Creditreform Corporate Issuer / Issue Rating

SAP SE

Creditreform Rating

Rating object	Rating information	
SAP SE Creditreform ID: 7050001788 Incorporation: 1972 Based in: Walldorf, Germany Main (Industry): Software development, Cloud Computing CEO: Christian Klein	Corporate Issuer Rating: **A+ / stable**	Type: Update Unsolicited Public rating
	LT LC Senior Unsecured Issues: **A+ / stable**	Other: **n.r.**
Rating objects: Long-term Corporate Issuer Rating: SAP SE Long-term Local Currency (LT LC) Senior Unsecured Issues	Rating date: 24 March 2023 Monitoring: until withdrawal of the rating Rating methodology: CRA "Corporate Ratings" CRA "Non-Financial Corporate Issue Ratings" CRA "Rating Criteria and Definitions" Rating history: www.creditreform-rating.de	

Content

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Summary

Company

SAP SE (hereinafter SAP, the Company or the Group) is a German multinational software company headquartered in Walldorf, globally leading in development of business software, especially of enterprise resource planning (ERP), supply chain management, financial and spend management applications, business networks, as well as services and customer support. As of 31 December 2022, SAP employed 111,961 people in 288 subsidiaries worldwide, of which the headcount in research and development amounted to 30.5%. Total revenue increased in 2022 by 11% to EUR 30,871 billion (2021: EUR 27,842 billion). Since the introduction of its new strategic alignment in the autumn of 2020, SAP has set the focus of its product strategy on cloud-based solutions. The cloud revenue has increased from year to year, achieving a share of 40.7% in 2022 (33.8% in 2021). This has made the Company's entire revenue structure more predictable and reliable, with 79% share of predictable revenues (sum of cloud and software support revenues) in 2022 (2021: 75%). Profit after tax has been negatively affected by overall increased costs, especially cloud costs and expenditure for product development and marketing, as well as negative valuation effects concerning Sapphire investments in net finance income, and was significantly below the previous year at EUR 1,708 million (2021: EUR 5,376 million). In January 2023, SAP announced its intention to divest Qualtrics, a specialist in experience management software, which would ensure a substantial financial scope and, according to management, allow the Company to develop products in which it has a clear global market leadership. The deal is currently expected to be completed in the second half of 2023 and is subject to authorities' approval.

Rating result

The current rating of A+ attests SAP SE a high level of credit worthiness and a low default risk.

The rating result is based on the strong global market position of SAP, a good level of product and geographical diversification, technological know-how, and overall positive prospects in view of global market demand for increase in efficiency, agility of business processes, the need for transparency of supply chains, and for measurement and control of sustainability-related issues. In 2022, the Group posted a further significant increase in revenues, especially in its cloud business, although its annual results were weaker compared to the previous year, mainly due to elevated costs related to the development and promotion of cloud-based solutions. Notwithstanding, the consistently solid result of our financial analysis was confirmed in 2022. Despite considerable cash outflows for the share buyback program and increased dividend payments in connection with the Company's 50th anniversary, its liquidity position remains strong, and is underpinned by proven access to the financial market and sufficient unused credit facilities.

The Company benefits from the overall trend of digital transformation, whereas we consider it still vulnerable to major economic downturns and associated slowdowns in investment activity. Currently, the tense geopolitical situation and overall inflationary environment, elevated interest rates, and persistent disruptions in supply chains lead to an ongoing gloomy economic climate. SAP faces intense international competition and acts in a fast-moving business environment, implying continuous investments in product innovation. In this respect, the business, which is fundamentally high-margin and high-growth, also entails considerable industry and business model risks. SAP's M&A activities, as well as the recently announced ambition to consolidate its business in order to concentrate on core activities, entail risks related to restructuring, integration and bad investment.

