Creditreform Corporate Issuer / Issue Rating

HeidelbergCement AG

Creditreform Rating

Rating object	Rating information	
HeidelbergCement AG	Corporate Issuer Rating: **BBB / stable**	Type: Update Unsolicited Public rating
Creditreform ID: 7050000100 Incorporation: 1873 Based in: Heidelberg Main (Industry): Manufacturing of building materials CEO: Dr. Dominik von Achten	LT LC Senior Unsecured Issues: **BBB / stable**	Other: **n.r.**
Rating objects: Long-term Corporate Issuer Rating: HeidelbergCement AG Long-term Corporate Issuer Rating: HeidelbergCement Finance Luxembourg S.A. Long-term Local Currency (LT LC) Senior Unsecured Issues HeidelbergCement AG Long-term Local Currency (LT LC) Senior Unsecured Issues HeidelbergCement Finance Luxembourg S.A	Rating date: 22 May 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

HeidelbergCement AG (hereinafter referred to "Heidelberg Materials", "the Group", or "the Company"), headquartered in Heidelberg, Germany, is one of the world's leading building materials companies, with approximately 54,000 employees at over 3,000 locations in more than 50 countries. Its core activities are the production and sale of cement and aggregates as well as ready-mix concrete and asphalt. Strategically, the Company is increasingly focused on sustainability in line with the Paris Agreement. In order to become a net zero greenhouse gas emissions company[1] by 2050, its strategy includes the use of CO_2 capture, utilization and storage (CCUS) technologies, considered as a key technology for decarbonizing the cement industry, as well as investment towards a circular economy and scaling up recycling materials. In 2024, an industrial scale carbon capture facility in its cement plant in Brevik, Norway will go into operation, making Heidelberg Cement an early forerunner in this field.

In 2022, Heidelberg Materials generated revenues of EUR 21,095 million (2021: EUR 18,720 million) and an annual profit of EUR 1,723 million (2021: EUR 1,902 million), mitigating cost inflation through price increases. Its first quarter figures are still below pre-energy crisis levels with reference to the fiscal year 2021, but show recovery tendencies.

Rating result

The current unsolicited corporate issuer rating of BBB attests HeidelbergCement AG a highly satisfactory level of creditworthiness, representing a low to medium default risk. The rating is based on the Company's strong market position in the building materials industry, its geographical diversification, and its solid earnings and internal financing power. In 2022, the Company was able to maintain its solid financials, despite a decline in results due to lower sales volumes and higher energy and commodity prices in the wake of the Russia-Ukraine war. This was due to price increases and cost-cutting measures, as well as a strong liquidity position in line with its prudent financing policy. We see the Company's target of keeping its net financial debt / recurring EBITDA ratio between 1.5x and 2.0x, as well as its strategy of focusing on sustainability, as favorable and aligned with the requirements the industry is faced with. The Company's exposure to risks related to its high sensitivity to economic developments, the demand for construction materials, energy intensity, exposure to volatile energy prices, dependency on environmental

[1] According to the Science-Based Targets Initiative definition

requirements, and above-average local competition have a dampening effect on our rating assessment.

Outlook

The one-year outlook is stable. We expect the Company to continue its solid development based on a recovery in operating performance, despite the ongoing adverse circumstances (volatile energy and commodity costs, rising interest rates and economic slowdown) in line with Heidelberg Materials' outlook, and to maintain its financials at roughly their current level. Based on its order books, the Company expects to partly offset declining demand in residential constructions through infrastructure projects.

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
+ Ratio of interest expenses to total debt

- Decrease in results
- Return on investment
- Liquidity ratios

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 (-).

