

Rating object	Rating information	
Siemens AG Creditreform ID: 2010000581 Incorporation: 1847 Based in: Berlin Main (Industry): Technology CEO: Dr. Roland Busch <u>Rating objects:</u> Long- and short-term Corporate Issuer Rating: Siemens AG Long- and short-term Corporate Issuer Rating: Siemens Financieringsmaatschappij N.V. Long-term Local Currency (LT LC) Senior Unsecured Issues	Corporate Issuer Rating: A+ / stable	Type: Update Unsolicited Public rating
	LT LC Senior Unsecured Issues: A+ / stable	Short-term rating: L2
	Rating date: 27 September 2023 Monitoring until: withdrawal of the rating Rating methodology: CRA "Corporate Ratings" CRA "Non-Financial Corporate Issue Ratings" CRA "Corporate Short-Term Ratings" Rating history: www.creditreform-rating.de	

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Summary

Company

Siemens AG (hereinafter Siemens, the Company, or the Group) is a technology company active in nearly every country in the world. Its operations encompass automation and digitalization in the process and manufacturing industries, intelligent infrastructure for buildings and distributed energy systems, rail transport solutions, as well as health technology and digital healthcare services. Siemens holds the position of global market leader in industrial automation and industrial software. In the 2022 financial year (FY), with approximately 311,000 employees, Siemens generated revenues of EUR 71,977 million (2021: EUR 62,265 million) and a net income of EUR 4,392 million (2021: EUR 6,697 million).

Rating result

The current rating of **A+** attests Siemens AG a high level of credit worthiness and a low default risk.

The business development in the first nine months of 2023 FY essentially reflects the general stabilization of Siemens' most important customer industries and the overall normalization of demand after the implications of the COVID-19 pandemic, and after the overall restrained investment activities following the tense global geopolitical situation and energy crisis. The Company's development in this period was characterized by a very strong order intake, improved revenue and net income as well as strengthened cash flow along with a continuously solid liquidity position. Nevertheless, investment in Siemens Energy has been volatile in this period and could have a dampening effect on the final net year income, which we do not currently consider a reason for a rating adjustment. The positive assessment continues to be based on the Company's established market position and technology leadership, its good geographic and product diversification, and its focus on future oriented and cyclically independent business areas coupled with sustainably solid financial ratios. Despite significant market risks and uncertainty resulting from overall subdued economic sentiment, and the persistently tense geopolitical situation, we expect Siemens to maintain its stable economic position in the coming years and to successfully master upcoming challenges due to its business strategy, which focuses on sustainable trends and comprehensive research and development work, aimed at strengthening the global technology leadership. Our assessment is supported by the Company's prudent financial policy and solid fundamental financial key figures.

Outlook

The one-year outlook of Siemens' rating is **stable**. This is based on the assumption that the Company will be able to maintain its solid financial key figures, taking into consideration its strong order situation and improved earnings. The decrease in order intake in Digital Industries was largely compensated by a surge in orders in other segments, especially Mobility. The Company is able, in our view, to withstand possible negative developments regarding investment in Siemens Energy, as well as any possible temporary declines in demand following tightened monetary policy on the part of national authorities, and subdued economical sentiment.

Reference:

The relevant rating factors (key drivers) mentioned in this section are predominantly based on internal analyses, evaluations from the rating process, the derived valuations of the analysts participating in the rating and, if applicable, other rating committee members. The fundamental external sources used are specified in the sections "Regulatory requirements" and "Rules on the presentation of credit ratings and rating outlooks".

Excerpts from the financial key figures analysis 2022:

+Revenue
+EBITDA, EBIT
+Equity ratio
+Net total debt/EBITDA adj.

-EAT
-Capital lock-up period
-Return on investments

General rating factors summarize the key issues which – according to the analysts as of the date of the rating – have a significant or long-term impact on the rating, whether positive (+) or negative (-).

Current rating factors are the key factors which, in addition to the underlying rating factors, have an impact on the current rating.

