

10 July 2023 – Neuss, Germany

Rating Action / Update:

Creditreform Rating has confirmed the unsolicited corporate issuer rating of Snam S.p.A. at **BBB+ / stable**

Creditreform Rating (CRA) has confirmed the unsolicited, public corporate issuer rating of Snam S.p.A. (hereinafter also referred to as 'the Company', 'the Group', or 'Snam') and the unsolicited corporate issue ratings of long-term local currency senior unsecured notes issued by Snam S.p.A. at **BBB+** with a **stable** outlook. The initial unsolicited short-term rating was set to **L3** (Adequate level of liquidity).

Analysts

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Current relevant factors for the rating

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

- + Strategic importance for the country's energy security and energy transition
- + Transparent and stable regulatory framework with guaranteed revenues and predictable cash flows
- + Sufficient liquidity reserves
- + Confirmation of financial targets for 2023
- + RAB: > 5.0% CAGR for 2022-2026 (above 2.5% in the previous plan)
- + Good access to financial markets

- Deterioration of the financial ratio analysis in 2022 due to adjustment items of EUR -492 million as well as the change in balance sheet ratios due to pass-through items
- High investment level: net investments of EUR 10.0 billion in the period 2022-2026 (up 23% compared to the previous plan)
- Negative free cash flow in Q1 2023
- Rising net debt in 2023
- Geographical concentration, as almost all revenues are generated domestically
- Unsolicited sovereign rating of the Italian Republic of **BBB- / stable** limits the corporate issuer rating of Snam S.p.A.
- Ongoing global economic uncertainty and generally increasing (geo-)political risks

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 which could lead to a change in the rating result or the outlook.

ESG-criteria:

CRA generally takes ESG factors (environment, social and governance) within its rating decisions. In the case of Snam S.p.A. we have not identified any ESG factors with significant influence.

However, in the short and especially the medium and long term, sustainability aspects are central to the strategic and operational development of the Snam Group. In 2020, Snam set itself the ambitious climate goal of becoming carbon neutral by 2040. The Company aims to reduce the Group's direct and indirect emissions (scope 1 and 2) by 50% by 2030. In terms of indirect emissions (scope 3), the Group intends to reduce emissions by its affiliated companies by 46% by 2030, and those of its suppliers by 55% compared to a 2019 baseline. This is to be achieved by increasing activities related to biomethane (renewable gas) and hydrogen, energy efficiency

initiatives, and sustainable CNG (compressed natural gas) and LNG (liquefied natural gas) mobility projects. The Company plans to transport fully decarbonized gas by 2050 and make Italy a renewable energy hub.

Due to the major changes in the energy sector, Snam has increased its investments by EUR 1.9 billion to EUR 10.0 billion for the period 2022-2026 compared to the previous development plan for its system and energy transition. Most of the Company's investments relate to its sustainability goals. In addition, investments of EUR 1.0 billion are allocated to achieving CO₂ neutrality and for the energy transition. Snam also intends to increase the weight of sustainable financing to 80% of available funds by 2026. In this context, between 2019 and 2022, Snam issued a climate change bond, four transition bonds, and a first transition bond aligned with the EU taxonomy. By the end of 2022, the proportion of sustainable financing was already 70% (or roughly EUR 12.5 billion of committed funding).

Overall, Snam's strategic investments in gas infrastructure, storage, LNG, interconnectors and renewable gases play an important role in securing and diversifying Italy's energy supply. By ensuring a robust and resilient natural gas system, Snam contributes to meeting the country's energy needs while promoting sustainability and resilience in the energy sector.

Although we derive financial risks for the Snam Group from these objectives, we see the Company overall on a satisfactory path. We believe that Snam S.p.A., based on its business model, will also play an important role in the implementation of Italian and European climate targets, in addition to securing the national energy supply. Moreover, the Company's actions regarding CO₂ emissions seem to indicate the right trend. The coming years will show whether this will have a material impact on the rating.

