S&P Global
Ratings

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Summary:

Deutsche Bahn AG

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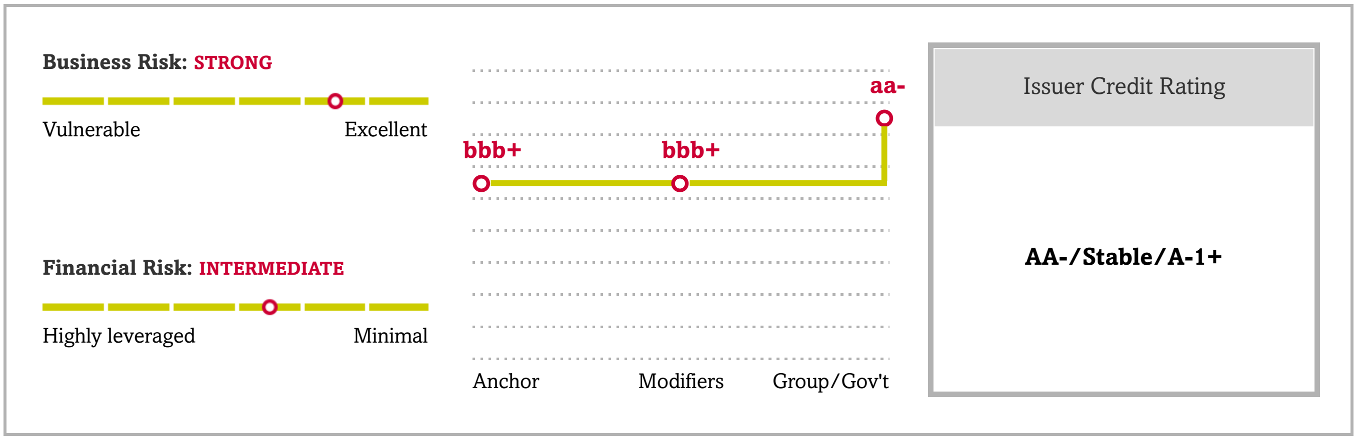
Summary:

Deutsche Bahn AG



Rationale

Business Risk: Strong

- Integrated operator, sole owner, and manager of Germany's rail infrastructure and provider of passenger and freight transportation services.
- Dominant provider of passenger and freight services in Germany, albeit with a reduced market share in regional transportation services due to intense competition. Below-average profitability compared to other transportation infrastructure companies, constrained by a high share of fixed costs--particularly personnel and energy.
- Operations in a stable and supportive legal environment, based on the constitutional obligation by the German government to finance rail infrastructure capital expenditure (capex).

Financial Risk: Intermediate

- High debt levels, reported debt at about €22.1 billion in FY2017, and negative discretionary cash flows until at least FY2020 resulting from large capex needs required to improve service quality.
- Continued support from the German government in the form of ongoing financing of infrastructure capex and a support package totalling more than €2.7 billion over FY2017-FY2021.
- Our view of the very high likelihood that the German government would provide sufficient and timely extraordinary support to Deutsche Bahn AG (DB) in the event of financial distress.

Outlook: Stable

The stable outlook reflects our expectation that, while credit metrics will gradually improve as a result of continued growth in passengers in long-distance passenger transport and the government's plan to revitalise rail freight in Germany, we expect DB's adjusted funds from operations (FFO) to debt will be limited to about 15%-17% over 2018-2020 due to substantial capex required to improve service quality and ensure the company's growth. We anticipate continued strong ongoing state support, given the material investment grants that cover about 70% of capex and the support package announced in 2017 (providing more than €2.7 billion by 2021).

Downside scenario

We could lower the rating to 'A+' if we expect DB's weighted-average FFO to debt to drop below 13%. This could occur if, despite substantial investments, the company failed to improve its competitiveness and attract more passengers, if management was unsuccessful in improving the company's profitability, or if growth in earnings took longer to materialize than we expect.

We could also lower the rating if the company's corporate structure changed such that infrastructure or passenger transport was no longer part of DB's operations.

A downgrade of Germany or a reduction in the likelihood of the state providing extraordinary support could also lead us to downgrade DB.

