Analysts

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5 December 2022 – Neuss, Germany

Rating Action / Update:

Creditreform Rating has affirmed the unsolicited corporate issuer rating of SNCF S.A., at A+. The outlook is revised from stable to positive.

Creditreform Rating (CRA) has affirmed the unsolicited, public corporate issuer rating of SNCF S.A. – also referred to as the Group or SNCF – as well as the unsolicited corporate issue rating of the long-term local currency senior unsecured notes issued by SNCF S.A. at A+. The outlook is revised from stable to positive.

Current relevant factors for the rating

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

- Strong rebound in passenger traffic levels after easing of COVID-19 restrictions
- Significantly improved operating performance in 2021 and the first half of 2022
- Sale of Ermewa Group led to non-recurring net-proceeds, improving 2021 result
- Strong continued performance of Geodis segment
- Debt relief program of the French state for SNCF Réseau further reduced indebtedness, improving both leverage and reducing finance expenses
- No change in our assessment of the Group's systemic relevance and relationship with the French state
- Affirmation of the unsolicited sovereign rating of the French republic at AA / negative on 16.05.2022
- No direct impact of the Russia-Ukraine war with no presence in the affected countries
- Increased energy prices might put pressure on the Group's margins after 2022

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.

ESG-criteria:

CRA generally considers ESG factors (environment, social and governance) within its rating decisions. In the case of SNCF S.A. we have identified ESG factors with significant influence on the following categories, which is described in the sections below.

(E) Environment ⊠   (S) Social ☐   (G) Governance ☐

(E): The business model makes a significant contribution to the reduction of CO_2 emissions in the transport of goods and people. We believe that the SNCF Group will play an essential role in the European transport sector and the CO_2 reduction policies in the future.

The transport sector is responsible for almost a quarter of Europe's greenhouse gas (GHG) emissions and is the only sector, which has increased its emissions since 1990. Consequently, transport emissions have gained in relative importants. Rail GHG intensity is significantly lower than per passenger kilometre (pkm) and per-tonne kilometre (tkm) than that of other transport modes except for maritime shipping of freight/bulk, which causes a higher level of air pollution. Therefore, we expect further policy measures on European and national levels to support rail over other transport modes.

Table 1: Average GHG emissions by motorised mode of transport, EU-27 in 2018 I Source: Fraunhofer ISI and CE Delft, 2020

Average GHG emissions					
gCO$_2$e per pkm	Passenger flight	Passenger cars	Buses and coaches	Maritime passenger	Passenger trains
Passenger transport	126	143	80	61	33
gCO$_2$e per tkm	Air cargo	Heavy goods vehicle	Inland water-ways transport	Maritime shipping	Rail freight
Freight transport	834	137	33	7	24

One of the targets of the European Green Deal is a 90% reduction of transport-related greenhouse gas emissions by 2050. In order to achieve this goal the European Commission has published the "*Sustainable and Smart Mobility Strategy*" on 9 December 2020. The strategy contains the following milestones regarding rail transport[1]:

- Traffic on high-speed rail will double by 2030 and triple by 2050.

- Rail freight traffic will increase by 50% by 2030 and double by 2050.

- By 2030, rail and waterborne-based intermodal transport will be able to compete on equal footing with road-only transport in the EU.

We expect that the rail sector in general and so SNCF's business model will benefit from further initiatives and guidelines on the European and national level, such as CO$_2$ pricing in an indirectly manner. Although future Europe-wide measures, such as the planned "Fit for 55" package, which also includes the promotion of alternative driving systems and fuels, could slow down the switch to railway traffic.

The French National Assembly has voted in favor of a bill that would ban short-haul carbon-emitting domestic flights on routes where a train connection under two-and-a-half hours exists in April 2021, after this has already been one of the conditions by the government for the French aid package for Air France-KLM a year earlier. The bill still has to pass the Senate before becoming law.