Relevant rating factors

Table 1: Financials I Source: HeidelbergCement AG Annual Report 2022, standardized by CRA

HeidelbergCement AG Selected key figures of the financial statement analysis Basis: Annual accounts and report of 31.12. (IFRS)	CRA standardized figures[2]	
	2021	2022
Revenues (million EUR)	18,720	21,095
EBITDA (million EUR)	3,964	3,177
EBIT (million EUR)	2,704	1,913
EAT (million EUR)	1,902	1,723
EAT after transfer (million EUR)	1,759	1,597
Total assets (million EUR)	29,326	28,672
Equity ratio (%)	44.69	48.57
Capital lock-up period (days)	62.01	57.84
Short-term capital lock-up (%)	17.34	10.47
Net total debt / EBITDA adj. (Factor)	3.89	4.10
Ratio of interest expenses to total debt (%)	1.41	1.03
Return on investment (%)	7.30	5.94

General rating factors

+ A globally leading building materials manufacturer with geographical diversification
+ Vertical integration with own raw material and manufacturing resources
+ Sustainability strategy to transform its business portfolio
+ Solid earnings capacity, prudent financial policy and good access to financial markets
+ High market entry barriers

– Dependency on economic cycles and intense competition
– Highly energy-intensive production and exposure to volatile energy prices
– Exposure to stringent environmental regulation
– Progressive dividend policy and occasional share buyback programs
– Seasonality and weather-dependency

[2] 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.

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

Current rating factors

- \+ Solid results in 2022, despite declines compared to 2021 due to increased commodity and energy prices and one-off effects
- \+ In general solid financials, despite some slight deteriorations, complying with its forecast for 2022
- \+ Recovery tendencies in results and margins in Q1 2023, also reflected in its forecast for 2023
- \+ Slightly raised forecast for 2023, expecting to be partially offset by residential construction declines with infrastructure projects
- \+ Progress in its transformation path, optimizing its portfolio, and in increasing sustainability

- – Decreasing sale volumes in 2022 and Q1 2023 due to rising interests rates and slowing economy
- – Stricter regulatory environment policy in the wake of the Green Deal
- – Ongoing adverse market conditions, slowing housing market
- – Despite positive prospects for 2024, high uncertainty regarding economic consequences and geopolitical situation

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

- \+ Recovery in results to pre-energy-crisis levels
- \+ Successful commissioning of its CCUS plant in Brevik, acceleration of green growth
- \+ Cutting interest rates, economic recovery, stabilization in housing market
- \+ Portfolio optimization leading to improved margins
- \+ M&A's financed by cash funds and divestments

- – Deteriorating conditions due to economic slowdown, rising interest rates, and still high energy and commodity prices
- – Rising investment requirements in line with its sustainability strategy
- – Higher regulatory requirements in the context of the climate change, dampening profitability
- – Persistent high economic uncertainty due to global geopolitical tensions

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 HeidelbergCement AG we have not identified any ESG factors with significant influence.

The environmental and climate impact of cement production is particularly severe. Roughly 8% of global greenhouse gas emissions are caused by cement production.[3] Against this background, Heidelberg Materials is, as a globally leading cement producer, particularly subject to climate protection targets and stringent regulations related to carbon dioxide emissions (CO_2 emissions) at national and international levels, in particular with regard to the European Union Emission Trading System.

Against this backdrop, Heidelberg Materials strives to reduce CO_2 emissions and thus cut future costs by using proven and innovative techniques and measures, such as maximizing the use of

[3] Ellis, L. D., Badel, A. F., Chiang, M. L., Park, R. J.-Y. & Chiang, Y.-M. Proc. Natl Acad. Sci. USA 117, 12584–12591 (2020).

alternative fuels, optimizing its product mix and increasing the efficiency of its plants. In May 2022, it received the German Innovation Award for its ReConcrete-360° concept. This is a process enabling the crushing of old concrete and separation of materials used according to type. The resulting low-CO_2 cement stone can then be reused in cement production.

In line with the Paris Agreement, the Company has set itself the goal of being carbon neutral by 2050, as well as to become the most sustainable Company in the building materials industry. To this end, Heidelberg Materials has joined the Science-Based Targets Initiative (SBTi) "Business Ambition for 1.5°C", and together with the SBTi has validated interim targets on the reduction path towards CO_2 neutrality. Among other goals, Scope 1 emissions are to be reduced to 400 kg CO2 per ton of cementitious materials by 2030, a reduction by almost half as compared to 1990. In addition, Scope 2 emissions are to be reduced by 65% by 2030 compared to 2016. Heidelberg Materials also works closely with industry partners, consultant, and suppliers along the entire product value chain to reduce supply- and transport-related Scope 3 emissions.

