

15 October 2021 – Neuss, Germany

Rating Action / Update:

Creditreform Rating has changed the unsolicited corporate issuer rating of SNCF S.A., to **A+ / stable**

Creditreform Rating (CRA) has changed the unsolicited, public corporate issuer rating of SNCF S.A. – also referred as Company or the Group - as well as the unsolicited corporate issue ratings of long-term local currency senior unsecured notes issued by SNCF S.A. to **A+**. Additionally, CRA has provided the above rating objects with a **stable** outlook. We also refer to the previous year's rating report dating from 7 May 2020, which contains further essential information regarding SNCF S.A.

Current relevant factors for the rating

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

- SNCF is still a strong government-related company to the French Republic
- CRA confirmed the unsolicited sovereign rating of the French Republic with an **AA / negative** on 18 May 2021
- Willingness of the owner to provide the SNCF Group with sufficient financial support in an crisis scenario
- A EUR 35bn debt transfer from SNCF Réseau to the French state conducted in two tranches, with the first EUR 25bn transfer conducted on 1 January 2020
- Track record of state support, including a EUR 4.7bn rail recovery plan in fall 2020
- Significant decline in the result of our financial key figures analysis for business year 2020
- Strong decline in sales (-14.6%) in 2020 mainly due to the COVID-19 pandemic
- Passengers business line highly affected by the pandemic but sales from freight & logistics in total remained stable in 2020 and shows a good development in 2021
- The business year 2020 ended with a reported loss of around EUR 3.4bn
- Sharply lower operating cash flows in 2020, which were mitigated by various countermeasures in a reported amount of EUR 2.5bn
- Public transport shows that it is susceptible to pandemic crises especially in passenger transport
- Remaining uncertainties and risks associated with the impacts of the pandemic and the path of recovery in the short and medium run
- Liquidity remains good in 2020 and 2021
- Despite remaining low passenger transport in 2021, H1 figures show a positive trend regarding a moderate recovery in sales and results
- Overall, increased commitment from politics and society to strengthening the railways in Germany and Europe

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

Analysts

Christian Konieczny
Lead Analyst
C.Konieczny@creditreform-rating.de

Tim Winkens
Co-Analyst
T.Winkens@creditreform-rating.de

Neuss, Deutschland

(E): The business model makes a significant contribution to the reduction of CO_{2e} emissions in the transportation of goods and people and, in our opinion, will play an essential role in the European transport in general and CO₂-reduction policy 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 importance. Rail GHG intensity is significantly lower 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 | Source: Fraunhofer ISI and CE Delft, 2020

Average GHG emissions					
gCO _{2e} per pkm	Passenger flight	Passenger cars	Buses and coaches	Maritime passenger	Passenger trains
Passenger transport	126	143	80	61	33
gCO _{2e} per tkm	Air cargo	Heavy goods vehicle	Inland waterways 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 transport¹:

- 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 CO₂ pricing in an indirectly manner.

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 and a reduction of 50% GHG for the building stock between 2015 and 2030. It is therefore working on greening its rolling stock. To phase out diesel by 2035, the introduction of hybrid trains with biofuel (Q4 2022), battery-powered trains (mid 2023) and hydrogen-powered trains (mid 2025) is planned for the regional rail service TER. For the TGV high-speed train service the introduction of the TGV M is planned

¹ Compared to the base year 2015.

for the Olympic games in 2024. This version will have a 20% higher passenger capacity per train-set, a 97% recyclability of the materials and will have 32% less CO₂ emissions.

The Group is one of the leading Corporate Green Bond issuers worldwide², with an outstanding bonds total of EUR 7.6bn, as of 30 June 2021, which is a significant portion of its funding.

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 unsolicited Corporate Issuer rating of **A+** attests SNCF S.A. a high level of creditworthiness, which represents a low default risk.