SNCF aims to achieve a reduction of 30% traction GHG per pkm by 2026 and a reduction of 50% GHG for the building stock between 2015 and 2030. It is therefore working on greening its rolling stock. In addition, the Group is one of the largest issuers of green bond in the world with currently EUR 7.6 billion outstanding amounts, which is a significant part of its funding. Projects financed by green bonds have saved the world 26 million tonnes of CO$_2$.

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.

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[1] Compared to the base year 2015.

Rating result

The current unsolicited corporate issuer rating of SNCF S.A. attests a very high level of creditworthiness, which represents a low default risk. The primary rating drivers are the Group's strong high systemic relevance, as well as the close relationship with the French government. The close relationship of the Group to the French state is evidenced by its ownership and is in our opinion again reaffirmed by the debt relief mechanism of EUR 35 billion that was implemented for SNCF Réseau, as well as the railway recovery plan of EUR 4.7 billion that were both initiated by the French government. We therefore believe that the French government would financially support SNCF S.A. should it be in need for extraordinary financial assistance, if it aligns with EU competition law. The distance between the unsolicited corporate issuer rating and the sovereign rating of the French republic (a minimum of one notch), stems from the absence of provided guarantees of the French state for SNCF's indebtedness. Further factors that have an influence on the rating are the relatively weak although improved financial key-figures, the liberalization of the French passenger rail market and the slump in performance during the 2020, and partially the 2021 COVID-19 crisis, which the Group still has not fully recovered from.

AS Covid-19 related protective measures dropped in March 2022 passenger traffic levels instantly rebounded and operating performance in the passengers segment normalized, but continued to slightly underperform against 2019 levels. Additionally, the other SNCF segments reported strong performance across the board, either because of passenger levels picking up again or due to strong market dynamics. In addition, the second phase of the Group's announced debt relief for SNCF Réseau technically led to a further reduction of indebtedness, which notably improved the Group's leverage, decreased financial expenses and improved financial headroom with regard to investment pressure. These positive factors are partly offset by increased economic volatility, rising interest rates, and increasing energy prices as economic turmoil intensified with the outbreak of the Russia-Ukraine war. The Group does not have any noteworthy operations in either Ukraine or Russia and therefore has not suffered any direct material impact out of the war in Ukraine. The Group has hedged energy prices for the remainder of 2022, but increased energy prices will most likely put pressure on earnings over the coming years.

Outlook

The one-year outlook for the unsolicited corporate issuer rating of SNCF S.A. is positive. This assessment is based on our believe that, if the health crisis remains non-problematic, the Group will be able to continue to show strong performance. If the Group can continue this path and its performance is confirmed we believe that an upgrade within the time horizon of one-year will be possible. In the event of a downgrade of CRA's unsolicited sovereign rating of the French republic, the positive outlook for the unsolicited corporate issuer rating will be reviewed, because, based on our methods, we believe that SNCF's rating should be at least one notch lower than the Sovereign rating of the French republic.

Best-case scenario: AA-

In our Best-case scenario for one year we assume a rating of AA-.In this scenario the Group will continue on its current trajectory, with passenger traffic levels returning to pre-pandemic levels, and GEODIS, as well as the other segments, will maintain current operating development. The reduced debt levels in combination with the improved operating and profit drivers will warrant an upgrade. This scenario assumes no negative change in CRA's unsolicited sovereign rating of the French republic.

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: A+

In our Worst-case scenario for one year, we assume a rating of A+. In this scenario we assume that the Group will again suffer a significant decline in operating profit either through a resurgence of COVID-19 cases, or due to further increasing energy prices on the energy markets, which will put SNCF's operating profit under pressure from 2023 onwards, again leading to a deterioration of its financial key figures. However, due to the fact that the Group has some headroom we do not believe a downward rating adjustment will be necessary within the time horizon of one year.

This scenario assumes no negative change in CRA's unsolicited sovereign rating of the French republic. A downgrade of the sovereign rating of the French republic in combination with a slump in operating development at SNCF might lead us to reassess and adjust our worst-case scenario downwards.