Relevant rating factors

Table 1: Financials I Source: Siemens Report for fiscal 2022, standardized by CRA

Siemens AG Selected key figures of the financial statement analysis Basis: Consolidated financial statements as of 30.09. (IFRS)	CRA standardized figures ¹	
	2021	2022
Revenue (EUR million)	62,265	71,977
EBITDA (EUR million)	10,630	12,823
EBIT (EUR million)	7,555	9,262
EAT (EUR million)	6,698	4,392
EAT after transfer (EUR million)	6,161	3,723
Total assets (EUR million)	120,069	130,207
Equity ratio (%)	26.67	27.56
Capital lock-up period (days)	51.77	52.32
Short-term capital lock-up (%)	30.36	25.12
Net total debt / EBITDA adj. (Factor)	8.59	7,52
Ratio of interest expenses to total debt (%)	0.73	0.73
Return on investment (%)	4.39	3.41

General rating factors

- + Strong and future-oriented product portfolio aligned with global mega trends
- + Good geographical diversification, global presence, large scale
- + Technological leadership globally in relevant industries, substantial R&D capability
- + Clear and conservative financial policy with limited leverage
- + Good access to financial markets
- + High entry barriers

- Dependency on cyclically sensitive industries
- High competition and cost pressure
- Innovation pressure and necessity of substantial R&D expenditure
- Country and exchange rate risks

Current rating factors

- + Strong liquidity position, solid cash flow generation in the first nine months of FY 2023
- + Improved earnings and margins
- + Overall strong order situation

- Overall subdued economic sentiment
- Negative order dynamics in Digital Industries

¹ For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. For example, when calculating the analytical equity ratio, deferred tax assets, goodwill (entirely or partly), and internally generated intangible assets are subtracted from the original equity, whilst deferred tax liabilities are added. Net total debt considers all balance sheet liabilities. Therefore, the key financial figures shown often deviate from the original values of the company.

- Uncertainties connected to the investment in Siemens Energy, its negative results put pressure on the net income of Siemens

Prospective rating factors

- + Positive economic trends
- + Successful product strategy and maintaining of technological leadership
- + Successful acquisitions
- Persisting geopolitical tension and tightened monetary policy with a resulting gloomy economic environment
- Intensified competitive pressure
- Negative valuation effects

ESG-factors

CRA generally takes ESG factors (environment, social and governance) into account within its rating decisions. In the case of Test AG we have not identified any ESG factors with significant influence.

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Sustainability aspects have already been anchored in the strategic orientation of the Siemens Group for several years. In 2021, the Company developed a sustainability framework based on the United Nations' 17 Sustainable Development Goals (SDGs). The framework is called DEGREE, an acronym that stands for Decarbonization, Ethics, Governance, Resource Efficiency, Equity and Employability, and is intended to take into account interests of all stakeholders, with six fields of action on sustainability.

Siemens has set itself specific measurable targets that reflect its sustainability strategy. By 2030, the Company aims to become climate neutral in its own operations. Since 2015, when this goal was declared, the Company has already halved its emissions. To achieve its goals, Siemens plans to use electricity exclusively from renewable sources by 2030 (in the FY 2022 the share of green electricity was more than 77%), to convert its vehicle fleet to cars with electric drives, and to use its premises in a CO₂-neutral manner. Siemens also places ESG-linked requirements on its suppliers. Siemens' supply chains are to become climate-neutral by 2050, with a 20% reduction in emissions targeted for 2030. Furthermore, circular economy and efficient use of resources are being driven forward, and extensive measures to increase employee satisfaction and diversity are being developed.

Overall, we consider Siemens Group to be well-positioned with regard to ESG factors.

A general valid description of Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found [here](#).

Prospective rating factors are factors and possible events which – according to the analysts as of the date of the rating – would most likely have a stabilizing or positive effect (+), or a weakening or negative effect (-) on future ratings if they occurred. This is not an exhaustive list of possible future events with potential relevance for future ratings. Circumstances can arise that are not included in the list of prospective factors, whose effects are impossible to assess at the time of the rating, either because these effects are uncertain or because the underlying events are deemed unlikely to occur.

ESG factors are factors related to environment, social issues and governance. For more information, please see the section "Regulatory requirements". CRA generally takes ESG relevant factors into account when assessing the rating object and discloses them when they have a significant influence on the creditworthiness of the rating object, leading to a change in the rating result or the outlook.

