

CREDIT OPINION

11 July 2023

Update



RATINGS

Deutsche Bahn AG

Domicile	Berlin, Germany
Long Term Rating	Aa1
Туре	LT Issuer Rating - Dom Curr
Outlook	Stable

Please see the <u>ratings section</u> at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

Contacts

Kristin Yeatman +33.6.7710.7241 VP-Senior Analyst kristin.yeatman@moodys.com

Theodora Bartzoka +33.1.5330.5978
Associate Analyst

theodora.bartzoka@moodys.com

Victoria Maisuradze +33.1.5330.5974

Associate Managing Director
victoria.maisuradze@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Deutsche Bahn AG

Update to credit analysis

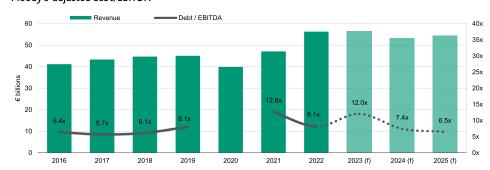
Summary

<u>Deutsche Bahn AG</u>'s (DB) Aa1 issuer rating combines its a3 Baseline Credit Assessment (BCA) with our assessment of a high likelihood of the company receiving extraordinary support from the <u>Government of Germany</u> (Aaa stable) in times of need. This assessment is based on the government's willingness and very strong ability to provide support to DB, given the sovereign's ample financial reserves, as reflected in its Aaa rating. Such an assessment results in a fivenotch uplift to the company's BCA for a final rating of Aa1.

DB's a3 BCA reflects the high leverage which will remain above 7.0x, and its free cash flow (FCF) which will be significantly negative in the next 12-18 months. The BCA remains supported by the company's size, geographical diversification and leading global market position, and the stability and predictability of the legal framework for railway companies in Germany.

The Baa1 rating of the Hybrid¹ is one notch lower than DB's a3 BCA and six notches lower than the company's Aa1 long-term issuer rating. This reflects certain features of the security, which is perpetual, deeply subordinated and allows DB to opt for coupon deferrals on a cumulative basis. Because of these characteristics, we believe that, in case of need, government support may not be as strong, or as timely as it would be for senior unsecured debt.

Exhibit 1 Leverage will spike in 2023 given the additional infrastructure spending, but expected to normalise from 2024 Moody's-adjusted debt/EBITDA



All figures and ratios are calculated using our estimates and standard adjustments. The forecasts (f) are our opinion and do not represent the views of the issuer. From 2024 our forecasts assume the divestment of Arriva. Periods are fiscal year end unless indicated otherwise. 2020 leverage was above 40.0x and, therefore, is not represented in the chart.

Source: Moody's Financial MetricsTM

Credit strengths

- » High probability of support from the German government
- » Large scale, and good geographical and sector diversification
- » Vertically integrated business model, including monopolistic railway infrastructure activities
- » Solid business profile, supported by a predictable operating environment, given the reliability of the regulations and subsidies that the company receives

Credit challenges

- » Persistent strain on profitability, primarily because of increased costs among others due to infrastructure development and structural difficulties
- » Strained free cash flow because of an intense capital spending programme
- » High leverage but will likely decrease towards 7.0x in the next 18-24 months

Rating outlook

The stable outlook reflects our expectation that leverage will stabilise at around 7x or below in the next 18-24 months, a level commensurate with its a3 BCA. The stable outlook also assumes that DB will not engage in any significant corporate transactions other than the divestment of DB Arriva, and specifically excludes any impact from a potential sale of DB Schenker.

Factors that could lead to an upgrade

An upgrade is unlikely because DB's rating is one notch lower than the sovereign rating, and we expect this gap to remain.

The BCA could be upgraded if:

- » DB's Moody's-adjusted debt/EBITDA decreases below 6.0x on a sustained basis
- » DB successfully executes its plan to significantly improve operational efficiencies and operating performance, illustrated by a substantial and sustained increase in its Moody's-adjusted EBIT margin to the mid-single digits in percentage terms
- » the company achieves a sustainable, positive free cash flow.