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 current rating attests Snam S.p.A. a highly satisfactory level of creditworthiness, representing a low-to-medium default risk. The rating assessment is based on the Company's fundamentally sound financial structure and stable cash flow generation, which almost exclusively stem from its regulated activities and is somewhat insulated from market fluctuations. The deteriorated result of the financial metrics analysis for the 2022 financial year, which was mainly characterized by a write-down of the equity investment in TAG¹ due to the impact of the Russia-Ukraine war and the burden of higher market interest rates at ADNOC², clouds the current rating assessment. The relativization of the pass-through item, which is accompanied by an expansion of debt and a change in balance sheet ratios, results in only a marginal improvement on the level of the financial metrics analysis. Furthermore, Snam's investment requirements in the coming years will increase as a result of the need to secure and diversify Italy's energy supply

¹ Trans Austria Gasleitung GmbH that is the independent transmission operator that owns and operates the Austrian section of the gas pipeline linking Russia and Italy

² ADNOC Gas Pipeline Assets LLC, which holds, for a period of 20 years, the tariff-based rights for the infrastructure (38 pipelines) that connects ADNOC Gas Pipeline's upstream activities to Abu Dhabi's consumption points and the export and interconnection terminals to neighbouring Emirates

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.

as well as transition the sector towards renewable energy, which could further negatively impact its credit metrics. Nonetheless, the Company expects an average annual EBITDA growth of roughly 7% until 2026, primarily driven by RAB³ growth (80%) and higher remuneration from the regulatory framework, as well as an average annual net profit growth of 3% as a result of the increase in Snam's industrial profitability and efficiency measures. At the same time, credit metrics consistent with current creditworthiness are likely to be maintained, which is supportive of the rating.

Snam is of strategic importance for Italy, and enjoys a business profile with essentially low economic and financial risks, benefiting from an established regulatory framework (represented by the independent regulator ARERA) in Italy. Additionally, the government holds a significant share in the Group. Based on our assessment of the direct and indirect shareholder structure, and a presumed systemic relevance of Snam S.p.A., the sub-rating methodology for "Government-Related Companies" was applied. The corporate issuer rating of Snam S.p.A is currently constrained to two notches above the unsolicited sovereign rating of the Italian Republic (CRA: **BBB- / stable** as of January 20, 2023). Any change in the sovereign rating of the Italian Republic could affect the corporate issuer rating of Snam S.p.A.

Outlook

The one-year outlook for the rating is **stable**. Given that the Company operates in a regulated market segment and that the Italian tariff system provides a form of natural hedge against revenue volatility through periodic reviews of the allowed return on capital, as well as Snam's commitment to maintaining credit ratios despite growing investment needs, we expect the Company's business performance to be comparatively stable despite the current uncertain market conditions and volatile environment. Nevertheless, given the Company's close relationship with the Italian government and classification as a state-affiliated company, the outlook could be adjusted at short notice in the event of any change in the sovereign rating of the Italian Republic.

Best-case scenario: **BBB+**

In our best-case scenario for one year, we assumed a rating of **BBB+**. Such a scenario could occur if the Company is able to sustain growth in operating results, and if its debt and liquidity profile do not deteriorate in the course of a phase of higher investment. This scenario also assumes the stability of macroeconomic and political conditions in Italy, and that the sovereign rating of Italy remains at **BBB-**. An upgrade is unlikely, as the rating is constrained by the sovereign rating of the Italian Republic.

Worst-case scenario: **BBB**

In our worst-case scenario for one year, we assume a rating of **BBB**. Such a scenario could materialize if the sovereign rating of the Italian Republic were downgraded, or if the level of general business activity were to deteriorate, due to an economic slowdown and a resulting environment of diminished demand.

³ RAB (regulatory asset base): Value of net invested capital for regulatory purposes, calculated based on the rules defined by the ARERA in order to determine the benchmark revenues for the regulated businesses

Business development and outlook

Table 1: Financials of Snam Group | Source: Snam S.p.A. Annual Report 2022, standardized by CRA

Snam S.p.A. Selected key figures of the financial statement analysis Basis: Consolidated Financial Statements of 31.12. (IFRS)	CRA standardized figures ⁴	
	2021	2022
Sales (million EUR)	3,285	3,496
EBITDA (million EUR)	2,243	2,218
EBIT (million EUR)	1,434	1,351
EAT (million EUR)	1,500	672
EAT after transfer (million EUR)	1,496	671
Total assets (million EUR)	26,821	32,017
Equity ratio (%)	25.9	22.5
Capital lock-up period (days)	149.8	161.4
Short-term capital lock-up (%)	191.2	275.8
Net total debt / EBITDA adj. (factor)	8.2	10.3
Ratio of interest expenses to total debt (%)	0.7	0.7
Return on Investment (%)	6.0	2.5