Outlook

The one-year outlook of the rating is stable. This is based on our expectation of further sound operating performance and prudent financial management on the part of SAP in the 2023 financial year and potentially onwards, supported by the Company's future-oriented product strategy, the strong development of its cloud-based solutions, and increasing share of predictable revenues, underpinned by a considerable order backlog and strengthened customer base. The planned spinoff of Qualtrics may create additional financial scope for possible major acquisitions, incentive programs or dividend payments, exaggerating the expected levels, which supports the rating outlook.

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:

+ Sales
+ Equity ratio
+ Net total debt / EBITDA adj.

- EBIT, EAT
- Ratio of interest expenses to total debt
- 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: SAP Integrated Report 2022, standardized by CRA

SAP SE **Selected key figures of the financial statement analysis** **Basis: Consolidated financial statements as of 31.12. (IFRS)**	**CRA standardized figures[1]**	
	2021	**2022**
Sales (EUR million)	27,842	30,871
EBITDA (EUR million)	6,449	6,371
EBIT (EUR million)	4,674	4,475
EAT (EUR million)	5,377	1,708
EAT after transfer (EUR million)	5,256	2,284
Total assets (EUR million)	53,866	53,525
Equity ratio (%)	45.50	45.69
Capital lock-up period (days)	14.28	17.69
Short-term capital lock-up (%)	37.81	34.20
Net total debt / EBITDA adj. (Factor)	3.10	3.08
Ratio of interest expenses to total debt (%)	0.72	0.95
Return on investment (%)	5.95	5.78

General rating factors

+ Megatrends of digitalization of business and society and importance of sustainability issues
+ Future-oriented products, proved innovation capacity, successful product strategy so far
+ Market leadership in some fields of business software with global footprint
+ Sustainable, solid key ratios and prudent financial strategy over the years
+ Increasing shares of cloud business and of predictable revenues
+ Solid, growing customer base
+ Proved access to financial markets
+ Positive development of ESG-related factors

– Innovation pressure
– Financially strong competition with high innovation capacity
– Capital intensity of the business
– Significant and further increasing development costs

Current rating factors

+ Substantial increase in revenues
+ Stable liquidity position and financial structure
+ Stabilized management and board of directors structure

– Increased cost pressure due to development and promotion of new products

[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.

- Substantial dividend payments and incentives
- Solid, but deteriorated profitability and annual results, partly due to valuation effects of Sapphire investments
- Increased interest payments
- Negative effects of withdrawal from Russian and Belarussian markets

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.

Prospective rating factors

+ Evolving know-how in core business, further successful innovations
+ Significant financial headroom in the case of completed spin-off of Qualtrics
+ Persistent megatrends in digital transformation and sustainability
+ Positive effects of partnerships

- Intensified competitive pressure
- Persistent geopolitical crisis
- Gloomy economic environment with plummeting investment willingness
- Negative valuation effects

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.

ESG-factors

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

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.

We note that SAP is well-positioned in terms of key ESG indicators, such as CO_2 emissions, the use of renewable energies, and the proportion of women in management positions, and has a strongly integrated ESG culture. The Company has a high level of employee engagement and a generally very high level of social commitment. SAP supports the United Nations sustainable Development Goals (SDGs) and is committed to the goal set by the Paris Agreement of limiting global warming to 1.5 degrees Celsius in comparison to pre-industrial levels.

Particularly noteworthy is the Group's goal of becoming CO_2-neutral in terms of Scope 1 and 2 values by 2023, two years ahead of its previous statements, and to achieve net-zero along their value chain in 2030. SAP already obtains 100% of its electricity from renewable sources. In addition, SAP offers its customers software solutions that are able to determine CO_2 emissions along their supply chains. SAP's solutions were used in mitigation efforts against the spread of COVID-19. The diverse applications of its software, combined with its established ESG culture, could result in a significant ESG-related competitive factor in the medium to long term. In the area of governance, on the other hand, it remains to be seen how investigations into possible violations of anti-bribery laws in the USA and other countries will develop. The cloud transformation, which entails increased IT risks, could lead to reputational losses.

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.