Although the financial ratios of SNCF are rather average and deteriorated again in 2020, the rating is still largely determined by the Company's high degree of systemic relevance for France and the EU's railway grid strategy respectively CO₂ emission targets, as well as its close relationship with the French state. Their general close relationship is evidenced by its ownership, the high percentage of revenue generated by public bodies, and the debt relief mechanism, which was implemented by the French government for SNCF Réseau S.A. The current sovereign rating for the French Republic is **AA** with a **negative** outlook (18.05.2021). We see the EUR 4.7bn railway recovery plan as a confirmation of our assessment that the French state would financially support SNCF S.A. in a crisis scenario, provided that it aligns with EU competition law.

The EUR 3.4bn net loss for the business year 2020 respectively the significant decline in our financial figure analysis as well as the considerable decline in passenger numbers in comparison to pre-pandemic levels that SNCF has also to deal with in the current financial year 2021 are essential for the current downgrade. The government relation, systemic relevance and the expectation of a further recovery in business development, with rising passenger numbers and a decreasing impact of the pandemic, mainly limit the downgrade. An additional supportive effect has the increased equity ratio caused by the EUR 25bn debt transfer on 1 January 2020 and the for 1 January 2022 planned second tranche of the debt transfer of EUR 10bn. Furthermore, we see the further granting of EUR 4.05bn (as a part of the above mentioned railway recovery plan), which partly reduce the effects of the COVID-19 pandemic as positive. As we understand that SNCF S.A. paid an exceptional dividend to the French support fund (Fonds de concours) which will be used to support projects by SNCF Réseau from 2021 onwards and therefore should lower its net capital expenditure.

Outlook

The one-year outlook for the unsolicited corporate issuer rating of SNCF S.A. is **stable**. Despite the negative outlook of CRA's unsolicited Sovereign rating of the French Republic and the remaining uncertainties and risks associated with the impacts of the pandemic on SNCF's business we currently see no further needs for an additional downgrade in the short run. This is because we currently assume a relativization of the pandemic effects and an improvement of the business development on SNCF's fundamentally sustainable business model as it is evidenced by

² According to SNCF, fifth largest in the world.

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.

the H1 2021 results. At this point, we expect the results 2021 to be better than in the previous year.

Best-case scenario: AA-

In our best-case scenario for one year, we assume a rating of AA-. In this scenario, the financial results for 2021 show a positive EAT in combination with a positive trend in our financial key figures analysis in general. The effects of the COVID-19 pandemic are no longer lasting in a considerable manner and business operations with pre-pandemic occupancy rates are conducted in the business year 2022. In this scenario, the unsolicited sovereign rating of France were not downgraded so far. Its outlook would change from negative to stable. Our opinion on the strength of the state relationship would remain unchanged.

Worst-case scenario: A

In our worst-case scenario for one year, we assume a rating of A. This could occur due to a downgrade of the sovereign rating of the French Republic in combination with an ongoing low business level, which could be caused by a resurgence of COVID-19 infections, which may lead to ongoing low passenger volumes and burdens of general economic development. A deterioration in our opinion on government relation could also lead to a downgrade.

Business development and outlook

In 2020, the Group's sales were reduced by EUR 5,145m or 14.6% y-o-y mainly due to the COVID-19 pandemic effects. The business lines were affected very differently with diverging developments for passengers and freight & logistics. While the passengers business line was hit hard by the pandemic, especially the high-speed rail business with a revenue reduction of 54%. Freight & logistics was in total unaffected, with the logistics specialist GEODIS having increased sales by 4.5% which was offset by lower sales from Rail Logistics Europe. Sales from Infrastructure Management declined as French national network operator SNCF Réseau reported 9% less sales due to lower track access fees and railway stations operator Gares & Connexions reduced its sales by 4%. The revenues of the geographically diversified local public transport business Keolis were affected very differently depending on local restrictions at the various locations but in total declined by 7.6%.