Business development and outlook

Following a slump in revenues in 2020 and despite ongoing constraints caused by the COVID-19 crisis, the SNCF Group rebounded strongly in 2021 with revenues amounting to EUR 34,752 million (2020: EUR 29,975 million). The rise in revenues were primarily driven by the Freight and Logistics (EUR +2,634 million) and Passengers (EUR +1,643 million) segments, as well as to a lesser extent by the Infrastructure management and Keolis segments. Geodis, which benefited from strong market dynamics, primarily drove the increase in Freight and Logistics. The higher revenues in the Passengers segment were mainly realized due to the decreased severity of the mobility and sanitary restrictions in 2021. Despite a significant increase in Passengers segment revenues, it is noteworthy to mention that its revenues remained clearly below pre-pandemic levels and was predominantly caused by the segment TGV-Intercités, which generated revenues of EUR 5,368 million (2020: EUR 4,112 million), which is still well below the EUR 8,749 million of 2019. Keolis, TER and Transilien have limited exposure to the reduced passenger numbers as they have contractual agreements, which share the risks with the organising authorities. In total the COVID-19 crisis had a negative impact of EUR 4.1 billion in 2021, of which approximately 80% caused by TVG-Intercités.

Table 2: Development of revenues of SNCF S.A. (Group)

SNCF S.A. Reported Revenues (Group)				
In million EUR	2019	2020	2021	2020/2021 Δ %
Infrastructure Management	7,724	6,744	7,612	12.9%
Passengers	16,805	12,065	13,708	13.6%
Keolis	6,592	6,093	6,314	3.6%
Freight & Logistics	10,227	10,222	12,856	25.8%
SNCF Immobilier	534	645	650	0.8%
Corporate	1,098	1,014	1,028	1.3%
Inter-segment eliminations	-7,861	-6,807	-10,486	--
Total	**35,120**	**29,975**	**34,752**	**15.9%**

EBITDA and EBIT rose to EUR 7,655 million (2020: EUR 3,166 million) and EUR 2,357 million (2020: EUR -2,358 million) respectively, and were primarily driven by the increased revenue generation, but also rose due to the sale of the Ermewa Group, resulting in a non-recurring gain of EUR 1,125 million, as well as reduced depreciation of EUR 190 million, mainly due to the reclassification of Ermewa assets to IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations).

This was slightly offset by impairment losses of EUR 51 million. Adjusted by these non-recurring factors, EBITDA and EBIT still significantly improved against the prior year, but continued to lag behind pre-pandemic levels as the business year 2021 still was affected by COVID-19 constraints. Particularly TGV Intercites, in the passengers segment, continued to have negative reported EBITDA of EUR -349 million (2020: EUR -1,406 million), which resulted from the continued slump in traffic. EAT increased to EUR 766 million (2020: EUR -3,449 million).

Table 3: Development of EBITDA of SNCF S.A. (Group)

SNCF S.A. Reported external EBITDA before asset disposals (Group)				
In million EUR	**2019**	**2020**	**2021**	**2020/2021 Δ %**
Infrastructure Management	2,015	1,088	1,964	80.5%
Passengers	1,752	-824	199	124.2%
Keolis	627	434	606	39.6%
Freight & Logistics	941	1,005	1,364	35.7%
SNCF Immobilier	203	204	225	10.3%
Corporate	120	29	-15	-162,5%
Total	**5,658**	**1,936**	**4,343**	**124.3%**

The 2021 structured financial ratio analysis improved significantly against 2020. The Group's Net Total Debt / EBTDA adj. declined to 10.32 (2020: 21.54). Return on investment rose to 2.43% (2020: -2.51%), as well as EBITDA interest coverage, which rose to 3.52 (2020: 1.84). The improvements in comparison to the prior year are predominantly rooted in the improved operating results following shorter and less severe periods with regard to COVID-19 restrictions. However, despite comparably lower operating performance against the pre-pandemic period, the structured financial key ratio analysis in 2021 also showed improvements against 2019.The reason for this predominantly lies in the debt relief mechanism for SNCF Réseau, set up by the French government, where the government assumed EUR 25 billion of SNCF Réseau's debt in 2020. The French government's public fund (PDF) lend to and borrowed EUR 25 billion from SNCF Réseau, with the exact same conditions (maturity, interest, etc). The state then replaced SNCF Réseau as debtor for these financial instruments to the PDF. SNCF Réseau still receives from the PDF the interest and principal of the created synthetic debt until maturity and therefore effectively canceled out EUR 25 billion of debt in their financial statements in terms of both principal and interest. This mechanism resulted in the recognition of public debt fund receivables under financial assets and extended the balance sheet. We deducted the respective amount from the balance sheet for our structured financial analysis to ensure better comparability. For more information with regard to this mechanism, we would like to refer you to our rating report and update of 2020 and 2021 respectively. At the start of 2022 an additional EUR 10 billion of debt was relieved with the same mechanism that was used in 2020.

