €74 million, up from €21 million in fiscal 2020, related to cost structure improvement measures mainly at Large Drives Applications. A positive **Adjusted EBITA** for fully consolidated units was more than offset by continued negative results from the at-equity investment in Valeo Siemens eAutomotive GmbH. For comparison, fiscal 2020 included an impairment of €453 million on the at-equity investment and a goodwill impairment of €99 million related to Siemens Energy Assets. Portfolio Companies' order backlog was €4 billion at the end of fiscal 2021, of which €2 billion was expected to be converted into revenue in fiscal 2022.

Although the broad range of businesses are operating in diverse markets, overall the main **markets** served by Portfolio Companies are generally impacted by uncertainties regarding geopolitical and economic developments and by cautiousness of investment sentiment. However, ongoing recovery is expected to continue in most end-customer vertical markets in fiscal 2022.

3.8 Reconciliation to Consolidated Financial Statements

Profit

	Fiscal year	
(in millions of €)	2021	2020
Siemens Energy Investment	**(396)**	(24)
Siemens Real Estate	**94**	325
Corporate items	**(435)**	(887)
Centrally carried pension expense	**(170)**	(211)
Amortization of intangible assets acquired in business combinations	**(738)**	(691)
Eliminations, Corporate Treasury and other reconciling items	**(94)**	(243)
Reconciliation to Consolidated Financial Statements	**(1,739)**	(1,731)

The result for **Siemens Energy Investment** included Siemens' share of Siemens Energy AG's result after tax and, in addition, expenses from amortization of assets resulting from purchase price allocation due to the initial recognition of the investment at fair value in September 2020. In fiscal 2021, Siemens' share of Siemens Energy AG's net loss amounted to €159 million, which was due mainly to planned restructuring measures by Siemens Energy to improve its competitiveness, while the expenses from amortization amounted to a €237 million.

Lower profit at **Siemens Real Estate** was due mainly to reduced gains related to disposals. The prior year included a gain of €219 million from the transfer of an investment.

The positive change in **Corporate items** was mainly due to the following factors in fiscal 2021: Firstly, a positive result, primarily resulting from revaluation gains, totaling €358 million related to the transfers of assets to Siemens Pension-Trust e.V. in Germany, which included the stakes in Bentley and ChargePoint Holdings, Inc. (ChargePoint). Secondly, a gain of €314 million related to the revaluation of, and dividends received for the stake in, Thoughtworks Holdings Inc. (Thoughtworks), which completed its initial public offering in the U.S. in September 2021. These factors were partly offset by expenses of €94 million from revised estimates related to provisions for a legacy project. Severance charges within Corporate items were €73 million (€68 million in fiscal 2020).

Improved results in **Eliminations, Corporate Treasury and other reconciling items** were due mainly to lower interest expenses on debt and positive effects related to reinsurance contracts.

Beginning with fiscal 2022, governance costs and Siemens brand fees, previously included in Corporate items, will be included within the new item Governance; results related to Technology and Next47, also previously included in Corporate items, will be disclosed under the new item Innovation. Other components of corporate items, including the businesses Advanta and Global Business Solution, will be transferred to the item Financing, eliminations and other items (formerly Eliminations, Corporate Treasury and other reconciling items). In line with the change to a new profit definition, this item will also include operating financial income (expenses), net. As a result of the changes described above, Corporate items will be retired as a disclosure line item. If this new reporting structure had already existed in fiscal 2021, the items Innovation; Governance; and Financing, eliminations and other items would have recorded €(207) million, €(751) million and €452 million in profit, respectively.

4. Results of operations

4.1 Orders and revenue by region

Currency translation effects took three percentage points each from order and revenue growth, respectively. Portfolio transactions, in particular the acquisition of Varian by Siemens Healthineers, added five percentage points to order and four percentage points to revenue growth year-over-year. The resulting ratio of orders to revenue (book-to-bill) for Siemens in fiscal 2021 was 1.15. The order backlog was €85 billion as of September 30, 2021.

Orders (location of customer)

	Fiscal year		% Change	
(in millions of €)	2021	2020	Actual	Comp.
Europe, C.I.S., Africa, Middle East	**34,311**	27,778	24%	20%
therein: Germany	***12,118***	*10,646*	*14%*	*9%*
Americas	**20,474**	16,780	22%	24%
therein: U.S.	***17,555***	*14,212*	*24%*	*26%*
Asia, Australia	**16,589**	13,473	23%	20%
therein: China	***9,029***	*7,094*	*27%*	*23%*
Siemens (continuing operations)	71,374	58,030	23%	21%
therein: emerging markets[1]	***19,208***	*15,234*	*26%*	*25%*

[1] As defined by the International Monetary Fund.

Orders related to external customers were up substantially year-over-year on double-digit growth in all four industrial businesses, reflecting a very strong rebound in economic activity even though the economic environment was still strongly impacted by COVID-19. Orders in Mobility increased sharply on a higher volume from large orders which included a €2.8. billion order for trainsets including dual powered and hybrid battery vehicles and associated services in the U.S., its largest-ever order in the Americas. Siemens Healthineers, Digital Industries and Smart Infrastructure also posted double-digit order growth year-over-year. The broad-based increase in emerging markets was driven by China and, to a lesser degree, India.

In the **Europe, C.I.S., Africa, Middle East** region, order intake was up substantially year-over-year with increases in all four industrial businesses. Sharp order growth in Siemens Healthineers included high volume from rapid coronavirus antigen tests. Digital Industries and Smart Infrastructure also recorded double-digit growth, while orders in Mobility were up clearly year-over year. In Germany, order intake in Siemens Healthineers almost doubled due mainly to the high volume from rapid coronavirus antigens tests. Digital Industries and Smart Infrastructure posted double-digit growth, while Mobility posted a substantial decline due to a lower volume from large orders which in fiscal 2020 had included a €1.1 billion order for high-speed trains.

Order growth in the **Americas** and in the U.S. was due mainly to a higher volume from large orders in Mobility, particularly including the large order in the U.S. mentioned above. Overall, order intake both in the region and in the U.S. was subject to significantly negative currency translation effects, partly offset by portfolio effects which related primarily to the acquisition of Varian.

In the **Asia, Australia** region, orders overall rose substantially due to double-digit increases in all four industrial businesses, with the highest contributions from Siemens Healthineers and Digital Industries. The pattern of order development in China was largely the same as for the region.

Revenue (location of customer)

	Fiscal year		% Change	
(in millions of €)	2021	2020	Actual	Comp.
Europe, C.I.S., Africa, Middle East	**31,138**	27,252	14%	12%
therein: Germany	***11,249***	*9,373*	*20%*	*16%*
Americas	**16,312**	15,218	7%	10%
therein: U.S.	***13,521***	*12,761*	*6%*	*9%*
Asia, Australia	**14,815**	12,784	16%	13%
therein: China	***8,232***	*6,594*	*25%*	*21%*
Siemens (continuing operations)	62,265	55,254	13%	11%
therein: emerging markets[1]	***17,651***	*15,323*	*15%*	*15%*

[1] As defined by the International Monetary Fund.

Revenue related to external customers went up significantly year-over-year, led by double-digit growth in Siemens Healthineers and Digital Industries. Smart Infrastructure recorded a clear increase, while Mobility posted slightly higher revenue year-over-year. The revenue increase in emerging markets was driven by substantially higher demand in China and, to a lesser degree, India.

Revenue in **Europe, C.I.S., Africa, Middle East** increased significantly on growth in all four industrial businesses. Within the region, Germany showed sharp growth particularly due to Siemens Healthineers which doubled its revenue in the country through sales of rapid coronavirus antigen tests. The other industrial businesses posted sizeable increases in Germany.

In the **Americas**, revenue was up in all four industrial businesses, led by Siemens Healthineers. As with orders, revenue was subject to significantly negative currency translation effects, partly offset by portfolio effects related primarily to the acquisition of Varian. The pattern of revenue growth in the U.S. was largely the same as for the region.

In **Asia, Australia**, Digital Industries, Siemens Healthineers and Smart Infrastructure all posted double-digit growth, while Mobility reported a decline. Growth in the region was primarily due to increases in China and India.

4.2 Income

	Fiscal year		
(in millions of €, earnings per share in €)	2021	2020	% Change
Digital Industries	**3,362**	3,252	3%
Smart Infrastructure	**1,743**	1,302	34%
Mobility	**857**	822	4%
Siemens Healthineers	**2,847**	2,184	30%
Industrial Business	**8,808**	7,560	17%
Adjusted EBITA margin Industrial Business	***15.0%***	*14.3%*	
Siemens Financial Services	**512**	345	48%
Portfolio Companies	**(85)**	(673)	87%
Reconciliation to Consolidated Financial Statements	**(1,739)**	(1,731)	0%
Income from continuing operations before income taxes	**7,496**	5,502	36%
Income tax expenses	**(1,861)**	(1,346)	(38)%
Income from continuing operations	**5,636**	4,156	36%
Income from discontinued operations, net of income taxes	**1,062**	44	>200%
Net income	**6,697**	4,200	59%
Basic earnings per share	**7.68**	5.00	54%
ROCE	**13.1%**	7.8%	

As a result of the developments described above, **Income from continuing operations before income taxes** increased 36%. Severance charges for continuing operations were €410 million, of which €251 million were in Industrial Business. In fiscal 2020, severance charges for continuing operations were €589 million, of which €490 million were in Industrial Business.

The tax rate in fiscal 2021 was 25%, close to the 24% rate in fiscal 2020, benefiting from reversal of income tax provisions and largely tax-free gains resulting from the transfers of assets to Siemens Pension-Trust e.V. mentioned above. These benefits were partly offset by losses related to equity investments which were not tax-deductible. As a result, the increase in **Income from continuing operations** was 36%.

Income from discontinued operations, net of income taxes in fiscal 2021 included a gain of €0.9 billion from the sale of Flender and also benefited from reversal of income tax provisions. The prior year included a pretax gain of €0.9 billion, net of related expenses, from the spin-off of Siemens Energy AG (Siemens Energy), as well as a positive contribution from Flender. These positive factors were largely offset, however, by losses at the former operating businesses Gas and Power and Siemens Gamesa Renewable Energy (now part of Siemens Energy) and €0.3 billion in income tax expenses mainly related to the carve-out of Siemens Energy.

The increase in **basic earnings per share** reflects an increase of Net income attributable to Shareholders of Siemens AG, which was €6,161 million in fiscal 2021 compared to €4,030 million in fiscal 2020, combined with a lower number of weighted average shares outstanding.

As expected, **ROCE** improved year-over-year, but was below the target range set in our Siemens Financial Framework. The increase year-over-year was due both to sharply higher income before interest after tax and to clearly lower average capital employed following the spin-off of Siemens Energy at the end of fiscal 2020.

4.3 Research and development

In fiscal 2021, we reported research and development expenses of €4.9 billion, compared to €4.6 billion in fiscal 2020. The resulting R&D intensity, defined as the ratio of R&D expenses and revenue, was 7.8% (fiscal 2020: 8.3%). Additions to capitalized development expenses amounted to €0.3 billion in fiscal 2021, compared to €0.4 billion in fiscal 2020. As of September 30, 2021 and 2020, Siemens held approximately 43,400 and 40,900 respectively, granted patents worldwide in its continuing operations. On average, we had 42,500 R&D employees in fiscal 2021.

Our research and development activities are ultimately geared to developing innovative, sustainable solutions for our customers – and the Siemens businesses – while also strengthening our own competitiveness. Joint implementation by the operating units and Technology, our central R&D department, ensures that research activities and business strategies are closely aligned with one another, and that all units benefit equally and quickly from technological developments. As in previous years, we focused on the following technologies: additive manufacturing, autonomous robotics, blockchain applications, connected (e-)mobility, connectivity and edge devices, cyber security, data analytics and artificial intelligence, distributed energy systems, energy storage, future of automation, materials, power electronics, simulation and digital twin, and software systems and processes.

We advance certain of these technologies also through our open innovation concept. We are working closely with scholars from leading universities and research institutions, not only under bilateral cooperation agreements but also in publicly funded collective projects. Our focus here is on our strategic research partners, and especially the eight Centers of Knowledge Interchange that we maintain at leading universities worldwide.

Siemens' global venture capital unit, Next47, provides capital to help start-ups expand and scale. It serves as the creator of next-generation businesses for Siemens by building, buying and partnering with innovative companies at any stage. Next47 is focused on anticipating how emerging technologies will influence our end markets. This foreknowledge enables Siemens and our customers to grow and thrive in the age of digitalization.

5. Net assets position

(in millions of €)	Sep 30, 2021	2020	% Change
Cash and cash equivalents	**9,545**	14,041	(32)%
Trade and other receivables	**15,518**	14,074	10%
Other current financial assets	**7,985**	8,382	(5)%
Contract assets	**6,688**	5,545	21%
Inventories	**8,836**	7,795	13%
Current income tax assets	**1,795**	1,523	18%
Other current assets	**1,751**	1,271	38%
Assets classified as held for disposal	**223**	338	(34)%
Total current assets	**52,340**	52,968	(1)%
Goodwill	**29,729**	20,449	45%
Other intangible assets	**10,964**	4,838	127%
Property, plant and equipment	**11,023**	10,250	8%
Investments accounted for using the equity method	**7,539**	7,862	(4)%
Other financial assets	**22,964**	22,771	1%
Deferred tax assets	**2,865**	2,988	(4)%
Other assets	**2,183**	1,769	23%
Total non-current assets	**87,267**	70,928	23%
Total assets	**139,608**	123,897	13%

Our total assets at the end of fiscal 2021 were influenced by positive currency translation effects of €2.3 billion (mainly goodwill), primarily involving the U.S. dollar.