Best-case scenario: A+

In our best-case scenario for one year, we confirm the rating of A+. The main reasons for this are elevated costs in connection with the development and promotion of cloud-based solutions, with a resulting decrease in Company's profitability. The overall inflationary environment, increasing interest rates, and possible further negative valuation effects putting additional pressure on the SAP's results, underpin our assessment. In this scenario, we do not take into consideration possible effects of the announced Qualtrics spinoff.

Worst-case scenario: A

In our worst-case scenario for one year, we assume a rating of A. This may occur in the event of a persistent deterioration of SAP's operating development, combined with a significant increase in indebtedness and interest burden. Taking into consideration the overall restrained economic prospects resulting from the tense geopolitical situation and inflationary environment, these effects could have a negative impact on the demand for SAP's products, despite the current megatrends forcing enterprises to invest in their digital transformation.

Business development and outlook

At the beginning of 2022, the global economic environment was marked by the overall recovery from the implications of the COVID-19 pandemic, resulting from gradual lifting of social restrictions worldwide. The resulting positive sentiments were massively dampened after the outbreak of the war in Ukraine, with subsequent uncertainties related to energy and food supply, an inflationary environment, increase in interest rates and disruptions in supply chains. In March 2022, SAP terminated sales in Russia and Belarus and is currently, according to its management, in the process of withdrawal from these markets.

Despite this complex environment, SAP continued to benefit from the global trends of ubiquitous digital transformation and the growing need for more efficiency and transparency of business processes and supply chains, which intensified against the backdrop of uncertainties brought by geopolitical tensions, demonstrating an overall positive development in 2022 with an increase in total revenues of 11% to EUR 30,871 million (2021: EUR 27,842 million).

Table 2: The business development of SAP SE I Soruce: SAP Integrated Report 2022

SAP SE				
EUR millions	2021	2022	Δ	Δ %
Total revenue	27,842	30,871	3,029	10.9
Gross profit	19,897	21,936	2,039	10.2
Operating profit	4,656	4,672	16	0.3
EBT	6,847	3,092	(3,755)	(55.7)
EAT	5,376	1,714	(3,642)	(67.7)

The positive revenue development was in particular supported by the growth in the Company's cloud business, which has been the primary focus of the Company's activities since the announcement of SAP's realignment strategy in the autumn of 2020. As a result, the cloud revenues are set to expand, partly replacing revenues from software licenses, which are expected to shrink in the future.

Cloud revenue grew by 33% to EUR 12,556 million (2021: EUR 9,418 million), of which the revenue from SAP S4/HANA Cloud nearly doubled, from EUR 1,090 million to EUR 2,082 million. Driven by growth particularly from large orders, the cloud order entry grew by 41% to EUR 14,965 million in 2022, along with the total cloud order backlog, which saw an increase of 35% to EUR 34,200 million. In line with the Company's strategy, the revenue from software licenses plummeted by 37% to EUR 2,056 million (2021: EUR 3,248 million). Against the backdrop of the Company's stable customer base, software support revenues grew by 4% (EUR 11,909 million, 2021: EUR 11,412 million). Total software licenses and support revenue saw a decrease of 5% to EUR 13,965 million (2021: EUR 14,660 million). The more predictable revenues, which are defined as a total of cloud revenue and software support revenue, increased by 17.5% to EUR 24,465 million (2021: EUR 20,829 million), while their share in the revenues structure edged up by 4 p.p. to 79% (2021: 75%). Driven by growth in training revenue and premium support revenue, services revenue increased by 16% to EUR 4,350 million (2021: EUR 3,764 million).