Best-case scenario: AA-

In our best-case scenario for one year, we assume a rating of AA-. This could occur if Siemens is able to sustainably maintain its currently improved operating margins and earnings capacity, and/or further optimize its capital structure and reduce debt. In the best case, we do not assume any significant negative valuation effects, affecting the Company's net earnings and equity and subsequently the overall results of our financial analysis.

Worst-case scenario: A

In our worst-case scenario for one year, we assume a rating of A. This could occur in the event of a persistent deterioration of Siemens' operational development, combined with a significant increase in indebtedness and interest burden. Taking into consideration the overall rather restrained economic prospects resulting from the tense geopolitical situation, inflationary environment, and tight monetary policy of central banks, these effects could have a negative impact on the demand for Siemens' products, despite the current megatrends forcing enterprises to invest in automation, enhance of efficiency and implement digital transformation.

Please note:

The scenarios are based on information available at the time of the rating. Within the forecast horizon, circumstances may occur that could lead to a change of the rating out of the indicated range.

Business development and outlook

Amid persisting challenges for the global economic development in the form of inflationary pressure and the resulting tightening of monetary policy by national authorities, as well as partly continuing supply chain disruptions, Siemens AG has managed to demonstrate overall strong performance in the first nine months of 2023 financial year.

Table 2: The business development of Siemens AG | Source: Earnings Release Q3 FY 2023, reported

Siemens AG				
In EUR million	Q1-Q3 2022	Q1-Q3 2023	Δ	Δ %
Revenue	51,405	56,376	4,971	10
Continuing operations				
EBITDA	5,906	10,584	4,678	79
Income before income taxes	3,285	8,350	5,065	154
Income	1,498	6,607	5,109	341
Discontinued operations				
Income (loss), net of income taxes	(19)	20	--	--
Continuing and discontinued operations				
Net income	1,479	6,627	5,148	348

Revenue grew by 9.7% to EUR 56.4 billion. Adjusted for currency and portfolio effects, revenue growth amounted to 11%. Driven by a significant increase in the volume of large orders in the Mobility segment, orders rose by 5% (7% on a comparable basis) to EUR 70.5 billion.

Table 3: The development of industrial business segments in 2023 | Source: Earnings Release Q3 FY 2023

Siemens AG according to individual corporate segments in Q1-Q3 2023								
in EUR million	Digital Industries		Smart Infrastructure		Mobility		Siemens Healthineers	
	2022	2023	2022	2023	2022	2023	2022	2023
Orders	19,579	15,693	15,429	16,894	10,637	17,475	18,495	17,290
Revenue	15,952	13,842	12,188	14,417	7,002	7,671	15,714	15,625
Profit (EBT)	2,674	3,570	1,487	2,252	558	650	2,400	1,580
Profit margin (%)	19.3	22.4	12.2	15.6	8.0	8.5	15.3	10.1
Free cash flow	2,752	2,882	840	1,479	293	453	1,926	1,442

Digital Industries saw a decrease in orders, accelerated in Q3 2023, driven by destocking and normalization of customer purchasing due to shortening lead times, especially in the short-cycle factory automation business, most notably in China and Europe. In the prior periods, order patterns were marked by proactive elevated purchasing aimed at increasing inventory levels in order to avoid supply disruptions. Orders in the Smart Infrastructure segment benefited from the overall trends of electrification and decarbonisation and were in particular fuelled by a continuous inflow of larger orders from data centres, battery manufacturing, and power distribution customers in its electrification business. The electrical products business saw a decrease in orders due to demand normalization. Driven by major contract wins for rail systems and trains in

Egypt, Germany, the USA and UK, the order intake in the Mobility segment achieved record-high levels, growing by 64% compared to the previous year.

With the exception of Siemens Healthineers, where increases in the imaging and advanced therapies businesses were more than offset by a sharp drop in revenue from COVID-19 rapid antigen tests, all industrial business segments posted double-digit increases in revenue. In Digital Industries, growth was in particular supported by positive development in the factory automation and process automation businesses. The growth in Smart Infrastructure revenues was especially driven by electrification and electrical products businesses. Development in the Mobility Segment was marked by a better conversion of the order backlog due to improved availability of components. The overall enhanced profitability was especially driven by better capacity utilization and a favourable revenue mix, as well as cost reductions, especially in the Smart Infrastructure segment.

