Creditreform Corporate Issuer / Issue Rating

Fresenius SE & Co. KGaA

Creditreform Rating

26 September 2023 – Neuss, Germany

Rating Action / Update:

Creditreform Rating has affirmed the unsolicited corporate issuer rating of Fresenius SE & Co. KGaA at BBB /stable

Creditreform Rating (CRA) has affirmed the unsolicited, public corporate issuer ratings of Fresenius SE & Co. KGaA — in the following called 'Fresenius', 'the Group' or 'the Company'— and Fresenius Finance Ireland PLC, as well as the unsolicited corporate issue ratings of long-term local currency senior unsecured notes issued by Fresenius SE & Co. KGaA and Fresenius Finance Ireland PLC, at BBB / stable. The initial unsolicited short-term rating has been set to L3 (Adequate level of liquidity). We also refer to our rating report of 28 September 2022, which contains further material information regarding the rating objects.

Current relevant factors for the rating

The following considerations were of specific relevance for the rating assessment:

+ In HY1 2023 largest EBIT-contributing Group companies recorded slight organic growth, driven by good business performance and Fresenius' progress in its Cost Efficiency Program, offsetting higher, inflation-related costs
+ Fresenius has launched a new strategic plan, focusing largely on profitability increase and stabilization of its leverage ratio through, e.g., portfolio optimization and efficient capital allocation –growth drivers will be its pharma division Kabi and its health service division Helios
+ The strategy includes the deconsolidation of Fresenius Medical Care (FMC); the structural change should lead to leaner structure and financial flexibility; we do not expect significant economic impact at current stage through the deconsolidation itself, as the shareholding structure of FMC remains unchanged. In addition, Fresenius' cost-saving program should help to reach double-digit margins by 2025

– Steady decline in margins in recent years, e.g. in the wake of excess mortality of dialysis patients due to COVID-19 pandemic; staff and supply shortages, and inflation related cost increases
– In 2022, as already assumed in our rating of 2022, significant deterioration of profitability and net total debt/EBITDA adj., partly as a result of special items, largely in connection with Fresenius Cost Efficiency program and higher net debt
– Further burdened credit metrics are expected for 2023
– Still uncertain market conditions – volatile energy and commodity prices, as well increased interest rates and global economic slowdown, driven by inflationary environment and geopolitical tensions

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ESG-criteria:

ESG factors are factors related to environment, social issues and, governance. For more information, please see the "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.

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

Nevertheless, ESG factors play an important role for Fresenius, in particular related to securing and expanding its market position for the future.

Fresenius aligns its sustainability strategy with the United Nations' 17 Sustainable Development Goals (SDGs), focusing in particular on "Health and well-being," "Quality education," and "Decent work and economic growth". In addition, Fresenius integrates the aspects of the United Nations Global Compact into its strategic planning by means of intensive assessment of the Group-wide sustainability risks. In terms of preserving the environment, the Company has set itself the target of reducing scope 1 and scope 2 emissions by 50% in absolute terms by 2030 as compared to 2020, and of becoming carbon neutral by 2040. Fresenius also continuously evaluates the impact of scope 3 emissions in order to be able to integrate them into its targets in the future.

Fresenius is also well-positioned with regard to its diversity ratio of women, which is partly due to the industry as a whole. The proportion of women in the Fresenius Group was at roughly 69% as of 31 December 2022 (2021: 69%), with the proportion in management positions at 33.9% (2021: 32.6 %).

The pharmaceutical sector bears a very high social responsibility towards its customers, as the use of drugs is intended to save lives, but can also endanger patient lives due to side effects. For this reason, the sector is subject to highest regulatory requirements, as well as tests prior to approval by the responsible drug authorities (FDA, EMA). The handling and safeguarding of personal data is also associated with a high level of social responsibility.

In our opinion, Fresenius has already created a good basis and starting position to be able to meet the steadily increasing requirements for ESG factors and non-financial reporting. The Group's economic position should also make it possible to provide the financial resources required to achieve its targets. Overall, we believe that Fresenius is well-positioned with regard to ESG factors, among other reasons due to its high degree of diversity in management, its CO_2 targets, and other commitments in line with the Sustainable Development Goals. Therefore, we do not see any regulatory risks with regard to ESG factors.