Factors that could lead to a downgrade

A downgrade of Germany's sovereign rating could result in a downgrade of DB's ratings.

In addition, we could downgrade DB's ratings if the likelihood of extraordinary support from the government decreases or if the BCA deteriorates further and is not adequately compensated by stronger government support.

The BCA could be downgraded if:

- » DB's Moody's-adjusted debt/EBITDA remains above 7x on a sustained basis
- » its EBIT margin fails to improve at least to 3%
- » the company's business profile weakens as a result of a change in its integrated business model, with a separation of its rail and logistics business from its infrastructure activities

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on https://ratings.moodys.com for the most updated credit rating action information and rating history.

Key indicators

Deutsche Bahn AG

(€ billions)	2017	2018	2019	2020	2021	2022	2023 (f)	2024 (f)	2025 (f)
Revenue	43.4	44.7	45.0	39.9	47.1	56.3	56.5	53.1	54.4
EBIT margin %	2.5%	2.7%	1.6%	-8.6%	-1.4%	1.6%	-1.3%	2.2%	3.5%
Debt / EBITDA	5.7x	6.1x	8.1x	98.1x	12.8x	8.1x	12.0x	7.4x	6.5x
FCF / Debt	-6.9%	-3.9%	-6.5%	-12.1%	-6.3%	-3.1%	-14.6%	-7.9%	-6.0%
RCF / Net Debt	20.8%	18.4%	15.2%	4.2%	15.3%	16.9%	6.3%	9.6%	11.5%
(FFO + Int. Exp.) / Interest Exp.	7.9x	7.6x	8.4x	3.9x	9.4x	9.3x	4.1x	5.5x	6.3x

All figures and ratios are calculated using our estimates and standard adjustments. The forecasts (f) are our opinion and do not represent the views of the issuer. Periods are fiscal year end unless indicated.

Source: Moody's Financial Metrics™

Profile

Deutsche Bahn AG (DB) is a vertically integrated rail and logistics group that owns and operates the German national rail transportation network. DB is one of the largest rail and logistics companies in the world. In 2022, DB generated revenue of €56.3 billion and reported EBIT of €1.3 billion. The company provides rail track infrastructure, and passenger and freight transportation services as well as logistics services under its holding umbrella. DB holds leading market positions in most of the segments in which it operates. In 2022 these segments include long-distance rail (9% of revenue), regional passenger rail in Germany (16%), mass-transit and rail freight transportation services in various European countries outside of Germany, through its subsidiaries DB Arriva (8%) and DB Cargo (9%), worldwide logistic services through its subsidiary DB Schenker (48%), energy supply (4%) and railway stations and infrastructure management (5%). The company has announced that the DB Management Board is examining the case for divesting DB Schenker, however no concrete decisions have been made to date.

Exhibit 3
Revenue breakdown by segment 2022

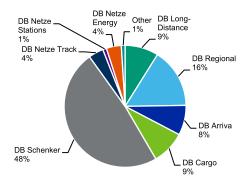
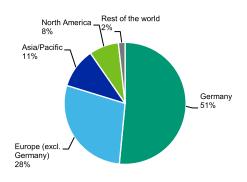


Exhibit 4

Revenue breakdown by region
2022



Source: Company report

Source: Company report

Detailed credit considerations

Strong revenue performance in passenger, freight forwarding & logistics segments, despite the impact of more working from home

In 2022, DB's overall adjusted revenue improved by 19.1% from that in 2021, driven mainly by increased transportation volumes and by double digit growth in freight segment for second consecutive year.