To achieve its goals, the Company focuses not only on the transformation towards a circular economy, but also on the development, implementation and scaling of technical solutions for the capture and use or storage of carbon (carbon capture use and storage; CCUS). This technology is essential for the company to become climate-neutral in the long term. In 2024, according to the Company, Heidelberg Materials will commission the world's first industrial-scale carbon capture facility in its cement plant in Brevik, Norway. The facility in Brevik enables the capture of roughly 400,000t annually, 50 % of the plant's emissions. Based on the industrial scale projects in its pipeline, the Company plans to eliminate approximately 10 million tons of CO_2 emissions by 2030.

In order to reach its climate targets, CO_2 reduction targets have been linked to the compensation system for all members of the Board of Management and for all bonus-eligible employees worldwide since fiscal 2021. The full variable compensation can only be achieved if the financial and sustainability targets have been met. The sustainability strategy was also reinforced by the publication of the Sustainability-Linked Financing Framework in 2022, enabling the issuance of various sustainability-related financing instruments.

Overall, we believe that Heidelberg Materials is strategically well-positioned with regard to ESG factors and is already making good progress, although there are still risks associated with increasingly stringent regulatory requirements, which could constrain Heidelberg's profitability. However, we have not yet been able to identify any significant impact on the rating. It remains to be seen whether the Company's ambitious targets will be reached. In the future, ESG factors may have a significant impact on our rating assessment, depending on the achievement of the Company's self-imposed targets, as well as on regulatory changes. At this stage, we believe that a more sustainable business model remains essential for the transition to a more climate-friendly economy, although this would require further investment and research progress.

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.

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: BBB+

In the best-case scenario for one year, we assume a rating of BBB+, expecting a sustainable recovery on the Company's operating business performance. The figures have fully recovered, reaching 2021 levels, and its outlook is marked by further growth prospects as a result of stabilizing market conditions. An economic upswing in line with incipient interest rate cuts, against the background of a decreasing inflation, favors the construction sector. The funding of the transformation of its business portfolio is carried out without placing stress on leverage.

Worst-case scenario: BBB-

In our worst-case scenario for one year, we assume a rating of BBB-. In this scenario, the Company shows weakened operational performance in the wake of a global economic slowdown, still volatile commodity and energy prices, as well as rising interest rates, which cause further slowing in house markets. Price adjustments are no longer able to sufficiently compensate for decreasing volume sales and increased expenses, reducing the Company's potential to deleverage significantly, at least in the medium term. In addition, rising interest rates coupled with high investment needs put pressure on the Company's financials.

Business development and outlook

In 2022, the Company was able to show a solid operating performance despite a decline in results against the backdrop of challenging market conditions and averse one-off effects compared to 2021.

The Company was able to more than offset volume sale declines and consolidation effects with successful price increases. The price adjustments, in tandem with strict cost management, could also largely offset increased expenses due to soaring energy and commodity prices. Analytical EBIT dropped by 28.9%, and reported EBIT adjusted for non-recurring items—here after recurring EBIT—dropped by 5.3% compared to 2021. The reported IFRS results were noticeably burdened by adverse one-off effects. While in 2022 the adverse one-off effects were negative, amounting to EUR 196 million, mainly as result of asset impairments in connection with Russian business and others, in 2021 the Company benefited from one-off effects amounting to EUR 481 million, largely due to divestment gains in business activities in the Western region of the USA. Even though profitability figures declined as compared to 2021, they nevertheless showed solid values, with the key figure ratio of interest expenses to total debt even improving due to better financing conditions.