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

Rating result

The unsolicited corporate issuer rating of Fresenius at BBB attests a highly satisfactory level of creditworthiness, representing a low to medium default risk. Our rating assessment is based on Fresenius' leading position in its key areas in the non-cyclical healthcare sector, its low exposure to overall economic fluctuations, and its globally diversified business portfolio, enabling the Company to generate strong and predictable cash flows. Fresenius' portfolio focuses on products, therapies and services for the critically and chronically ill by developing and producing biopharmaceuticals, including medical nutrition, medical technologies and by operating hospitals and health centers. In recent years, business performance has been severely impacted by adverse social and economic conditions (i.e., excess mortality of dialysis patients due to COVID-19, staff and supply shortages, inflation-related rising costs affecting demand), leading to a steady decline in profitability. In addition, increased debt burdened its financials. Despite the noticeable deterioration, in particular in CRA's leverage and return on investment ratio in 2022, Fresenius still shows solid credit metrics. Its good access to the capital market and adequate liquidity position also underpin the rating.

Outlook

The one-year outlook of the rating is stable. Although we expect ongoing deterioration in relevant credit metrics as a result of worsening profitability and higher leverage, we currently still see enough buffer in credit metrics to maintain the current rating level. In addition, the Company has launched a new strategic plan focused on increasing profitability and stabilizing its leverage ratio — again aiming to reach a value in its envisaged target range of 3.0x-3.5x by 2025. Therefore, the Company relies on restructuring, including the deconsolidation of Fresenius Medical Care AG & Co. KGaA by changing its legal form, as well as on efficient capital allocation, focusing on its high-margin operating core businesses Fresenius Kabi and Fresenius Helios. The Company has already made some progress through significant cost savings, which led to organic growth in its core business in the first half of 2023. However, if there are no signs of a significant turnaround in the course of 2024 and the operating performance continues to decline, we would see downward pressure on the rating.

Best-case scenario: BBB

In our best-case scenario for one year, we assume a rating of BBB. We see an upgrade within one year at this stage as less likely due to the declining results and higher leverage of the Group. The overall challenging environment also dampens the outlook. An upgrade would only be possible in the event of a sustainable turnaround in earnings development with significant improvement in the financial ratios, surpassing last year's levels.

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.

Worst-case scenario: BBB-

In the worst-case scenario for one year, we assume a rating of BBB-. In this scenario we expect the trend towards declining profitability to continue in 2023 and in the first half of 2024 with further deterioration in the financial ratios and no prospect of a turnaround on near-term. Despite restructuring measures, there is no improvement in the financial ratios in sight. The burdened business environment in the wake of the sharp rise in commodity costs and the associated economic consequences are curbing Fresenius' growth plans. Less lucrative M&A activities with higher debt could also put pressure on the rating.

Business development and outlook

In 2022, Fresenius' revenues amounted to EUR 40,840 million (2021: EUR 35,520 million), EBIT to EUR 3,321 million (2021: EUR 4,158 million) and EAT to 2,117 (2021: EUR 2,819 million).

The Company recorded a rise in revenue of 8.8% compared to 2021, approximately 5% due to positive FX effects, largely in connection with the strong USD. Fresenius reported that the challenging macroeconomic environment has led to lower patient demand as well as the ongoing effects of the COVID-19 pandemic with regard to excess mortality of dialysis patients, thus dampening organic revenue growth. The Group's EBIT was noticeably impacted by the adverse market conditions and special items-related effects, suffering a decline of 20.1%. EBIT margin dropped from 11.1% to 8.1%. The market-related effects were in particular due to inflation-related higher costs, higher personnel costs, supply chain challenges and lower capacity utilization. The most significant special items-related adverse effects resulted from the Cost- and Efficiency Program, including the FME25 Program (EUR 466 million), a remeasurement of the

Humacyte investment (EUR 102 million), and from the Ukraine war (EUR 86 million). EBIT before special items amounted to EUR 4,004 million (2021: EUR 4,252 million), down by 5.8%. All divisions except for Fresenius Helios recorded a decline in EBIT before special items (see table 2). Helios benefited from a recovery in patient numbers following the COVID-19 pandemic.