Cash flow from operating activities was much stronger than in the prior year at EUR 4,415 million (2020: EUR 2,731 million), predominantly due to improved operating performance. The Cash flows after investments increased significantly to EUR 4,467 million (2020: EUR -1,800 million) and were, aside from the improved operating performance also affected by the sale of Ermewa, which led to additional cash flows of EUR 2.1 billion during the year. Further non-recurring cash inflows were the EUR 1.645 billion SNCF received from the state support fund. Additionally, SNCF initiated a performance and savings plan during 2021, which was installed to improve its cash position to counter the negative effects of the COVID-19 crisis. This plan boosted cash-flows by an additional EUR 1.9 billion. Adjusted by non-recurring effects (Sale of Ermewa, funds from the

State Support Fund as well as the COVID-19 performance and savings plan), cash flow after investments still was significantly negative, which is partially still due to reduced operating performance of COVID-19. We assume that cash flow after investments will return to slightly positive after traffic numbers will normalize. Additionally, the second installment of the debt relief mechanism in 2022 will further reduce negative pressure on cash outflows and the funds from the state support fund will continue to alleviate pressure in 2022 and 2023. SNCF Réseau's EUR 35 billion debt relief program should reduce the Group's total financial expenses by approximately EUR 1.1 billion annually in total.

Table 4: Financials of SNCF S.A. (Group) I SNCF S.A. Annual report 2021, standardized by CRA

SNCF S.A Selected key figures of the financial statement analysis Basis: Annual accounts and report of 31.12. (IAS, Group)	CRA standardized figures[2]	
	2020	**2021**
Sales (million EUR)	29,975	34,752
EBITDA (million EUR)	3,166	7,655
EBIT (million EUR)	-2,358	2,357
EAT (million EUR)	-3,449	766
EAT after transfer (million EUR)	-3,030	890
Total assets (million EUR)	93,300	90,727
Equity ratio (%)	15.36	15.78
Capital lock-up period (days)	86.58	78.30
Short-term capital lock-up (%)	54.67	39.95
Net total debt / EBITDA adj. (factor)	21.54	10.32
Ratio of interest expenses to total debt (%)	2.18	1.93
Return on Investment (%)	-2.51	2.43

During the first 6 months of 2022 revenue levels increased to EUR 20,270 million (H1 2021: EUR 16,060 million). The normalization of passenger traffic levels for TGV-Intercités signaled an important turning point in SNCF's performance, as it suffered significantly under the COVID-19 pandemic, and saw a surge in passenger levels from March 2022 onwards. SNCF Réseau also reported significant growth against the prior year due to increased traffic on its network. Additionally, Geodis continued its strong performance due to strong market dynamics, especially in Forwarding, Distribution & Express and Road Transport and reported record revenues at EUR 6,748 million (H1 2020: EUR 4,865 million). TER and Keolis also contributed to the growth, albeit to a lesser extent. TGV-Intercités, saw its revenue almost double against H1 2021, but continued to underperform against 2019 levels due to the impact earlier in the year. Group EBITDA rose significantly, and stood at higher levels than in 2019 due to strong performance across the board. Against 2019 EBITDA of TGV-Intercités continued to be lower at EUR 415 million (H1 2019: 657 million), but this was compensated by comparably strong performance of Geodis, Rail Logistics Europe, TER, Transilien and SNCF Gares & Connexions against 2019. EAT was significantly higher at EUR 940 million (H1 2021: EUR -876 million) due to lower net finance costs. This was partially due to the additional debt relief of SNCF Réseau of EUR 10 billion, which further reduced annual finance expenses by approximately EUR 280 million, as well as updated discount rates