Operating profit remained stable at EUR 4,670 million (2021: EUR 4,656 million), leading to a reduction of the operating margin to 15.1% from 16.7% in 2021. The decrease in operating margin is primarily due to the overall increase in marketing and sales, as well as research and development (R&D) expenditure. In 2022, the Company expanded its R&D expenses by 19% to EUR 6,166 million, which reflects an increase in the R&D headcount and continued investments in product development. The R&D portion of total operating expenses increased by 1.1 pp (23.5%, 2021: 22.4%). Sales and marketing expenses saw an increase by 19% to EUR 8,943 million (2021: EUR 7,5050 million) with a 2.0 pp increase in the ratio of sales and marketing expenses to total revenue (29.0%, 2021: 27.0%). This growth was driven by the increase in headcount as well as by higher bonus payments reflecting the surge in cloud revenue. The cost structure was positively impacted by a 15% decrease in general and administrative expenses, mainly due to higher share-based payments in the previous year, as well as by increased cloud margin (69.3% from 67.0% in 2021). The cloud margin is expected to further improve based on planned completion of investments in the next generation cloud delivery program in 2023.

The non-IFRS operating profit in constant currencies, which includes adjustments related to acquisitions (+EUR 610 million), restructuring (+EUR 138 million), share-based payments (+2,614 million) and currencies (-EUR 350 million), and which is the basis for SAP's outlook announcements, amounted to EUR 7,683, in line with forecast, revised in connection with the war in Ukraine (EUR 7.6 to 7.9 billion).

The Company's profit in 2022 was negatively affected by the drop in net financial income to EUR -1,385 million (2021: EUR 2,174 million), of which finance income was EUR 820 million (2021: EUR 3,123 million) and finance costs amounted to EUR 2,205 million (2021: EUR 949 million). Both finance income and costs were dominated by the fair-value adjustments on Sapphire Venture investments as well as gains and losses from their disposals. The interest expense on financial liabilities remained relatively low at EUR 208 million (2021: EUR 160 million). As a result, SAP's profit before tax plummeted to EUR 3,090 million (2021: EUR 6,847 million), and the profit after tax was, at EUR 1,708 million, significantly below the previous year (EUR 5,376 million).

According to the Company's management, SAP plans to focus on ERP-software, including supply-chain management and software to manage ESG-related issues, in which SAP is considered one of the global industry leaders. In this context, the Company is to spin off Qualtrics, with its core business experience management solutions, to create more flexibility and financial scope for the product development, in which the Company is the global leader.

For 2023, SAP expects EUR 15.3 to 15.7 billion in cloud revenue (2022: EUR 12.6 billion), EUR 28.2 to 28.7 billion cloud and software revenue, as well as EUR 8.8 to 9.1 billion in non-IFRS operating profit. Taking into consideration the current order backlog, including the increased share of major clients, and the overall market trends, such as the importance of ESG-Issues and transparency of supply chains, we consider the forecast to be plausible and realistic. By 2025, the Company expects revenues to reach more than EUR 36 billion, whereas cloud revenues will exceed EUR 22 billion. The optimization of its product portfolio, including acquisitions and divestitures, remains part of the Company's strategy, and entails financial risks, integration risks and risks of misinvestments.

Thus far, despite the overall restrained economic outlook, SAP has been able to take advantage of the overall digitalization process and increased need for efficiency, agility and transparency in supply chains. The Company focuses inter alia on the development of software for managing sustainability-related issues, which are currently gaining in importance. Nevertheless, major economic downturns could negatively impact the demand for SAP's products, despite global trends. The solid results of our fundamental financial analysis over recent years, with stable equity, well-balanced financing structure and sufficient earnings capacity, was confirmed in 2022, creating the necessary headroom for the implementation of the Company's strategy, despite associated elevated costs.

Structural risk

SAP was initially founded in 1972 as a private partnership named Systemanalyse und Programmentwicklung GbR. Currently, SAP is a globally leading group in business software development with 288 subsidiaries worldwide and employing over 111 thousand staff. SAP operates 57 data centers at 32 locations in 15 countries. SAP SE is listed in Frankfurt and New York and, as of the end of 2022, was the second most valuable company on the DAX according to market capitalization.

SAP's capital stock remained unchanged as of 31.12.2022, with 1,228,504,232 no-par shares, each with an attribute value of EUR 1 in relation to capital stock. The free-float was 83.3% (2021: 85%). The reduction of the free-float share results from the share buyback program and increase in treasury shares.