Table 2: The development of SNCF`s business lines | Source: SNCF Annual Report 2020

SNCF S.A. (Group)				
In million EUR	2019	2020	Δ	Δ %
Infrastructure Management	7,724	6,744	-980	-12.7%
Passengers	16,805	12,065	-4,740	-28.2%
Keolis	6,592	6,093	-499	-7.6%
Freight & Logistics	10,227	10,222	-5	0.0%
SNCF Immobilier	534	645	111	20.8%
Corporate	1,098	1,014	-84	-7.7%
Inter-segment eliminations	-7,861	-6,807		
Total	35,120	29,975	-5,145	-14.6%

The Group's cost structure is rather inflexible, with *purchases and external charges* (2020: EUR 12,729m, -6.8% y-o-y) not fully responding to the 14.6% decline in sales. Of these, the largest cost component *subcontracting* remained with EUR 6,069m (-0.1% y-o-y) roughly at the same

level as in 2019, while *Eurotunnel and other infrastructure fees* with EUR 698m in 2020 declined by 22.8%, *other purchases and external charges* with EUR 5,454m declined by 9.8% and *traction energy* with EUR 507m by 20,0%. The gross profit margin therefore diminished by 3.6 percentage points to 57.5%. Other operating income and expenses caused a loss of EUR 16m in 2020. Employee expenses for 2020 were only 3.3% lower than in the previous year with SNCF being able to place some employees on furlough and partly due to an around 4.8k lower headcount. The analytical EBITDA was materially reduced by 55.8% to EUR 3,187m. Depreciation & Amortization amounted to EUR 5,524m (2019: EUR 5,411m). The net financial result improved by EUR 714m in comparison to the previous year mainly attributable to the EUR 25bn debt transfer to the French state. The annual loss was EUR -3,449m with the loss attributable to equity holders of the Group at EUR -3,030m³.

As a consequence of the pandemic, operations were sharply reduced from 17 March 2020. Services gradually recovered from the first easing of lockdown measures, in compliance with the various government measures afterwards. In response, SNCF rolled out a crisis mitigation plan in April 2020. The action plans aims to generate an additional EUR 2.5bn in free cash flow in different areas through various measures, i.e. decrease in SG&A costs, short-time working, postponement of non-essential projects and securitization of receivables.

The result of our financial ratio analysis worsened for 2020, mainly due to what we see until now as temporary effects of the COVID-19 pandemic, which led to a drastic decline in sales, EBITDA and net profit. Therefore, the net total debt / EBITDA adj. and return on investment contracted materially. Provided that the pandemic effects further decrease, we see good chances that the business development of the industry in general and also of the SNCF will recover gradually to a pre-crisis level. The decline in most key financial ratios was partly set off by the first transfer of EUR 25bn debt from SNCF Réseau to the French state, which occurred on 1 January 2020 and led to a positive equity position respectively a significant increase in the equity ratio. Technically, the debt is mirrored by the same amount as public debt fund receivables under financial assets leading to a balance sheet extension of roughly EUR 30.1bn. We deducted the amounts from both sides of the balance sheet for our analytical analysis to ensure a better comparability. This had a positive effect on the quantitative analysis results, which were nevertheless significantly below those of the previous year.

On 3 September 2020, the French government announced the EUR 100bn economic stimulus package *France Relance*, which aims to elevate the French economy back to the pre-pandemic prosperity level until 2022. This includes a EUR 4.7bn rail recovery plan. Thereof, EUR 4.05bn was used as a capital increase for SNCF Réseau to secure planned investment programs and EUR 0.6bn for earmarked projects. We see our assessment of SNCF's importance for the French state and the ability and willingness of the French state to give extraordinary financial support to SNCF S.A. mainly as confirmed.