Long-distance volume increased by 68.5% compared with 2021 but remained around 5.5% below 2019 volume because in early 2022 COVID restrictions were still in place in Germany. Revenue increased more than volume; 73% higher than in 2021, and 0.4% higher

than in 2019. Although Regional volumes increased in the summer period due to implementation of a temporary 9-Euro-Ticket from June to August 2022, they remain below 2019 levels. In total volumes produced by rail increased by 62.3% compared with 2021 and revenues were up by 12.5%. We expect that volumes will continue to recover despite the impact of more working from home and online shopping, given the government's support for cheap transport. In May 2023 the government introduced a new programme (as a continuation of the 9-Euro-Ticket) named Germany Ticket which will cost only €49 per month, offering a significant discount of regular monthly subscriptions. With a more affordable price this programme attracts new subscribers who are choosing public transport instead of private. This is the whole point of Germany's investment in greener modes of transport such as the railways.

Freight segment was slightly below 2021 volumes due to generally weaker markets and supply chain disruptions, however the elevated prices supported the increase in revenues of 6% vs 2021.

Low profitability and high leverage will remain key credit concerns

DB's revenue recovered ahead of pre-pandemic levels already in 2021 however, EBITDA did not fully recover despite the cost saving programme of €4.3 billion (capex and opex) from 2020 to 2022. EBITDA was constrained by operating expenses which increased mainly due to higher freight rates, energy and maintenance costs, as well as due to additional expenses related to wage increases. Going forward we expect EBITDA and operating cash flow to continue to be negatively impacted by inflationary pressure on wages and energy costs; additionally we expect exceptionally high expenses in 2023 related to infrastructure development for which the company is expected to be compensated by the Government but will occur one year later in 2024. The railway infrastructure development is part of the Government's overall plan to modernize and improve infrastructure to achieve Germany's green transformation and to specifically to make rail transportation more attractive. The company will slightly offset the pressure on EBITDA thanks to countermeasures related to efficiency plans. DB has in place pass-through clauses for energy expenses in a significant share of the regional transport contracts, and has already increased its ticket prices by c. 4.9% in long-distance.

We expect DB's (Moody's adjusted) funded debt to slightly increase in 2023 from €39.7 billion in 2022, before reducing to around €39 billion in 2024. Therefore, we expect the company's leverage to spike above 10x in 2023 but to return towards 7x in the next 12-18 months and to improve to around 6.5x by 2024.

High and increasing capital spending will strain free cash flow

We expect DB's (Moody's-adjusted) free cash flow (FCF) to be significantly negative over the next 12-18 months, driven by increased inflation, and the ongoing high capital spending (averaging above €7.3 billion a year until 2025, after deducting investment grants and post IFRS16). We do not expect DB to complete the sale of DB Arriva before 2024.

Vertically integrated business model is credit positive

DB's high leverage and weak FCF coverage are largely because of the company's vertically integrated business model and substantial investment needs in rail track infrastructure and rolling stock. The combination of the two businesses provides DB with an advantage, given the breadth of its operations. Therefore, DB can accommodate higher leverage in the a3 BCA rating category than pure rail operators such as <u>Ceske drahy</u>, <u>a.s.</u> (Baa2 stable, ba2). <u>SNCF S.A.</u> (Aa3 stable, a3) is DB's closest peer following the integration of the infrastructure manager <u>SNCF Réseau</u>'s (Aa2 stable) monopolistic activities on 1 January 2020.

Solid business profile, supported by a predictable operating environment

The operating environment in Germany is stable and supportive of DB's credit quality. Germany has set the pace for the liberalisation of the rail sector. For this purpose, the government has put in place a stable legal framework that entails a constitutional obligation on its part to provide functional rail infrastructure, which implies that it will sustain most of the investments in infrastructure; the budgeting of funds for regional transportation according to the German regionalisation act; and the existence of a performance and financing agreement between DB and the federal government for the existing rail infrastructure, with well-defined quality levels.

As a result of the opening of the German rail sector to competition more than 25 years ago, DB's market shares in both regional passenger transport and rail freight have declined, but very gradually. The market share of rail freight was around 45% in 2022 and regional passenger market share was around 60%. The decline has been offset by an increase in the absolute number of passengers, and the company has also benefited from the ability to regain previously lost routes in recent years, for example, DB Regional managed to gain parts of the North Rhine-Westphalia network in early 2022 as the operator withdrew from the German market. Moreover, DB's business profile is

supported by the company's large size and broad diversification in terms of both business segment (rail and bus passenger transport, rail freight, logistics and rail infrastructure) and geography.