The Supervisory Board currently consists of 19 members. The Company has named former Deloitte CEO Punit Renjen as designated chairperson of the Supervisory Board, who shall succeed the long-time chairperson (since 2003) and co-founder Hasso Plattner, whose term will expire in May 2024.

The Executive Committee must consist of at least two members and currently includes seven members, two of whom are women. From March 2023, Dominik Asam, the former CFO of Airbus, will take on the position of CFO from Luka Mucic, who left SAP after more than 25 years.

We believe that recruitment of sufficiently and specifically skilled staff remains a significant challenge for the Company. On the other hand, as with other tech companies, SAP announced its intention to cut approximately 3,000 jobs worldwide in the near term, which represents 2.5% of its global workforce, as one of the measures to reduce costs.

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 functional areas.

We were not able to identify any structural risks that had a particular impact on the rating in the course of our analysis. Neither the accelerated refocusing of the Group in the direction of cloud solutions with correspondingly consolidation efforts, nor the Company's solid operational performance, reveal any significant structural weaknesses. We therefore consider the structural risk of SAP to be moderate.

Business risk

The process of digital transformation currently has a broad impact on the global business and social environment. New trends and technologies, such as e-commerce, big data, machine learning and artificial intelligence, as well as the internet of things, enable businesses to achieve significant productivity gains. An increasing number of companies recognize that their ability to offer modern digital products and services are crucial for their success, and even for their existence on the market. Uncertainties unveiled by the COVID-19 pandemic, and changes in the traditional business practices and ways of life, geopolitical tensions which led to disruptions in supply chains, as well as the strengthening of worldwide regulatory frameworks in order to combat climate change, have intensified this process.

SAP is a leader in a range of business software applications, such as enterprise applications software, enterprise resource management and resource planning software, as well as supply chain and procurement applications. In October 2020, SAP announced its revised corporate strategy, in which the Company addresses challenges of modern business and the social environment - fueled by ongoing digitalization and the outbreak of the COVID-19 pandemic - such as short innovation cycles, disruptions in value chains, climate change and sustainability issues, as well as overall tightened regulations. Building on its proven product strategy based on a holistic approach and comprehensive analysis of customer needs, products and processes, SAP has set its strategic focus on enhanced development and the promotion of cloud-based solutions, along with integration of business applications and solutions, including non-SAP-products, within the SAP's Business Technology Platform (BTP). The core of SAP's offerings is its enterprise resource planning software, meanwhile in its fourth generation - S4/HANA – designed to cover all day-to-day enterprise processes, including data collecting, storage and analysis, planning, and all aspects of corporate management. SAP's products aim to help customers to develop into an "intelligent enterprise" – a notion initially introduced by SAP in 2018 - which means an event-driven, real-time business using cutting-edge technologies such as machine learning and artificial intelligence, robotic automation, internet of things and innovative analytics. Recently SAP has complemented its product strategy focus through the development of solutions, which help to address disruptions in supply chains and to integrate sustainability-related issues into business processes. According to its transformation-as-a-service program "Rise with SAP", the Company seeks to appeal to small and medium-sized enterprises in their attempts to drive the digital transformation forward. According to SAP, the Group currently has approximately 269 million cloud users and more than 100 solutions covering a wide range of business functions.

The overall prospects for the IT and software markets, which are relevant to SAP, can be assessed as very favorable in the medium and long-term perspective. The megatrend of global digital transformation of businesses and social life underpin our assessment, even if it unfolds at different speeds in various regions. Our assessment of the industry is dampened by persistent innovation pressure and intense competition. The attempts by SAP to boost its profile, especially as a provider of solutions enhancing business efficiency and opening access to edge technologies for customers via cloud, making supply chains more transparent or helping enterprises to achieve their sustainability goals, are overall prudent and future-oriented in our view. SAP's campaign of reorganizing its product portfolio and enhancing cloud-based solutions in accordance with modern requirements shows positive results, especially with a view to the significant increase in predictable cloud revenues. Nevertheless, the transformation process has brought additional financial burden due to development costs and promotion of new products, as well as for creating an appropriate infrastructure, which has recently negatively affected the Company's profitability.