The two segments Siemens Financial Services and Portfolio Companies saw overall stable dynamics of the Company's income were impacted by the results of investments accounted for using the equity method (EUR 1,107 million, 2022: EUR -2,431 million), primarily by the investment in Siemens Energy (SE), which continues to be volatile. During the financial year 2023, the stake in SE was further reduced to 25.1% (2022: 35%), most recently by the transfer of a 6.8% stake to Siemens Pension Trust. Massive losses and quality deficiencies in SE's wind business had a negative effect of EUR 647 million in Q3 2023 after the partial reversal of the FY 2022 impairment on the SE investment amounting to EUR 1.6 billion effective in Q2 2023. As of 30 June 2023, the carrying amount of the remaining stake in SE was at roughly EUR 2 billion, corresponding to approximately EUR 10 per share, which is under the current SE's share price.

For the current financial year, Siemens has confirmed the previously raised outlook with comparable revenue growth of 9-11% and a book-to-bill ratio above 1. Taking into consideration the decrease in orders in the Digital industries segment, its revenue growth was adjusted to 13-15% (previously 17-20%). Smart infrastructure and Mobility expect revenue growth of 14-16% and 10-12%, respectively. The Company continues to expect EPS pre PPA² excluding SE investment of EUR 9.6 to EUR 9.9 (FY 2022: EUR 5.47).

Although Siemens' main activities are very sensitive to general economic cycles, we consider the outlook to be achievable and see the business model as viable and stable. Siemens' business strategy focuses on products that benefit from the long-term investment trends aimed at decarbonisation, automatization and enhanced energy efficiency, which will persist regardless of any temporary deterioration of economic sentiment. The sharp decrease in orders in Digital Industries in Q3 2023 was partially offset by strong order books in other segments, especially in Mobility. The Company needs to maintain elevated levels of inventories, especially in Digital industries, to safeguard revenue growth. We do not derive increased risks from this situation given the Company's solid liquidity, excellent access to financial markets, and comfortable debt situation, which is commensurate with Siemens' overall improved earnings and free cash flow. These factors have a stabilizing effect on our rating and build a solid buffer in the case of possible temporary demand downturns against the overall trends.

² Earnings per share before purchase price allocation: basic earnings per share from net income adjusted for amortization of intangible assets acquired in business combinations and related income taxes.

Structural risk

Siemens is a stock company incorporated in Germany under the German Stock Corporation Act (Aktiengesetz) with headquarters in Munich and Berlin. The Group employs roughly 311,000 people worldwide and comprises the parent company, Siemens Aktiengesellschaft (Siemens AG), and its subsidiaries.

Siemens is active in a wide range of industrial areas with focus on the fields of automation and digitalization in the process and manufacturing industries. The industrial business comprises the following segments:

Digital Industries offers a comprehensive product portfolio and system solutions for automation used in the manufacturing and process industries, including automation systems and software for factories, 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, radio frequency identification systems and modern software solutions. In 2022, Digital Industries started the transition of part of its software business from upfront revenue recognition to Software as a Service (SaaS).

Smart Infrastructure offers products, systems, solutions, services and software to support a transition from fossil to renewable energy sources, as well as a transition to smarter, more sustainable buildings and communities. Its buildings portfolio includes integrated building management systems and software; heating, ventilation and air conditioning controls; fire safety and security products and systems. The electrification portfolio is aimed at making grids more resilient, flexible and efficient, and includes grid simulation, operation and control software; substation automation and protection; switchgear, and eMobility charging infrastructure. The electrical products portfolio addresses industrial and building applications, including low-voltage switching, measuring and control equipment; low-voltage distribution systems and switchgear; and circuit breakers, contactors and switching for medium voltage.

