MOODY'S INVESTORS SERVICE

CREDIT OPINION
5 June 2020

Update

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RATINGS

Deutsche Bahn AG

Domicile	Berlin, Germany
Long Term Rating	Aa1
Type	LT Issuer Rating - Dom Curr
Outlook	Negative

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

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Deutsche Bahn AG

Update following 2019 results and in view of the impact of coronavirus in 2020

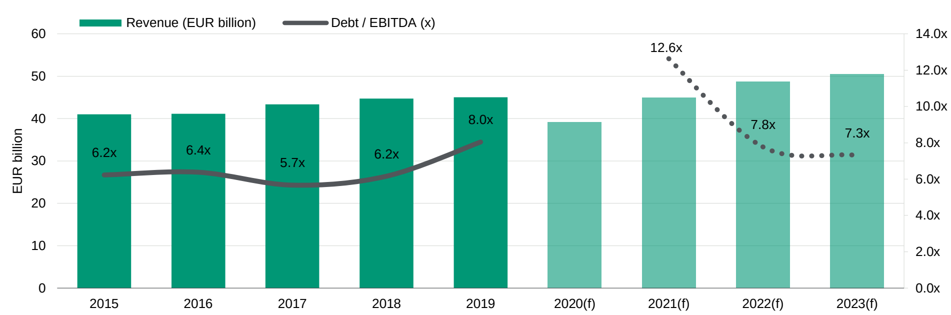
Summary

Deutsche Bahn AG's (DB) Aa1 issuer rating incorporates a three-notch uplift from its a1 Baseline Credit Assessment (BCA), reflecting the high support from and dependence on the Government of Germany (Aaa stable).

The a1 BCA is very weakly positioned because of a number of challenges, particularly in terms of profitability as shown by very low margins (Moody's-adjusted EBITA margin of 2% in 2019), very high Moody's adjusted gross leverage of 8.0x in 2019 and negative free cash flow (FCF, on average an annual deficit of around €2 billion), which reflects increasing investments and operational challenges. These weaknesses are exacerbated by the coronavirus pandemic, which has severely affected the rail transportation sector in Germany and across Europe, where DB operates.

DB's BCA is supported by the company's size, geographical diversification and leading global market position, as well as the predictability of the legal framework for railway companies in Germany and the stable environment in which the company operates in its domestic market.

Exhibit 1
Leverage will remain high even assuming a €5.5 billion capital injection in 2020
Moody's-adjusted debt/EBITDA



All figures and ratios are calculated using Moody's estimates and standard adjustments. Moody's Forecasts (f) are Moody's opinion and do not represent the views of the issuer. Periods are fiscal year-end unless indicated otherwise. 2020 is non-meaningful as EBITDA is likely to be negative.
Source: Moody's Financial Metrics™

Credit strengths

» Solid business profile, supported by a predictable operating environment, given the reliability of the regulations and subsidies that the company receives

» No changes expected in our assumptions of government support and default dependence

Credit challenges

» Severe disruptions from the coronavirus pandemic

» Continued pressure on profitability

» Strained FCF generation because of an intense capital spending programme

» Very high leverage for the current a1 BCA

Rating outlook

The negative outlook on DB's rating reflects our expectation that it is increasingly unlikely that DB will be able to reduce leverage towards 5.5x, a level that is more commensurate with its current a1 BCA. This is balanced against the prospect that the government is likely to inject equity to support the company's metrics in light of the coronavirus pandemic, although the precise level of support is uncertain, and the recent increase in infrastructure subsidies provided by the state in order to support reduce carbon emission in the transport sector in Germany.

Factors that could lead to an upgrade

An upgrade is currently unlikely given the company's weak positioning in the Aa1 rating category. DB's rating is one notch lower than the sovereign rating, an upgrade could be considered in case of a strengthening in government support that would warrant DB being rated at the same level as the German government.