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[2] For analytical purposes, CRA adjusted the original values in the financial statements in the context of its financial ratio analysis. For example, when calculating the analytical equity ratio, deferred tax assets, goodwill (entirely or partly), and internally-generated intangible assets are subtracted from the original equity, whilst deferred tax liabilities are added. Net total debt takes all balance sheet liabilities into account. Therefore, the key financial figures shown often deviate from the original values of the company.

used to measure provisions for employee benefits. Due to the further debt relief, the Group's indebtedness net of public debt fund receivables was reduced to EUR 29,487 million (2021: EUR 44,226).During the first half of 2022 the Group invested a total of EUR 4.3 billion.

The current positive developments in operating performance are mostly driven by two segments. The strong performance of Geodis and the passengers segment. We believe that it is likely that this trend will continue, provided that no large scale COVID-19 measures to contain the spread will be implemented or that a global or European recession, impacting the demand for the transport of goods, will arise. The strong development of the Group might be slowed down by increased energy prices, which indirectly result out of the Russia-Ukraine war. SNCF has hedged energy prices for the remainder of 2022, but the higher energy prices will most likely put pressure on earnings from 2023 onwards. The Group has not suffered any direct material consequences resulting out of the Russia-Ukraine war, as it has no presence in these countries.

Table 5: Development of results of SNCF S.A. (Group)

SNCF S.A. (Group) Development of H1 reported results from 2019 to 2021				
in Mio. EUR	H1 2019	H1 2020	H1 2021	H1 2022
Sales	17,854	14,129	16,060	20,270
EBITDA	2,906	69	1,394	2,983
EBIT	1,080	-1,918	-389	1,107
EBT	205	-2,462	-773	1,008
EAT	30	-2,559	-876	940

Liquidity at the end of H1 2022 was strong. The Group had cash and cash equivalents of EUR 9,579 million (2021: EUR 10,772 million). In addition, it disposes over a revolving credit facility of EUR 3.5 billion, a Euro Commercial Paper program capped at EUR 5 billion, and a negotiable European Commercial Paper program of an additional EUR 3 billion for short term financing.

Issue rating

Issue rating details

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

The notes have been issued within the framework of the Euro Medium Term Note (EMTN) program, of which the latest base prospectus dates from 9 March 2022. This EMTN program amounts up to EUR 15bn. The notes under the EMTN program are senior unsecured, and rank at least pari passu among themselves and with all other present and future unsecured obligations of the issuer. Additionally, the notes benefit from a negative pledge provision and a cross default mechanism.

We have provided the debt securities issued by SNCF S.A. with a unsolicited corporate issue rating of A+. The rating and outlook are based on the unsolicited corporate issuer rating of SNCF S.A.

The following tables provide an overview of the unsolicited ratings issued by Creditreform Rating AG in this context, as well as the key features of the EMTN program base prospectuses of 9 March 2022.

Overview

Table 4: Overview of CRA unsolicited Ratings I Source: CRA

Rating Category	Details	
	Date	Rating
SNCF S.A. (Issuer)	30.11.2022	A+ / positive
Long-term Local Currency (LC) Senior Unsecured Issues	30.11.2022	A+ / positive
Other	--	n.r.

Table 5: Overview SNCF Euro Medium Term Note Programme I Source: Base Prospectus dated 09.03.2021

Overview of 2021 EMTN Programme			
Volume	EUR 15,000,000,000	Maturity	Depending on respective bond
Issuer / Guarantor	SNCF S.A. / none	Coupon	Depending on respective bond
Arranger	HSBC	Currency	Depending on respective bond
Credit enhancement	none	ISIN	Depending on respective bond

All future LT LC senior unsecured Notes that will be issued by SNCF S.A. and that are issued under the current EMTN programme or which have similar conditions to the 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.