Mobility combines businesses in the area of passenger and freight transportation. Its offerings encompass trains for urban and regional transport, locomotives for freight and passenger transport and solutions for automated transportation, as well as automatic train control systems, interlocking, operations control and telematic systems, digital station solutions, and railway communication systems. Siemens provides customers with maintenance and digital services throughout the entire lifecycle. Mobility's software business comprises platforms for fleet management, route planning, ticketing and payments solutions, as well as data analytics.

Siemens holds over 75% of the shares of the publicly listed **Siemens Healthineers** AG, Germany ("Siemens Healthineers"). Siemens Healthineers is a global provider of healthcare solutions and services, including wide range of diagnostic and therapeutic products, imaging products, services and solutions, as well as digital offerings. The Varian business provides cancer care technologies along with solutions and services to oncology departments in hospitals and clinics.

Along with its industrial business, Siemens has a well-established financial business, **Siemens Financial Services (SFS)**, which provides financing solutions - leasing, lending, working capital and structured financing, equipment, and project financing - for Siemens' customers, as well as for other companies.

Portfolio Companies comprise smaller companies which deliver a range of customized and application-specific products, software, solutions, systems and services, which are managed separately.

Siemens has a very strong geographical distribution, with 47% of revenues being generated in Europe, CIS, Africa, Middle East, 29% in the Americas, and 24% in Asia and Australia, partly with different economic cycles. Twenty-eight percent of the revenues are generated in emerging markets.

The Company reports its financial statements in accordance with IFRS and is obliged to comply with high legislative, regulatory and corporate governance standards. After examining publicly available information regarding corporate governance and compliance measures, we assume sufficiently developed structures with regard to risk management, accounting and controlling, as well as other administrative and operational areas.

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Business risk

In the course of its global business activities, Siemens is exposed to a variety of risks, which could have an adverse effect on its net assets, financial position, results of operations and reputation of the Group. In addition to strategic and operational risks, these include financial and compliance-related risks.

Significant risks arise from the highly competitive market environment, where Siemens increasingly faces competition from the emerging markets. This contributes to price and cost pressure and is encouraging consolidation in the industry, which may in turn contribute to a deterioration of the Group's current market position. In addition, takeovers of important suppliers could lead to supply bottlenecks. Siemens' clear technological leadership helps to evade price pressure. The Company counters the market-related risks with systematic market monitoring, targeted sales initiatives and regular productivity improvements.

As a global group, Siemens faces increased risks resulting from geopolitical tensions and an uncertain global economic outlook. Russia's invasion of Ukraine has had far-reaching political and economic consequences, such as reciprocal sanctions, interrupted supply chains and elevated energy prices. These factors have fuelled inflation and led to a tightening of the monetary policy of central banks, ultimately resulting in overall subdued economic sentiment, especially in Europe. These factors, along with protectionist tendencies, may have an adverse effect on investment activity worldwide. Siemens' activities depend on developments in industries which are highly sensitive to economic cycles, such as the automotive, chemical and building industries. As a result of its global orientation, Siemens also faces considerable exchange rate risks which, due to high exports to the USD region, are strongly linked to the currency relation Euro/USD. A sustained appreciation of the euro could result in considerable losses, and weaken the market position of Siemens.

With its technologically leading portfolio, Siemens has a strong market position which is additionally supported by a high degree of diversification and a global market presence. Siemens' strategic alignment, its business segments, and product portfolio correspond to the megatrends of demographic change, urbanization, digitalization, environmental change and resource scarcity. Siemens faces considerable challenges connected with technological change and omnipresent digitalization. Siemens is exposed to strong technological changes, substitution risks, and to high innovation and investment pressure. The Company addresses these challenges through intensive research and development work. In 2022, the Company reported EUR 5.6 billion (2021: EUR 4.9 billion) research and development expenses, corresponding to 7.8% ratio of R&D expenses to revenue. Also, the Company's acquisition policy and the measures aimed at structure and cost optimization ensure stable earnings and strong profitability. This is in line with the

Group's strategic goal of sustainably securing and increase the market value of Siemens in the long term.

Increasing cybersecurity threats also represent an essential risk for products, systems and data security for the high-tech company Siemens. To minimize these risks, Siemens relies on comprehensive monitoring of its networks and systems through cyber defence using artificial intelligence solutions, employee trainings, and flexible working environments. The insurable share of the cybersecurity risks has been transferred to a consortium of insurance companies.

