

Rating object	Rating information	
Autostrade per l'Italia S.p.A. Creditreform ID: 400980961 Incorporation: 2003 Based in: Rome (Main) Industry: Toll roads infrastructure development CEO: Roberto Tomasi <u>Rating objects:</u> Long-term Corporate Issuer Rating: Autostrade per l'Italia S.p.A. Long-term Local Currency (LT LC) Senior Unsecured Issues	SME / Corporate Issuer Rating:	Type:
	BBB / WATCH NEW	Initial rating unsolicited
	LT Senior Unsecured Issues, LC:	Other:
	BBB / WATCH NEW	n.r.
	Rating date: 26 September 2019	
	Monitoring until: withdrawal of the rating	
	Initial rating: www.creditreform-rating.de	
	Rating methodology: CRA "Corporate Ratings"	
	CRA "Non-Financial Corporate Issue Ratings"	
	CRA "Rating Criteria and Definitions"	
	Rating history: www.creditreform-rating.de	

Summary

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Company

Autostrade per l'Italia S.p.A. and its subsidiaries - hereinafter also referred to as ASPI, the Company or the Group has a history that originally dates back to the 1950's (then Autostrade Concessioni e Costruzioni S.p.A.) and was privatized in 1999. The Group operates and manages toll motorways in Italy and holds six concessions in total, allowing it to manage and operate a total of 3,020 km of toll motorway. It's main concession allows the Group to manage and operate 2,855 km of toll motorway and expires in 2038. Furthermore, through Autostrade per l'Italia, it manages 240 toll stations, 204 service areas, 104 car parks, 57 Punto Blu customer service points and employed a workforce of 5,449 people at the end of the business year 2018. During the business year 2018 the Group generated total revenues of EUR 3,836 million (2017: EUR 3,708 million), EBITDA of EUR 1,990 million (2017: EUR 2,518 million), and an EAT of EUR 622 million (2017: EUR 1,041 million).

On 14 August 2018, a section of the Polcevera bridge managed by ASPI collapsed, resulting in the death of 43 people. The event is currently being investigated by the Italian authorities and the consequences that will follow remain unclear.

Rating result

The current rating attests Autostrade per l'Italia S.p.A. a highly satisfactory level of creditworthiness, which represents a low-to-medium default risk.

Factors that applied to the rating of ASPI were the Group's strong cash flows, its earnings power and the relatively long remaining life of its concessions. The factors that have a dampening/constraining effect on the rating are its high leverage in combination with the Group's dividend policy, its geographically undiversified concession base and its high exposure to the Italian market, which increases its dependency on the general development of the Italian economy. Any material consequences that follow the investigation by the authorities with regard to the collapse of the Polcevera bridge might have a direct impact on the rating result and might result in a downgrade of the rating. The rating of ASPI is currently constrained by the rating of Atlantia S.p.A. (BBB / WATCH NEW) due to the group connection it has to the Atlantia group.

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Outlook

The rating supplement is WATCH NEW. The WATCH NEW has been set due to the possible consequences that might follow out of the collapse of a section of the Polcevera Bridge. The authorities are currently investigating the cause of the collapse and it remains unclear what the consequences will be. A revocation of the Group's main-concession remains a possibility

Relevant rating factors

Table 1: Financials of Autostrade per l'Italia (Group) | Source: Autostrade per l'Italia S.p.A. annual report 2018, standardized by CRA

Autostrade per l'Italia S.p.A. Selected key figures of the financial statement analysis Basis: Annual accounts and report of 31.12. (IFRS, Group)	CRA standardized figures ¹	
	2017	2018
Sales (million EUR)	3,708	3,836
EBITDA (million EUR)	2,518	1,990
EBIT (million EUR)	1,913	1,372
EAT (million EUR)	1,041	622
EAT after transfer (million EUR)	972	608
Total assets (million EUR)	20,044	18,648
Equity ratio (%)	1.39	2.07
Capital lock-up period (days)	130	125
Short-term capital lock-up (%)	70	41
Net total debt / EBITDA adj. (factor)	7.66	7.42
Ratio of interest expenses to total debt (%)	2.95	3.04
Return on Investment (%)	7.59	5.81

Excerpts from the financial key figures Analysis 2018

+ Increased sales
+ Equity ratio
+ Total Debt

- Profitability (EBITDA, EBIT, EAT)
- Return on investment

General rating factors

- + Market leader in Italy
- + Strong cash flow generation and profitability
- + Very high entry barriers
- + Good access to financial markets
- High exposure to the Italian economy
- Fully dependent on the ASPI concession
- Aggressive dividend policy
- Undiversified concession base
- Low flexibility regarding toll tariffs.