Appendix

Rating history

The rating history is available under:

https://www.creditreform-rating.de/en/ratings/published-ratings.html

Table 6: Corporate issuer rating of SNCF S.A. | Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial Rating	01.02.2017	10.02.2017	23.04.2017	AA- / stable

Table 7: LT LC senior unsecured issues by SNCF S.A. | Source: CRA

Event	Rating date	Publication date	Monitoring period	Result
Initial rating	08.10.2018	16.10.2018	06.05.2020	AA-

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.

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 <u>not</u> 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
Government-related Companies	1.0	April 2017
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.

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[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 was carried out by the following analysts:

Name	Function	Mail-Address
Christian Konieczny	Lead-analyst	C.Konieczny@creditreform-rating.de
Tim Winkens	Analyst	T.Winkens@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 5 December 2022, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 5 December 2022. There has not been a subsequent change to the rating.

The rating will be monitored until Creditreform Rating AG withdraws the rating. The rating can be adjusted as part of the monitoring, if crucial assessment parameters change.

In 2011, Creditreform Rating AG was registered within the European Union according to EU Regulation 1060/2009 (CRA-Regulation). Based on this registration, Creditreform Rating AG is allowed to issue credit ratings within the EU and is bound to comply with the provisions of the CRA-Regulation.

ESG-factors

You can find out whether ESG factors were relevant to the rating in the upper section of this rating report "Relevant rating factors".

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

Conflict of interests

No conflicts of interest were identified during the rating process that might influence the analyses and judgements of the rating analysts involved or any other natural person whose services are placed at the disposal or under the control of Creditreform Rating AG and who are directly involved in credit rating activities or in approving credit ratings and rating outlooks.

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

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

Rules on the presentation of credit ratings and rating outlooks

The approval of credit ratings and rating outlooks follows our internal policies and procedures. In line with our "Rating Committee Policy", all credit ratings and rating outlooks are approved by a rating committee based on the principle of unanimity.

To prepare this credit rating, Creditreform Rating AG has used following substantially material sources:

Corporate issuer rating:

1. Annual report

2. Website

3. Internet research

Corporate issue rating:

1. Corporate issuer rating incl. information used for the corporate issuer rating

2. Documents on issues / instruments

There are no other attributes and limitations of the credit rating or rating outlook other than those displayed on the Creditreform Rating AG website. Furthermore, Creditreform Rating AG considers as satisfactory the quality and extent of information available on the rated entity. With respect to the rated entity, Creditreform Rating AG regarded available historical data as sufficient.

Between the time of disclosure of the credit rating to the rated entity and the public disclosure, no amendments were made to the credit rating.

The Basic Data Information Card indicates the principal methodology or version of methodology that was used in determining the rating, with a reference to its comprehensive description.

In cases where the credit rating is based on more than one methodology or where reference only to the principal methodology might cause investors to overlook other important aspects of the credit rating, including any significant adjustments and deviations, Creditreform Rating AG explains this fact in the credit rating report and indicates how the different methodologies or other aspects are taken into account in the credit rating. This information is integrated in the credit rating report.

The meaning of each rating category, the definition of default or recovery and any appropriate risk warning, including a sensitivity analysis of the relevant key rating assumptions such as mathematical or correlation assumptions, accompanied by worst-case scenario credit ratings and best-case scenario credit ratings are explained.

The date at which the credit rating was initially released for distribution and the date when it was last updated, including any rating outlooks, is indicated clearly and prominently in the Basic Data Information Card as a "rating action"; initial release is indicated as "initial rating", other updates are indicated as an "update", "upgrade" or "downgrade", "not rated", "confirmed", "selective default" or "default".

In the case of a rating outlook, the time horizon is provided during which a change in the credit rating is expected. This information is available within the Basic Data Information Card.

In accordance with Article 11 (2) EU-Regulation (EC) No 1060/2009, a registered or certified credit rating agency shall make available, in a central repository established by ESMA, information on its historical performance data including the rating transition frequency and information about credit ratings issued in the past and on their changes. Requested data are available at the ESMA website.

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

Creditreform **⊆**
Rating

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