In fiscal 2021, the acquisition of Varian was the major factor related to the increase of Siemens' assets, mainly **goodwill**, **other intangible assets, inventories**, **property, plant and equipment**, and **trade and other receivables**. The increase of the latter was driven also by higher business volume, primarily at Siemens Healthineers. Goodwill increased also due to the acquisition of Supplyframe. These increases were partly offset by the sale of Flender, among other factors. This applies mainly to inventories, trade and other receivables, and property, plant and equipment. For further information see Note 3 in Notes to Consolidated Financial Statements for fiscal 2021.

The increase in **other financial assets** was driven mainly by increased equity investments as well as higher receivables from finance leases and higher loans receivable at SFS. The increase of the latter two was mainly due to new business and – in case of loans receivable – also to a reassessment of the expected repayment dates. Set against these factors was a decrease resulting mainly from contributions of assets to Siemens Pension-Trust e.V., including the stake in Bentley.

6. Financial position

6.1 Capital structure

	Sep 30,		
(in millions of €)	2021	2020	% Change
Short-term debt and current maturities of long-term debt	**7,821**	6,562	19%
Trade payables	**8,832**	7,873	12%
Other current financial liabilities	**1,731**	1,958	(12)%
Contract liabilities	**9,858**	7,524	31%
Current provisions	**2,263**	1,674	35%
Current income tax liabilities	**1,809**	2,281	(21)%
Other current liabilities	**7,628**	6,209	23%
Liabilities associated with assets classified as held for disposal	**10**	35	(71)%
Total current liabilities	**39,952**	34,117	17%
Long-term debt	**40,879**	38,005	8%
Provisions for pensions and similar obligations	**2,839**	6,360	(55)%
Deferred tax liabilities	**2,337**	664	>200%
Provisions	**1,723**	2,352	(27)%
Other financial liabilities	**679**	769	(12)%
Other liabilities	**1,925**	1,808	6%
Total non-current liabilities	**50,381**	49,957	1%
Total liabilities	**90,333**	84,074	7%
Debt ratio	***65%***	*68%*	
Total equity attributable to shareholders of Siemens AG	**44,373**	36,390	22%
Equity ratio	***35%***	*32%*	
Non-controlling interests	**4,901**	3,433	43%
Total liabilities and equity	**139,608**	123,897	13%

The increase in **short-term debt and current maturities of long-term debt** was due mainly to reclassifications of long-term U.S. dollar and euro instruments totaling €5.7 billion, and to higher loans from banks totaling €0.9 billion. This was offset by repayment of euro and U.S. dollar instruments totaling €3.5 billion, and by a €1.9 billion decrease in commercial papers.

Increases in **deferred tax liabilities** and **contract liabilities** year-over-year were due mainly to the acquisition of Varian. For further information see Note 3 in Notes to Consolidated Financial Statements for fiscal 2021.

Long-term debt increased due primarily to the issuance of U.S. dollar instruments of €8.4 billion. Set against this were mainly decreases from the above-mentioned reclassifications and currency translation effects for bonds issued in the U.S. dollar and British pound.

Provisions for pensions and similar obligations substantially decreased mainly due to a positive return on plan assets and extraordinary fundings in Germany, including the transfer of Siemens' stake in Bentley to Siemens Pension-Trust e.V.

The decrease of **provisions** is due mainly to reclassification of a large part of a major asset retirement obligation to **current provisions**.

The main factors for the increase in **total equity attributable to shareholders of Siemens AG** were €6.2 billion in net income attributable to shareholders of Siemens AG; positive other comprehensive income, net of income taxes, of €3.5 billion resulting mainly from positive effects from remeasurements of defined benefit plans and from currency translation; and higher retained earnings of €1.2 billion due to Siemens Healthineers' increase in share capital. The increase was partly offset by dividend payments of €2.8 billion (for fiscal 2020) and the repurchase of 976,346 treasury shares totaling €0.5 billion (including final payment to a commissional bank).

The share capital increase of Siemens Healthineers mentioned above contributed also to higher **non-controlling interests** totaling €1.0 billion. For further information see Note 3 in Notes to Consolidated Financial Statements for fiscal 2021.

Capital structure ratio

Our capital structure ratio as of September 30, 2021 increased to 1.5 from 1.3 a year earlier. The change was due primarily to the above-mentioned increase in long-term debt and decreased cash and cash equivalents related to the acquisition of Varian.

Debt and credit facilities

As of September 30, 2021, we recorded, in total, €43.4 billion in notes and bonds, €2.3 billion in loans from banks, €0.1 billion in other financial indebtedness and €2.9 billion in lease liabilities. Notes and bonds were issued mainly in the U.S. dollar and euro, and to a lesser extent in the British pound.

We have credit facilities totaling €7.5 billion which were unused as of September 30, 2021.

For further information about our debt see Note 16 in Notes to Consolidated Financial Statements for fiscal 2021. For further information about the functions and objectives of our financial risk management see Note 25 in Notes to Consolidated Financial Statements for fiscal 2021.

Off-balance-sheet commitments

As of September 30, 2021, the undiscounted amount of maximum potential future payments related primarily to credit and performance guarantees amounted to €15.6 billion. This included primarily Siemens' obligations from performance and credit guarantees in connection with the Siemens Energy business, for which Siemens has reimbursement rights towards Siemens Energy.

In addition to these commitments, there are contingent liabilities of €0.5 billion which mainly result from other guarantees, legal proceedings and from joint and several liabilities of consortia. Other guarantees include €0.2 billion in connection with the Siemens Energy business, for which Siemens has reimbursement rights towards Siemens Energy.

Irrevocable loan commitments amounted to €3.9 billion. A considerable portion of these commitments resulted from asset-based lending transactions, meaning that the respective loans can be drawn only after the borrower has provided sufficient collateral.

For further information about our commitments and contingencies see Note 21 in Notes to Consolidated Financial Statements for fiscal 2021.

Share buyback

The share buyback announced in November 2018 was completed on September 24, 2021 with a total volume of €3 billion. On June 24, 2021, Siemens announced that it intends to launch a new five-year share buyback program of up to €3 billion, beginning in fiscal 2022.

6.2 Cash flows

(in millions of €)	Fiscal year 2021
Cash flows from operating activities	
Net income	**6,697**
Change in operating net working capital	**(187)**
Other reconciling items to cash flows from operating activities - continuing operations	**3,599**
Cash flows from operating activities - continuing operations	**10,109**
Cash flows from operating activities - discontinued operations	**(113)**
Cash flows from operating activities - continuing and discontinued operations	**9,996**
Cash flows from investing activities	
Additions to intangible assets and property, plant and equipment	**(1,730)**
Acquisitions of businesses, net of cash acquired	**(14,391)**
Purchase of investments and financial assets for investment purposes	**(1,523)**
Change in receivables from financing activities of SFS	**(631)**
Other disposals of assets	**1,084**
Cash flows from investing activities - continuing operations	**(17,192)**
Cash flows from investing activities - discontinued operations	**1,698**
Cash flows from investing activities - continuing and discontinued operations	**(15,494)**
Cash flows from financing activities	
Purchase of treasury shares	**(547)**
Re-issuance of treasury shares and other transactions with owners	**2,055**
Issuance of long-term debt	**8,316**
Repayment of long-term debt (including current maturities of long-term debt)	**(4,294)**
Change in short-term debt and other financing activities	**(952)**
Interest paid	**(704)**
Dividends paid to shareholders of Siemens AG	**(2,804)**
Dividends attributable to non-controlling interests	**(285)**
Cash flows from financing activities - continuing operations	**785**
Cash flows from financing activities - discontinued operations	**–**
Cash flows from financing activities - continuing and discontinued operations	**785**

Led by Digital Industries, all industrial businesses delivered strong conversion of their Adjusted EBITA to **Cash flows from operating activities**, including only minor cash flows from changes in operating net working capital in all industrial businesses.

Cash outflows from **acquisitions of businesses**, **net of cash acquired**, were due mainly to the acquisitions of Varian by Siemens Healthineers for €13.4 billion and Supplyframe by Digital Industries for €0.6 billion.

Cash outflows for **purchase of investments and financial assets for investment purposes** primarily included additions of assets eligible as central bank collateral and payments for debt or equity investments related to certain businesses or projects, including the acquisition of an equity stake in Thoughtworks for €0.3 billion.

Cash outflows from **change in receivables from financing activities of SFS** related mainly to SFS' debt business.

Cash inflows from **other disposals of assets** mainly included disposals of assets eligible as central bank collateral.

Cash outflows for **purchase of treasury shares** included a final payment of €0.4 billion to the commissioned bank, which was due with completion of the share buyback program 2018-2021.

Cash inflows from the **re-issuance of treasury shares and other transactions with owners** mainly included proceeds of €2.3 billion related to Siemens Healthineers AG's issuance of 53 million new shares to institutional investors.

Cash outflows from the **change in short-term debt and other financing activities** mainly included net cash outflows related to commercial paper, partly offset by cash inflows from new bank loans.

Cash inflows from **investing activities from discontinued operations** were driven by the sale of Flender, which resulted in cash inflows (net of cash disposed) of €1.8 billion.

We report Free cash flow as a supplemental liquidity measure:

Free cash flow

			Fiscal year 2021
(in millions of €)	Continuing operations	Discontinued operations	Continuing and discontinued operations
Cash flows from operating activities	**10,109**	**(113)**	**9,996**
Additions to intangible assets and property, plant and equipment	**(1,730)**	**(29)**	**(1,759)**
Free cash flow	**8,379**	**(142)**	**8,237**

The Free cash flow for the Industrial Business amounted to €9,847 million, resulting in a cash conversion rate of 1.12. The cash conversion rate for the Siemens Group was 1.23.

With our ability to generate positive operating cash flows from continuing and discontinued operations of €10.0 billion in fiscal 2021, our total liquidity (defined as cash and cash equivalents plus current interest-bearing debt securities) of €10.7 billion, our unused lines of credit, and our credit ratings at year-end, we believe that we have sufficient flexibility to fund our capital requirements. Also in our opinion, our operating net working capital is sufficient for our present requirements.

Investing activities

Additions to intangible assets and property, plant and equipment from continuing operations totaled €1.7 billion in fiscal 2021. Within the industrial businesses, ongoing investments related mainly to technological innovations; maintaining and extending our capacities for designing, manufacturing and marketing new solutions; improving productivity; and replacements of fixed assets. These investments amounted to €1.3 billion in fiscal 2021. The remaining portion related mainly to Siemens Real Estate, including significant amounts for projects such as new office buildings in Germany. Siemens Real Estate is responsible for uniform and comprehensive management of Company real estate worldwide (except for Siemens Healthineers) and supports the industrial businesses and corporate activities with customer-specific real estate solutions.

With regard to capital expenditures for continuing operations, we expect a significant increase in fiscal 2022. In the coming years, up to €0.6 billion are to be invested in Siemensstadt Square. This project initiated in fiscal 2019 aims to transform Siemens' existing industrial area in Berlin into a modern urban district supporting a diverse range of purposes, including strengthening key technologies. Further investments are planned in relation to Siemens Campus Erlangen. In addition, we continue to invest in attractive innovation fields through Next47, our global venture capital unit.

7. Overall assessment of the economic position

Siemens successfully executed on its strategy as a focused technology company in fiscal 2021, following the spin-off and public listing of Siemens Energy in September 2020. All our industrial businesses are addressing highly attractive markets in industrial automation, infrastructure, transportation and healthcare. With our offerings we are taking advantage of growth trends such as digitalization and decarbonization, for example by helping our customers to combine the real and the digital worlds. With the financial framework that we presented in June 2021, we have set ambitious new targets: we aim to further accelerate our profitable growth while placing an even greater emphasis on free cash flow.

In fiscal 2021, Siemens made further progress in sharpening its business focus by divesting activities such as the Flender business on one side, while on the other side strengthening our industrial businesses with a number of significant acquisitions. Important examples are: in the second quarter of fiscal 2021, the acquisition of C&S Electric, a provider of electrical and electronic equipment for infrastructure, power generation, transmission and distribution in India, to strengthen Smart Infrastructure's position in that country as a supplier of low-voltage power distribution and electrical installation technology; in the third quarter of fiscal 2021, the acquisition of Varian, a global leader in the field of cancer care, with solutions especially in radiation oncology and related digital solutions and applications, which provides a good complement to Siemens Healthineers' activities in medical imaging, laboratory diagnostics and interventional procedures; in the fourth quarter of fiscal 2021, the acquisition of Supplyframe, a marketplace for the global electronics value chain, with which Digital Industries intends to significantly strengthen digital marketing and accelerate sales of its offerings to small and medium-sized companies. At the beginning of the first quarter of fiscal 2022, Mobility closed the acquisition of Sqills, a provider of cloud-based inventory management, reservation, and ticketing software for public transport operators, which enhances Mobility's existing offerings for increasing the availability, capacity and utilization of public transportation.