Table 2: The development of business of HeidelbergCement AG I Source: Annual Report 2022, standardized by CRA

HeidelbergCement AG				
In million EUR	**2021**	**2022**	**Δ**	**Δ %**
Revenues	18,720	21,095	2,375	12.7
EBITDA	3,964	3,177	-787	-19.8
EBIT	2,704	1,913	-791	-29.2
EAT	1,902	1,723	-179	-9.4

In the first quarter of 2023, despite ongoing adverse market conditions, the Company recorded revenue growth of 10.6% compared to the same period of the last year, amounting to EUR 4,896 million (Q1 2021: 4,427 million), and a 2.8-times larger recurring EBIT amounting to EUR 258 million (Q1 2021: EUR 91 million), despite ongoing adverse market conditions. The increase in revenues was once again due to successful price increases, more than offsetting adverse consolidation und foreign currency effects. However, sales volumes also continued to decline against the backdrop of the current downturn in construction activity, particularly in the private housing sector. The recurring EBIT improved with the help of higher prices along with a simultaneous moderation of energy prices, as well as cost-saving measures, even exceeding its recurring EBIT from the Fiscal year 2021, which amounted to EUR 223 million.

In view of the positive trend in the first quarter and well-filled order books in infrastructure projects and partly in commercial construction, Heidelberg Materials has raised its business outlook in terms of results for the full year. In its current outlook, the Company forecasts moderate organic net sales growth and recurring EBIT in a range of EUR 2.50 billion to EUR 2.65 billion (previous: EUR 2.35 billion to EUR 2.65 billion), now expecting higher recurring EBIT as in 2022 even in the worst case, and in the best case the recurring EBIT level of 2021.[4]

Nevertheless, apart from the recovering trend that is currently emerging for the first quarter and which is reflected in the outlook, market conditions are still marked by the significant uncertainty impacting the construction sector. Although supply shortages are slowly dissolving and energy prices are on the decline, there are still volatilities, with high commodity prices in Europe, rising interest rates and global economic slowdown as a result of geopolitical tensions impacting the demand for house building in particular. Even though the economic outlook for Europe in 2024 is currently positive, as well as the prospect of interest rate cuts after 2023, further geopolitical course and its economic consequences are still unclear at this stage. Currently, Heidelberg Materials expects its infrastructure projects to dampen the decline in private residential construction.

Overall, the Company was able to show solid operating performance in 2022. Heidelberg Materials has been able to partly pass increased costs on to customers and to offset volume declines through price increases, which has contributed to the relative stable results in our financial ratio analysis for the fiscal year 2022. Its first-quarter figures, as well as its outlook, reflect a recovery tendency for the current year despite declining construction activity, particularly in Europe. Still, market conditions continue to be marked by increased uncertainty, so that a worsening global economic climate and rising financial conditions may further dampen Heidelberg Materials' profitability in the medium to long term. Nevertheless, due to its positive track record and strategy, we think the Company is able to weather this persisting uncertainty.

Structural risk

Heidelberg Materials is a globally leading building materials company, which was represented by approximately 3000 locations worldwide in over 50 countries in 2022. The holding Company HeidelbergCement AG is registered in Heidelberg Germany. It was founded in 1873, and was incorporated as a German stock corporation in 1889. Ludwig Merckle is the main shareholder and the sole shareholder with a blocking minority, holding 27.7% though the company Spohn Cement Beteiligungen GmbH as of 31 December 2022. The shares held by BlackRock Inc. at 4.92%, Black Creek Investment with 4.0%, and the Capital Group Companies with 3.1%, are also reportable. The remaining shares are in free float and are mainly attributable to institutional investors.

[4] For the fiscal year 2022 Heidelberg Materials forcasted an recurring EBIT between EUR 2.35 million and 2.55 Mrd. EUR.

Heidelberg Materials' core activities are the production and extraction of cement and aggregates (sand, gravel and crushed stone). In addition, the Company offers ready-mix concrete and asphalt which are obtained from the basic building materials, produced as a part of vertical processing. It is necessary for the production of building materials to take place close to sales markets due to transport difficulties; therefore, HeidelbergMaterials operates approximately 130 cement plants, 600 quarries and gravel pits, and 1,320 ready-mix concrete production sites worldwide, with a workforce of 50,780. It also participates in roughly 350 production sites belonging to joint ventures. The Company's well-developed operational infrastructure is a key competitive factor, ensuring its leading market position.