DB's business profile is also underpinned by its leading market positions. DB is the market leader in the European rail freight business and is the second-largest passenger railway operator in Europe after SNCF S.A. In addition, DB is one of the leading groups in European land transport, air freight, ocean freight and contract logistics.

Increased importance of DB to achieve the government's CO₂ reduction targets in the transportation sector in Germany

We expect the German government to provide timely support to DB if the viability of the German rail infrastructure and operation is at risk because of the company's strategic role in guaranteeing a public rail service across Germany and because it is one of the key pillars of the government's climate action plan (Climate Action Programme 2030). The plan is aimed at significantly reducing pollution (CO_2 reduction targets were set based on CO_2 emissions in 1990) for the German transport sector, which in 2021 was raised to -48% by 2030 (from -42%, the previous target set in 2019).

DB is increasingly important in its role as one of the key players in the European rail market. Also, the company's strategic importance has increased in the last couple of years, as DB is vital to the German government's continuing energy supply replacement strategy, which is necessary to compensate for energy deliveries from Russia. DB is also vital to fulfilling any military transport requirements triggered by the military conflict in Ukraine and an increasing NATO presence.

The government has also established a very strong track record of ongoing and extraordinary support for DB. For instance, the company benefits from more than €6 billion of support measures from the government to compensate for the pandemic-induced disruptions, of which €3.8 billion was received in 2021, and a further €2.5 billion in 2022. This government support is in addition to the more than €9 billion in annual capital spending contributions, the €11 billion capital injection (equity and investment grants) that the government will make by 2030 as part of its Climate Action Programme, plus other indirect measures such as value-added tax (VAT) reductions for long-distance rail services since 1 January 2020 and surcharges on domestic air travel aimed at promoting the increased use of rail transport in Germany.

Because of DB's 100% ownership by the German government, we apply our <u>Government-Related Issuers</u> rating methodology to the company. Therefore, DB's rating reflects a combination of the following inputs:

- » the a3 BCA
- » the Aaa domestic-currency rating of the Federal Republic of Germany
- » the high default dependence between DB and the government
- » the high probability of support from the government

Our assessment of the high default dependence between DB and the German government reflects the country's status as a key hub of European rail traffic, and the strong integration of railway infrastructure into the international economy and trade flow. These factors are balanced by DB's geographical diversification, mainly through its international logistics and freight-forwarding activities, and its rail freight activities in the neighbouring European rail markets.

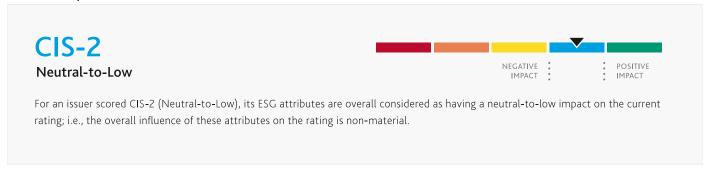
Our expectation that the government will provide DB with a high level of support in case of need is based on the constitutional requirement that the government remains the majority owner of the rail infrastructure in the country and is responsible for ensuring the functionality of the rail infrastructure; DB's 100% state ownership; the strategic importance of a functioning, well-funded rail infrastructure for Germany's economy; an overall strong political consensus regarding the public role of DB and the importance of its activities for the German economy; and DB's dominant role as a regional transport provider, in addition to its de facto monopoly in the long-distance passenger rail segment.

ESG considerations

Deutsche Bahn AG's ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 5

ESG Credit Impact Score



Source: Moody's Investors Service

DB's ESG Credit Impact Score (**CIS-2**) reflects DB's government ownership and high level of government support which offsets the ESG risks identified for DB in the IPS scores. As a standalone entity without government support DB's credit rating would be impacted by Environmental, Social and Governance risks.