Following the deep recession during fiscal 2020, many of Siemens' key customer industries including automotive, machine building, pharmaceuticals, chemicals, electronics, and cloud services recovered or continued to grow during fiscal 2021. Although COVID-19 led to a significant drop in public transit ridership, recovery programs in many countries have been allocating significant funds to transport providers, resulting in strong order development. During the fiscal year, Siemens succeeded in maintaining its supply chains and delivery capacity and continued to be a reliable partner for its customers, despite more challenging supply condition. These developments were reflected in our strong financial performance for fiscal 2021. We raised our outlook during the fiscal year, most recently after the third quarter, and reached or exceeded all the targets set for our primary measures for fiscal 2021. We achieved revenue growth of 11.5% net of currency translation and portfolio effects and delivered net income of €6.7 billion. Return on capital employed (ROCE) was double-digit at 13.1% and our capital structure ratio came in at 1.5.

Orders rose 23% year-over-year to €71.4 billion, for a book-to-bill ratio of 1.15, thus fulfilling our expectation of a ratio above 1. All our four industrial businesses increased orders year-over-year. Mobility achieved the highest growth rate due to a sharply higher volume from large orders, including its largest ever order in the Americas, worth €2.8 billion, for trainsets and associated services. Substantial order growth at Siemens Healthineers included new volume from the acquisition of Varian. Significant order growth at Digital Industries was driven mainly by its factory automation and motion control businesses, while orders at Smart Infrastructure increased clearly on growth in all its businesses, with the strongest contributions coming from the products business and the systems business.

Revenue was also higher in all our industrial businesses, rising to €62.3 billion, a 13% increase year-over-year. The strongest increases came from Siemens Healthineers and Digital Industries, which both posted double-digit growth. Revenue growth at Siemens Healthineers included all businesses with the highest increases coming from the diagnostics and imaging businesses. Revenue development at Digital Industries also included increases in all its businesses led by factory automation and motion control. Revenue growth at Smart Infrastructure was driven by its products business and its systems business. Revenue at Mobility rose slightly, as parts of its businesses continued to be impacted by restrictions related to COVID-19. Excluding currency translation and portfolio effects, revenue for Siemens grew 11.5%. We thus exceeded our forecast given in our Annual Report 2020, which was to achieve moderate comparable revenue growth and we met our raised guidance given after the third quarter of fiscal 2021, which was to achieve comparable revenue growth of 11% to 12%.

Adjusted EBITA Industrial Business rose 17% to €8.8 billion on growth in all industrial businesses, led by Siemens Healthineers on strong earnings development in its diagnostics business driven by strong demand for rapid coronavirus antigen tests and by Smart Infrastructure on increases in all its businesses. Adjusted EBITA at Digital Industries rose moderately even though prior-year results benefited from a €0.8 billion positive effect related mainly to a revaluation of the stake in Bentley. Adjusted EBITA at Mobility also rose moderately, driven by its rail infrastructure business.

Adjusted EBITA margin Industrial Business rose to 15.0%, up from 14.3% a year earlier. With Adjusted EBITA margins of 11.6%, 15.8% and 9.3%, respectively, Smart Infrastructure, Siemens Healthineers and Mobility improved their Adjusted EBITA margins year-over-year. The Adjusted EBITA margin of 20.4% at Digital Industries came in below the prior-year level of 21.7%, which included the above-mentioned substantial positive effect related to Bentley, which added 5.1 percentage points to Digital Industries' Adjusted EBITA margin.

Siemens Financial Services sharply increased earnings before taxes due to lower expenses for credit risk provisions year-over-year, resulting in a return on equity after tax of 15.4%. In addition, results outside Industrial Business in fiscal 2021 benefited from a €0.3 billion revaluation gain and gains related to transfers of assets to Siemens Pension Trust e.V. in Germany were higher in the current period. A €0.4 billion loss related to Siemens Energy Investment was due mainly to Siemens Energy's execution of planned restructuring measures to improve its competitiveness and expenses from amortization of assets resulting from purchase price allocation. For comparison, results outside Industrial Business a year earlier included an impairment of €0.5 billion on our equity investment stake in Valeo Siemens eAutomotive GmbH.

Net income in fiscal 2021 rose 59% to €6.7 billion, and basic EPS from net income increased 54% to €7.68. We thus exceeded the forecast given in our Annual Report 2020, which was for a moderate increase in net income, and also exceeded our raised forecast after the third quarter, which was for net income in the range of €6.1 billion to €6.4 billion. This improvement was due mainly to the aforementioned significantly higher Adjusted EBITA Industrial Business and the lower loss outside Industrial Business. In addition, discontinued operations, largely related to the sale of Flender, contributed income of €1.1 billion in fiscal 2021.

ROCE for fiscal 2021 rose to 13.1%, up from 7.8% in fiscal 2020. This increase was due to a combination of sharply higher net income and clearly lower average capital employed year-over-year. We thus exceeded our forecast for ROCE given in our Annual Report 2020, which was for ROCE to remain in the single-digit range in fiscal 2021.

We evaluate our capital structure using the ratio of Industrial net debt to EBITDA. Due primarily to an increase in net debt year-over-year, this ratio rose to 1.5, compared to 1.3 in fiscal 2020. We thus achieved our forecast given in our Annual Report 2020, which was for a ratio above 1.0 in fiscal 2021.

Free cash flow from continuing and discontinued operations for fiscal 2021 increased 29% year-over-year to €8.2 billion, reaching a new high.

We intend to continue providing an attractive shareholder return. The Siemens Managing Board, in agreement with the Supervisory Board, proposes a dividend of €4.00 per share, up from €3.50 per share a year earlier.

8. Report on expected developments and associated material opportunities and risks

8.1 Report on expected developments

8.1.1 Worldwide economy

After the deepest recession and the fastest rebound in decades, in calendar 2020 and calendar 2021, respectively, the global economic recovery is expected to continue with slowing momentum in fiscal 2022. Global gross domestic product (GDP) is expected to expand by 4.3% in calendar 2022. The outlook is still subject to a high level of uncertainty. The biggest source of concern remains COVID-19. New variants could emerge before widespread vaccination is reached globally, or they could escape existing immunity, while vaccine effectiveness might fade more quickly than expected.

However, in our baseline forecast we assume the impact of the Delta variant will recede further, vaccination rates will continue to rise, especially in developing countries, and the global economy gradually will return to normal. The service sector will reopen further, and consumer spending for services will recover, which will contribute significantly to the global recovery. This is supported by consumers still having substantial pent-up savings which will continue to fuel consumer demand. In addition, companies in general have low levels of inventory and will seek to re-stock, adding to demand, even if consumer spending should slow. Also, many companies might want to have structurally higher inventory levels to improve supply chain resilience, as supply chains were often stressed during the pandemic. However, we expect supply shortages to continue in the first half of calendar 2022.

Besides a potential re-emergence of the pandemic, further risks exist for fiscal 2022. Supply bottlenecks might last longer and restrain the recovery. While we expect price pressures to subside for the most part in fiscal 2022 in our baseline outlook, persistent supply bottlenecks or further energy price increases could fuel inflation and inflation expectations, and thus prompt a faster-than-anticipated monetary tightening. This could reverberate in financial markets and weigh on investment spending. Risks for financial markets could also emerge from other sources, e.g. an escalation of the U.S.-China trade and technology conflict, high corporate or government debt levels or China's property sector which could undergo a substantial correction after a period of over-investment.

The necessary adjustments in the Chinese property sector, a high ratio of debt to GDP and worsening business conditions will limit China's GDP growth in calendar 2022 to 5.7%. The European Union economy is expected to expand by 4.0% in calendar 2022, still supported by catch-up effects and announced stimulus programs becoming effective. In the U.S., GDP is expected to expand by 4.3%, where government spending has a negative effect on GDP growth, as it is reduced from calendar 2021 on, implying a negative fiscal impulse. An important pre-requisite is preventing federal limits on borrowing (the debt ceiling) from disrupting government operations and spending programs.

Global fixed investments are expected to expand by 4.4% in calendar 2022, after already growing by 6.4% in calendar 2021. Important customer industries for Siemens are participating in the global recovery (e.g. electronics, pharma, materials, chemicals). Yet persistent supply bottlenecks have the potential to significantly derail this recovery, such as in the automotive sector due to semiconductor shortages. The infrastructure sector (particularly public transport and electricity grids) will benefit from various green stimulus programs.

Overall, the market environment for Siemens is expected to remain favorable in fiscal 2022, but with some deceleration compared to fiscal 2021. Risks for the outlook are still substantial.

The forecasts presented here for GDP and fixed investments are based on a report from IHS Markit dated October 15, 2021.

8.1.2 Siemens Group

We are basing our outlook for fiscal 2022 on the above-mentioned expectations and assumptions regarding the overall economic situation, including continuing healthy growth in global GDP albeit with slowing momentum, and also on the specific market conditions we expect for our respective industrial businesses, as described in chapter 3 Segment information. Furthermore, we assume that the challenges to our businesses from COVID-19 will ease during fiscal 2022. Although we also expect supply chain constraints to recede somewhat during fiscal 2022, we expect continued impacts from higher prices for raw materials and components and from wage increases, which we intend to mitigate by adjusting prices for our own products, solutions and services.

We are exposed to currency translation effects, mainly involving the U.S. dollar, the British pound and currencies of emerging markets, particularly the Chinese yuan. While we expect volatility in global currency markets to continue in fiscal 2022, we have improved our natural hedge on a global basis through geographic distribution of our production facilities in the past. Nevertheless, Siemens is still a net exporter from the Eurozone to the rest of the world, so a weak euro is principally favorable for our business and a strong euro is principally unfavorable. In addition to the natural hedging strategy just mentioned, we also hedge currency risk in our export business using derivative financial instruments. We expect these steps to help us limit effects on income related to currency in fiscal 2022. Based on currency exchange rates as of the beginning of November 2021, we do not expect significant currency effects on nominal growth rates in volume and profit for our businesses in fiscal 2022.

This outlook excludes burdens from legal and regulatory matters.

Segments

We expect our industrial businesses to continue their profitable growth.

Digital Industries expects for fiscal 2022 to achieve comparable revenue growth of 5% to 8%. The profit margin is expected to be 19% to 21%, including known headwinds of up to two percentage points associated with the strategic transition to software as a service (SaaS) in parts of its large software business.

Smart Infrastructure expects for fiscal 2022 comparable revenue growth of 5% to 8%. The profit margin is expected to be 12% to 13%.

Mobility expects for fiscal 2022 comparable revenue growth of 5% to 8%. The profit margin is expected to be 10.0% to 10.5%.

Siemens Healthineers expects to achieve comparable revenue growth in the range of 0% to 2% in fiscal 2022. The profit margin, which was 15.8% in fiscal 2021, is expected to continue to improve.

Siemens Financial Services expects to further improve Earnings before taxes year-over-year. Return on equity (ROE) (after tax) is expected to reach the lower half of the new target range of 15% to 20%.

Revenue growth

For comparable revenue, net of currency translation and portfolio effects, we expect the Siemens Group to achieve mid-single-digit growth. Furthermore, we anticipate that orders in fiscal 2022 will exceed revenue for a book-to-bill ratio above 1.

As of September 30, 2021, our order backlog totaled €85 billion, and we expect conversion from the backlog to strongly support revenue growth in fiscal 2022 with approximately €34 billion of past orders converted to current revenue. For expected conversion of order backlog to revenue for our respective segments, see chapter 3 Segment information.

Profitability

We assume that rigorous execution of our portfolio optimization strategy in fiscal 2022 will contribute similarly as in fiscal 2021, when we generated €1.5 billion in net income from the sale of our Flender business, divestment of our stakes in Bentley and ChargePoint, Inc., and revaluation of our stake in Thoughtworks. In October 2021, Siemens already recognized a €0.3 billion pretax gain (€0.2 billion after tax) related to its investment in Fluence Energy, LLC (Fluence).

We expect our fully consolidated units within Portfolio Companies to reach profit margins above 5%, while results from the equity investment are expected to be volatile and negative.

In addition, results for Siemens Energy Investment, which includes Siemens' share of Siemens Energy AG's profit after tax, amounting to a negative €0.2 billion in fiscal 2021, is expected to improve; amortization of assets resulting from purchase price allocation due to the initial recognition of the investment at fair value in September 2020, which are also included in Siemens Energy Investment, are expected to decline to €0.1 billion in fiscal 2022, from €0.2 billion in fiscal 2021. We anticipate that Siemens Real Estate will continue with real estate disposals depending on market conditions, at a similar level as in fiscal 2021. Results for Innovation also are expected on the prior-year level, which was a negative €0.2 billion. Results related to Governance, were a negative €0.8 billion in fiscal 2021; we expect a substantial improvement in fiscal 2022, to a negative €0.5 billion. Centrally carried pension expense are expected to be on prior-year level, which was a negative €0.2 billion. Amortization of intangible assets acquired in business combinations, which was €0.7 billion in fiscal 2021, is expected at €0.9 billion due mainly to the acquisition of Varian in April 2021. Financing, eliminations and other items, which were a positive €0.5 billion in fiscal 2021, are expected to include substantial parts of gains from revaluation and from divestments in fiscal 2022, resulting from our portfolio optimization strategy, among them the above-mentioned gain related to Fluence.

We anticipate our tax rate for fiscal 2022 to be in the range of 25% to 29%, depending strongly on portfolio-related gains, compared to 25% in fiscal 2021. This assumption does not take into consideration possible impacts from potential major tax reforms. We do not expect material influence on financial results from discontinued operations in fiscal 2022.

Our forecast for net income takes into account a number of additional factors. We assume solid project execution to continue in fiscal 2022. We plan to increase the ratio of R&D expenses to revenue, which was 7.8% in fiscal 2021, to approximately 8% with a strong focus on software and digital technologies. Severance charges, which were €0.4 billion in fiscal 2021, are expected at €0.2 billion in fiscal 2022.