The Company is highly diversified, both geographically and in terms of products. The Group is divided into five geographical areas: Western and Southern Europe, Northern and Eastern Europe-Central Asia, North America, Asia-Pacific, and Africa-Eastern Mediterranean Basin. The highest contribution to revenues results geographically from its core markets Western and Southern Europe (28.2%), as well as North America (22.0%), together representing a revenue share of 50.2% in 2022, so that the remaining revenue share results from markets with higher country risks. Both markets also represent the highest EBIT contribution. With regard to products, the business portfolio is divided in four divisions: Cement and clinker, Aggregates, Ready-mixed concrete and Asphalt. The highest revenue contribution results from the Cement and clinker division, representing 44.2%; however, the remaining divisions also makes relevant contributions in the double-digit percentage range.

HeidelbergCement's strategic goal is to increase the value of the Company in the long term through sustainable and profitable growth. As a result of climate change and stricter regulatory requirements, as well as the associated shift in public awareness, sustainability is an integral part of Heidelberg Materials, focusing in particular on the reduction of greenhouse gas emissions, as the building materials manufacturing industry has very high CO_2 emissions linked to the processing of clinker (see also the section "ESG factors"). In order to develop and produce lower-carbon building materials, and with a target of becoming a net zero company by 2050, while at the same time increasing its returns and improving margins, the Company relies on innovation and digitization, as well as an on an optimized country portfolio of developed and growth markets. In order to optimize the portfolio, the markets with the highest returns are further expanded while weaker markets are sold at the end of a time contingency. Until the energy crisis, the Company showed steady improvement in profitability.

Based on publicly available information, we assume sufficiently developed structures with regard to risk management, accounting, and controlling, as well as with regard to other administrative and operational functional areas. The widespread geographical diversification and size of the Company require a high degree of organization, and entail risks associated with local legal, political, cultural and social particularities, as well as risks related to access to resources. We assume that the Group's structure supports the implementation and monitoring of its strategy in accordance with the specific legislation and regulatory frameworks in the countries in which the Group operates. Its long-term strategy of improving returns, while at the same time increasing sustainability in its portfolio, is associated with numerous M&A activities, implying integration and investment risks; however, we consider the strategy as necessary to maintain its leading position in line with the ever-increasing requirements that the highly CO_2-emitting industry faces. Despite these risks, we assume only average structural risk, given the Company's many years of experience and positive track record.

Business risk

In view of its international orientation, Heidelberg Materials faces a large number of risks, which include in particular political and legal country risks as well as currency risks. The Company's global alignment makes it dependent on a healthy global economy. Political, economic, and social instability in significant individual markets or regions could negatively affect the Group's activities as a whole, despite its generally strong position based on broad geographical diversification. The current geopolitical situation has significant impact on the global economy. The demand for construction materials is driven by developments in the construction sector, which is very sensitive to overall economic cycles and to expenditure levels for residential, industrial, and infrastructure construction. Construction services in Heidelberg Materials' key markets, in particular residential construction, are currently suffering due to rising interest rates and economic slowdown in the wake of high inflation.

The production of cement implies a range of environmental concerns, such as high energy consumption in mining, manufacturing and transporting cement, as well as concerns related to air pollution. The Group is required to comply with the environmental regulations in the countries where it operates, especially those governing greenhouse gas emissions, the discharge of materials into the environment, use of hazardous substances, as well as health and safety laws. In the European Union, the cement industry is subject to a cap and a trade scheme on CO_2-emissions. Noncompliance with environmental regulations, or failure to meet its obligations to surrender CO_2-allowances, can incur penalties, which could potentially have a significant negative impact on the Company's financials and cost structure.

Due to the energy-intensity of its operations, the Group is exposed to risks related to energy prices and the availability of different fuels. Soaring prices for energy, raw materials, and transport linked to the Russia-Ukraine war have a noticeable impact on the industry. Although energy prices appear to have passed their peak in the last year and are gradually falling, they are still unstable. In order to mitigate the negative effects of price increases and supply bottlenecks, Heidelberg Materials uses a variety of supply sources, long-term supply agreements, and technological improvements aimed at reducing energy and raw materials, in particular the proportion of clinker, through process innovation as well as substitution with mineral components.