Table 1: Financials of Fresenius SE & Co. KGaA I Source: Fresenius SE & Co. KGaA Annual report 2022, standardized by CRA

Fresenius SE & Co. KGaA **Selected key figures of the financial statement analysis** **Basis: Annual accounts and report of 31.12. (IAS, Group)**	**CRA standardized figures[1]**	
	2021	**2022**
Revenues (million EUR)	37,520	40,840
EBITDA (million EUR)	6,825	6,289
EBIT (million EUR)	4,158	3,321
EAT (million EUR)	2,819	2,117
EAT after transfer (million EUR)	1,818	1,372
Total assets (million EUR)	55,009	57,958
Equity ratio (%)	25,92	26,81
Capital lock-up period (days)	19.84	18.50
Short-term capital lock-up (%)	29.54	24.11
Net total debt / EBITDA adj. (factor)	5.57	6.31
Ratio of interest expenses to total debt (%)	1.55	1.64
Return on Investment (%)	6.04	4.53

Table 2: EBIT before special items development of Fresenius SE & Co. KGa segments I Source: Integrated Annual Report 2022, reported information (IFRS), own presentation

Fresenius SE & Co. KGaA – EBIT before special items				
In million EUR	**2021**	**2022**	**Δ**	**Δ %**
Fresenius Medical Care	1,915	1,817	-98	-5.4%
Fresenius Kabi	1,153	1,080	-73	-6.3%
Fresenius Helios	1,127	1,185	58	5.1
Fresenius Vamed	101	20	-81	-80.2%

In addition to a lower profitability, credit metrics were partially burdened by higher debt. Net financial debt increased to 25,014 million (2021: EUR 24,391 million), up by 2.6%, and CRA's structured net total debt rose to EUR 39,798 million (2021: EUR 38,332 million), up by EUR 1,466 million or 3.8% compared to 2021. As a result, CRA's net total debt / EBITDA adj. decreased to 6.31x (2021: 5.57x). Fresenius' reported ratio net financial debt /EBITDA adjusted for non-recurring effects amounted to 3,65x (2021: 3,51x), thus slightly over its envisaged target corridor of 3.0x-3.5x. Operating cash flow was EUR 4,198 million, down by 17.3%, largely as result of the lower operating performance and negative working capital changes, but more than sufficient to

[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 takes all balance sheet liabilities into account. Therefore, the key financial figures shown often deviate from the original values of the company.

cover the Company's capex. Free Cash flow amounted to EUR 2,421 million (2021: EUR 3,061 million). Overall, the Group's 2022 financials were still solid, albeit with declines.

In the first half of 2023 the Company recorded revenues of EUR 20,584 million (HY1 2022: 19,738 million), up by 4.3% compared to HY1 2022. Organic growth was 5%. Reported EBIT amounted to EUR 1,330 million (HY1 2021 1,747 million), down by 23.9%. EBIT before special items decreased to EUR 1,864 (HY1 EUR 2,003 million), down by 6.9%. The decrease was driven by Fresenius Vamed and FMC, while Fresenius' so called operating companies[2] recorded EBIT growth of 2% and solid double digit margins. Kabi reached an EBIT margin before special items of 14.2% (HY1 2022: 15.1) and Helios of 10.1 (HY1 2022: 10.4%). The organic improvement was a result of favorable business development, and of progress in Fresenius' cost saving initiatives, offsetting increased inflation-related costs. Excluding a government support of EUR 174 million, Fresenius Medical Care recorded an operating growth rate of 31%, reflecting a similar turnaround to Kabi.

Table 3: EBIT before special items development of Fresenius SE & Co. KGa segments in HY1 2023 I Source: Integrated Annual Report 2022, reported information (IFRS), own presentation

Fresenius SE & Co. KGaA				
In million EUR	**HY1 2022**	**HY1 2023**	**Δ**	**Δ %**
Fresenius Medical Care	428	329	-99	-23.1%
Fresenius Kabi	564	574	10	1.8
Fresenius Helios	609	622	13	2.1
Fresenius Vamed	19	-47	-66	--

Net income attributable to Fresenius amounted to EUR 426 million (HY1 2022: EUR 796 million), showing a decline of 46.5%, partly as a result of increased financial expenses due to higher interest rates and a higher tax rate.