Exhibit 6
ESG Issuer Profile Scores



Source: Moody's Investors Service

Environmental

DB's Environmental Issuer Profile Score (IPS) (**E-3**) reflects its exposure to natural capital, through DB Schenker as well as the rail freight segments which transport natural resources such as coal and metals. The company is planning to achieve climate neutrality by 2040. To this end, at the latest by 2038, it will totally convert its traction energy to be generated from renewable sources. In terms of rolling stock, DB will phase out trains and locomotives which are operated with fossil fuels. In addition to testing battery-operated vehicles and hydrogen drives, the roll-out of more biofuels will continue.

Social

DB's exposure to social risks (**S-4**) is driven by Human Capital risks. The company has a very high fixed cost base related to employees which is difficult to reduce or restructure in line with revenue trends. This is particularly true given the government ownership. State-owned enterprises face a level of political pressure to protect employment and are therefore unlikely to embark on significant redundancy programmes. Human Capital risk also include the risk of industrial action, strikes and pressure to increase salaries, although DB has not regularly experienced material impact from strikes. DB is moderately exposed to Health and Safety, and well as customer relations because managing sensitive consumer information creates data privacy risks.

Governance

DB's governance risks (**G-3**) are linked primarily to financial policy, and concentrated ownership. The company's governance risks are also linked to the sovereign governance score; for Germany this is positive (G-1).

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click here to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Liquidity analysis

We expect DB to have good liquidity over the next 12 months, supported by its cash position of €5.1 billion; its fully available commercial paper programme of €3 billion; its undrawn €2 billion committed credit lines, all as of 31 March 2023; its cash flow from operations, which we expect to be around €2.7 billion in 2023; and the planned government support.

The major cash needs for DB include capital spending (net of grants from the German government), which we estimate to be around €7.6 billion (including IFRS 16) in the next 12 months, and around €2.8 billion in debt maturities by March 2024.

We also expect DB to maintain its excellent access to the capital markets, having recently tapped the market with €600 million in May 2023.

Methodology and scorecard

DB's BCA of a3 is two notches higher than the historical scorecard-indicated outcome of our <u>Passenger Railways and Bus companies</u>, published in December 2021. The BCA is one notch above the forward-looking scorecard-indicated outcome. The deviations in both scorecard-indicated outcomes from the actual BCA of a3 reflect our expectation that DB's leverage and EBIT margin will recover towards 6.5x and around 4%, respectively, only after 2024 which is not captured in the current and 12-18 month forward-looking views.

Exhibit 7

Rating factors

Deutsche Bahn AG

Passenger Railways and Bus Companies Industry Scorecard [1]	Curre FY 12/31/		Moody's 12-18 Month Forward View As of 6/29/2023 [2]		
Factor 1 : Scale (15%)	Measure	Score	Measure	Score	
a) Revenue (\$ billions)	\$59.3	Aaa	\$57.9	Aaa	
Factor 2 : Business Profile (25%)	•				
a) Stability of Operating Environment	Aaa	Aaa	Aaa	Aaa	
b) Market Characteristics	Aaa	Aaa	Aaa	Aaa	
c) Competitive Environment	Aa	Aa	Aa	Aa	
Factor 3 : Profitability and Efficiency (10%)	·				
a) EBIT Margin	1.6%	Caa	2.2%	Caa	
Factor 4 : Leverage and Coverage (35%)	·				
a) Debt / EBITDA	8.1x	Caa	7.4x	В	
b) RCF / Net Debt	16.9%	Baa	9.6%	Ва	
c) (FFO + Interest) / Interest	9.3x	Aa	5.5x	Α	
Factor 5 : Financial Policy (15%)	<u>-</u>				
a) Financial Policy	Ва	Ва	Ва	Ва	
Rating:					
a) Scorecard-Indicated Outcome	•	Baa1		Baa1	
b) Actual Rating Assigned				Aa1	
Government-Related Issuer	Factor				
a) Baseline Credit Assessment	a3				
b) Government Local Currency Rating	Aaa Stable				
c) Default Dependence	High				
d) Support	High		-		
e) Actual Rating Assigned	Aa1 Sta				

^[1] All ratios are based on adjusted financial data and incorporate our Global Standard Adjustments for Non-Financial Corporations.