Based on the commodity nature of building material products, and to the relatively low degree of product differentiation, the market for cement, aggregates and other construction materials and services is highly competitive. Competition in these segments is based primarily on price and only to a lesser extent on quality and services. Despite occupying a leading position in its key markets, the Company faces intense competition in most of its regional markets. As a key growth driver, Heidelberg Materials focuses on more sustainable building materials.

In addition to the implementation of a circular economy, the Company relies on the capture and use or storage of CO_2 (CCUS technology) to meet its net zero targets. In 2024, the Company is to commission the world's first industrial-scale carbon capture facility in its cement plant in Brevik, Norway. According to the Company, the facility in Brevik enables the capture of 400,000 tonnes annually, 50 % of the plant's emissions. Based on the industrial scale projects in its pipeline, the Company plans to cut roughly 10 million tons of CO_2 emissions by 2030. So far, CCUS technologies have not been deployed on a such a large scale, giving Heidelberg a pioneering role. The use of this technology on a large scale could become its main competitive factor, but it also represents a cluster risk if the projects do not achieve their envisioned success. However, due to tighter and increasing CO_2 regulations in Europe and North America, as well as increasingly worldwide, this technology could play an important role for the cement industry to reach climate neutrality by 2050, giving it game-changing potential.

Global trends, such as the growing world population, urban growth, demand for better living standards, and energy efficiency are reasons for the increasing demand for building materials and construction services, creating overall positive framework conditions for Heidelberg's business in the long term, despite stringent environmental regulation. However, based on the currently deteriorated market conditions paired with high uncertainty, and on increasingly stringent regulatory requirements in connection with the significant technological efforts which need to be undertaken for the Company to reach net zero, we consider the business risk as moderate to slightly elevated. We see the Company as well-positioned to deal with the current uncertainty based on its strong market position, geographical diversification, and the strong earnings capacity of its business model, which enable it to meet its high investment needs, creating additional competitive advantages.

Financial risk

For the purposes of its financial ratio analysis, CRA has adjusted the original values in the financial statements for purposes of the financial ratio analysis. We have deducted only 50% of the goodwill reported in the balance sheet from equity, as we assume a certain recoverability of the balance sheet item. The following descriptions and indicators are largely based on CRA adjustments.

We consider the financing structure of the Group to be sound and well-balanced, taking into consideration its solid adjusted equity ratio of 48.6% as of 31 December 2022 (2020: 44.7%), and the predominantly long- and medium-term character of its liabilities, which accounted for 30.0% (2021: 31.3%) of the adjusted balance sheet total, and taking into account its balanced maturity profile. Heidelberg Materials' financial structure slightly improved compared to 2021 as a result of higher equity and lower debt. Despite dividend payments and share buybacks, analytical equity increased by approx. EUR 820 million, amounting to EUR 13,927 million (2021: EUR 13,107 million. The increase was mainly due to its net income and positive other comprehensive income driven by currency translation effects. Analytical total debt decreased by EUR 1,474 million compared to 2021, amounting to EUR 14,745 (2021: EUR 16,219 million) as a result of a reduction in financial debt of EUR 1,116 million, and a decrease of pension and other provisions of EUR 408 million.

CRA's ratio net total debt / EBITDA adj. of 4.10x (2021: 3.89) is solid, offering sufficient buffer to maintain its rating despite the slight deterioration compared to 2021. The deterioration of the leverage ratio was largely driven by higher net debt. Heidelberg Materials' operating cash flow was not sufficient to cover both investing and financing activities, resulting in cash reduction of EUR 1,601 million. Heidelberg Materials' leverage ratio net financial debt / recurring EBITDA ratio stood at 1.48x (2021: 1.29x), in line with the Company's long-term target corridor of 1.5x- 2.0x.

The Company's liquidity position is also convincing, despite the significant cash reduction compared to 2021. As of 31 December 2022, Heidelberg Materials had cash and cash equivalents of EUR 1,454 million (2021: 3.115 million) and unused syndicated credit lines of EUR 2,353 million, covering current financial liabilities roughly 4.9 times. In addition, the Company has a multi-currency sustainability target commercial paper program in the amount of EUR 2.0 billion, which had not been utilized at the end of the year, and factoring programs.