In HY1 2023, operating cash flow increased to EUR 1,361 million (HY1 2022: EUR 1,118 million), up by 21.7%. The improvement compared to HY1 2022 was largely driven by a more favorable working capital change in contrast to the year before. Free cash flow improved by 88.3%, amounting to EUR 614 million (HY1 2022: EUR 317 million), also due to slightly less CAPEX. However, the Company recorded a significant deterioration on its net financial debt/EBITDA adjusted, amounting to 3.88x. The leverage ratio was burdened by less favorable operating performance and higher leverage

To counteract the adverse development in recent years, Fresenius has launched a new plan. The Company as a whole is undergoing a restructuring process with the aim of expanding its position as a leading global provider of products and services for critically and chronically ill patients. The focus thereby will be on increasing Fresenius' profitability through portfolio optimization and the development of new growth areas. Structural improvements should help to achieve more efficiency in its processes. This includes the deconsolidation of Fresenius Medical Care AG & Co. KGaA by the change of its legal form, which was approved by its shareholders on 14 July

[2] Based on Fresenius new strategy Fresenius differentiates between operating and investment companies. While Fresenius Kabi and Fresenius Helios represents Fresenius operating companies, holding a 100% share on each company, and representing as below described Fresenius investment focus, Fresenius Medical Care and Fresenius Vamed will be managed as investment companies, holding at this stage about 32% and 77%.

2023 and is planned to be absolved at the fourth quarter of 2023. Ninety-nine percent of Fresenius' shareholders voted for the conversion of FMC from its legal form of a partnership limited by shares (Kommanditgesellschaft auf Aktie, or KGaA) into a German stock corporation (Aktiengesellschaft, or AG) at the Extraordinary General Meeting. The deconsolidation should help to achieve leaner structures and more financial flexibility for FMC. The previous construct was subject to the goal of having control over its subsidiary.

As already described in our previous Rating Report, the deconsolidation will lead to a significant downsizing of the Group; according to the pro forma figures of Fresenius' Half-Year Financial Report 2023, approximately 46.1% of revenues, 36.5% of EBITDA and 45.8% of liabilities would fall away. In addition, the loss of control will mean that the potential long-term growth prospects in the dialysis area, such as their diversification effect, will be missing. Nevertheless, Fresenius still benefits economically from these through its unchanged shareholding of 32%. In addition, Fresenius continues to hold a leading position in several markets in the healthcare sector, in particular by operating Kabi and Helios. Both currently generate significantly higher margins than FMC, and have proven to be more resilient with regard to macroeconomic and social incidents. We therefore continue to consider Fresenius to be in a position to generate strong and resilient cash flows, without deriving a higher risk for its business model in the wake of the structural change. We assume a marginal deterioration in our financial ratio analysis, albeit without significant impact on the rating. As a result of the deconsolidation, we expect, in particular, a deterioration of the net total debt/EBITDA adj., as FMC 's standalone leverage ratio is currently lower than the ratio of the Group as a whole. However, we also assume the deterioration to predominantly be offset by an improved return on investments.

The poorly performing Fresenius Vamed will also undergo a profound restructuring with the aim of generating positive EBIT from the fourth quarter of 2023, and achieving an EBIT margin of up to 4-6% by 2025. Going forward, the business portfolio will be focused on the three core areas of Biopharmaceuticals incl. Clinical Nutrition, Medical Technology, and Care Provision, due to their lucrativeness and high growth opportunities. The operating margins excluding one-off's of Kabi, Helios and FME are expected to be lower double-digit range by 2025 – Kabi 14-17%, Helios 9-11% and FMC 10-14%. Thus, Fresenius also counters inflation-related cost increases, as well other adverse macroeconomic-related effects, with its Cost and Efficiency Program. The aim of the program is to save roughly EUR 1 billion a year in structural costs from 2025 onwards, with annual cost savings of approximately EUR 350 at Fresenius EBIT and approximately EUR 650 million at FMC EBIT. The saving measures imply one-off costs of EUR 700-750 million in 2023-2025, with two-thirds of the costs being incurred in 2023. The Company also relies on efficient capital allocation. Divestments should help to bring Fresenius' reported leverage ratio back into the 3.0-3.5x range, reflecting prudent financial policy.