^[2] This represents our forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestitures.

Source: Moody's Financial Metrics™

CORPORATES MOODY'S INVESTORS SERVICE

Appendix

Exhibit 8

Peer comparison

	Deutsche Bahn AG Aa1 Stable			SNCF S.A. Aa3 Stable			Ceske drahy, a.s. Baa2 Stable		
	FY	FY	FY	FY	FY	FY	FY	FY	FY
(in \$ millions)	Dec-20	Dec-21	Dec-22	Dec-20	Dec-21	Dec-22	Dec-20	Dec-21	Dec-22
Revenue	45,541	55,697	59,332	34,212	41,117	43,684	1,550	1,778	1,898
EBITDA	481	3,947	5,181	3,289	6,585	7,984	207	364	479
EBITA Margin %	-8.0%	-1.0%	2.0%	-2.5%	6.0%	9.4%	-7.4%	-0.2%	5.2%
EBITA / Average Assets	-4.9%	-0.7%	1.5%	-0.7%	1.7%	3.0%	-2.8%	-0.1%	2.0%
(FFO + Interest Exp.) / Interest Exp.	3.9x	9.4x	9.3x	1.4x	2.4x	4.5x	6.3x	7.5x	5.0x
Total Debt / Capital	86.5%	80.8%	74.1%	86.7%	84.8%	73.5%	53.9%	55.8%	65.1%
Debt / EBITDA	98.1x	12.8x	8.1x	28.7x	14.6x	10.1x	9.5x	6.1x	6.1x
FCF / Debt	-12.1%	-6.3%	-3.1%	-5.9%	-1.7%	0.6%	-11.0%	-11.8%	-22.3%
RCF / Net Debt	4.2%	15.3%	16.9%	0.1%	6.6%	17.7%	14.4%	17.1%	13.8%

All figures and ratios are calculated using our estimates and standard adjustments. FY = Financial year end. $Source: Moody's \ Financial \ Metrics {}^{\text{TM}}$

Moody's-adjusted debt breakdown Deutsche Bahn AG

(in € millions)	2018	2019	2020	2021	2022
As Reported Debt	23,244	28,693	33,324	34,486	35,273
Pensions	4,823	5,354	6,517	5,031	2,970
Leases	5,406	0	0	0	0
Hybrid Securities		999	1,001	1,001	1,001
Securitization	524	526	453	543	507
Moody's Adjusted Debt	33,997	35,572	41,295	41,061	39,751

Periods are fiscal year end unless indicated. Source: Moody's Financial Metrics™

Exhibit 10

Moody's-adjusted EBITDA breakdown

Deutsche Bahn AG

(in € millions)	2018	2019	2020	2021	2022
As Reported EBITDA	4,529	5,055	617	3,599	5,519
Unusual	(811)	(670)	(208)	(337)	(608)
Pensions	11	26	12	(49)	5
Operating Leases	1,802	0	0	0	0
Moody's Adjusted EBITDA	5,531	4,411	421	3,213	4,916