With regard to the inherently high capital intensity of its assets, amounting to 74.89% (2021: 71.64%), which is customary in the industry, ongoing capital expenditure is required. In 2022, capex amounted to EUR 1,335 million (2021: EUR 1,511 million). Considering the Company's consistently high cash flow from operating activities, amounting to EUR 2.420 million (2021: 2.396

million) in 2022, its cash generation capacity is more than sufficient to cover its investments. In 2022, the reported free cash flow[5] amounted to EUR 1.341 million (2021: EUR 1,187 million). In addition, Heidelberg Materials has well-diversified external capital sources. Its EUR 10 billion EMTN program enables additional debt to be raised without any major lead time. As of 31.12.2022, EUR 5.3 billion was used.

The Company's financial capacity is constrained by its dividend payouts and occasional share buybacks, as well as by capital-intensive acquisitions. However, Heidelberg Materials aims to maintain its financial strength, keeping its own leverage ratio within the aforementioned target range.

Overall, we consider the financial situation of Heidelberg Materials to be solid and sufficiently robust to cope with the challenging market conditions and high investment requirements. The Company has well-balanced and diversified funding sources at its disposal and generates solid operating cash flows sufficient to meet its investments. Nevertheless, a deterioration of Heidelberg Materials' financials without prospects of a short-term recovery, in connection with an economic slowdown, or rising leverage due to its transformation path, could have a dampening impact on the rating assessment.

Issue rating

Further issuer ratings

In addition to the rating of HeidelbergCement AG the following issuer and its issues (see below), have been rated.

- HeidelbergCement Finance Luxembourg S.A. (HC Finance)

Due to the corporate, strategic, liability, financial, economic and performance-related interdependency of the HC Finance (which is direct 100% subsidiary of HeidelbergCement AG and which have been consolidated into the Group annual accounts) we derive the unsolicited issuer rating of HC Finance from the unsolicited issuer rating of HeidelbergCement AG and set it equal to its rating of BBB / stable. It is essential that the parent company acts as guarantor of the liabilities assessed here.

Issue rating details

The rating objects of this issue rating are exclusively the long-term senior unsecured issues, denominated in euro, issued by HeidelbergCement AG and HeidelbergCement Finance Luxembourg S.A. and which are included in the list of ECB-eligible marketable assets. The ECB list of eligible marketable assets can be found on the website of the ECB.

The notes have been issued within the framework of the Euro Medium Term Note (EMTN) program, of which the latest base prospectus dates from 18 April 2022. This EMTN program amounts to EUR 10 billion and is unconditionally and irrevocably guaranteed by HeidelbergCement AG. The notes under the EMTN program are senior unsecured, and rank at least pari passu among themselves and with all other present and future unsecured obligations of the issuer. Additionally, the notes of both issuers benefit from a negative pledge provision, a change of control clause and a cross default mechanism.

We have provided the debt securities issued by HeidelbergCement AG and HeidelbergCement Finance Luxembourg S.A. with a rating of BBB / stable. The ratings are based on the unsolicited

[5] Intra-Group payments are offset in the calculation.

corporate issuer ratings of HeidelbergCement AG and HeidelbergCement Finance Luxembourg S.A. Other types of debt instruments or issues denominated in other currencies of the issuer have not been rated by CRA.

Overview

Table 3: Overview of CRA Ratings I Source: CRA

Rating Category	Details	
	Date	Rating
HeidelbergCement AG (Issuer)	22.05.2023	BBB / stable
HeidelbergCement Finance Luxembourg S.A. (Issuer)	22.05.2023	BBB / stable
Long-term Local Currency (LC) Senior Unsecured Issues issued by HeidelbergCement AG	22.05.2023	BBB / stable
Long-term Local Currency (LC) Senior Unsecured Issues issued by HeidelbergCement Finance Luxembourg S.A.	22.05.2023	BBB / stable
Other	--	n.r.