Furthermore, Siemens faces considerable credit and creditworthiness risks in connection with order and project financing. However, as financing services are often an essential part of the order or the contract, they must be accepted in part as inherent to the business.

Finally, there are compliance risks in the form of corruption and antitrust allegations, and other legal violations. Notwithstanding significant reputational losses, fines, contract cancellations, or exclusion from bidding procedures could impose a significant burden on Siemens. To avoid such risks, Siemens has established a global compliance organization which is regularly audited by external parties.

Financial risk

Siemens has developed a conservative financial policy, which facilitates maintaining constant access to financial markets. The Company aims in general for a capital structure defined as the ratio of industrial net financial debt to EBITDA from continuing operations of up to 1.5. As of 30 September 2022, Siemens had a strong starting financial position, with reported net financial debt including Financial Services of EUR 37.2 billion, and an industrial net financial debt of EUR 10.9 billion. In FY 2022, Siemens improved its industrial EBITDA to EUR 10.8 billion (2021: EUR 9.1 billion), resulting in reported industrial net debt to EBITDA of 1.0 as of 30 September 2022.

In comparison with this financial indicator, the CRA ratio of net debt to EBITDA adj. is significantly higher at a factor of 7.6. In addition to debt from the financing business, this is due in particular to trade accounts payable (EUR 10.3 billion) and advance payments received (EUR 12.0 billion). A balanced maturity structure should be mentioned in this context, with more than 50% of total liabilities representing medium- and long-term liabilities, and a sound working capital structure. In addition, the Company has a high level of internal financing capacity, which was reflected in free cash flow from continuing operations of EUR 8.2 billion in the 2022 FY (2021: EUR 8.3 billion). The Company had a strong liquidity position with cash and cash equivalents amounting to EUR 10.5 billion and free credit facilities of EUR 7.5 billion as of 30 September 2022.

The CRA adjusted equity ratio of 27.56% (2021: 26.67%) calculated as part of the structured balance sheet analysis can be regarded as sufficiently developed, taking into account the dilutive effect of Siemens Financial Services.

In the course of FY 2023, Siemens was able to improve its income from continuing operations before income taxes significantly (EUR 6.6 billion; 9M 2022: EUR 1.5 billion), as well as - despite persisting enhanced working capital requirements - its operating cash flow (EUR 6.8 billion; 9M 2022: EUR 6.1 billion). Due to the improved earnings capacity, reported industrial net debt to EBITDA stood at 0.8 as of 30.06.2023, an improvement despite the increased net industrial financial debt (EUR 12.0 billion; 30.06.2022: EUR 10.9 billion).

We consider the liquidity position of the Group to be very strong, with a continuously solid cash position of around EUR 10.0 billion, underpinned by its excellent access to financial markets and

sufficient unused credit facilities. Taking into consideration its improved cash flow, we are convinced that the Company is able to withstand any possible temporary economic downturns and implement its investment plans (EUR 2.0 billion for 2023 FY). Besides its liquidity strength, our assumption is based on Siemens' strategic alignment, with a focus on megatrends and technology leadership, insuring solid margins and stable, crisis-resistant earnings. According to its announced prudent financial policy, we assume that Siemens would adjust its investment plans or its relatively high dividend payments in the event of possible necessity to introduce any liquidity-protecting measures.

Further ratings

In addition to the rating of Siemens AG the following Issuer and its issues (see below), has been rated.

- Siemens Financieringsmaatschappij N.V.

Due to the corporate, strategic, liability, financial, economic and performance-related interdependencies of Siemens Financieringsmaatschappij N.V., wholly owned by Siemens AG, we derive its unsolicited issuer ratings from the unsolicited issuer rating of Siemens AG and set it equal to its rating of **A+/stable**.

Based on the long-term issuer rating and taking into account our liquidity analysis, the short-term rating of the Siemens AG and the above-mentioned subsidiary was set at **L2** (standard mapping), which corresponds to a high level of liquidity assessment for one year.