An upgrade of the BCA is highly unlikely. The BCA would most likely come under upward pressure if:

» there is an improvement in DB's operating performance, with its Moody's-adjusted EBITA margin exceeding 6% on a sustained basis

» DB's Moody's-adjusted debt/EBITDA remains well below 5.0x on a sustained basis

Factors that could lead to a downgrade

DB's Aa1 issuer rating is sensitive to any weakening in the likelihood of support from the German federal government, although we expect this support to remain high, given the constitutional framework and the importance of DB to the German economy and the central role DB is likely to play in achieving the government's CO_2 reduction targets for the transportation sector in Germany.

In addition, a further weakening in the BCA could result in a downgrade of the Aa1 rating. This weakening could be caused by the following factors:

» A failure to improve the company's operating performance from the current levels, with its Moody's-adjusted EBITA margin remaining below 4.5%

» Moody's-adjusted debt/EBITDA failing to decrease towards 5.5x

» A weakening of the company's business profile, resulting from a change in its integrated business model, with a separation of its rail and logistics business from its infrastructure management activities

» A major decline in government infrastructure subsidies, which would increase the burden of infrastructure capital spending for the company

Key indicators

Exhibit 2

Deutsche Bahn AG

Deutsche Bahn AG

USD Billion	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19	Dec-20 (f)	Dec-21 (f)
Revenue	$45.5	$45.5	$49.0	$52.8	$50.4	$45.0	$51.7
EBITA Margin %	1.7%	2.7%	3.0%	3.1%	2.0%	-11.9%	-0.6%
EBITA / Average Assets	1.2%	1.8%	2.1%	2.2%	1.4%	-6.6%	-0.4%
Debt / Book Capitalization	69.0%	71.7%	68.8%	71.2%	71.6%	81.2%	84.0%
Debt / EBITDA	6.2x	6.4x	5.7x	6.2x	8.0x	-	12.6x
FCF / Debt	-4.8%	-1.1%	-6.9%	-3.9%	-6.5%	-22.9%	-14.9%
RCF / Net Debt	20.8%	18.7%	20.8%	18.4%	15.2%	-7.9%	4.4%
(FFO + Interest Expense) / Interest Expense	7.5x	7.6x	7.9x	7.6x	8.4x	-1.6x	4.0x

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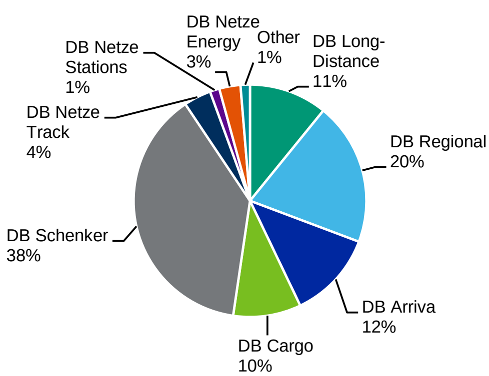
Source: Moody's Financial Metrics™

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 2019, DB generated €44.4 billion of revenue and €5.1 billion of reported EBITDA. The company provides rail track infrastructure, and passenger and freight transportation services under its holding umbrella. DB holds leading market positions in most of the segments in which it operates. These segments include long-distance rail (11% of revenue), regional passenger rail in Germany (20%), mass-transit transportation services through its subsidiaries DB Arriva (12%) and DB Cargo (10%), logistic services through its subsidiary DB Schenker (38%), and railway stations and infrastructure management (9%).