Table 4: Overview of 2023 Euro Medium Note Program I Source: HeidelbergCement AG EMTN-Program Base Prospectus of 18.04.2023

Overview of 2023 EMTN Program			
Volume	EUR 10,000,000,000	Maturity	Depending on respective bond
Issuer /Guarantor	HeidelbergCement AG (Issuer and Guarantor) HeidelbergCement Finance Luxembourg S.A. (Issuer)	Coupon	Depending on respective bond
Arranger	BNP PARIBAS	Currency	Depending on respective bond
Credit enhancement	none	ISIN	Depending on respective bond

All future LT LC senior unsecured Notes that will be issued by Heidelberg Cement AG and that have similar conditions to the current EMTN program, 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 issued under the EMTN program. Notes issued under the program 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 programs (such as the Commercial Paper Program) and issues that do not denominate in euro will not be assessed.

Financial ratio analysis

Table 5: Financial key ratios |Source: HeidelbergCement AG annual report 2020-2022, structured by CRA

Asset structure	2019	2020	2021	2022
Fixed asset intensity (%)	70.66	72.89	71.64	74.89
Asset turnover	0.61	0.59	0.66	0.74
Asset coverage ratio (%)	79.38	79.70	85.30	86.92
Liquid funds to total assets	10.94	10.33	10.62	5.07
Capital structure				
Equity ratio (%)	40.18	37.83	44.69	48.57
Short-term debt ratio (%)	22.84	21.24	24.03	21.44
Long-term debt ratio (%)	15.91	20.26	16.42	16.53
Capital lock-up period (in days)	52.08	54.13	62.01	57.84
Trade-accounts payable ratio (%)	8.31	9.44	10.84	11.66
Short-term capital lock-up (%)	22.77	16.46	17.34	10.47
Leverage	2.54	2.56	2.42	2.15
Financial stability				
Cash flow margin (%)	12.76	15.56	13.01	10.68
Cash flow ROI (%)	7.47	9.88	8.34	7.96
Total debt / EBITDA adj.	6.09	5.02	4.81	4.54
Net total debt / EBITDA adj.	4.98	4.18	3.89	4.10
ROCE (%)	8.90	-3.75	12.42	10.88
Total debt repayment period	4.80	5.81	4.52	6.49
Profitability				
Gross profit margin (%)	60.23	62.94	61.44	58.92
EBIT interest coverage	4.82	-3.14	11.80	12.65
EBITDA interest coverage	8.67	11.37	17.29	21.01
Ratio of personnel costs to total costs (%)	16.83	17.22	16.53	15.04
Ratio of material costs to total costs (%)	40.05	36.91	38.84	41.89
Cost income ratio (%)	91.47	104.63	86.93	92.60
Ratio of interest expenses to total debt (%)	1.87	1.62	1.41	1.03
Return on investment (%)	4.93	-6.20	7.30	5.94
Return on equity (%)	10.15	-17.12	16.13	12.75
Net profit margin (%)	6.56	-11.44	10.11	8.05
Operating margin (%)	9.22	-4.98	14.38	8.94
Liquidity				
Cash ratio (%)	47.91	48.61	44.21	23.66
Quick ratio (%)	83.31	90.78	84.85	71.67
Current ratio (%)	128.45	127.63	118.02	117.13

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 HeidelbergCement AG

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	23.08.2017	28.08.2017	13.12.2020	BBB / stable

Table 7: Corporate Issuer Rating of HeidelbergCement Finance Luxembourg S.A.

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	23.08.2017	28.08.2017	13.12.2020	BBB / stable

Table 8: LT LC Senior Unsecured Issues issued by HeidelbergCement AG

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	23.08.2017	28.08.2017	13.12.2020	BBB / stable

Table 9: LT LC Senior Unsecured Issues issued by HeidelbergCement Finance Luxembourg S.A.

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	23.08.2017	28.08.2017	13.12.2020	BBB / stable

Regulatory requirements

The rating[6] 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.

[6] 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 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
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
Christina Sauerwein	Lead-analyst	C.Sauerwein@creditreform-rating.de
Natallia Berthold	Analyst	N.Berthold@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 22 May 2023, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 22 May 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.

Creditreform Rating

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