The rating objects of the issue ratings are exclusively long-term senior unsecured issues, denominated in euro, issued by Siemens AG and the above-mentioned subsidiary, which are included in the list of ECB-eligible marketable assets.

Siemens AG is guarantor of the issues that have been issued under the Programme for the Issuance of Debt Instruments, with the last prospectus of 9 December 2022.

We have provided the long-term local currency senior unsecured notes issued by Siemens AG and the above-mentioned subsidiary with an unsolicited rating of **A+ / stable**.

Long-term local currency senior unsecured notes issued by Siemens AG and the above-mentioned subsidiary, which have similar conditions to the current Programme for the Issuance of Debt Instruments, denominated in Euro and included in the list of ECB-eligible marketable assets, generally receive the same ratings as the current LT LC senior unsecured notes issued under the Programme. Notes issued in any currency other than euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Table 4: Overview of CRA Ratings | Source: CRA

Rating Category	Details	
	Date of rating committee	Rating
Siemens AG	27.09.2023	A+ / stable / L2
Siemens Financieringsmaatschappij N.V.	27.09.2023	A+ / stable / L2
Long-term Local Currency (LC) Senior Unsecured Issues issued by Siemens AG and Siemens Financieringsmaatschappij N.V.	27.09.2023	A+ / stable
Other	--	n.r.

Financial ratio analysis

Table 5: Financial key ratios | Source: Siemens AG consolidated financial statements, structured by CRA

Asset structure	2019	2020	2021	2022
Fixed asset intensity (%)	28.65	28.83	35.34	33.61
Asset turnover	0.69	0.46	0.54	0.58
Asset coverage ratio (%)	167.23	167.04	129.28	137.78
Liquid funds to total assets	10.19	12.87	7.95	8.04
Capital structure				
Equity ratio (%)	24.81	23.57	26.67	27.56
Short-term debt ratio (%)	38.93	31.26	33.31	32.78
Long-term debt ratio (%)	23.10	24.59	19.02	18.75
Capital lock-up period (in days)	47.95	52.01	51.77	52.32
Trade-accounts payable ratio (%)	8.76	7.21	7.36	7.92
Short-term capital lock-up (%)	40.85	44.27	30.36	25.12
Gearing	2.62	2.70	2.45	2.34
Leverage	3.97	4.12	3.97	3.69
Financial stability				
Cash flow margin (%)	11.77	3.39	6.63	7.64
Cash flow ROI (%)	7.84	1.71	3.44	4.22
Total debt / EBITDA adj.	9.86	11.15	9.64	8.53
Net total debt / EBITDA adj.	8.52	9.27	8.59	7.58
ROCE (%)	11.82	8.54	8.90	10.28
Total debt repayment period	19.48	16.53	15.33	19.10
Profitability				
Gross profit margin (%)	58.22	34.11	37.00	37.26
EBIT interest coverage	6.26	6.04	11.73	13.44
EBITDA interest coverage	9.36	9.84	16.51	18.59
Ratio of personnel costs to total costs (%)	35.95	57.87	40.16	37.81
Ratio of material costs to total costs (%)	41.78	65.89	63.00	62.74
Cost income ratio (%)	91.91	91.21	88.11	87.51
Ratio of interest expenses to total debt (%)	1.15	0.98	0.73	0.73
Return on investment (%)	4.00	2.72	4.39	3.41
Return on equity (%)	17.88	14.47	23.20	12.93
Net profit margin (%)	6.50	7.60	10.76	6.10
Operating margin (%)	8.14	8.90	12.13	12.87
Liquidity				
Cash ratio (%)	24.43	41.16	23.86	24.52
Quick ratio (%)	110.08	132.88	109.14	113.27
Current ratio (%)	183.27	227.66	194.10	202.52

Appendix

Rating history

The rating history is available under <https://www.creditreform-rating.de/en/ratings/published-ratings.html>.

Table 6: Corporate Issuer Rating of Siemens AG

Event	Rating created	Publication date	Result
Initial rating	05.03.2018	12.03.2018	A+ / stable

Table 7: LT LC Senior Unsecured Issues issued by Siemens Financieringsmaatschappij N.V.