The liquidity situation of the Group remains good. The current ratio was 105.6% as of 31 December 2020 (2019: 97.0%). Cash and cash equivalents amounted to EUR 7.9bn (2019: EUR 7.8bn) at the end of the year. As of 30. June 2021 the amount of cash and cash equivalents increases to EUR 9.2bn, with an additional revolving credit line EUR 3.5bn, which has not been used yet. During the pandemic, the Group adjusted its liquidity management, which included that a minimum cash amount of EUR 1bn is available overnight at all times. SNCF possess a

³ Thereof EUR 0.4bn due to a strike in January 2020.

variety of long-term and short-term capital markets funding sources. Besides private placements and its EMTN programme over EUR 12bn of which EUR 6.5bn were used as of 31 December 2020, the Group has a EUR 3bn NEU-CP programme, of which EUR 1.3bn were used, and a EUR 5bn Euro-CP programme, of which EUR 0.5bn were used at year-end, for short-term funding purposes. Due to the Company's high cash and cash equivalents position as well as its very good access to capital markets, we see the liquidity risk for the Group despite the impacts of the pandemic on the free cash flow as low.

Table 3: Financials of SNCF S.A. | Source: SNCF S.A. Annual report 2020, standardized by CRA

SNCF S.A. Selected key figures of the financial statement analysis Basis: Annual accounts and report of 31.12.2020 (IAS, Group)	CRA standardized figures ⁴	
	2019	2020
Sales (million EUR)	35,120	29,975
EBITDA (million EUR)	7,204	3,166
EBIT (million EUR)	1,793	-2,358
EAT (million EUR)	-774	-3,449
EAT after transfer (million EUR)	-801	-3,030
Total assets (million EUR)	91,074	93,301
Equity ratio (%)	-14.10	15.36
Capital lock-up period (days)	70.36	86.58
Short-term capital lock-up (%)	43.21	54.67
Net total debt / EBITDA adj. (factor)	13.52	21.54
Ratio of interest expenses to total debt (%)	2.22	2.18
Return on Investment (%)	1.29	-2.51

SNCF's outlook as of H1 2021 contains remaining uncertainties and risks associated with the impacts of the pandemic and the path of recovery. Nevertheless, we currently assume a relativization of the pandemic effects for the full business year 2021 and an improvement of the business development on SNCF's fundamentally sustainable business model as it is evidenced by the H1 2021 results. We come to this assessment because the vaccination rates have risen noticeably and various measures to contain the pandemic in France, which mostly also burdened the H1 2021, are likely to be largely eliminated in the H2. We assume that the implementation of health pass restrictions should have an overall positive effect for rail travel and significantly reduce the likelihood of further tightened lock-downs. At this point, we expect the results 2021 to be better than the previous year, despite a high impact for the H1 2021 figures due to the various national restrictions relating to the pandemic in France. However, risks especially regarding coronavirus variants remain. Overall the result (EAT) of SNCF group could still be negative at the end of 2021, leading to still weak key financial figures in our analysis, while we expect a normalization only at the earliest in 2022. Although, it remains to be seen if the pandemic has led or pushed a general trend towards more remote working and less personal business travel which could have a lasting effect on the occupancy rates of the trains. As SNCF reported for H1

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.

2021, long distance passenger rail service held occupancy rates only above 60%, despite adjustments were made to meet shifts in demand. The second debt transfer to the French state over EUR 10bn will occur on 1 January 2022. Together with improved sales and earnings, this should lead to a significant improvement in the results of the financial analysis in the long run.

Table 4: Development of H1 results | Source: SNCF S.A. H1 Results 2020 & 2021

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

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) programme, of which the latest base prospectus dates from 9 March 2021. This EMTN programme amounts up to EUR 15bn. The notes under the EMTN programme 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 is based on the unsolicited corporate issuer rating of SNCF S.A. (**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 programme base prospectuses of 9 March 2021.

Overview

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

Rating Category	Details	
	Date	Rating
SNCF S.A. (Issuer)	15.10.2021	A+ / stable
Long-term Local Currency (LC) Senior Unsecured Issues	15.10.2021	A+ / stable
Other	--	n.r.