Significant risks, which have become increasingly important in connection with the expansion of the Company's cloud offerings, are connected with data security and the heightened risk of cyber-attacks. Current geopolitical tensions with resulting disruptions in supply chains, elevated commodity and energy prices, as well as high interest rates, have a dampening impact on the development of the global economy. Should this environment persist, it could negatively affect the demand for SAP products, despite the megatrends of digitalization, innovation pressure and agility needs.

Overall, we assess the business risk of SAP with a view to the granularity of the business and well-developed enterprise structure as controllable, and the Company, taking into consideration its size and market importance, as well-positioned.

Financial risk

The Company is exposed to general financial risks, such as currency exchange rate risks, counterparty credit risks, as well as liquidity, rating and debt covenant risks. As far as we can assess, the Group's prudent financial policy and well-developed financial risk management system enable efficient identification and prevention of financial risks.

For the purposes of its financial ratio analysis, Creditreform Rating AG ("CRA") adjusted the original values in the financial statements. Contrary to our normal practice, we deducted the goodwill shown on the balance sheet from equity only by 50%, suggesting a certain recoverability of goodwill. The following descriptions and calculations are based primarily on these adjustments.

The adjusted assets structure remained largely stable and was impacted primarily by the Taulia acquisition and positive goodwill revaluations related to foreign-exchange effects. Despite significant cash outflows for dividend payments, including a special dividend of EUR 0.50 to celebrate SAP's 50th anniversary (EUR 2.8 billion in total), and the purchase of treasury shares (EUR 1.5 billion), the adjusted equity ratio increased marginally to a solid 45.69% (2021: 45.5%).

Total liabilities remained stable at EUR 29.3 billion (2021: EUR 29.7 billion), whereas current liabilities increased by 8% to EUR 17,453 million (2021: EUR 16,136 million) due to an increase in current contract liabilities and current trade and other liabilities. Against the backdrop of a decrease in financial liabilities, the total non-current liabilities dropped by 12% to EUR 11,858 million (2021: EUR 13,515 million). Financial debt decreased by 10% to EUR 11.764 million (2021: EUR 13,094 million) after the timely payment of one of the bonds in 2022. Taking into consideration the Group's decreased liquidity (EUR 9,694 million, 2021: EUR 11,530 million), net financial debt edged up to EUR 2,070 million (2021: EUR 1,563 million), or EUR 4,210 million including lease liabilities (EUR 3,706 million in 2021). CRA's net total debt/EBITDA adj. improved marginally to x3.08 (2021: x3.10), and remains very solid in our view.

The net cash flow from operating activities decreased by 9% to EUR 5,647 million (2021: EUR 6,223 million) as a result of lower profitability as well as higher advanced payments to hyperscalers and higher share-based payments. SAP's free cash flow, which is defined as cash flow from operating activities after capex (without acquisitions, EUR 874 million in 2022) and lease payments (EUR 424 million), amounted to EUR 4,348 million (2021: EUR 5,049 million) and was sufficient to cover the cash outflow for dividend payments (EUR 2.8 billion) and for the share-buyback program (EUR 1.5 billion).

The main financial instruments used by SAP are bonds (EUR 8.9 as of 31.12.2022), bank loans (EUR 1.5 billion), commercial paper programs (EUR 930 million) and private placements (EUR 397 million). In our view, the Company's financial debt had an overall comfortable maturity profile. However, we see elevated interest risks, taking into consideration the fact that approximately 52% of the financial debt was held at variable interest rates.

The Group's still strong liquidity position as of 31.12.2022, with EUR 9.7 billion, was underpinned by the EUR 2.5 billion syndicated revolving credit facility, which has an end date in November 2024 and was undrawn as of 31.12.2022, as well as other unused credit facilities at the level of SAP's subsidiaries.