Please note:

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

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

¹ For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. For example, the analytical equity ratio, deferred tax assets, goodwill (entirely or partly), and the development costs which are included in the intangible assets are subtracted from the original equity. Deferred tax liabilities are added to the equity. With the calculation of Net total debt all balance sheet liabilities are taken into account. As a result, the key financial figures shown often deviate from the original values of the company.

Prospective rating factors are factors and possible events that – according to the analysts as per the date of the rating – would most likely have a stabilizing or positive effect (+) and a weakening or negative effect (-) on future ratings, if they occurred. This is not a full 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.

Current rating factors

- + High net profit margin despite increased costs due to the Polcevera event
- + Small traffic increase, increased revenues
- + Lower dividend distribution than usual
- Increased regulatory and legal risk as a result of the investigation in the cause of the collapse of the Polcevera bridge.
- High degree of non-recurring costs related to the collapse of the Polcevera bridge
- Growth in net operating cost in H1-2019

Prospective rating factors

- + Improved operating performance
- + Improvement in the economic activity in Italy
- + Decrease in the Group's leverage
- Economic slowdown in Italy
- Potential increase in fuel prices
- Worsening of operating performance

Best-case scenario

In our best-case scenario, we assume a rating of BBB. We hold the view that the increased leverage of the Atlantia group following the acquisition of the Abertis acquisition in combination with the increased regulatory and legal risk ASPI is subject to that an upgrade is unlikely in the short to middle term.

Worst-case scenario

In our worst-case scenario for one year, we assume a rating of BBB-. We assume a deterioration of the financial figures, which could be caused by a reduction in traffic, which in turn will be decreasing revenues or by a further increase of debt. The possible consequences of the collapse of the Polcevera bridge have not been taken into account in this scenario and might result, should they occur, in a larger downgrade than described.

Business development and outlook

During the business year 2018 ASPI generated revenues of EUR 3.836 million (2017: EUR 3,708 million), EBITDA adj. of EUR 1,990 million (2017: EUR 2,518 million), and an EAT of EUR 622 million (2017: EUR 1,041 million).

The increase in revenue was mainly due to a small increase in traffic (EUR 15 million), toll increases of 1.51% (51 million) and a decline in revenue due to an exemption of payment of road tolls in the Genoa area (EUR -7 million). The Group's results were noticeably affected by the costs incurred following the collapse of a section of the Polcevera bridge at 14 August 2018. The costs incurred during the year relating to this event totaled EUR 502 million, of which EUR 397 million allocated to provisions to cover the sum requested by the Special Commissioner for Genoa, and EUR 57 million in the form of provisions for risks and charges and EUR 48 million operating

Best-case scenario BBB
 Worst case scenario: BBB-

Please Note:

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

costs. Adjusted by the Polcevera event, the Group's EBITDA, EBIT and EAT were approximately on the same level, or slightly increased in comparison to the previous business year. During the business year 2018 the Group invested EUR 593 million (2017: EUR 556 million) in capital expenditure.

The event with the Polcevera bridge is currently being investigated by the government and it remains unclear what the exact consequences will be. On 20 December 2018, Autostrade per l'Italia received a letter from the ministry of infrastructure and transport (MIT) where the MIT gives the Company 120 days, which was later postponed to 3 May, to provide further information and explanation regarding the Polcevera event and the control systems used to monitor the state of the infrastructure. On 3 May Autostrade per l'Italia expressed its belief that it has acted properly and reiterated its objections with regard to the procedure initiated. The investigation is pending and the Group remains subject to increased regulatory and legal risk.

During the first half year of 2019 the Group generated operating revenues in the amount of EUR 1,967 million (H1 2018: EUR 1,901 million) and incurred extra costs of EUR 155 million resulting from the preparations for the start of work on reconstruction of the Polcevera bridge. This did not affect EBITDA because these costs were covered by the use of a provision made in 2018. The Group's EBITDA did however decline by 77 million (-6.2%), which was mainly caused by increased maintenance work on ASPI's network of EUR 47 million. The Board of directors appointed as new CFO Alberto Milvio who replaced Giancarlo Guenzi.

Despite the additional costs, relating to the Polcevera event the Group still managed to maintain strong profitability with a net profit margin of 16.22% in 2018. The consequences from the investigation in the cause of the collapse of the Polcevera bridge remain unclear. Revocation of its main concession remains a possibility.