Exhibit 3

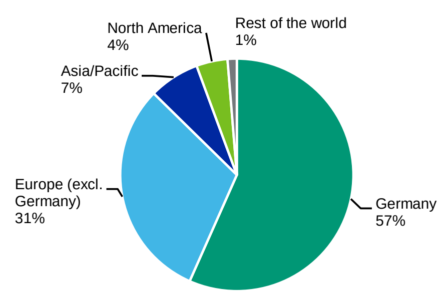
Revenue breakdown by segment
2019



External revenue.
Source: Company report

Exhibit 4

Revenue breakdown by region
2019



External revenue.
Source: Company report

Detailed credit considerations

Passenger and cargo volumes will decline in 2020 because of the spread of the coronavirus

The number of passengers and the cargo volumes have declined since the coronavirus started to spread in Germany in March 2020. Like elsewhere in Europe, travel restrictions have significantly limited passenger traffic, which we expect to have reduced by around 80%-90% in April and have started to recover since May. As some of the company's revenue is linked tovolume produced through contracts with local authorities, rather than passenger numbers, we expect the impact on revenue to be lower (compared with passenger traffic). Although coronavirus infections have significantly decreased in the country, we expect travel to only gradually rebound, reflecting the weakened public desire to move around to attend social gatherings and business meetings, to commute and to travel for leisure.

While in Germany cargo rail traffic was not restricted, we still expect a reduction of around 20% in the April-May period and 15% in 2020 in cargo traffic, reflecting the slowdown in economic activity in the country and in the rest of Europe.

Assuming a gradual recovery of passenger traffic and cargo traffic during 2020, we expect DB's revenue to reduce by around €6 billion in 2020 leading to a significant reduction in the company's EBITDA and FCF, leaving its 2020 financial metrics well below our targets for the a1 BCA. We expect this revenue shortfall to be, to a large extent, mitigated by an intervention of the state, which is planned to come in the form of capital injections.

We expect both passenger and cargo traffic to continue to recover in 2021 and to return to 2019 levels by 2022. Even assuming equity injections of at least €5.5 bn (including climate action program) in 2020, we expect the company's Moody's-adjusted debt/EBITDA to remain high at 12.6x in 2021 and 7.8x in 2022.

Low profitability will remain a key credit concern

In recent years, DB's profitability has been hurt by (1) weak performance in the rail freight division (DB Cargo); (2) increasing competition, particularly in the regional rail services business, with some of DB's existing contracts awarded to its competitors, which exerted significant pressure on its prices and volumes; and (3) cost increases for personnel and energy, as well as quality improvement measures and digitalisation costs. We expect DB's profitability to remain subdued in the next 24 months as a result of inflationary pressure on DB's cost structure, as well as additional expenses for quality improvement measures.

The company is putting in place certain cost-saving measures (among other hiring restrictions in overhead, reduction in variable compensations, material costs and marketing savings) to mitigate the impact of the coronavirus on the company's revenue. With these measures, the company plans to achieve more than €6 billion cost savings by 2024. These measures will only partially mitigate the significant drop in profitability expected in 2020 and 2021.

High and increasing capital spending will strain FCF

We expect DB's net debt to remain under pressure in the next 12-18 months from the ongoing FCF deficit because of the company's high capital spending requirements (averaging around €6 billion per annum) and the ongoing dividend payment of €0.65 billion. This pressure is exacerbated by the coronavirus pandemic. Capital injections from the government should at least partially mitigate the impact from the coronavirus pandemic. Any equity injection in relation to the coronavirus outbreak will come on top of the equity injections as part of the government's climate action programme.

We also expect DB to delay the sale of its subsidiary Arriva as market conditions have deteriorated significantly as a result of the coronavirus pandemic.

Vertically integrated business model is credit positive

DB's weak leverage and FCF coverage are largely driven by the company's vertically integrated business model and substantial investment needs in rail track infrastructure and in rolling stock. This setup is unusual in the European rail operators market, where the infrastructure and rail operating businesses are mostly managed and run separately. We believe that 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 a1 category than pure rail operators such as Ceske drahy, a.s. (Baa2 stable, BCA ba2). SNCF S.A. (Aa3 stable, BCA a3) is DB's closest peer following the integration of the infrastructure manager SNCF Réseau's (Aa2 stable) monopolistic activities on 1 January 2020. SNCF's lower BCA reflects the higher leverage of the company and the risks related to the upcoming liberalisation of the passenger railway market in France.