Table 5: Overview SNCF Euro Medium Term Note Programme | 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

Railway Market and Passenger Development

Figure 1: Development of Passenger-Kilometres | Source: Eurostat, [Statistics | Eurostat \(europa.eu\)](#)

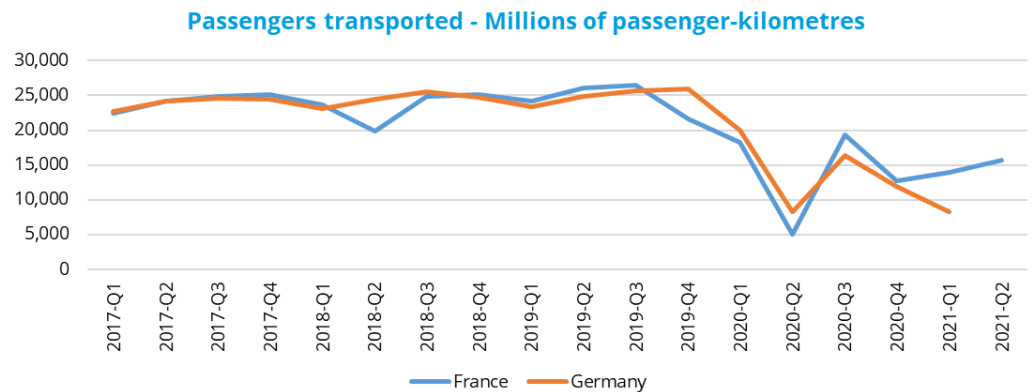


Figure 2: Development of Passenger Segment Revenue/Volume Loss by the Community of European Railway and Infrastructure Companies (CER) | Source: CER, [Latest CER COVID Impact Tracker: continued losses for rail in 2021 | CER:Home](#)

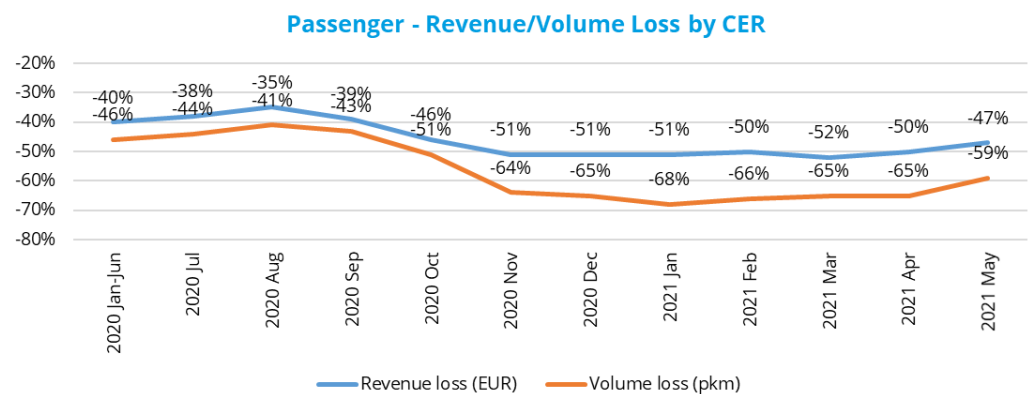


Figure 3: Development of Freight Segment Revenue Loss by the Community of European Railway and Infrastructure Companies (CER) | Source: CER, [Latest CER COVID Impact Tracker: continued losses for rail in 2021 | CER:Home](#)