Generally, we consider the Company's current liquidity position and its internal financing capacity as very sound. In our view, SAP is clearly able to meet its financing needs and finance its capex and dividend payments. Notwithstanding, the increase in dividend payments and incentive programs, intensified in the course of promoting the Company's cloud-based products, along with generally increased costs, put pressure on its liquidity. Further acquisitions, which are generally part of SAP's strategy, could also increase financial and liquidity risks, particularly if they are large in scope. The Company plans to attain additional flexibility and increase its financial scope through targeted optimization of its product portfolio. In this context, according to latest information, SAP plans to spin off Qualtrics, which was acquired in November 2018. The deal, which is subject to the competent authorities' approval, is to be concluded in the second half of 2023, and would bring significant cash inflow, which has an additional stabilizing effect on our assessment.

Issue rating

Issue rating details

The rating object are exclusively SAP's long-term, unsubordinated and unsecured debt securities denominated in EUR (referred to here as Long-Term Local Currency Senior Unsecured Issues, or LT LC SUI) and issued under a Debt Issuance Program (DIP) or in separate series/tranches including documentation. This is provided that they are part of the ECB's list of eligible marketable assets. The ECB list of eligible marketable assets is available on the website of the European Central Bank.

Under the DIP, SAP can raise a volume of up to EUR 8 billion, of which EUR 1.6 billion had been drawn at the time the rating was prepared. In total, we assess 10 debt instruments with a total volume of EUR 7,700 million at the time of preparing this report. According to the DIP documentation (last known prospectus dated March 24, 2015) and the documentation of the other bonds we have rated, the bonds represent unsecured and unsubordinated liabilities of the issuer (SAP) that rank pari passu with each other and with all other unsecured and unsubordinated liabilities of the issuer, unless such liabilities are given priority by mandatory legal provisions. Negative pledge has been implemented in respect of other capital market liabilities as defined in the prospectuses, in accordance with the relevant issuance documentation. Further key elements are described in the respective final terms and conditions of the individual bonds. Furthermore, change of control and cross default clauses are in place. There is no credit enhancement, e.g. in the form of a guarantor. The bonds assessed here are subject to German law. The place of jurisdiction is Frankfurt am Main. For further details of the terms and conditions of issues, please refer to the respective issuance documents.

Other types of debt instruments or issues denominated in other currencies have not been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Result corporate issue rating

We derive the rating of the in euro denominated bonds of the issuer from the corporate issuer rating of SAP SE. The ratings of the issues are therefore set equal to the corporate rating of the issuer. The rating result is A+ / stable. For the issue ratings we have applied our rating methodology for corporate issues.

Creditreform Rating

Overview

Table 3: Overview of CRA Ratings I Source: CRA

Rating Category	Details	
	Date	Rating
SAP SE (Issuer)	24.03.2023	A+ / stable
Long-term local currency senior unsecured issues	24.03.2023	A+ / stable
Other	--	n.r.

All future LT LC senior unsecured Notes issued by SAP SE and which have similar conditions to the current DIP and issues, denominated in Euro and included in the list of ECB-eligible marketable assets will, until further notice, receive the same ratings as the current LT LC senior unsecured notes. Notes issued under the programme 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. For the time being, other emission classes or programmes (such as the Commercial Paper Programme) and issues that do not denominate in euro will not be assessed.

Financial ratio analysis

Table 4: Financial key ratios |Source: SAP integrated report, data structured by CRA