Solid business profile, supported by a predictable operating environment

We consider DB's operating environment in Germany to be stable and supportive of the company's credit quality. Germany has set the pace for rail sector liberalisation. For this purpose, the government has put in place a stable legal framework, entailing (1) the government's constitutional obligation to provide a functional rail infrastructure, implying that it will sustain most of the investments in infrastructure; (2) the budgeting of funds for regional transportation according to the German regionalization act; and (3) the existence of a performance and financing agreement between DB and the federal government, with well-defined quality levels.

As a result of the opening of the German rail sector to competition, DB's market shares in both passenger transport and rail freight have been declining gradually. However, this decline has been offset by an increase in the absolute number of passengers, and is, therefore, manageable. Moreover, DB's business profile is supported by its large size and broad diversification by 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. 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 CO_2 reduction targets in the transportation sector in Germany

We highlight the increased importance of DB to achieve the government's CO_2 reduction targets in the transportation sector in Germany. This is illustrated by the measures being implemented by the government as part of its Climate Action Programme 2030, published on 20 September 2019. These measures include direct support to DB through capital injections (equity and investment grants) of €1 billion per annum from 2020 to 2030. Government support will also come from indirect measures to stimulate the switch from air and road to rail travel through VAT reductions for passenger railways and surcharges to domestic air travel. Measures have also been implemented to prevent price dumping by airlines and higher taxation has been introduced for vehicles based on their CO_2 emissions.

We expect the government to provide support to DB in compensation of the disruption caused by the coronavirus pandemic and the related restrictions on travel. We understand that DB has reached an agreement with the government regarding the mitigation of the corona impact via equity injections (first tranche €4.5 billion).

Given DB's 100% ownership by the German government, we apply our Government-Related Issuers rating methodology for the company. Therefore, DB's rating reflects a combination of the following inputs:

» A BCA of a1

» 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 high default dependence between DB and the German government reflects Germany'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 via its international logistics and freight-forwarding activities; and the increasing presence of the company's rail freight activities in 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 (1) the constitutional requirement that the government remains the owner of rail infrastructure in the country and is responsible for ensuring that it is functional; (2) DB's 100% state ownership; (3) the strategic importance of a functioning, well-funded rail infrastructure for Germany's economy; (4) an overall strong political consensus regarding the public role of DB and the importance of its activities for the German economy; and (5) DB's dominant role as a regional transport provider, in addition to its de facto monopoly in the long-distance passenger rail segment.

Environmental, social and governance considerations

We take into account the impact of environmental, social and governance (ESG) factors when assessing companies' credit quality. In the case of DB, the main ESG-related drivers are the following:

Environmental

- Shift to greener forms of transport supports DB's volume growth. Passenger railways tend to be environmentally clean and highly energy efficient. With about 60% of rail lines electrified in Germany (including roughly all of the main lines) as of December 2019, rail transport produces lower emissions than alternative transport such as air, bus or car travel. Passenger railway volumes will be driven by increasing awareness among travellers as well as government or local authorities' incentives to choose public transportation. On the other hand, DB's ongoing efforts to reduce its environmental impact will continue to strain the company's cash flow.
- The government, as part of its Climate Action Programme 2030, will implement measures that include direct additional support to DB through capital injections (equity and investment grants) of €1 billion per annum from 2020 to 2030. Government support will also come from indirect measures to stimulate the switch from air and road to rail travel.
- DB is already experiencing the consequences of climate change. Record temperatures and fiercer storms challenge the company's punctuality and the viability of rail tracks, leading to potential disruptions and higher capital spending.