Event	Rating created	Publication date	Result
Initial rating	26.10.2018	09.11.2018	A+ / stable

Table 8: LT LC Senior Unsecured Issues issued by Siemens Financieringsmaatschappij N.V.

Event	Rating created	Publication date	Result
Initial rating	26.10.2018	09.11.2018	A+

Table 10: Short-term issuer ratings of Siemens AG, Siemens Financieringsmaatschappij N.V.

Event	Rating created	Publication date	Result
Initial rating	27.09.2023	www.creditreform-rating.de	L2

Regulatory requirements

The rating³ was not endorsed by Creditreform Rating AG (Article 4 (3) of the CRA-Regulation).

The present rating is, in the regulatory sense, an unsolicited rating, that is public. The analysis was carried out on a voluntary basis by Creditreform Rating AG, which was not commissioned by the Issuer or any other third party to prepare the present rating.

The rating is based on the analysis of published information and on internal evaluation methods for the assessment of companies and issues. The rating object was informed of the intention of creating or updating an unsolicited rating before the rating was determined.

The rating object participated in the creation of the rating as follows:

Unsolicited Corporate Issuer / Issue Rating	
With rated entity or related third party participation	No
With access to internal documents	No
With access to management	No

A management meeting did not take place within the framework of the rating process.

The documents and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodologies.

The rating was conducted based on the following rating methodologies and the basic document.

Rating methodology	Version number	Date
Corporate Ratings	2.4	July 2022
Corporate Short-Term Ratings	1.0	June 2023
Non-financial Corporate Issue Ratings	1.0	October 2016
Rating Criteria and Definitions	1.3	January 2018

The documents contain a description of the rating categories and a definition of default.

The rating was carried out by the following analysts:

Name	Function	Mail-Address
Elena Damijan	Lead-analyst	E.Damijan@creditreform-rating.de
Artur Kapica	Analyst	A.Kapica@creditreform-rating.de

The rating was approved by the following person (person approving credit ratings, PAC):

Name	Function	Mail-Address
Stephan Giebler	PAC	S.Giebler@creditreform-rating.de

On 27 September 2023, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 29 September 2023. There has not been a subsequent change to the rating.

³ In these regulatory requirements the term "rating" is used in relation to all ratings issued by Creditreform Rating AG in connection to this report. This may concern several companies and their various issues.

The rating will be monitored until Creditreform Rating AG withdraws the rating. The rating can be adjusted as part of the monitoring, if crucial assessment parameters change.

In 2011, Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on this registration, Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

ESG-factors

You can find out whether ESG factors were relevant to the rating in the upper section of this rating report "Relevant rating factors".

A general valid description for Creditreform Rating AG, as well as a valid description of corporate ratings for understanding and assessing ESG factors in the context of the credit rating process, can be found [here](#).

Conflict of interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or in approving credit ratings and rating outlooks.

Creditreform Rating AG ensures that the provision of ancillary services does not present conflicts of interest with its credit rating activities and discloses in the final ratings reports any ancillary services provided for the rated entity or any related third party. The following ancillary services were provided for the rating entity or for third parties associated with the rated entity:

Credit Service ancillary services for a related third party.

For the complete list of provided rating and credit service ancillaries please refer to the Creditreform Rating AG's website:

<https://www.creditreform-rating.de/en/about-us/regulatory-requirements.html#non-core-business-activities>.

Rules on the presentation of credit ratings and rating outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our "Rating Committee Policy", all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, Creditreform Rating AG has used following substantially material sources:

Corporate issuer rating:

1. Annual report
2. Website
3. Internet research

Corporate issue rating:

1. Corporate issuer rating incl. information used for the corporate issuer rating
2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the Creditreform Rating AG website. Furthermore, Creditreform Rating AG considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

The Basic Data Information Card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating report and indicates how the different methodologies or other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the Basic Data Information Card as a "rating action"; initial release is indicated as "initial rating", other updates are indicated as an "update", "upgrade" or "downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the Basic Data Information Card.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009, a registered or certified credit rating agency shall make available, in a central repository established by ESMA, information on its historical performance data including the rating transition frequency and information about credit ratings issued in the past and on their changes. Requested data are available at the [ESMA website](#).

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