The global economic environment in 2022 was marked by heightened geopolitical tensions due to the outbreak of war in Ukraine and the subsequent economic sanctions against Russia, which were reflected in high and volatile commodity and energy prices and which led to rising inflation and interest rates. In March 2022, in response to Russia's invasion of Ukraine, the Italian government announced that it would significantly reduce its reliance on Russian gas imports within one year and potentially cease sourcing gas from Russia altogether by 2025. With more than 40% of its national demand met by imports of Russian gas, Italy's energy sector is heavily dependent on fossil fuel imports from Russia. Reducing dependence on Russian gas is therefore the main short-term challenge for the Italian energy sector. When Russia significantly cut gas supplies to Italy and other European countries in mid-June 2022, the Italian government was forced to take gas emergency measures. In order to ensure the security of gas supply, the government issued a National Plan for the Containment of Natural Gas Consumption in September 2022. As the Italian government believes that natural gas will continue to play a fundamental role in the country's energy mix in the long term, the NECP⁵ formulates the objective of further diversifying gas supply sources and expanding the potential for LNG imports in order to ensure the long-term security of natural gas supply.

Italy is, however, in a better position than other vulnerable European countries given its LNG terminals and pipeline connections to North Africa, Northern Europe and Central Asia. This existing infrastructure allows Italy to use alternative gas supply sources and offers a variety of options without having to significantly invest in new infrastructure. In addition, the Italian

⁴ 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.

⁵ National Energy and Climate Plan

government has made significant efforts to diversify gas supplies through agreements with countries in Africa and the Middle East.

Against this background, Snam, on behalf of the government, has concluded agreements for the purchase of two new floating storage and regasification units (FSRU) to facilitate diversification of the energy supply. Each of these units has a maximum storage capacity of 170 thousand cubic metres of LNG and an annual regasification capacity of approximately 5 billion cubic metres of gas. With this expansion of the LNG regasification capacity, it will be possible to cover roughly 40% of the expected gas demand in the medium term. In addition, Snam has reduced the risk of high energy dependency on imports in recent years, thanks to a range of countermeasures (such as the diversification of supply sources through the recent commissioning of the TAP pipeline, the extensive availability of gas storage capacity, efficient network management and the introduction of additional tools to support exceptional emergencies). Given the uncertain geopolitical and energy policy environment, Snam is becoming increasingly important for the security and diversification of Italy's energy supply.

Despite these challenging market conditions, however, Snam largely held its own during the 2022 fiscal year. Revenue increased by 6.4% to EUR 3,496 million (2021: EUR 3,285 million), while the reduction of WACC on regulated revenue had a negative impact. In contrast, EBITDA fell slightly by -1.1% from EUR 2,243 million to EUR 2,218 million. This was mainly due to a decrease caused by higher operating costs, as well as increased labor costs in connection with the expansion of the business. As a result of this and higher depreciation, EBIT fell by 5.8% year-on-year from EUR 1,434 million to EUR 1,351 million. The impairment of Snam's stake in TAG (EUR 340 million), and the charges resulting from the fair value measurement of the contractual tariffs of the subsidiary ADNOC Gas Pipeline Assets (EUR 179 million) caused by changes in market interest rates, weighed on Snam's net result despite an offsetting capital gain from the sale of shares in Industrie De Nora SpA (EUR 72 million). Consequently, reported net income in 2022 dropped by 55.1% from EUR 1,496 million to EUR 671 million. Excluding these extraordinary items, EAT adj. was EUR 1,163 million, representing a decline of 4.5% compared to the previous year (EAT adj. 2021: EUR 1,218 million).