Periods are fiscal year end unless indicated. Source: Moody's Financial Metrics™

Exhibit 11

Select historical and projected Moody's-adjusted financial data

Deutsche Bahn AG

(in EUR million)	2018	2019	2020	2021	2022	2023 (f)	2024 (f)	2025 (f)
INCOME STATEMENT								
Revenue	44,698	45,041	39,901	47,075	56,296	56,549	53,122	54,428
EBITDA	5,531	4,411	421	3,213	4,916	3,533	5,321	6,312
EBIT	1,205	723	(3,420)	(670)	918	(710)	1,149	1,911
Interest Expense	915	735	779	669	705	1,015	949	984
BALANCE SHEET								
Cash & Cash Equivalents	3,544	3,993	3,411	4,591	5,138	2,412	1,390	1,529
Total Debt	33,997	35,572	41,295	41,061	39,751	42,551	39,541	41,092
Net Debt	30,453	31,579	37,884	36,470	34,613	40,139	38,151	39,563
CASH FLOW								
Funds from Operations (FFO)	6,057	5,458	2,256	5,599	5,876	3,166	4,302	5,194
Cash Flow From Operations (CFO)	4,834	3,603	1,483	3,797	5,668	3,066	4,153	4,974
Capital Expenditures	(5,684)	(5,242)	(5,811)	(6,369)	(6,874)	(8,650)	(6,637)	(6,797)
Dividends	463	662	667	20	22	638	638	638
Retained Cash Flow (RCF)	5,594	4,796	1,589	5,579	5,854	2,529	3,664	4,556
RCF / Debt	16.5%	13.5%	3.8%	13.6%	14.7%	5.9%	9.3%	11.1%
RCF / Net Debt	18.4%	15.2%	4.2%	15.3%	16.9%	6.3%	9.6%	11.5%
Free Cash Flow (FCF)	(1,313)	(2,301)	(4,995)	(2,592)	(1,228)	(6,221)	(3,122)	(2,461)
FCF / Debt	-3.9%	-6.5%	-12.1%	-6.3%	-3.1%	-14.6%	-7.9%	-6.0%
PROFITABILITY								
% Change in Sales (YoY)	3.1%	0.8%	-11.4%	18.0%	19.6%	0.4%	-6.1%	2.5%
EBIT margin %	2.7%	1.6%	-8.6%	-1.4%	1.6%	-1.3%	2.2%	3.5%
EBITDA margin %	12.4%	9.8%	1.1%	6.8%	8.7%	6.2%	10.0%	11.6%
NTEREST COVERAGE								
(FFO + Interest Exp.) / Interest Exp.	7.6x	8.4x	3.9x	9.4x	9.3x	4.1x	5.5x	6.3x
(EBITDA-CAPEX) / Interest Expense	-0.2x	-1.1x	-6.9x	-4.7x	-2.8x	-5.0x	-1.4x	-0.5x
EBIT / Interest Expense	1.3x	1.0x	-4.4x	-1.0x	1.3x	-0.7x	1.2x	1.9x
EBITDA / Interest Expense	6.0x	6.0x	0.5x	4.8x	7.0x	3.5x	5.6x	6.4x
LEVERAGE								
Debt / EBITDA	6.1x	8.1x	98.1x	12.8x	8.1x	12.0x	7.4x	6.5x
Net Debt / EBITDA	5.5x	7.2x	90.0x	11.4x	7.0x	11.4x	7.2x	6.3x

The forecasts (f) are our opinion and do not represent the views of the issuer. Periods are fiscal year end unless indicated. Source: Moody's Financial Metrics $^{\text{TM}}$

Ratings

Exhibit 12

Category	Moody's Rating
DEUTSCHE BAHN AG	
Outlook	Stable
Issuer Rating -Dom Curr	Aa1
Senior Unsecured MTN	(P)Aa1
Commercial Paper -Dom Curr	P-1
Other Short Term -Dom Curr	(P)P-1
DEUTSCHE BAHN FINANCE GMBH	
Outlook	Stable
Senior Unsecured	Aa1
Bkd Subordinate -Dom Curr	Baa1
Bkd Commercial Paper -Dom Curr	P-1
Bkd Other Short Term -Dom Curr	(P)P-1
Source: Moody's Investors Service	

Endnotes

1 Undated Subordinated Resettable Fixed Rate Notes (Hybrid) were issued in October 2019 by Deutsche Bahn Finance GmbH for the total volume of €2 billion. Hybrid notes have undated durations with initial termination right for the issuer after 5.5 years (coupon: 0.95%) and ten years (coupon: 1.6%) respectively. We first assigned a rating in 2019 please refer to press release.

© 2023 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE,

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY100,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

REPORT NUMBER 1374191

CLIENT SERVICES

 Americas
 1-212-553-1653

 Asia Pacific
 852-3551-3077

 Japan
 81-3-5408-4100

 EMEA
 44-20-7772-5454



13