Structural risk

Autostrade per l'Italia S.p.A. and its subsidiaries is an Italian Group of toll road operators and is headquartered in Rome, Italy. The Group holds six concessions in total through which they manage and operate 3,020 km of motorways in Italy.

The main concession is held by Autostrade per l'Italia S.p.A. who manages and operates 2,855 km of toll motorway in Italy. The concession expires in 2038. The remaining concessions are held by the Group's subsidiaries and represent a total of 165 km of toll motorways. They are set to expire between 2032 and 2050. The concession of Autostrade Meridionali, which has been operating by the Group, has expired in 2012 but was asked by the concession grantor to continue operating the motorway, in accordance with the existing terms and conditions.

Table 2: Overview of the concessionaires of the Group | Source: Autostrade per l'Italia's consolidated annual report 2018

Company	Share capital in ownership	Km of toll motorway	Concession expiry
Autostrade per l'Italia	-	2,855 km	2038
Tangenziale die Napoli	100%	20 km	2037
Società Autostrada Tirrenica	99.99%	55 km	2046
Società Italiana per il Traforo del Monte Bianco	51%	6 km	2050
Raccordo Autostradale Valle d'Aosta	47.97%	32 km	2032
Autostrade meridionali	58.98%	52 km	2012

The remaining main-subsiidiaries of the Group are AD Moving, Essediesse, Autostrade Tech, Glove Clear and support ASPI with their services such as selling of advertising space, administrative and payroll services, cleaning services, R&D etc.

Atlantia S.p.A. (Rating CRA: BBB / WATCH NEW) holds 88.06% of the shares of Autostrade per l'Italia S.p.A. and has legal control over the Group. The two minority shareholders are Appia Investment srl (6.94%) and Silk Road Fund (5.00%) as of 31.12.2018. Due to the group connection ASPI has to the Atlantia group the rating of ASPI is constrained by the rating of Atlantia S.p.A.

Transferring the shares of minority shareholders to external parties is first subject to approval from the board of directors of ASPI. Additionally, the minority shareholder wishing to sell their shares must first offer these shares to the existing shareholders of ASPI. Should the majority shareholder want to transfer its shares, and the transfer of shares gives rise to a new majority shareholder, the majority shareholder will have to ensure that the minority shareholders could exercise the right of selling their shares to the purchaser.

The structural risk profile of ASPI is currently increased due to the possible revocation of the ASPI concession. The Group is fully dependent on the concession of Autostrade per l'Italia. There is no guarantee that the concession will be extended after expiry, nor is it assured that the concession will not be terminated prematurely.

Business risk

Virtually all the revenues generated by the Group are generated by operating toll motorways or are indirectly linked to these activities. In order to manage and operate these toll motorways, ASPI is granted concessions by the Ministry of Infrastructure and Transport (MIT). The Group's residual time to expiry for its main concession is 19 years, the other concessions have an unweighted residual time to expiry of approximately 22 years, with the exception of the concession of Autostrade Meridionali, which expired in 2012.

The main concession generates approximately 91% of the revenues, making it essential in the Group's business model. ASPI has to work according to the terms and conditions in the concession agreements. Breach of the concession contract might result in fines, or even revocation of a concession, resulting in loss of its business.

With specific reference to the Autostrade per l'Italia S.p.A. concession, the Group is obligated to fulfil its investment programme as stipulated under the original Agreement of 1997, the IV Addendum of 2002 and the single arrangement of 2007, under which it plans to invest a total of EUR 22,800 million, of which EUR 10.500 was completed at the end of the year 2018. Additionally,

ASPI invests in programmes under the concession arrangement of its subsidiaries, amounting to EUR 1.800 million, of which EUR 1.300 million was completed. The Group must draw up a financial plan that covers the coming five years.

The toll motorway business is influenced by a variety of general risks that are caused by macro-factors, such as the general economic development, climatic conditions, fuel price development, technological challenges that all could cause reduced traffic volumes resulting in reduced toll revenues. The Group is active only in Italy and is therefore exposed to and limited by the general economic developments of the Italian republic. Additionally, the Group is exposed to regulatory risks. Changes in the regulatory environment could adversely affect its result of operations (i.e. change in laws and regulations affecting the tariff formula).

The business risk profile is low to intermediate. The Group has a long history and is able to generate solid earnings. The main risk is the loss of a concession due to either revocation or non-prolongation after expiry. This risk is increased by its undiversified concession portfolio (i.e. its main concession generates the large majority of the revenue). Additionally, all of the Group's assets and activities are located in Italy, exposing it to the general developments in the Italian economy.