Social

- The rapid and widening spread of the coronavirus outbreak globally, the deteriorating global economic outlook, falling oil prices, and asset price declines are creating a severe and extensive credit shock across many sectors, regions and markets. The combined credit effects of these developments are unprecedented. The passenger railway sector in Germany has been significantly affected by the shock given its sensitivity to consumer demand and sentiment. We regard the coronavirus outbreak as a social risk.
- Social risks also stem from the company's high exposure to human capital, with 323,944 employees as of December 2019 and a high number of unionised employees. Passenger railways are highly exposed to the risk of collective bargaining and industrial actions. Strikes can have both reputational and financial consequences. While no major strike action has been recorded in Germany in recent years, the Railway and Transport Workers Union salary inflation will remain high in the short-term. The current collective agreements with the German Train Drivers' Union, concluded in January 2019, resulted in a 6.1% wage increase over a period of 29 months until February 2021 as well as some benefits for employees.

Governance

- DB's corporate governance structure is in line with German law and the articles of association. The supervisory board consists of 20 members and, consistent with the German Codetermination Act (MitBestiG), includes equal numbers of shareholders and employee representatives. Despite high leverage, DB's financial policy is relatively balanced with a track record of support from the German government.

Liquidity analysis

We expect DB's liquidity to deteriorate as a result of the coronavirus pandemic. We nevertheless expect DB to maintain satisfactory liquidity over the next 12 months, supported by its cash position of €4 billion as of December 2019, its currently available €3 billion commercial paper programme, its €2 billion of unused committed credit lines and an expected government capital injection of at least €5.5 billion (including the Climate Action Programme).

Major cash needs include negative cash flow from operations, which we expect to be negative €1.8 billion in 2020, high capital spending, which we estimate at about €4.6 billion (capex excluding leasing) in 2020, net of grants from the German government, and around €2.4 billion in debt maturities in the next 12 months (until December 2020).

We also expect DB to maintain its excellent access to the capital markets. In addition, our liquidity assessment incorporates our assumption that, in case of need, the company would receive additional support from the federal government, which would provide timely cash injections. These liquidity injections would go beyond the government's statutory duty to preserve DB's operations from insolvency.

Methodology and scorecard

DB's BCA of a1 is two notches higher than the historic scorecard-indicated outcome of our Global Passenger Railway Companies rating methodology, published in June 2017. The two-notches difference reflects our view that DB can accommodate higher leverage in the a1 category than other rail operators because of its integrated business model, which has the railway network and rail operations under one roof. The three notches difference between the baa1 forward looking scorecard indicated outcome and the a1 BCA also reflects that the BCA takes into the possible government action to compensate DB from the disruption caused byf coronavirus.

Exhibit 5

Rating factors

Deutsche Bahn AG

Passenger Railway Industry [1][2]	Current FY 12/31/2019		Moody's 12-18 Month Forward View As of 6/2/2020 [3]	
Factor 1 : SIZE (15%)	**Measure**	**Score**	**Measure**	**Score**
a) Revenue ($ Billion)	$50.4	Aaa	$51.7	Aaa
b) Number of Passenger Transported (PKM billion)	Aaa	Aaa	Aaa	Aaa
Factor 2 : MARKET POSITION (40%)				
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 : COST POSITION AND PROFITABILITY (15%)				
a) EBITA Margin	2.0%	Caa	-0.6%	Ca
b) EBITA / Avg. Assets	1.4%	B	-0.4%	Ca
Factor 4 : CAPITAL STRUCTURE (15%)				
a) Debt / Book Capitalisation	71.6%	Baa	84%	Ba
b) Debt / EBITDA	8.0x	Caa	12.6x	Ca
Factor 5 : CASH FLOW AND INTEREST COVERAGE (15%)				
a) FCF / Debt	-6.5%	B	-14.9%	Caa
b) RCF / Net Debt	15.2%	Baa	4.4%	B
c) (FFO + Interest) / Interest	8.4x	Aa	4x	Baa
Rating:				
a) Scorecard-Indicated Outcome		A3		Baa1
b) Actual Rating Assigned				(P)Aa1
Government-Related Issuer	**Factor**			
a) Baseline Credit Assessment	a1			
b) Government Local Currency Rating	Aaa Stable			
c) Default Dependence	High			
d) Support	High			
e) Actual Rating Assigned	Aa1 Neg			