Given the above-mentioned assumptions, we expect profitable growth of our industrial businesses to drive an increase in net income and EPS pre PPA to a range of €8.70 to €9.10, up from €8.32 in fiscal 2021.

Capital efficiency

For fiscal 2022, we expect ROCE adjusted for defined Varian-related acquisition effects, which was 15.1% in fiscal 2021, to improve in our target range of 15% to 20%.

Capital structure

For our capital structure, defined as the ratio of industrial net debt to EBITDA (continuing operations), we expect in fiscal 2022 to achieve a ratio below the prior-year figure of 1.5. We assume that our targeted cash conversion rate of 1 minus the annual comparable revenue growth rate of the Group over a cycle of three to five years will support the achievement of the capital structure target in fiscal 2022.

8.1.3 Overall assessment

Our outlook for fiscal 2022 is based on continuing healthy growth in global GDP, albeit with slowing momentum, and our expectation that the challenges to our businesses from COVID-19 and supply chain constraints will ease during fiscal 2022. With these conditions and given our very strong fiscal year 2021, we expect our industrial businesses to continue their profitable growth.

For the Siemens Group we expect mid-single-digit comparable revenue growth, net of currency translation and portfolio effects, and a book-to-bill ratio above 1.

We expect profitable growth of our industrial businesses to drive an increase in EPS pre PPA to a range of €8.70 to €9.10, up from €8.32 in fiscal 2021. We assume that rigorous execution of our portfolio optimization strategy will contribute similarly as in fiscal 2021, when we generated €1.5 billion in net income from the sale of our Flender business, divestment of our stakes in Bentley and ChargePoint, and revaluation of our stake in Thoughtworks.

This outlook excludes burdens from legal and regulatory matters.

Overall, the actual development for Siemens and its segments may vary, positively or negatively, from our outlook due to the risks and opportunities described below or if our expectations and assumptions do not materialize.

8.2 Risk management

8.2.1 Basic principles of risk management

Our risk management policy stems from a philosophy of pursuing sustainable growth and creating economic value while managing appropriate risks and opportunities and avoiding inappropriate risks. As risk management is an integral part of how we plan and execute our business strategies, our risk management policy is set by the Managing Board. Our organizational and accountability structure requires each of the respective managements of our organizational units to implement risk management programs that are tailored to their specific industries and responsibilities, while being consistent with the overall policy.

8.2.2 Enterprise risk management process

We have implemented and coordinated a set of risk management and control systems which support us in the early recognition of developments that could jeopardize the continuity of our business. The most important of these systems include our enterprise-wide processes for strategic planning and management reporting. Strategic planning is intended to support us in considering potential risks and opportunities well in advance of major business decisions, while management reporting is intended to enable us to monitor such risks more closely as our business progresses. Our internal auditors regularly review the adequacy and effectiveness of our risk management. Accordingly, if deficits are detected, it is possible to adopt appropriate measures for their elimination. This coordination of processes and procedures is intended to help ensure that the Managing Board and the Supervisory Board are fully informed about significant risks in a timely manner.

Risk management at Siemens builds on a comprehensive, interactive and management-oriented Enterprise Risk Management (ERM) approach that is integrated into the organization and that addresses both risks and opportunities. Our ERM approach is based on the globally accepted COSO Standard (Committee of Sponsoring Organizations of the Treadway Commission) Enterprise Risk Management – Integrating with Strategy and Performance (2017) and the ISO (International Organization for Standardization) Standard 31000 (2018) and is adapted to Siemens requirements. The frameworks connect the ERM process with our financial reporting process and our internal control system. They consider a company's strategy, the efficiency and effectiveness of its business operations, the reliability of its financial reporting and compliance with relevant laws and regulations to be equally important.

Our ERM process aims for early identification and evaluation of, and response regarding, risks and opportunities that could materially affect the achievement of our strategic, operational, financial and compliance objectives. The time horizon is typically three years, and we take a net risk approach, addressing risks and opportunities remaining after the execution of existing and effective measures and controls. If risks have already been considered in plans, budgets, forecasts or the consolidated financial statements (e.g. as a provision or risk contingency), they are supposed to be incorporated with their financial impact in the entity's business objectives. As a consequence, only additional risks arising from the same subject (e.g. deviations from business objectives, different impact perspectives) should be considered. In order to provide a comprehensive view of our business activities, risks and opportunities are identified in a structured way combining elements of both top-down and bottom-up approaches. Reporting generally follows a quarterly cycle; we complement this periodic reporting with an ad-hoc reporting process that aims to escalate critical issues in a timely manner. Relevant risks and opportunities are evaluated in terms of impact and likelihood, considering different impact perspectives, including business objectives, reputation and regulatory requirements. The bottom-up identification and prioritization process is supplemented by workshops with the respective managements of our organizational units. The top-down element ensures that potential new risks and opportunities are discussed at different management levels and are included in the subsequent reporting process, if found to be relevant. Reported risks and opportunities are analyzed regarding potential cumulative effects and are aggregated within and for each of the organizational units mentioned above.

Responsibilities are assigned for all relevant risks and opportunities, with the hierarchical level of responsibility depending on the significance of the respective risk or opportunity. In a first step, assuming responsibility for a specific risk or opportunity involves choosing one of our general response strategies. Our general response strategies with respect to risks are avoidance, transfer, reduction or acceptance of the relevant risk. Our general response strategy with respect to opportunities is to "seize" the relevant opportunity. In a second step, responsibility for a risk or opportunity also involves the development, initiation and monitoring of appropriate response measures corresponding to the chosen response strategy. These response measures have to be specifically tailored to allow for effective risk management. Accordingly, we have developed a variety of response measures with different characteristics. For example, we mitigate the risk of fluctuations in currency and interest rates by engaging in hedging activities. Regarding our projects, systematic and comprehensive project management with standardized project milestones, including provisional acceptances during project execution and complemented by clearly defined approval processes, assists us in identifying and responding to project risks at an early stage, even before the bidding phase. Furthermore, we maintain appropriate insurance levels for potential cases of damage and liability risks in order to reduce our exposure to such risks and to avoid or minimize potential losses. Among others, we address the risk of fluctuation in economic activity and customer demand by closely monitoring macroeconomic conditions and developments in relevant industries, and by adjusting capacity and implementing cost-reduction measures in a timely and consistent manner if they are deemed necessary. Worldwide there are risks from the transmission of infectious agents from animals to humans, from humans to humans and in other ways. Epidemic, pandemic or other infectious developments such as bioterrorism to cause high disease rates in countries, regions or continents. We constantly check information from the World Health Organization (WHO), the - Centers for Disease Control and Prevention in the U.S. and Europe, the Robert Koch Institute in Germany and other institutions in order to be able to identify early epidemic or pandemic risks and determine and initiate related mitigation actions as early as possible.

8.2.3 Risk management organization and responsibilities

To oversee the ERM process and to further drive the integration and harmonization of existing control activities to align with legal and operational requirements, the Managing Board established a Risk Management and Internal Control Organization, led by the Head of Assurance. In order to allow for a meaningful discussion of risk at the Siemens Group level, this organization aggregates individual risks and opportunities of similar cause-and-effect nature into broader risk and opportunity themes. This aggregation naturally results in a mixture of risks, including those with a primarily qualitative assessment and those with a primarily quantitative risk assessment. Accordingly, we do not adopt a purely quantitative assessment of risk and opportunity themes. Thematic risk and opportunity assessments as well as our risk-bearing capacity then form the basis for the evaluation of the company-wide risk and opportunity situation during the quarterly board meetings. The Head of Assurance assists the Managing Board with the operation and oversight of the risk and internal control system and reporting to the Audit Committee of the Supervisory Board.

8.3 Risks

Below we describe the risks that could have a material adverse effect on our business situation, financial condition (including effects on assets, liabilities and cash flows), results of operations and reputation. The order in which the risks are presented in each of the four categories reflects the currently estimated relative exposure for Siemens associated with these risks and thus provides an indication of the risks' current importance to us. Additional risks not known to us or that we currently consider immaterial may also negatively impact our business objectives and operations. Unless otherwise stated, the risks described below relate to all our organizational units.

8.3.1 Strategic risks

Economic, political and geopolitical conditions: We see significant uncertainties regarding the global economic outlook. In particular, a renewed intensity of the COVID-19 pandemic could stall the recovery achieved to date, and even lead to a new recession, for example if current vaccines are less effective with new variants, leading to the return of contact restrictions or lockdowns. There is also great uncertainty about the long-term consequences of the pandemic for important Siemens customer industries, such as aerospace and non-residential construction. Moreover, during the COVID-19 pandemic significant macroeconomic challenges have not been defused and in some cases, they have intensified. A renewed escalation of the trade conflict between the U.S. and China and an intensified de-coupling would significantly worsen global growth prospects. Adverse effects on confidence and investment activity would severely hit Siemens' business. Increasing trade barriers, protectionism, sanctions and in particular technical regulations would negatively impact production costs and productivity along our many value chains, as well as significantly impede or even hinder access to sales markets. A significant risk to our sales potential and cost structure is coming from mounting supply chain bottlenecks, due to growing lack of availability of intermediate goods, in particular electronic components. Bottlenecks in energy supply on the one hand and in access to raw materials on the other would substantially reduce industrial production potential. The escalating possibility of major defaults in the Chinese property sector, with potential spillover effects into the entire real estate market and financial markets, would significantly impact growth prospects of one of our core geographic markets and might have reverberations even on the global financial system and the world economy. A substantial increase in inflation rates could lead to serious distortions in global currency, capital, and foreign exchange markets, if central banks initiate the tightening cycle too fast and too aggressively. Highly indebted (emerging and industrialized) countries could suffer from increasing financing costs and a loss of investor confidence. Additional threats to the outlook could arise as well, ranging from market pressure to intensify austerity measures to declining confidence in individual currency markets. Additionally, a strong increase of raw material and intermediate goods prices would negatively impact Siemens's cost structure. Other significant risks could arise from geopolitical tensions (particularly in the Near and Middle East, Hong Kong and Taiwan), the European Union's relations with Russia, the economic vulnerability of several emerging markets (including Argentina, Turkey, Venezuela) and political upheavals. We are dependent on the economic development of certain industries; a continuation or even an intensification of the cyclical and structural headwinds in core customer industries, e.g., automotive or construction, would have adverse impact on our business prospects. Further business risk would result from an abrupt weakening of Chinese economic growth. A terrorist mega-attack or a significant cybercrime incident, or a series of such attacks or incidents in major economies, could depress economic activity globally and undermine consumer and business confidence. Additionally, the highly interconnected global economy remains vulnerable to natural disasters or further pandemics.

In general, due to long-cycle businesses in our organizational units and the importance of long-term contracts for Siemens, there is usually a time lag between changes in macroeconomic conditions and their impact on our financial results. In contrast, short-cycle business activities react quickly to volatility in market demand. If the moderate growth of certain markets stalls again and if we are not successful in adapting our production and cost structure to subsequent changes in conditions in the markets in which we operate, there can be no assurance that we will not experience adverse effects. For example, our customers may modify, delay or cancel plans to purchase our products, solutions and services, or fail to follow through on purchases or contracts already executed. Furthermore, the prices for our products, solutions and services may decline to a greater extent than we currently anticipate. In addition, it may become more difficult for our customers to obtain financing. Contracted payment terms, especially regarding the level of advance payments by our customers relating to long-term projects, may become less favorable, which could negatively impact our financial condition. Siemens' global setup with operations in almost all relevant economies, our wide range of offerings with varied exposures to business cycles, and our balanced mix of business models (e.g. equipment, components, systems, software, services and solutions) help us to absorb impacts from adverse developments in any single market.

Disruptive technologies: The markets in which our businesses operate experience rapid and significant changes due to the introduction of innovative and disruptive technologies. In the fields of digitalization (e.g. IoT, artificial intelligence, cloud computing, Industry 4.0), there are risks associated with new competitors, substitutions of existing products/solutions/services, new business models (e.g. in terms of pricing, financing, extended scopes for project business or subscription models in the software business) and finally the risk that our competitors may have more advanced time-to-market strategies and introduce their disruptive products and solutions faster than Siemens. Our operating results depend to a significant extent on our technological leadership, our ability to anticipate and adapt to changes in our markets and to optimize our cost base accordingly. Introducing new products and technologies requires a significant commitment to research and development, which in return requires expenditure of considerable financial resources that may not always result in success. Our results of operations may suffer if we invest in technologies that do not operate or may not be integrated as expected, or that are not accepted in the marketplace as anticipated, or if our products, solutions or systems are not introduced to the market in a timely manner, particularly compared to our competitors, or even become obsolete. We constantly apply for new patents and actively manage our intellectual property portfolio to secure our technological position. However, our patents and other intellectual property may not prevent competitors from independently developing or selling products and services that are similar to ours.

Competitive environment: The worldwide markets for our products, solutions and services are highly competitive in terms of pricing, product and service quality, product development and introduction time, customer service, financing terms and shifts in market demands. We face strong, established competitors as well as rising competitors from emerging markets and new industries, which may have a better cost structure. Some industries in which we operate are undergoing consolidation, which may result in stronger competition, a change in our relative market position, an increase in inventory of finished or work-in-progress goods, or unexpected price erosion. Furthermore, there is a risk that critical suppliers are taken over by competitors and a risk that competitors are increasingly offering services to our installed base. We address these risks with various measures, for example benchmarking, strategic initiatives, sales push initiatives, executing productivity measures and target cost projects, rightsizing of our footprint, outsourcings, mergers and joint ventures and optimizing our product and service portfolio. We continuously monitor and analyze competitive, market and industry information in order to be able to anticipate unfavorable changes in the competitive environment rather than merely reacting to such changes.