Financial risks

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

ASPI is capital intensive with a fixed assets intensity ratio of 82.62% (2017: 78.05%). The high capital intensity is the result of the concessions, which are held by the Group and require ongoing high capital investments, which the Group is able to finance out of their operational cash flow. During the business year 2018 it generated a cash flow from operating activities of EUR 1,622 million (2017: EUR 1,913 million) and invested EUR 593 million in capital expenditure. ASPI is highly profitable with a net profit margin of 16.22% (2017: 28.09%) and a ROI of 5.81% (2017: 7.59%). Yet, despite the Group's high profitability its equity ratio stands at 2.07% (2017: 1.39%), which is chiefly the result of the Group's dividend policy.

The dividend policy is stipulated in its articles of association. It states that the profit for the year will be distributed to the maximum extent permitted by law, provided that the distribution is in keeping with the requirements of the concession arrangement and the financial covenants the Group is subject to. During 2018, the Group deviated from its ordinary dividend policy due to the event with the Polcevera Bridge. The Group declared a dividend of EUR 311.01 million, which represents approximately 50% of the Group's EAT.

The Group's aggressive dividend policy is partially offset by its ability to deleverage. As of 31 December 2018 the Group had a Net Finance Debt/EBITDA adj. of 3.74 and a net total debt/EBITDA adj.² of 7.42. Its borrowings amounted as of 30 June 2019 to EUR 10,590 million (2018: EUR 11.209 million). The Group's maturity profile is well distributed with EUR 949 million maturing in 2019, EUR 3,937 million between 1 and 5 years and EUR 6,323 million after 5 years.

As of 30 June 2019 the Group disposed over EUR 1,285 million in cash and cash equivalents, EUR 1,355 million in undrawn committed credit lines, and EUR 214 million in term deposits allocated primarily to finance the execution of specific construction services. We assess the Group's liquidity position as satisfactory, as we foresee no upcoming difficulties to cover its financial obligations.

We assess the Group's financial risk profile as low to intermediate. The Group is very profitable and has the ability to deleverage quickly and is able to cover its capital expenditure from its cash flow from operations. However, the Group has an aggressive dividend policy, hampering its ability to deleverage and to improve its equity ratio, which increases the risk in the financial structure.

Issue rating

Issue ratings details

The rating objects of this issue rating are exclusively the long-term senior unsecured issues, denominated in euro, issued by Autostrade per l'Italia S.p.A., which are included in the list of ECB-eligible marketable assets which can be found on the website of the ECB.

The issues have been issued under the current EMTN-programme, with its latest prospectus dating from 27 October 2016. This EMTN programme amounts to EUR 7,000 million. The notes and coupons under the EMTN programme constitute direct, unconditional, unsubordinated and unsecured obligations. Additionally, the notes benefit from a negative pledge provision and a cross default mechanism. A change of control mechanism does not exist in the terms and conditions. However, the concession grantor needs to give its consent to a change of control.

Corporate issue rating result

We have provided the debt securities issued by Autostrade per l'Italia with a rating of BBB / WATCH NEW. The rating is mainly based on the corporate rating of Autostrade per l'Italia S.p.A. Other types of debt instruments or issues denominated in other currencies by the Issuer have not been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

² According to CRA methodology "Corporate Ratings" Net Total Debt represents all balance sheet liabilities in the structured balance sheet.

Overview

Table 3: Overview of CRA Ratings | Source: CRA

Rating objects	Details	
	Date	Rating
Autostrade per l'Italia S.p.A. (Issuer)	26.09.2019	BBB / WATCH NEW
Long-term Local Currency (LT LC) Senior Unsecured Issues	26.09.2019	BBB / WATCH NEW
Other	--	n.r.

Table 4: Overview of 2019 Euro Medium Note Programme | Source: EMTN prospectus of 27.10.2016

Overview 2019 EMTN Programme			
Volume	EUR 7,000,000,000	Maturity	Depending on the respective bond
Issuer / Guarantor	Autostrade per l'Italia S.p.A.	Coupon	Depending on the respective bond
Arrangers	J.p. Morgan Securities plc Mediobanca – Banca di Credito Finanziar S.p.A.	Currency	Depending on the respective bond
Credit enhancement	none	ISIN	Depending on the respective bond

All future LT LC senior unsecured notes that will be issued by Autostrade per l'Italia S.p.A. and that have similar conditions to the current EMTN programme, 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 programme. Notes issued under the programme in any currency other than euro, or other types of debt instruments, have not yet been rated by CRA. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG. For the time being, other emission classes or programmes and issues that do not denominate in euro will not be assessed. For a list of all currently valid ratings and additional information, please consult the website of Creditreform Rating AG.