A clear trend reversal enabling credit metrics at least at 2021 levels, however, will become apparent during the course of 2024 at the earliest. According to the Company's outlook, it expects broadly stable to slightly declining EBIT before special items for 2023, with an adjusted leverage ratio below 4x. In addition, the outlook is dampened by market conditions. Although supply shortages are beginning to dissipate, and inflation is easing, there are still headwinds as regards high commodity prices in Europe and increased interest rates, at least until year-end. Although the economic outlook for Europe is less cloudy than previously assumed, growth continues to be slow, and the further geopolitical course and its global economic consequences remain unclear at this stage.

Further ratings

In addition to the rating of Fresenius SE & Co. KGaA the following Issuer and its issues (see below), have been rated.

- Fresenius Finance Ireland PLC

Due to the corporate, strategic, liability, financial, economic and performance-related interdependencies of the aforementioned subsidiary (direct 100% subsidiary of Fresenius SE & Co. KGaA and which have been consolidated into the Group annual accounts) we derive the unsolicited issuer rating of this subsidiary from the unsolicited issuer rating of Fresenius SE & Co. KGaA and set it equal to its rating of BBB / stable.

Based on the long-term issuer rating and taking into account our liquidity analysis, the short-term rating of Fresenius SE & Co. KGaA and the above-mentioned subsidiary was set at L3 (standard mapping), which corresponds to an adequate liquidity assessment for one year.

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

The notes have been issued under the Debt Issuance program (DIP) with the latest prospectus from 5 May 2023. The DIP amounts to EUR 15 billion and is unconditionally and irrevocably guaranteed by Fresenius SE & Co. KGaA.

We have provided the long-term local currency senior unsecured notes issued by Fresenius SE & Co. KGaA and the above-mentioned subsidiary with an unsolicited rating of BBB / stable.

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

Table 4: Overview of CRA Ratings I Source: CRA

Rating Category	Details	
	Date of rating committee	Rating
Fresenius SE & Co. KGaA	26.09.2023	BBB / stable / L3
Fresenius Finance Ireland PLC	26.09.2023	BBB / stable / L3
Long-term Local Currency (LC) Senior Unsecured Issues issued by Fresenius SE & Co. KGaA	26.09.2023	BBB / stable
Long-term Local Currency (LC) Senior Unsecured Issues issued by Fresenius Finance Ireland PLC	26.09.2023	BBB / stable
Other	--	n.r.

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 Fresenius SE & Co. KGaA

Event	Rating created	Publication date	Result
Initial rating	31.08.2018	11.09.2018	BBB / stable

Table 6: Corporate Issuer Rating of Fresenius Finance Ireland PLC

Event	Rating created	Publication date	Result
Initial rating	31.08.2018	11.09.2018	BBB / stable

Table 7: LT LC Senior Unsecured Issues issued by Fresenius Finance Ireland PLC

Event	Rating created	Publication date	Result
Initial rating	31.08.2018	11.09.2018	BBB / stable

Table 8: LT LC Senior Unsecured Issues issued by Fresenius SE & Co. KGaA

Event	Rating created	Publication date	Result
Initial rating	28.09.2022	04.10.2022	BBB / stable

Table 9: Short-term Issuer Ratings of Fresenius SE & Co. KGaA and Fresenius Finance Ireland PLC

Event	Rating created	Publication date	Result
Initial rating	26.09.2023	www.creditreform-rating.de	L3

Regulatory requirements

The rating[3] 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.

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

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

With Rated Entity or Related Third Party Participation	No
With access to Internal Documents	No
With Access to Management	No

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

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

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

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

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

The rating was carried out by the following analysts:

Name	Function	Mail-Address
Christina Sauerwein	Lead-analyst	C.Sauerwein@creditreform-rating.de
Artur Kapica	Analyst	A.Kapica@creditreform-rating.de

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

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

On 26 September 2023, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 26 September 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:

<u>Corporate issuer rating:</u>

1. Annual report
2. Website
3. Internet research

<u>Corporate issue rating:</u>

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.

Creditreform Rating AG

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