COVID-19 pandemic (COVID-19): The COVID-19 situation may worsen, as the number of new infections is rising again in many countries. At the same time, the number of cases and the severe course of the disease will develop very differently depending on the respective vaccination rate in the countries. The impact of the pandemic therefore varies considerably between regions and customer sectors. Governments and other local authorities are working to contain the spread of infection by implementing various countermeasures such as contact restrictions, adherence to minimum hygienic standards, wearing of respiratory masks, vaccine mandates, and vaccination and testing services to avoid widespread curfews and restrictions on the opening of certain sectors of the economy. Depending on epidemiological trends and political pressure, governments are expected to relax existing restrictions and avoid new ones to reduce the associated economic harm. The extent and duration of the individual impacts on our business are difficult to predict. For example, if containment measures are initiated at short notice or last an unpredictably long time, our business may be significantly impacted in ways that exceed current expectations and go beyond mitigation measures already in place. We could face unexpected closures of sites, factories or office buildings of our suppliers, customers or our own operations, which would affect our ability to produce or deliver our products, solutions and services. The most material uncertainties of the COVID-19 crisis are its continued duration, including for example potential further waves of infection, mutations of the virus and the evolution of global vaccination progress, and the economic costs of restrictions. Since the second quarter of fiscal 2020, we have felt the impact in our businesses, both our short-cycle businesses and project businesses, as, for example, customers cancelled orders or postponed investments, we were exposed to increased default risk, and our supply chain experienced difficulties in certain areas. Now we are seeing a recovery in many business sectors, and travel is also becoming easier. The longer the restrictive measures such as curfews last, the deeper the resulting recession will be. Possible consequences include an unchecked increase of public and private debt which hampers the post-crisis recovery, serious disruptions in the financial system and insolvencies among Siemens customers and suppliers. In the long term, a reversal of globalization could reduce potential future growth. Various task forces and crisis teams have been set up in all areas of Siemens to carefully monitor and mitigate the various impacts of COVID-19, with a focus on the health and safety of our employees through operational vaccination offers, testing concepts and making treatment offers available, and on business continuity. At the Group level, an executive-level crisis team at Group headquarters has worked out overarching decisions and coordinated the flow of information through the different levels of the organization, while empowering responsible management in each business and country to take appropriate action according to national and regional guidelines.

Increasing sustainability focus: The increasing environmental, social and governance (ESG) requirements from governments and customers as well as financing restrictions from governments, customer demands and financing restrictions for greenhouse gas emitting technologies could result in additional costs. Additionally, business involvement in sensitive environmental, social or governance activities might be negatively perceived and trigger adverse media attention. This could lead to reputational damage and have an impact on achieving our business goals. In fiscal 2021 we introduced a binding ESG risk framework and with it an optimized due diligence process. This supports Siemens businesses with due diligence in the customer-oriented environment with a view to possible environmental and social risks as well as related human rights and reputational risks.

Portfolio measures, at-equity investments, other investments and strategic alliances: Our strategy includes divesting our activities in some business areas and strengthening others through portfolio measures, including mergers and acquisitions. With respect to divestments, we may not be able to divest some of our activities as planned, and the divestitures we do carry out could have a negative impact on our business situation, financial condition, results of operations and reputation. Mergers and acquisitions are inherently risky because of difficulties that may arise when integrating people, operations, technologies and products. There can be no assurance that any of the businesses we acquire can be integrated successfully and in a timely manner as originally planned, or that they will perform as anticipated once integrated. In addition, we may incur significant acquisition, administrative, tax and other expenditures in connection with these transactions, including costs related to integration of acquired businesses. Furthermore, portfolio measures may result in additional financing needs and adversely affect our capital structure. Acquisitions can lead to substantial additions to intangible assets, including goodwill, in our statements of financial position. If we were to encounter continuing adverse business developments or if we were otherwise to perform worse than expected at acquisition activities, then these intangible assets, including goodwill, might have to be impaired, which could adversely affect our business situation, financial condition and results of operations. Our investment portfolio includes investments held for purposes other than trading and other investments. Any factors negatively influencing the financial condition and results of operations of our at-equity investments and other investments could have an adverse effect on our equity pick-up related to these investments or may result in a related write-off. In addition, our business situation, financial condition and results of operations could also be adversely affected in connection with loans, guarantees or non-compliance with financial covenants related to these investments. Furthermore, such investments are inherently risky as we may not be able to sufficiently influence corporate governance processes or business decisions taken by our at-equity investments, other investments and strategic alliances, which may have a negative effect on our business and especially on our reputation. In addition, joint ventures bear the risk of difficulties that may arise when integrating people, operations, technologies and products. Strategic alliances may also pose risks for us because we compete in some business areas with companies with which we have strategic alliances. Besides other measures, we handle these risks with standardized processes as well as dedicated roles and responsibilities in the areas of mergers, acquisitions, divestments and carve-outs. This includes the systematic treatment of all contractual obligations and post-closing claims.

8.3.2 Operational risks

Cyber/Information security: Digital technologies are deeply integrated into our business portfolio. Further integration of information technology into products and services in conjunction with changing business strategies (such as outsourcing, globally distributed development, a lesser degree of sole production) are leading to an increasingly distributed supply chain, making efficient controls difficult. The fact of a large number of suppliers requires a significant effort for the initial and regular verification of the effective implementation of cybersecurity requirements by suppliers. Siemens business entities might lose market access if their products, solutions and services do not comply with increased regulations and legal requirements for cybersecurity in their respective countries. We observe a global increase of cybersecurity threats and higher levels of professionalism in computer crime, which pose a risk to the security of products, systems and networks and the confidentiality, availability and integrity of data. According to various external data sources, this trend has accelerated during the COVID-19 pandemic. Especially the number of phishing attacks as well as the number of malicious websites have increased significantly. Moreover, the information technology market is concentrated among a small number of information technology and software vendors, which could lead to dependence on a single provider. There can be no assurance that the measures aimed at protecting our intellectual property and portfolio will address these threats under all circumstances. There is a risk that confidential information (data privacy) may be stolen or that the integrity of our portfolio may be compromised, e.g. by attacks on our networks, social engineering, data manipulations in critical applications and a loss of critical resources, resulting in financial damages. Cybersecurity covers the IT of our entire enterprise including office IT, systems and applications, special purpose networks, and our operating environments such as manufacturing and research and development (R&D). Like other large multinational companies, we face active cyber threats from sophisticated adversaries that are supported by organized crime and nation-states engaged in economic espionage or even sabotage. We strive to mitigate these risks by employing a number of measures, including employee training, considering new models of flexible working environments, and comprehensive monitoring of our networks and systems through cyber defense with an artificial intelligence solution to identify attacks faster and prevent damage to society and especially to critical infrastructures, our customers, our partners and Siemens overall. We initiated the industrial "Charter of Trust," signed by a growing group of global companies, which sets out principles for building trust in digital technologies and creating a more secure digital world. Nonetheless, our systems, products, solutions and services, as well as those of our service providers, remain potentially vulnerable to attacks. Such attacks could potentially lead to the publication, manipulation or leakage of information such as through industrial espionage. They could also result in deliberate improper use of our systems, vulnerable products, production downtimes and supply shortages, with potential adverse effects on our reputation, our competitiveness and results of operations. For increased protection of Siemens and reduction of a potential financial impact caused by cyber incidents, the risk transfer possibilities have been evaluated. As a result of an international insurance tender, the currently insurable cybersecurity risks have been to a partial extent transferred to a consortium of insurance companies.

Supply chain management: The financial performance of our operating units depends on reliable and effective supply chain management for components, sub-assemblies and materials. Capacity constraints and supply shortages resulting from ineffective supply chain management may lead to production bottlenecks, delivery delays, quality issues and additional costs. We also rely on third parties to supply us with parts, components and services. Using third parties to manufacture, assemble and test our products may reduce our control over manufacturing yields, quality assurance, product delivery schedules and costs. Although we work closely with our suppliers to avoid supply-related problems, there can be no assurance that we will not encounter supply problems in the future, especially if we use single-source suppliers for critical components. Shortages and delays could materially harm our businesses. Unanticipated increases in the price of components or raw materials due to market shortages or other reasons could also adversely affect performance. Furthermore, we may be exposed to the risk of delays and interruptions in the supply chain as a consequence of catastrophic events (including pandemics), cyber incidents or suppliers' financial difficulties, particularly if we are unable to identify alternative sources of supply or means of transportation in a timely manner or at all. Besides other measures, we mitigate price fluctuation in global raw material markets with various hedging instruments.

Internal programs and initiatives: We are in a continuous process of operational optimization and constantly engage in cost-reduction initiatives, including ongoing capacity adjustment measures and structural initiatives. Consolidation of business activities and manufacturing facilities, outsourcings, joint ventures and the streamlining of product portfolios are all part of these cost-reduction efforts. These measures may not be implemented as planned, may turn out to be less effective than anticipated, may become effective later than estimated or may not become effective at all. Any future contribution of these measures to our profitability will be influenced by the actual savings achieved and by our ability to sustain them. In case of restructuring and outsourcing activities, there could be delays in product deliveries or we might even experience delivery failures. Furthermore, delays in critical R&D projects could lead to negative impacts in running projects. We constantly control and monitor the progress of these projects and initiatives using standardized controlling and milestone tracking approaches.

Project-related risks: A number of our segments conduct activities under long-term contracts that are awarded on a competitive bidding basis. Such contracts typically arise at Mobility and in various activities of Smart Infrastructure or Portfolio Companies. Some of these contracts are inherently risky because we may assume substantially all of the risks associated with completing a project and meeting post-completion warranty obligations. For example, we may face the risk that we must satisfy technical requirements of a project even though we have not gained experience with those requirements before winning the project. The profit margins realized on fixed-priced contracts may vary from original estimates as a result of changes in costs and productivity over a contract's term. We sometimes bear the risk of unanticipated project modifications, shortage of key personnel, quality problems, financial difficulties of our customers and/or significant partners, cost overruns or contractual penalties caused by unexpected technological problems, unexpected developments at the project sites, unforeseen changes or difficulties in the regulatory or political environment, performance problems with our suppliers, subcontractors and consortium partners or other logistical difficulties. Some of our multi-year contracts also contain demanding installation and maintenance requirements in addition to other performance criteria relating to timing, unit cost and compliance with government regulations, which, if not satisfied, could subject us to substantial contractual penalties, damages, non-payment and contract termination. There can be no assurance that contracts and projects, in particular those with long-term duration and fixed-priced calculation, can be completed profitably. To tackle those risks, we established a global project management organization to systematically improve the technical and commercial capabilities of our project management personnel. For very complex projects we conduct dedicated risk assessments in very early stages of the sales phase before we decide to hand over a binding offer to our customers.

Shortage of skilled personnel: Competition for diverse and highly qualified personnel (e.g. specialists, experts, digital talent) remains intense in the industries and regions in which our businesses operate. We have ongoing demand for highly skilled employees and a need to enhance diversity, inclusion and sense of belonging in our workforce. Our future success depends in part on our continued ability to identify, assess and hire engineers, digital talent and other qualified personnel. We must also integrate, develop and retain them after they join us, which appears especially relevant in times of a new, increasingly virtual working environment. We address these topics for example by strengthening the capabilities and skills of our talent acquisition teams and a strategy of proactive search for people with the required capabilities in our respective industries and markets. Technology and digitalization help us to be more effective in attracting and selecting diverse talent. Furthermore, we have a focus on diversity and structured succession planning.

8.3.3 Financial risks

Risks from pension obligations: The provisions for pensions and similar obligations may be affected by changes in actuarial assumptions, including the discount rate, as well as by movements in financial markets or a change in the mix of assets in our investment portfolio. Additionally, they are subject to legal risks with regard to plan design among other factors. A significant increase in the underfunding may have a negative effect on our capital structure and rating, and thus may tighten refinancing options and increase costs. In order to comply with local pension regulations in selected foreign countries, we may face an economic risk of increasing cash outflows due to change in funding level according to local regulations of our pension plans in these countries or to changes in the regulations themselves.

Audits by tax authorities and changes in tax regulations: We operate in nearly all countries of the world and therefore are subject to many different tax regulations. Changes in tax laws in any of these jurisdictions could result in higher tax expenses and increased tax payments. Furthermore, legislative changes could impact our tax receivables and liabilities as well as deferred tax assets and deferred tax liabilities. In addition, the uncertain legal environment in some regions could limit our ability to enforce our rights. As a globally operating organization, we conduct business in countries subject to complex tax rules, which may be interpreted in different ways. Future interpretations or developments of tax regimes may affect our business situation, financial condition and results of operations. We are regularly audited by tax authorities in various jurisdictions and we continuously identify and assess relevant risks.

Market price risks: We are exposed to fluctuations in exchange rates, especially between the U.S. dollar and the euro, because a high percentage of our business volume is conducted as exports from Europe to areas using the U.S. dollar. In addition, we are exposed to effects involving the currencies of emerging markets, in particular the Chinese yuan. Appreciable changes in euro exchange rates could materially change our competitive position. We are also exposed to fluctuations in interest rates. Even hedging activities to mitigate such risks may result in a reverse effect. Fluctuations in exchange or interest rates, negative developments in the financial markets and changes in central bank policies could therefore negatively impact our financial results.