Snam is not active in the Russian market; however, two foreign subsidiaries of Snam, Trans Austria Gasleitung GmbH "TAG" (84.5%) and Gas Connect Austria GmbH "GCA" (49.0%), are dependent on Russian gas based on multi-year transport contracts. Given the uncertainty of gas flows from the North to Italy, TAG faces higher volatility in its results in 2023, although this is partly offset by higher booked gas volumes from Italy to Austria. Therefore, an impairment of EUR 340 million was recognized on Snam's stake in TAG in 2022, reflecting expectations regarding the future use of these assets. Moreover, roughly 85% of the long-term transport capacity contracts expired on 31 December 2022. The acquisition of a 49.9% stake in the newly established SeaCorridor in the Southern Corridor in January 2023, which connects the Algerian-Tunisian border with Mazara del Vallo (Sicily), and which consists of the TTPC and TMPC pipelines, is expected to help realign Snam's asset portfolio to be realigned according to changes in gas flows from Russia through the TAG pipeline.

The overall analysis of the financial key metrics deteriorated in 2022 compared to the previous year. In addition to adjustment items of EUR -492 million, this is mainly due to the pass-through items, which are associated with increased debt and changes in balance sheet ratios. Therefore, key figures significant to the rating, such as equity ratio, short-term capital lock-up, net total debt / EBITDA adj. and return on investment, have been adversely affected. These pass-through items arose as a result of securing the national gas supply. Decree no. 253 of 22 June 2022, issued by the Ministry of Ecological Transition (MITE), included a provision for Snam to offer a

filling service of last resort by acquiring quantities of gas for injection at the storage infrastructure that are complementary to the quantities injected by market operators, in accordance with modalities defined by ARERA. These modalities involve the recognition of the actual incurred total costs, while preserving the economic and financial balance of Snam. We assume that the change in balance sheet ratios will reverse in the following year. Additionally, the Company's strong commitment to maintaining its credit quality has a stabilizing effect on the rating.

As of 31 December 2022, the Group's net financial debt decreased by 15.0% to EUR 11,923 million (2021: EUR 14,021 million). The financial debt and bond amounted to EUR 13,680 million (2021: EUR 15,358 million). Long-term financial liabilities (EUR 12,358 million) accounted for roughly 89% of the gross financial debt (approx. 67% as of 31 December 2021).

As of 31 December 2022, the Company maintained a solid liquidity position of EUR 1,757 million (2021: EUR 1,337 million) and had unused credit lines of EUR 5.9 billion. With a positive net cash flow after minority interests of EUR 420 million (2021: EUR -1.707 million), the Company has sufficient liquidity to cover Snam's debt maturities over the next 24 months.

Total investments increased by 51.7% in 2022 compared to the previous year, reaching EUR 1,926 million (2021: EUR 1,270 million). Of this amount, EUR 1,188 million was allocated to transport and storage (+1.3%), EUR 423 million to LNG (+746.0%) and EUR 315 million to Energy Transition (+570.2%). In total, 39% of investments aligned with the EU taxonomy and 62% with the Sustainable Development Goals (SDGs).

Snam's updated strategic plan for the period 2022-2026 foresees total investments of EUR 10.0 billion, representing a 23.5% increase from the previous plan for 2021-2025. The plan focuses on gas infrastructure and includes the commissioning of two FSRUs, the construction of the Adria Line, and the modernization and development of storage facilities.

As the leading natural gas infrastructure company in the country, Snam plays a crucial role in the transport, storage, and regasification of natural gas. In a time of great volatility and uncertainty, Snam has proven to be a key player in securing and diversifying Italy's energy supply. The significant share of regulated business (over 90% of EBITDA) and government support for Snam's expenses and investments related to securing the national gas supply contribute to the stability of its rating. Moreover, the regulatory framework provides greater certainty and visibility with an annual recalculation of net investment capital (RAB) and additional revenue from higher returns on investments made in previous regulatory periods. From 1 January 2024, the tariff criteria for gas transportation are expected to be linked to the new ROSS methodology (Totex). It is anticipated that the breakdown of reference revenues will be largely maintained, with some changes in the definition of economic items related to energy costs.

According to the first-quarter report of 2023, the Company's total revenues increased by 12.9% to EUR 912 million (Q1 2022: EUR 808 million), and the adjusted EBITDA grew by 1.5% to EUR 597 million (Q1 2022: EUR 588 million). This growth can mainly be attributed to higher regulated revenues and the contribution of the energy transition business. The decrease in adjusted net profit by 7.4% to EUR 301 million (Q1 2022: EUR 325 million) was adversely affected by the absence of one-off revenues in the first quarter of 2022, higher depreciation and amortisation, and an increase in financial expenses. The reported net profit amounted to EUR 304 million (Q1 2022: EUR 312 million), representing a 2.6% decline compared to the corresponding value in Q1 2022.