Asset structure	2019	2020	2021	2022
Fixed asset intensity (%)	60.61	60.01	57.11	57.82
Asset turnover	0.66	0.62	0.57	0.57
Asset coverage ratio (%)	73.19	81.44	95.60	89.43
Liquid funds to total assets	11.97	12.21	16.52	16.83
Capital structure				
Equity ratio (%)	33.97	34.77	45.50	45.69
Short-term debt ratio (%)	32.78	29.60	29.96	32.61
Long-term debt ratio (%)	10.39	14.11	9.09	6.02
Capital lock-up period (in days)	17.00	13.54	14.28	17.69
Trade-accounts payable ratio (%)	2.89	2.33	2.02	2.79
Short-term capital lock-up (%)	31.45	28.38	37.81	34.20
Gearing	1.59	1.53	0.83	0.82
Leverage	2.66	2.91	2.46	2.19
Financial stability				
Cash flow margin (%)	19.26	26.11	25.66	11.69
Cash flow ROI (%)	11.96	16.41	13.26	6.74
Total debt / EBITDA adj.	3.96	3.43	4.44	4.47
Net total debt / EBITDA adj.	3.24	2.79	3.10	3.08
ROCE (%)	23.65	27.82	16.88	17.48
Total debt repayment period	4.13	4.25	4.99	5.12
Profitability				
EBIT interest coverage	12.15	25.27	22.26	16.16
EBITDA interest coverage	17.32	32.45	30.71	23.00
Ratio of personnel costs to total costs (%)	53.97	49.09	55.86	55.90
Ratio of material costs to total costs (%)	0.00	0.00	0.00	0.00
Cost income ratio (%)	84.25	77.00	83.27	85.53
Ratio of interest expenses to total debt (%)	1.24	0.90	0.72	0.95
Return on investment (%)	7.15	10.36	5.95	5.78
Return on equity (%)	21.62	34.99	27.13	6.98
Net profit margin (%)	12.23	19.32	19.31	5.53
Operating margin (%)	15.97	23.58	16.79	14.50
Liquidity				
Cash ratio (%)	36.52	41.24	55.14	51.61
Quick ratio (%)	105.83	118.43	125.86	108.97
Current ratio (%)	120.17	135.10	143.18	129.35

Appendix

Rating history

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

Table 5: Corporate Issuer Rating of SAP SE

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	07.10.2016	14.10.2016	17.10.2017	A+ / stable

Table 6: LT LC Senior Unsecured Issues issued by SAP SE

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	24.08.2018	29.08.2018	23.08.2020	A+ / stable

Regulatory requirements

The rating[2] 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 private/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 submitted 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
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.

[2] 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 was carried out by the following analysts:

Name	Function	Mail-Address
Elena Damijan	Lead-analyst	E.Damijan@creditreform-rating.de
Holger Becker	Analyst	H.Becker@creditreform-rating.de

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

Name	Function	Mail-Address
Tobias Stroetges	PAC	T.Stroetges@creditreform-rating.de

On 24 March 2023, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 27 March 2023. There has not been a subsequent change to the rating.

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.

In the event of providing ancillary services to the rated entity, Creditreform Rating AG will disclose all ancillary services in the credit rating report at this point:

No ancillary services in the regulatory sense were carried out for this rating object.

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.

An explanatory statement of the meaning of Creditreform Rating AG’s default rates are available in the credit rating methodologies disclosed on the website.

Disclaimer

Any rating performed by Creditreform Rating AG is subject to the Creditreform Rating AG Code of Conduct, which has been published on the web pages of Creditreform Rating AG. In this Code of Conduct, Creditreform Rating AG commits itself – systematically and with due diligence – to establish its independent and objective opinion as to the sustainability, risks and opportunities concerning the enterprise or the issue under review.

Future events are uncertain, and forecasts are necessarily based on assessments and assumptions. This rating is therefore no statement of fact, but an opinion. For this reason, Creditreform Rating AG cannot be held liable for the consequences of decisions made on the basis of any of their ratings. Neither should these ratings be construed as recommendations for investors, buyers or sellers. They should only be used by market participants (entrepreneurs, bankers, investors etc.) as one factor among others when arriving at corporate or investment decisions. Ratings are not meant to be used as substitutes for one's own research, inquiries and assessments.

We have assumed that the documents and information made available to us by the client are complete and accurate and that the copies provided to us represent the full and unchanged contents of the original documents. Creditreform Rating AG assumes no responsibility for the true and fair representation of the original information.

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