(1) All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
(2) As of 12/31/2019.
(3) This represents Moody's 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™

Appendix

Exhibit 6

Peer comparison

	Deutsche Bahn AG (P)Aa1 Negative			SNCF S.A. Aa3 Stable			Ceske drahy, a.s. Baa2 Stable		
(in USD millions)	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-17	FYE Dec-18	FYE Dec-19
Revenue	$48,985	$52,784	$50,424	$35,965	$39,337	$39,317	$1,460	$1,801	$1,773
EBITDA	$6,318	$6,517	$4,952	$4,127	$6,522	$6,483	$389	$449	$399
EBITA Margin	3.0%	3.1%	2.0%	5.4%	6.7%	6.4%	5.3%	6.0%	5.3%
EBITA / Avg. Assets	2.1%	2.2%	1.4%	4.2%	3.3%	2.4%	2.0%	2.6%	2.3%
FFO + Int Exp / Int Exp	7.9x	7.6x	8.4x	8.0x	2.8x	3.0x	6.6x	7.4x	7.3x
Total Debt/Capital	68.8%	71.2%	71.6%	69.8%	110.7%	113.6%	49.3%	46.6%	48.9%
Debt / EBITDA	5.7x	6.2x	8.0x	5.4x	13.4x	13.3x	4.4x	3.7x	4.6x
FCF / Debt	-6.9%	-3.9%	-6.5%	-1.4%	-4.9%	-4.4%	3.8%	-3.7%	-7.3%
RCF / Net Debt	20.8%	18.4%	15.2%	19.6%	4.5%	4.6%	23.5%	24.6%	22.2%

All figures and ratios are calculated using Moody's estimates and standard adjustments. FYE = Financial year-end. LTM = Last 12 months. RUR* = Ratings under review, where UPG = for upgrade and DNG = for downgrade.
Source: Moody's Financial Metrics™

Exhibit 7

Moody's-adjusted debt breakdown

Deutsche Bahn AG

(in USD Millions)	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19
As Reported Debt	**23,711.9**	**26,508.8**	**26,571.3**	**32,207.8**
Pensions	4,769.6	4,731.1	5,513.4	6,009.9
Operating Leases	5,313.4	6,376.2	6,179.8	0.0
Hybrid Securities	0.0	0.0	0.0	1,120.8
Securitizations	340.7	450.3	599.0	590.4
Moody's-Adjusted Debt	**34,135.5**	**38,066.5**	**38,863.5**	**39,928.9**

Source: Moody's Financial Metrics™

Exhibit 8

Moody's-adjusted EBITDA breakdown

Deutsche Bahn AG

(in USD Millions)	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19
As Reported EBITDA	**5,018.9**	**5,165.7**	**5,348.3**	**5,659.1**
Pensions	-106.2	9.0	13.0	29.1
Operating Leases	1,571.1	1,999.9	2,128.0	0.0
Interest Expense – Discounting	-55.3	0.0	0.0	0.0
Unusual	-777.8	-840.6	-957.7	-750.1
Non-Standard Adjustments	-36.5	-15.8	-14.2	13.4
Moody's-Adjusted EBITDA	**5,614.1**	**6,318.2**	**6,517.4**	**4,951.6**

Source: Moody's Financial Metrics™

Ratings

Exhibit 9

Category	Moody's Rating
DEUTSCHE BAHN AG	
Outlook	Negative
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	Negative
Bkd Senior Unsecured	Aa1
Bkd Subordinate -Dom Curr	A2
Bkd Commercial Paper -Dom Curr	P-1
Bkd Other Short Term -Dom Curr	(P)P-1

Source: Moody's Investors Service

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