The operating cash flow in the first quarter was significantly impacted by cash absorption due to working capital dynamics related to balancing activities. Consequently, the operating cash

flow amounted to EUR 224 million (Q1 2022: EUR 1,731 million), only partially covering net investments of EUR 374 million and capital contributions (SeaCorridor) of EUR 409 million. After the equity cash flow from the payment of the 2022 dividend to shareholders in the amount of EUR 376 million, net financial debt increased by EUR 949 million to EUR 12,872 million compared to 31 December 2022.

Given the ongoing uncertainty of energy prices and mild temperatures during the previous winter, Snam expects the trend for natural gas demand in Italy in 2023 to be in line with the level of 2022. Regarding the fiscal year 2023, Snam has confirmed its financial targets. With a 10% increase in investments to EUR 2.1 billion and a 5% increase in tariffed RAB (Regulatory Asset Base) to EUR 22.4 billion compared to the previous year, the adjusted net profit is expected to reach EUR 1.1 billion, while net debt is projected to rise to EUR 15.0 to 15.5 billion. In the medium term, the Company anticipates average annual growth of approximately 7% in EBITDA and 3% in net profit, driven by RAB growth as a result of increased investments and infrastructure expansion with the commissioning of the new FSRU. Considering Snam's strong market position as the owner of nearly the entire Italian gas transportation network, and its significant market share in gas transportation, storage, and regasification services in Italy, we believe that Snam will achieve its growth objectives. Given that the majority of Snam's revenues are based on regulated activities, enabling stable and predictable cash flow generation, we do not currently see the Company's financial stability to be at risk. Additionally, Snam benefits from good access to the capital market. Nevertheless, a further increase in financial debt could have negative implications for the already weakened financial indicators, and may result in a rating adjustment.

Further ratings

Based on the long-term issuer rating, and taking into account our liquidity analysis, the short-term rating of Snam S.p.A. was initially set at **L3**, which corresponds to an adequate level of liquidity.

The rating objects of our issue rating are exclusively long-term senior unsecured issues, denominated in euro, issued by Snam S.p.A., which are included in the list of ECB-eligible marketable assets. The issues were issued under the EMTN Programme, with the latest basis prospectus of 14.11.2022.

We have provided the long-term local currency senior unsecured notes issued by Snam S.p.A. with an unsolicited rating of **BBB+ / stable**.

Long-term local currency senior unsecured notes issued by Snam S.p.A. which have similar conditions to the current EMTN Programme, are 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 EMTN Programme. Notes issued in any currency other than euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Table 2: Overview of CRA Ratings | Source: CRA

Rating Category	Details	
	Date of rating committee	Rating
Snam S.p.A.	10.07.2023	BBB+ / stable / L3
Long-term Local Currency (LC) Senior Unsecured Issues issued by Snam S.p.A.	10.07.2023	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 3: Corporate Issuer Rating of Snam S.p.A.

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	22.10.2018	www.creditreform-rating.de	Withdrawal of the rating	BBB+ / stable

Table 4: LT LC Senior Unsecured Issues issued by Snam S.p.A.

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	22.10.2018	www.creditreform-rating.de	Withdrawal of the rating	BBB+ / stable

Table 5: Short-term issuer rating of Snam S.p.A.

Event	Rating created	Publication date	Monitoring until	Result
Initial rating	10.07.2023	www.creditreform-rating.de	Withdrawal of the rating	L3

Regulatory requirements

The rating⁶ 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.

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 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 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
Corporate Short-Term Ratings	1.0	June 2023
Government-related Companies	1.1	May 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
Natallia Berthold	Lead-analyst	N.Berthold@creditreform-rating.de
Rudger van Mook	Analyst	R.vanMook@creditreform-rating.de

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

Name	Function	Mail-Address
Philipp Beckmann	PAC	P.Beckmann@creditreform-rating.de

On 10 July 2023, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 10 July 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](#).

Conflicts of interest

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.

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