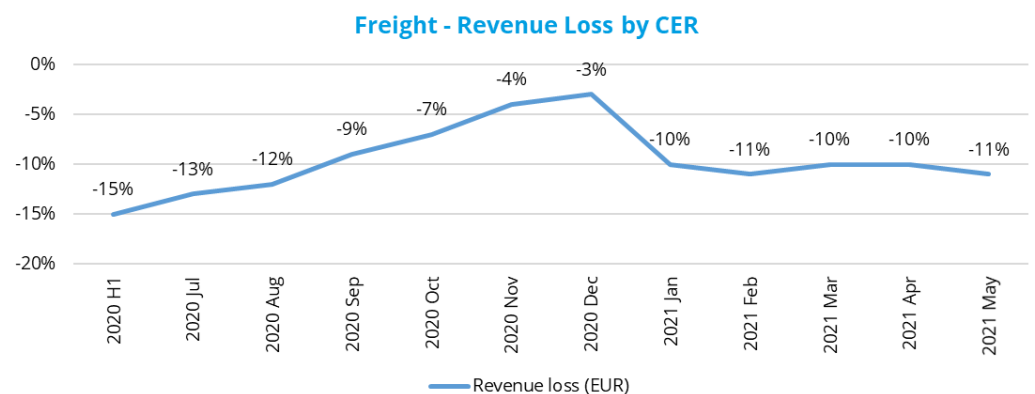
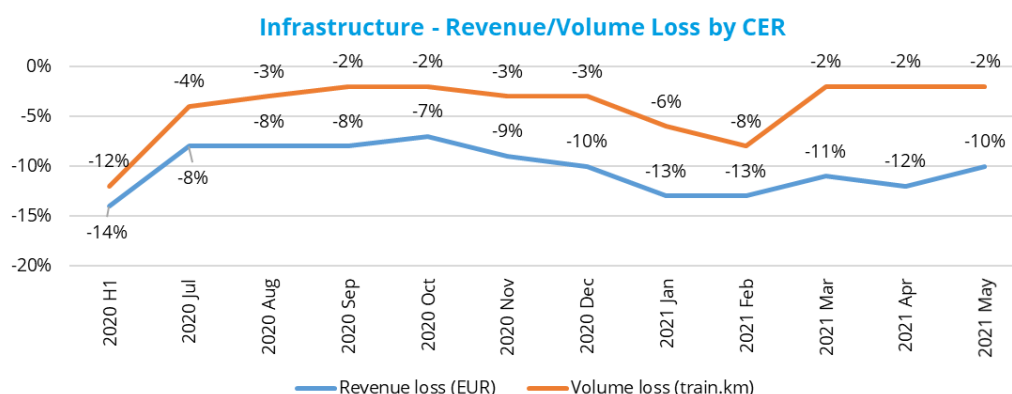


Figure 4: Development of Freight Segment Revenue Loss by the Community of European Railway and Infrastructure Companies (CER) | Source: CER, [Latest CER COVID Impact Tracker: continued losses for rail in 2021](#) | [CER:Home](#)



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 rating⁵ 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

⁵ 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 conducted based on the following information.

List of documents
Accounting and controlling
<ul style="list-style-type: none"> SNCF Group Annual Financial Report 2020 SNCF Group 2021 H1 Results SNCF Group 2020 H1 Results
Finance
<ul style="list-style-type: none"> Base Prospectus of the EMTN Programme 09.03.2021
Additional documents
<ul style="list-style-type: none"> SNCF Group Investor Presentation 9-10/03/2021 SNCF Group Investor Presentation 12/10/2021

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

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

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

Rating methodology	Version number	Date
Corporate Ratings	2.3	29.05.2019
Government-related Companies	1.0	19.04.2017
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.

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 15 October 2021, the analysts presented the rating to the rating committee and the rating was determined. The rating result was communicated to the company on 18 October 2021. 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.

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.

We have assumed that the documents and information made available to us by the client are complete and accurate and that the copies provided to us represent the full and unchanged contents of the original documents. Creditreform Rating AG assumes no responsibility for the true and fair representation of the original information.

This report is protected by copyright. Any commercial use is prohibited without prior written permission from Creditreform Rating AG. Only the full report may be published in order to prevent distortion of the report's overall assessment. Excerpts may only be used with the express consent of Creditreform Rating AG. Publication of the report without the consent of Creditreform Rating AG is prohibited. Only ratings published on the Creditreform Rating AG web pages remain valid.

Creditreform Rating AG

Contact information

Creditreform Rating AG

Europadamm 2-6
D-41460 Neuss

Phone: +49 (0) 2131 / 109-626
Telefax: +49 (0) 2131 / 109-627

E-Mail: info@creditreform-rating.de
Web: www.creditreform-rating.de

CEO: Dr. Michael Munsch
Chairman of the Board: Michael Bruns

HR Neuss B 10522