Liquidity and financing risks: Our treasury and financing activities could face adverse deposit and/or financing conditions from negative developments related to financial markets, such as limited availability of funds and hedging instruments, an updated evaluation of our solvency, particularly from rating agencies, negative interest rates, and impacts arising from more restrictive regulation of the financial sector, central bank policy, or the usage of financial instruments. Widening credit spreads due to uncertainty and risk aversion in the financial markets might lead to adverse changes in the market values of our financial assets, in particular our derivative financial instruments.

Credit risks: We provide our customers with various forms of direct and indirect financing of orders and projects, including guarantees. Siemens Financial Services in particular bears credit risks due to such financing activities if, for example, customers do not meet obligations arising from these financing arrangements, meet them only partially, or meet them late.

For further information on post-employment benefits, derivative financial instruments, hedging activities, financial risk management and related measures, see Notes 17, 24 and 25 in Notes to Consolidated Financial Statements for fiscal 2021.

8.3.4 Compliance risks

Current and future investigations regarding allegations of corruption, of antitrust violations and of other violations of law: Proceedings against us or our business partners regarding allegations of corruption, of antitrust violations and of other violations of law may lead to fines as well as penalties, sanctions, injunctions against future conduct, profit disgorgements, disqualifications from directly and indirectly engaging in certain types of business, the loss of business licenses or permits, other restrictions and legal consequences as well as negative public media coverage. Accordingly, we may, among other things, be required to comply with potential obligations and liabilities arising in connection with such investigations and proceedings, including potential tax penalties. Moreover, any findings related to public corruption that are not covered by the 2008 and 2009 corruption charge settlements, which we concluded with U.S. and German authorities, may endanger our business with government agencies and intergovernmental and supranational organizations. Monitors could again be appointed to review future business practices and we may otherwise be required to further modify our business practices and our compliance program.

In its global business, Siemens does part of its business with state-owned enterprises and governments. We also participate in a number of projects funded by government agencies and intergovernmental and supranational organizations, such as multilateral development banks. Ongoing or potential future investigations into allegations of corruption, antitrust violations or other violations of law could as well impair relationships with such parties or could result in our exclusion from public contracts. Such investigations may also adversely affect existing private business relationships and our ability to pursue potentially important strategic projects and transactions, such as strategic alliances, joint ventures or other business alliances, or could result in the cancellation of certain of our existing contracts. Moreover, third parties, including our competitors, could initiate significant litigation.

In addition, future developments in ongoing and potential future investigations, such as responding to the requests of governmental authorities and cooperating with them, could divert management's attention and resources from other issues facing our business. Furthermore, we might be exposed to compliance risks in connection with recently acquired operations that are in the ongoing process of integration.

Along with other measures, Siemens has established a global compliance organization that conducts among others compliance risk mitigation processes such as Compliance Risk Assessments or initiates internal audit activities performed by the internal assurance department.

Changes of regulations, laws and policies: As a diversified company with global businesses we are exposed to various product- and country-related regulations, laws and policies influencing our business activities and processes. According to observations and analysis, there is an increasing risk that existing technical regulations in target markets will suddenly change, or new ones will be set in force, which determine market access criteria that our products do not meet. The affected products would lose marketability in this market. The way of resolving the risk of a sales-stop depends on the case of how to correct the non-conformity. In case the product can technically stay as is, while it has to undergo new and additional conformity assessment and certification, there will be considerable effort and cost to carry out the needed testing and certification procedures. In a worse case, the affected product will need re-engineering or re-design to meet the requirements of the changed or new technical regulation even before it can become re-assessed and certified for market approval.

The latter case will cause significant extra effort and cost to do the needed product changes and to maintain the country-specific product variant as an additional derivate item in the portfolio. In the worst case, if the two aforementioned ways of maintaining the product's marketability prove to be not feasible, sale of the affected product in the market has to be stopped. We monitor the political and regulatory landscape in all our key markets to anticipate potential problem areas, with the aim of quickly adjusting our business activities and processes to changed conditions. However, any changes in regulations, laws and policies could adversely affect our business activities and processes as well as our financial condition and results of operations.

Protectionism (including tariffs/trade war): Protectionist trade policies, de-coupling and changes in the political and regulatory environment in the markets in which we operate, such as import and export controls, tariffs and other trade barriers including debarment from certain markets and price or exchange controls, could affect our business in national markets and could impact our business situation, financial position and results of operations; and may expose us to penalties, other sanctions and reputational damage. In addition, the uncertainty of the legal environment in some regions could limit our ability to enforce our rights and subject us to increasing costs related to appropriate compliance programs.

Geopolitical uncertainties including sanctions and export control: As a globally operating organization, we conduct business with customers in countries which are subject to export control regulations, embargoes, economic sanctions, debarment policies or other forms of trade restrictions (hereafter referred to as "sanctions") imposed by the U.S., the EU, China or other countries or organizations. New or expanded sanctions in countries in which we do business may result in a curtailment of our existing business in such countries or indirectly in other countries. We are also aware of policies of national authorities and institutional investors, such as pension funds or insurance companies, requiring divestment of interests in and prohibiting investment in and transactions with entities doing business with countries identified by the U.S. Department of State as state sponsors of terrorism. As a result, it is possible that such policies may result in our being unable to gain or retain certain investors or customers. In addition, the termination of our activities in sanctioned countries may expose us to customer claims and other actions. Our reputation could also suffer due to our activities with counterparties in or affiliated with these countries.

Environmental, health & safety and other governmental regulations: Some of the industries in which we operate are highly regulated. Current and future environmental, health and safety and other governmental regulations or changes thereto may require us to change the way we run our operations and could result in significant increases in our operating or production costs. Furthermore, we see the risk of potential environmental and health and safety incidents as well as potential non-compliance with environmental and health and safety regulations affecting Siemens and our contractors or sub-suppliers, resulting for example in serious injuries, business interruptions, penalties, loss of reputation and internal or external investigations.

In addition, while we have procedures in place to ensure compliance with applicable governmental regulations in the conduct of our business operations, it cannot be excluded that violations of applicable governmental regulations may be caused either by us or by third parties that we contract with, including suppliers or service providers whose activities may be attributed to us. Any such violations particularly expose us to the risk of liability, penalties, fines, reputational damage or loss of licenses or permits that are important to our business operations. In particular, we could also face liability for damage or remediation for environmental contamination at the facilities we design or operate. With regard to certain environmental risks, we maintain liability insurance at levels that our management believes are appropriate and consistent with industry practice. We may incur environmental losses beyond the limits, or outside the coverage, of such insurance, and such losses may have an adverse effect on our business situation, financial condition and results of operations.

Current or future litigation and legal and regulatory proceedings: Siemens is and potentially will be involved in numerous legal disputes and proceedings in various jurisdictions. These legal disputes and proceedings could result, in particular, in Siemens being subject to payment of damages and punitive damages, equitable remedies or sanctions, fines or disgorgement of profit. In individual cases this may also lead to formal or informal exclusion from tenders or the revocation or loss of business licenses or permits. Asserted claims are generally subject to interest rates. Some of these legal disputes and proceedings could result in adverse decisions for Siemens or decisions, assessments or requirements of regulatory authorities could deviate from our expectations, which may have material effects on our business activities as well as our financial position, results of operations and cash flows. Siemens maintains liability insurance for certain legal risks at levels our management believes are appropriate and consistent with industry practice. The insurance policy, however, does not protect Siemens against reputational damage. Moreover, Siemens may incur losses relating to legal proceedings beyond the limits, or outside the coverage, of such insurance or exceeding any provisions made for losses related to legal proceedings. Finally, there can be no assurance that Siemens will be able to maintain adequate insurance coverage on commercially reasonable terms in the future.

For additional information with respect to specific proceedings, see Note 22 in Notes to Consolidated Financial Statements for fiscal 2021.

8.3.5 Assessment of the overall risk situation

The most significant challenges have been mentioned first in each of the four risk categories: strategic, operational, financial and compliance.

While our assessments of individual risks have changed during fiscal 2021 due to developments in the external environment, changes in our business portfolio, effects of our own mitigation measures and the revision of our risk assessment, the overall risk situation for Siemens did not change significantly as compared to the prior year. We currently see the operational risk cyber/information security as the most significant challenge for us followed by the strategic risk arising from economic, political and geopolitical conditions.

At present, no risks have been identified that either individually or in combination could endanger our ability to continue as a going concern.

8.4 Opportunities

Within our ERM we regularly identify, evaluate and respond to opportunities that present themselves in our various fields of activity. Below we describe our most significant opportunities. Unless otherwise stated, the opportunities described relate to all organizational units. The order in which the opportunities are presented reflects the currently estimated relative exposure for Siemens associated with these opportunities and thus provides an indication of the opportunities' current importance to us. The described opportunities are not necessarily the only ones we encounter. In addition, our assessment of opportunities is subject to change because the Company, our markets and technologies are constantly advancing. It is also possible that opportunities we see today will never materialize.

Favorable political and regulatory environment (including sustainability): We see opportunities from potential improvement in the geopolitical policy environment, which could quickly restore a more positive industrial investment sentiment that supports the growth of our markets. In addition, government initiatives and subsidies (including tax reforms, recovery plans among others) may lead to more government spending (e.g. infrastructure, healthcare or digitalization investments) and ultimately result in an opportunity for us to participate in ways that increase our revenue and profit. By enabling our customers to lower their GHG (Greenhouse Gas) emissions across our portfolio and by reducing CO2 emission in our own operation, Siemens strives to support the trend towards a low-carbon economy. Siemens also welcomes and supports from an opportunity perspective, recent legislative and governmental accelerate to mitigate climate change worldwide, especially in Europe through e.g. the Green Deal or Sustainable Finance Initiative.

Mergers, acquisitions, equity investments, partnerships, divestments and streamlining our portfolio: We constantly monitor our current and potential markets to identify opportunities for strategic mergers, acquisitions, equity investments and partnerships, which may complement our organic growth. Such activities may help us to strengthen our position in our existing markets, provide access to new or underserved markets, or complement our technological portfolio in strategic areas. Opportunities might also arise when portfolio optimization measures generate gains, which enable us to further pursue our other strategies for growth and profitability.

Value creation through innovation: We drive innovation by investing significantly in R&D in order to develop sustainable solutions for our customers while also strengthening our own competitiveness. Being an innovative company and constantly inventing new technologies that we expect will meet future demands arising from the megatrends of demographic change, urbanization, climate change and globalization is one of our core purposes. We are granted thousands of new patents every year and continuously develop new concepts and convincing new digital and data-driven business models. This helps us create the next generation of ground-breaking innovations in such fields as digitalization, artificial intelligence, autonomous machines and edge computing. Across our operating units, we are profiting from our strength in the "Digital Enterprise." Foremost, our cloud-based MindSphere platform enhances the availability of our customers' digital products and systems and improves their productivity and efficiency. We offer edge computing apps along with MindSphere in individual facilities, so that customers can connect all their facilities to create an integrated data network. We see also significant opportunities to generate additional volume and profit from innovative digital products, services and solutions, including cyber security and applications for optimized energy consumption. We see growth opportunities in opening up access to new markets and customers through new marketing and sales strategies, which we implement in our operating units. Our position along the value chains of automation and digitalization allows us to further increase market penetration. Along these value chains, we have identified several concrete growth fields in which we see our greatest long-term potential. Hence, we are combining and developing our resources and capabilities for these growth fields.

Turning COVID-19 challenges into opportunities: The participation in governmental COVID-19 recovery programs such as the European Union's "Next Generation EU" recovery plan is an opportunity for Siemens. There is also the chance to strengthen our customer relationship through additional market offerings that specifically address use cases related directly to the COVID-19 pandemic. Potential growth areas might arise through the optimization program "new normal" with, for example, more working flexibility for our employees.

Optimization of organization and processes: On the one hand, we leverage ideas to drive further improvements in our processes and cost structure, such as common computing architecture for image processing or optimizing factory capacities for shorter lead times. On the other hand, we see an opportunity of further penetrating markets by ramping up local business excellence (e.g. engineering) and increasing local sourcing and local manufacturing.

Assessment of the overall opportunities situation: The most significant opportunity for Siemens is favorable political and regulatory environment (including sustainability) as described above.

While our assessments of individual opportunities have changed during fiscal 2021 due to developments in the external environment, changes in our business portfolio, our endeavors to profit from them and revision of our strategic plans, the overall opportunity situation for Siemens did not change significantly as compared to the prior year.

8.5 Significant characteristics of the accounting-related internal control and risk management system

The overarching objective of our accounting-related internal control and risk management system is to ensure that financial reporting is conducted in a proper manner, such that the Consolidated Financial Statements and the Combined Management Report of Siemens Group as well as the Annual Financial Statements of Siemens AG as the parent company are prepared in accordance with all relevant regulations.

Our ERM approach is based on the globally accepted COSO Standard (Committee of Sponsoring Organizations of the Treadway Commission) Enterprise Risk Management – Integrating with Strategy and Performance (2017) and the ISO (International Organization for Standardization) Standard 31000 (2018) and is adapted to Siemens requirements. The frameworks connect the ERM process with our financial reporting process and our internal control system. They consider a company's strategy, the efficiency and effectiveness of its business operations, the reliability of its financial reporting and compliance with relevant laws and regulations to be equally important. Our accounting-related internal control system is based on the internationally recognized Internal Control – Integrated Framework (2013) also developed by COSO. The two systems are complementary.