Financial ratio analysis

Table 5: Financial key ratios | Source: Autostrade per l'Italia S.p.A. consolidated annual report 2018, structured by CRA

Asset Structure	2016	2017	2018
Fixed asset intensity (%)	59.87	78.05	82.62
Asset turnover	0.14	0.16	0.20
Asset coverage ratio (%)	95.03	73.07	67.33
Liquid funds to total assets (%)	13.72	17.02	12.03
Capital Structure			
Equity ratio (%)	13.42	1.39	2.07
Short-term-debt ratio (%)	24.93	22.89	22.21
Long-term-debt ratio (%)	43.48	55.64	53.56
Capital lock-up period (in days)	122.91	130.31	125.46
Trade-accounts-payable ratio (%)	4.68	6.60	7.07
Short-term capital lock-up (%)	119.87	70.48	41.05
Gearing	5.43	58.62	41.53
Leverage	8.41	12.08	58.22
Financial Stability			
Cash flow margin (%)	12.68	23.85	14.07
Cash flow ROI (%)	1.76	4.41	2.89
Total debt / EBITDA adj.	11.91	9.26	8.46
Net total debt / EBITDA adj.	10.02	7.66	7.42
ROCE (%)	12.47	20.82	18.19
Total debt repayment period	-3.15	3.95	-160.83
Profitability			
Gross profit margin (%)	71.67	74.53	75.29
EBIT interest coverage	1.93	3.28	2.47
EBITDA interest coverage	2.59	4.32	3.59
Ratio of personnel costs to total costs (%)	13.99	14.16	13.45
Ratio of material costs to total costs (%)	28.33	25.47	24.71
Cost income ratio (%)	61.52	57.84	69.79
Ratio of interest expenses to total debt (%)	3.84	2.95	3.04
Return on investment (%)	6.72	7.59	5.81
Return on equity (%)	29.81	53.74	187.24
Net profit margin (%)	24.97	28.09	16.22
Interest burden (%)	49.17	75.16	66.17
Operating margin (%)	46.22	51.60	35.76
Liquidity			
Cash ratio (%)	48.26	64.05	43.26
Quick ratio (%)	157.24	90.66	72.19
Current ratio (%)	160.93	95.91	78.26
Cash Conversion Cycle (days)	-373.43	-429.40	-442.60
Inventory storage period (days)	17.80	21.07	22.13
Receivables collection period (days)	79.20	47.90	44.07
Payables settlement period (days)	470.42	498.37	508.80

Appendix

Rating history

The complete rating history is available under:

<https://www.creditreform-rating.de/de/ratings/published-ratings/>

Table 6: Corporate issuer Rating of Autostrade per l'Italia

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	26 September 2019	www.creditreform-rating.de	Withdrawal of the rating	BBB / WATCH NEW

Table 7: LT LC Senior Unsecured issues issued by Autostrade per l'Italia

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	26 September 2019	www.creditreform-rating.de	Withdrawal of the rating	BBB / WATCH NEW

Regulatory requirements

The present rating³ is an unsolicited rating. Creditreform Rating AG was not commissioned by the Issuer with the preparation of the rating. The present analysis was prepared on a voluntary basis.

The rating is based on the analysis of published information and on internal evaluation factors. The rating was conducted based on Creditreform Rating AG's "Corporate Ratings" methodology, the "Non-Financial Corporate Issue Rating" methodology, as well as on the "Rating Criteria and Definitions".

The documents submitted and information gathered were sufficient to meet the requirements of Creditreform Rating AG's rating methodologies. A complete description of Creditreform Rating AG's rating methodologies and Creditreform Rating AG's basic document "Rating Criteria and Definitions" is published on the following internet page:

www.creditreform-rating.de/en/regulatory-requirements/

This rating was carried out by analysts Rudger van Mook (r.vanmook@creditreform-rating.de) and Elena Damijan (e.damijan@creditreform-rating.de), both located in Neuss, Germany. A management meeting did not take place.

On 26 September 2019, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 30 September 2019. 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.

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.

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.

Please note:

This report exists in an English version only.

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.

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: <https://cerep.esma.europa.eu/cerep-web/statistics/defaults.xhtml>.

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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