At the end of each fiscal year, our management performs an evaluation of the effectiveness of the implemented control system, both in design and operating effectiveness. We have a standardized procedure under which necessary controls are defined, documented in accordance with uniform standards, and tested regularly for their effectiveness. Nevertheless, there are inherent limitations on the effectiveness of any control system, and no system, including one determined to be effective, may prevent or detect all misstatements.

Our Consolidated Financial Statements are prepared on the basis of a centrally issued conceptual framework which primarily consists of uniform Financial Reporting Guidelines and a chart of accounts. For Siemens AG and other companies within the Siemens Group required to prepare financial statements in accordance with German Commercial Code, this conceptual framework is complemented by mandatory regulations specific to the German Commercial Code. The need for adjustments in the conceptual framework due to regulatory changes is analyzed on an ongoing basis. Accounting departments are informed quarterly about current topics and deadlines from an accounting and closing process perspective.

The base data used in preparing our financial statements consists of the closing data reported by the operations of Siemens AG and its subsidiaries. The preparation of the closing data of most of our entities is supported by an internal shared services organization. Furthermore, other accounting activities, such as governance and monitoring activities, are usually bundled on a regional level. In particular cases, such as valuations relating to post-employment benefits, we use external experts. The reported closing data is used to prepare the financial statements in the consolidation system. The steps necessary to prepare the financial statements are subject to both manual and automated controls.

Qualification of employees involved in the accounting process is ensured through appropriate selection processes and training. As a fundamental principle, based on materiality considerations, the "four eyes" principle applies, and specific procedures must be adhered to for data authorization. Additional control mechanisms include target-performance comparisons and analyses of the composition of and changes in individual line items, both in the closing data submitted by reporting units and in the Consolidated Financial Statements. In line with our information security requirements, accounting-related IT systems contain defined access rules protecting them from unauthorized access. The manual and system-based control mechanisms referred to above generally also apply when reconciling the International Financial Reporting Standards (IFRS) closing data to the Annual Financial Statements of Siemens AG.

On a quarterly basis, we execute an internal certification process. Management at different levels of our organization, supported by confirmations by managements of entities under their responsibility, confirms the accuracy of the financial data that has been reported to Siemens' corporate headquarters and reports on the effectiveness of the related control systems.

Siemens Healthineers is subject to our Group-wide principles for the accounting-related internal control and risk management system and is responsible for adhering to those principles. The management of Siemens Healthineers provides periodic signoffs to the Managing Board of Siemens AG, certifying the effectiveness of its accounting-related internal control system as well as the completeness, accuracy, and reliability of the financial data reported to us.

After the acquisition of Varian, Siemens Healthineers has commenced to integrate the former Varian entities into our accounting-related internal control and risk management system. The integration efforts for the accounting-related internal control system will continue in fiscal 2022.

Our internal audit function systematically evaluates our financial reporting integrity, the effectiveness of the control system and the risk management system, and adherence to our compliance policies. Siemens Healthineers has its own internal audit department and annual audit plan. Topics from the annual audit plan of Siemens Healthineers that are also relevant for our Managing Board and Audit Committee must be mandated first by Siemens Healthineers' Managing Board and Audit Committee and subsequently by our Managing Board and Audit Committee. The audit procedures for these topics will be generally executed by joint teams including members of our and Siemens Healthineers' internal audit functions, thus respecting the interests of both Siemens AG and Siemens Healthineers. In addition, the Audit Committee is integrated into our control system. In particular, it oversees the accounting and accounting process and the effectiveness of the internal control system, the risk management system and the internal audit system. Moreover, we have rules for accounting-related complaints.

9. Siemens AG

The Annual Financial Statements of Siemens AG have been prepared in accordance with the regulations set forth in the German Commercial Code (Handelsgesetzbuch) and the German Stock Corporation Act (Aktiengesetz).

In fiscal 2021, results for Siemens AG arise mainly from the business activities of Digital Industries and Smart Infrastructure and are influenced significantly by the results of subsidiaries and investments we own either directly or indirectly. The business development of Siemens AG is fundamentally subject to the same risks and opportunities as the Siemens Group. Therefore, the foregoing explanations for the Siemens Group apply also for Siemens AG.

The Supervisory Board and the Managing Board propose from the unappropriated net income of Siemens AG for the fiscal year ended September 30, 2021, amounting to €3,400 million to distribute a dividend of €4.00 per share of no par value entitled to the dividend. The proposed dividend represents a total payout of €3.2 billion based on the estimated number of shares entitled to dividend at the date of the Annual Shareholders' Meeting. Based on Net income of Siemens group attributable to shareholders of Siemens AG of €6.2 billion for fiscal 2021, the dividend payout percentage is 52%. We intend to continue providing an attractive return to our shareholders. This includes striving for a dividend per share that exceeds the amount of the preceding year, or that at least matches the prior-year-level. For fiscal 2022, we expect that net income of Siemens AG will be sufficient to fund the distribution of a corresponding dividend.

As of September 30, 2021, the number of employees was 49.100.

9.1 Results of operations

Statement of Income of Siemens AG in accordance with German Commercial Code (condensed)

	Fiscal year		% Change
(in millions of €)	2021	2020	
Revenue	**15,094**	16,389	(8)%
Cost of Sales	**(10,960)**	(12,032)	9%
Gross profit	**4,135**	4,357	(5)%
as percentage of revenue	***27%***	*27%*	
Research and development expenses	**(1,570)**	(1,677)	6%
Selling and general administrative expenses	**(2,999)**	(3,490)	14%
Other operating income (expenses), net	**(196)**	(555)	65%
Financial income, net *thereof Income from investments, net 5,303 (prior year 8,078)*	**5,797**	6,557	(12)%
Income from business activity	**5,166**	5,192	0%
Income taxes	**(20)**	78	n/a
Net income	**5,147**	5,270	(2)%
Profit carried forward	**171**	141	22%
Allocation to other retained earnings	**(1,918)**	(2,436)	21%
Unappropriated net income	**3,400**	2,975	14%

The decrease of **revenue and cost of sales** was due mainly to the business activities of Gas and Power which, effective with the beginning of calendar year 2020, were transferred to Siemens Energy Global GmbH & Co. KG in preparation of the Siemens Energy spin-off completed in September 2020.

On a geographical basis, 76% of revenue was generated in the Europe, C.I.S., Africa, Middle East region, 17% in the Asia, Australia region and 7% in the Americas region. Exports from Germany accounted for 54% of overall revenue. In fiscal 2021, orders for Siemens AG amounted to €15.7 billion.

Research and development expenses and selling and **general administrative expenses** decreased due mainly to the above-mentioned transfer of the business activities of Gas and Power.

The R&D intensity (R&D as a percentage of revenue) was 10%, on the same level as fiscal 2020. The research and development activities of Siemens AG are fundamentally the same as for its corresponding business activities within the Siemens Group. Research and development expenses in both periods related mainly to Digital Industries. On an average basis, we employed 7,000 people in R&D in fiscal 2021.

The change in **other operating income (expenses), net**, was mainly due to higher expenses in fiscal 2020, which included expenses related to the valuation of an investment as well as expenses related to the spin-off of Siemens Energy.

The decrease in **financial income, net** was due primarily to lower **income from investments, net,** partly offset by a positive change in other financial income (expenses), net. The primary factors in lower income from investments, net were the following: a profit transfer agreement with Siemens Beteiligungen Inland GmbH, Germany, which reduced income by €0.9 billion; a decline in income from the investment in Siemens Holdings plc, Ltd., United Kingdom, of €0.7 billion; and a decrease of €0.5 billion in income from Siemens Ltd, China. Furthermore, fiscal 2020 included a gain of €2.1 billion from the disposal of Siemens Limited, India, which was partly offset by an impairment of €1.3 billion on the stake in Siemens Energy AG. In contrast, a gain of €0.9 billion from the sale of Flender GmbH, Germany in fiscal 2021 was recorded in income from investments, net. The positive change in other financial income (expenses), net included an increase in gains from non-current securities by €0.5 billion and a reduction of expenses by €0.4 billion from impairments of loan receivables related to an investment. Higher gains from non-current securities were driven by a transfer of investment funds and corresponding realization of hidden reserves as mentioned below.

9.2 Net assets and financial position

Statement of Financial Position of Siemens AG in accordance with German Commercial Code (condensed)

	Sep. 30,		% Change
(in millions of €)	2021	2020	
Assets			
Non-current assets			
Intangible and tangible assets	**1,068**	1,122	(5)%
Financial assets	**74,852**	74,877	0%
	75,920	75,999	0%
Current assets			
Inventories, receivables and other assets	**21,792**	16,937	29%
Cash and cash equivalents, other securities	**2,297**	8,786	(74)%
	24,089	25,724	(6)%
Prepaid expenses	**184**	133	39%
Deferred tax assets	**1,243**	1,034	20%
Active difference resulting from offsetting	**51**	85	(41)%
Total assets	**101,487**	102,975	(1)%
Liabilities and equity			
Equity	**21,216**	18,917	12%
Special reserve with an equity portion	**541**	619	(13)%
Provisions			
Provisions for pensions and similar commitments	**12,372**	11,700	6%
Provisions for taxes and other provisions	**4,220**	4,323	(2)%
	16,592	16,023	4%
Liabilities			
Liabilities to banks	**501**	98	>200%
Trade payables, liabilities to affiliated companies and other liabilities	**62,389**	67,047	(7)%
	62,890	67,145	(6)%
Deferred income	**249**	271	(8)%
Total liabilities and equity	**101,487**	102,975	(1)%

During fiscal 2021 Siemens contributed supplemental fundings to Siemens Pension-Trust e.V. and took measures under company law to simplify the investment structure of pension assets, which for the most part had overall no impact on the carrying amount of the **financial assets** as of September 2021 compared to the prior year. The supplemental fundings included stakes in Bentley Systems, Inc. in the amount of €1.0 billion and in ChargePoint Holdings, Inc. in the amount of €0.3 billion, as well as zero-coupon receiver swaps in the amount of €0.3 billion. The measures to simplify the investment structure included a transfer of investment funds at fair value of €4.8 billion (including realization of hidden reserves) to shares in affiliated companies, which led to a disposal of securities with a carrying amount of €4.1 billion in the fixed assets register. In addition to these transactions Siemens recorded the disposal of Flender GmbH in the fixed assets register, at a carrying amount of €1.0 billion.

The change in **cash and cash equivalents, other securities** related to the liquidity management of the Corporate Treasury of Siemens AG, which was focused not solely on the business activities of Siemens AG. The liquidity management is based on the financing policy of the Siemens Group, which is aimed towards a balanced financing portfolio, a diversified maturity profile and a comfortable liquidity cushion. Intra-group financing activities drove both an increase in receivables from affiliated companies, which resulted in higher **inventories, receivables and other assets,** and lower liabilities to affiliated companies, which was the main reason for the reduction of **trade payables, liabilities to affiliated companies and other liabilities.**

The increase in **provisions for pensions and similar commitments** was mainly due to recording of current service and interest costs and to lower discount rates partly offset by payments for pensions and similar commitments.

The increase in **equity** was attributable to net income for the year of €5.1 billion and the transfer of €0.5 billion in treasury shares to employees in connection with our share-based payments programs. These factors were partly offset by dividends paid in fiscal 2021 (for fiscal 2020) of €2.8 billion and share buybacks during the year amounting to €0.5 billion (including a €0.4 billion final payment to the commissioned bank). The equity ratio as of September 30, 2021 increased to 21%, from 18% a fiscal year earlier. For the disclosures in accordance with Section 160 para. 1 no. 2 of the German Stock Corporation Act about treasury shares, refer to Note 15 of our Notes to Annual Financial Statements for fiscal 2021.

9.3 Corporate Governance statement

The Corporate Governance statement pursuant to Sections 289f and 315d of the German Commercial Code is publicly available on the company's website at siemens.de/corporate-governance.

10. Takeover-relevant information (pursuant to Sections 289a and 315a of the German Commercial Code) and explanatory report

10.1 Composition of common stock

As of September 30, 2021, the Company's common stock totaled €2.550 billion. The capital stock is divided into 850 million registered shares of no par value (Siemens shares). The shares are fully paid in. All shares confer the same rights and obligations. The shareholders' rights and obligations are governed in detail by the provisions of the German Stock Corporation Act, in particular by Sections 12, 53a et seq., 118 et seq. and 186 of the German Stock Corporation Act.

10.2 Restrictions on voting rights or transfer of shares

At the Shareholders' Meeting, each share of stock has one vote and accounts for the shareholder's proportionate share in the Company's net income. An exception to this rule applies with regard to treasury shares held by the Company, which do not entitle the Company to any rights. Under Section 136 of the German Stock Corporation Act the voting right of the affected shares is excluded by law.

Siemens shares issued to employees worldwide under the employee share programs implemented since the beginning of fiscal 2009, in particular the Share Matching Plan, are freely transferable unless applicable local laws provide otherwise. Under the rules of the Share Matching Plan, however, in order to receive one matching share free of charge for each three shares purchased, participants are required to hold the shares purchased by them for a vesting period of several years, during which the participants must be continuously employed by Siemens AG or any of its affiliated companies. The right to receive matching shares is forfeited if the purchased shares are sold, transferred, hedged on, pledged or hypothecated in any way during the relevant vesting period.

The von Siemens-Vermögensverwaltung GmbH (vSV) has, on a sustained basis, powers of attorney allowing it to exercise the voting rights for 10,716,740 shares (as of September 30, 2021) on behalf of members of the Siemens family. These shares are part of the total number of shares held by the family's members. The powers of attorney are based on an agreement between the vSV and, among others, members of the Siemens family. The shares are voted together by vSV, taking into account the suggestions of a family partnership established by the family's members or of one of this partnership's governing bodies.

10.3 Legislation and provisions of the Articles of Association applicable to the appointment and removal of members of the Managing Board and governing amendment to the Articles of Association

The appointment and removal of members of the Managing Board are subject to the provisions of Sections 84 and 85 of the German Stock Corporation Act and Section 31 of the German Codetermination Act (Mitbestimmungsgesetz). According to Section 8 para. 1 of the Articles of Association, the Managing Board is comprised of several members, the number of which is determined by the Supervisory Board.

According to Section 179 of the German Stock Corporation Act, any amendment to the Articles of Association requires a resolution of the Shareholders' Meeting. The authority to adopt purely formal amendments to the Articles of Association was transferred to the Supervisory Board under Section 13 para. 2 of the Articles of Association. In addition, by resolutions adopted during past Shareholders' Meetings, the Supervisory Board has been authorized to amend Section 4 of the Articles of Association in accordance with the utilization of the Authorized and Conditional Capitals, and after expiration of the then-applicable authorization and utilization period.

Resolutions of the Shareholders' Meeting require a simple majority vote, unless a greater majority is required by law (Section 23 para. 2 of the Articles of Association). Pursuant to Section 179 para. 2 of the German Stock Corporation Act, amendments to the Articles of Association require a majority of at least three-quarters of the capital stock represented at the time of the casting of the votes, unless another capital majority is prescribed by the Articles of Association.

10.4 Powers of the Managing Board to issue and repurchase shares

The Managing Board is authorized to increase, with the approval of the Supervisory Board, the capital stock until February 2, 2026 by up to €90 million through the issuance of up to 30 million Siemens shares against contributions in cash (Authorized Capital 2021). Subscription rights of existing shareholders are excluded. The new shares shall be offered exclusively to employees of the Company and any of its affiliated companies. To the extent permitted by law, such employee shares may also be issued in such a manner that the contribution to be paid on such shares is covered by that part of the annual net income which the Managing Board and the Supervisory Board may allocate to other retained earnings under Section 58 para. 2 of the German Stock Corporation Act.

Furthermore, the Managing Board is authorized to increase, with the approval of the Supervisory Board, the capital stock until January 29, 2024 by up to €510 million through the issuance of up to 170 million Siemens shares against cash contributions and/or contributions in kind (Authorized Capital 2019).

As of September 30, 2021, the total unissued authorized capital of Siemens AG therefore consisted of €600 million nominal that may be used, in installments with varying terms, by issuance of up to 200 million Siemens shares.

By resolutions of the Shareholders' Meetings on January 30, 2019 and February 5, 2020, the Managing Board is authorized to issue bonds with conversion, exchange or option rights or with warrants attached, or a combination of these instruments, entitling the holders to subscribe to up to 80 million and up to 60 million Siemens shares, respectively. Based on these two authorizations, the Company or its affiliated companies may issue bonds until January 29, 2024 and February 4, 2025, respectively, each in an aggregate principal amount of up to €15 billion. In order to grant shares of stock to holders/creditors of such convertible bonds or warrant bonds, the capital stock was conditionally increased by resolutions of the Shareholders' Meetings in 2019 and 2020, by up to 80 million and up to 60 million Siemens shares, respectively (Conditional Capitals 2019 and 2020), i.e. in total by up to €420 million through the issuance of up to 140 million Siemens shares.

The new shares under Authorized Capital 2019 and the aforementioned bonds are to be issued against cash or non-cash contributions. They are, as a matter of principle, to be offered to shareholders for subscription. The Managing Board is authorized to exclude, with the approval of the Supervisory Board, subscription rights of shareholders in the event of capital increases against contributions in kind. In the event of capital increases against contributions in cash, the Managing Board is authorized to exclude shareholders' subscription rights with the approval of the Supervisory Board in the following cases:

- The issue price of the new shares/bonds is not significantly lower than the stock market price of the Siemens shares already listed or the theoretical market price of the bonds computed in accordance with generally accepted actuarial methods (exclusion of subscription rights, limited to 10% of the capital stock, in accordance with or by mutatis mutandis application of Section 186 para. 3 sentence 4 German Stock Corporation Act).
- The exclusion is necessary with regard to fractional amounts resulting from the subscription ratio.
- The exclusion is used to grant holders of conversion or option rights or conversion or option obligations on Siemens shares a compensation for the effects of dilution.

The new shares issued or to be issued in exchange for contributions in cash and in kind and with shareholders' subscription rights excluded, may in certain cases be subject to further restrictions. The details of those restrictions are described in the relevant authorization. In addition, the Managing Board has issued the commitment not to increase the capital stock from the Authorized Capital 2019 and the Conditional Capitals 2019 and 2020 by a total of more than 10% of the capital stock existing at the time of the Shareholders' Meeting on February 5, 2020, to the extent that capital increases with shareholders' subscription rights excluded are made from the Authorized Capital 2019 against contributions in cash or in kind or to service convertible bonds and/or warrant bonds issued under the authorizations approved on January 30, 2019 or February 5, 2020 with shareholders' subscription rights excluded. This commitment ends no later than February 4, 2025.

The Company may not repurchase its own shares unless so authorized by a resolution duly adopted by the shareholders at a general meeting or in other very limited circumstances set forth in the German Stock Corporation Act. On February 5, 2020, the Shareholders' Meeting authorized the Company to acquire until February 4, 2025 up to 10% of its capital stock existing at the date of adopting the resolution or – if this value is lower – as of the date on which the authorization is exercised. The aggregate of shares of stock of Siemens AG repurchased under this authorization and any other Siemens shares previously acquired and still held in treasury by the Company or attributable to the Company pursuant to Sections 71d and 71e of the German Stock Corporation Act may at no time exceed 10% of the then existing capital stock. Any repurchase of Siemens shares shall be accomplished at the discretion of the Managing Board either (1) by acquisition over the stock exchange, (2) through a public share repurchase offer or (3) through a public offer to swap Siemens shares for shares in a listed company within the meaning of Section 3 para. 2 German Stock Corporation Act. The Managing Board is additionally authorized to complete the repurchase of Siemens shares in accordance with the authorization described above by using certain derivatives (put and call options, forward purchases and any combination of these derivatives). In exercising this authorization, all stock repurchases based on the derivatives are limited to a maximum volume of 5% of Siemens' capital stock existing at the date of adopting the resolution at the Shareholders' Meeting. A derivative's term of maturity may not, in any case, exceed 18 months and must be chosen in such a way that the repurchase of Siemens shares upon exercise of the derivative will take place no later than February 4, 2025.

In addition to selling them over the stock exchange or through a public sales offer to all shareholders, the Managing Board is authorized by resolution of the Shareholders' Meeting on February 5, 2020 to also use Siemens shares repurchased on the basis of this or any previously given authorization for every permissible purpose, in particular as follows: Such Siemens shares may be

- retired;
- used in connection with share-based compensation programs and/or employee share programs of the Company or any of its affiliated companies and issued to individuals currently or formerly employed by the Company or any of its affiliated companies as well as to board members of any of the Company's affiliated companies;
- offered and transferred, with the approval of the Supervisory Board, to third parties against non-cash contributions;
- sold by the Managing Board, with the approval of the Supervisory Board, against payment in cash if the price at which such Siemens shares are sold is not significantly lower than the market price of Siemens stock (exclusion of subscription rights, limited to 10% of the capital stock, by mutatis mutandis application of Section 186 para. 3 sentence 4 German Stock Corporation Act); or
- used to service or secure obligations or rights to acquire Siemens shares arising particularly from or in connection with convertible bonds or warrant bonds of the Company or its affiliated companies. Moreover, the Managing Board is authorized to exclude subscription rights in order to grant holders/creditors of conversion or option rights or respective conversion or option obligations on Siemens shares subscription rights as compensation against effects of dilution to the extent to which they would be entitled after exercise of such rights or fulfillment of such obligations, and to use Siemens shares to service such subscription rights.

Furthermore, the Supervisory Board is authorized to use shares acquired on the basis of this or any previously given authorization to meet obligations or rights to acquire Siemens shares that were or will be agreed with members of the Managing Board within the framework of rules governing Managing Board compensation.

In November 2018, the Company announced that it would carry out a share buyback of up to €3 billion in volume until November 15, 2021 at the latest. The buyback commenced on December 3, 2018 and terminated on September 24, 2021. Using the authorizations given by the Annual Shareholders' Meetings on January 27, 2015 and February 5, 2020, Siemens repurchased 29.4 million shares by September 30, 2021 under this share buyback. This buyback had the exclusive purposes of retirement, of issuing shares to employees, board members of affiliated companies and members of the Managing Board of Siemens AG, and of servicing/securing the obligations or rights to acquire Siemens shares arising particularly from or in connection with convertible bonds and warrant bonds. On June 24, 2021, Siemens announced that it intends to launch a new five-year share buyback program of up to €3 billion, beginning in fiscal 2022.

As of September 30, 2021, the Company held 47,644,581 shares of stock in treasury.

For details on the authorizations referred to above, especially with the restrictions to exclude subscription rights and the terms to include shares when calculating such restrictions, please refer to the relevant resolution and to Section 4 of the Articles of Association.

10.5 Significant agreements which take effect, alter or terminate upon a change of control of the Company following a takeover bid

As of September 30, 2021, Siemens AG maintained lines of credit in the amount of € 7.45 billion.

In March 2021, Siemens AG entered into a bilateral loan agreement, which has been drawn in the full amount of € 500 million.

In addition, in March 2020 and in June 2019 respectively, a consolidated subsidiary as borrower and Siemens AG as guarantor entered into a bilateral loan agreement, each of which has been drawn in the full amount of US$ 500 million. In February 2021, a consolidated subsidiary as borrower entered into two bilateral loan agreements in the total amount of US$ 500 million; both loan agreements have been guaranteed by Siemens AG and have been fully drawn.

The lines of credit, and the relevant loan agreements mentioned above provide their respective lenders with a right of termination in the event that (1) Siemens AG becomes a subsidiary of another company or (2) a person or a group of persons acting in concert acquires effective control over Siemens AG by being able to exercise decisive influence over its activities (Art. 3(2) of Council Regulation (EC) 139 / 2004).

Framework agreements concluded by Siemens AG under International Swaps and Derivatives Association Inc. documentation (ISDA Agreements) grant each counterparty a right of termination, including in certain cases of (i) a transformation (for example mergers and changes of form), (ii) an asset transfer or (iii) acquisition of ownership interests that enables the acquirer to exercise control over Siemens AG or its controlling bodies. Partially this right of termination exists only, if (1) the resulting entity fails to simultaneously assume Siemens AG's obligations under the ISDA Agreements or (2) the resulting entity's creditworthiness is materially weaker than Siemens AG's immediately prior to such event. Generally, ISDA Agreements are designed such that upon termination all outstanding payment claims documented under them are to be netted.

10.6 Compensation agreements with members of the Managing Board or employees in the event of a takeover bid

The contracts with the members of the Managing Board previously contained the right of the member to terminate his or her contract with the Company for good cause in the event of a change of control that results in a substantial change in the position of a Managing Board member (for example, due to a change in corporate strategy or a change in the Managing Board member's duties and responsibilities). A change of control exists if one or several shareholders acting jointly or in concert acquire a majority of the voting rights in Siemens AG and exercise a controlling influence, or if Siemens AG becomes a dependent enterprise as a result of entering into an intercompany agreement within the meaning of Section 291 of the German Stock Corporation Act, or if Siemens AG is to be merged into an existing corporation or other entity. If this right of termination is exercised, the Managing Board member is entitled to a severance payment in the amount of no more than two years' compensation. The calculation of the annual compensation includes not only the base compensation and the target amount for the bonus, but also the target amount for the stock awards, in each case based on the most recent completed fiscal year prior to termination of the contract. The stock-based compensation components for which a firm commitment already exists will remain unaffected. Additionally, the severance payments cover non-monetary benefits by including an amount of 5% of the total severance amount. Severance payments will be reduced by 10% as a lump-sum allowance for discounted values and for income earned elsewhere. However, this reduction will apply only to the portion of the severance payment that was calculated without taking account of the first six months of the remaining term of the Managing Board member's contract. There is no entitlement to a severance payment if the Managing Board member receives benefits from third parties in connection with a change of control. A right to terminate the contract does not exist if the change of control occurs within a period of twelve months prior to a Managing Board member's retirement.

On September 18, 2019, the Supervisory Board of Siemens AG resolved that the contracts with members of the Managing Board should not contain such right of termination in the future. This has already been taken into account in the case of contract extensions and in the case of new contracts with the newly appointed members of the Managing Board as of October 1, 2020.

10.7 Other takeover-relevant information

We are not aware of, nor have we during the last fiscal year been notified of, any shareholder directly or indirectly holding 10% or more of the voting rights. There are no Siemens shares with special rights conferring powers of control. Shares of stock issued by Siemens AG to employees under its employee share program and/or as share-based compensation are transferred to the employees. The beneficiary employees who hold shares of employee stock may exercise their control rights in the same way as any other shareholder in accordance with applicable laws and the Articles of Association.