Upside scenario

We could raise the long-term rating on DB to 'AA' if its FFO-to-debt ratio improves above 20% and we believe that this improvement is sustainable, assuming that the likelihood of extraordinary state support remains the same. We expect credit metrics to strengthen, in particular thanks to improved operational performance as a result of the implementation of the "Railway for the Future" program.

Recent Developments

- DB's 2018 half-year results showed a 2.3% increase in revenues to €21.5 billion but a 10.5% decline in the company's adjusted EBITDA. This was caused by a severe storm in January 2018, which created disruptions and cancellations, a drop in rail freight transport volumes and higher expenses to sustain punctuality. Despite the challenging start to the year, we forecast an improvement in the core adjusted FFO-to-debt ratio to 15%-16% in 2018 compared to 14.1% in 2017. This is because the ratio in 2017 was weaker on account of high restructuring and legacy valuation costs, which we do not forecast going forward, and one-off payments to the German nuclear energy fund.
- DB is committed to the DB2020+ strategy and the "Railway of the Future" quality program launched in 2016, focused on higher competitiveness, growth, and digital transformation. However, after the strong improvement in punctuality and service at inception of the strategy, quality has stabilized at 2016 levels.
- Notwithstanding the exceptional burdens mainly due to temporary line closures and bad weather, we expect the

rebound in the long distance segment to continue and that it will contribute to revenue growth and higher margins. In the first six months of 2018, passengers increased by 3.8% year-on-year compared to 2.3% year-on-year in 2017. Other growth areas of the group are: the logistics arm, DB Schenker, due to higher exports, and the international passenger transport business, DB Arriva, which won new contracts in Mainland Europe.

- We also anticipate some growth in EBITDA and stabilization of the current market share following the restructuring of DB Cargo. This should be facilitated by the German Federal government initiative to support rail freight transport, launched in June 2017, which envisages a reduction of train-path fees up to 50% and subsidies for freight companies. That said, DB Cargo is subject to fierce competition and experienced a 6.7% decline in volume in the first half of 2018.

Our Base-Case Scenario

Despite DB's weaker-than-expected performance in FY2017, we project that the company's credit metrics will gradually improve, albeit remaining constrained by the sizable capex program. We expect that the restructuring measures aimed at improving service quality and efficiency, which depressed the financial results in 2017, will start to pay off over the next five years.

Assumptions

- Annual revenue growth of 2%-4% in FY2018-FY2022, supported by our forecast of German GDP increasing by 2.4% in 2018, 1.9% in 2019, and 1.5% in 2020. We forecast rail fares increasing in line with the change in the consumer price index by 1.7% in 2018, 1.8% in 2019, and 2.0% in 2020.
- A gradual increase in the S&P Global Ratings-adjusted EBITDA margin to 13.5%-14.5% from 12.9% in FY2017 mainly thanks to volume growth on the back of improved service quality, new services, and cost savings thanks to groupwide streamlining of cost structure. However, profitability growth will remain constrained by a high level of competition and personnel cost increases as a result of collective bargaining agreements with trade unions.
- We exclude from our forecasts the U.K. train operating companies (TOCs), their contribution to DB's revenues and EBITDA, and their investment plans, as their earnings and cash are not freely available to the parent company (see the "Reconciliation" section below).
- Net capex of about €19.9 billion in 2018-2022, mostly for rolling-stock upgrades (KE4). Most of the investment in infrastructure is not reflected in our forecast due to being funded by non-refundable government investment grants mostly under the five-year (2015-2019) performance and financing agreement (LuFV) II between the Federal Republic of Germany and DB.
- Dividends of €450 million in 2018 and €650 million per year in 2019-2022, then returned to DB via capex subsidies for investment in rail infrastructure.
- Debt issuance of about €3.0 billion in 2018, which includes the bonds already issued in the first half of 2018.

Key Metrics

	2017A	2018E	2019E
FFO to debt (%)	14.1	15.0-16.0	16.0-16.5
FFO cash interest coverage (x)	7.9	8.0-8.5	8.5-9.0
Debt-to-EBITDA (x)	5.3	4.5-5.0	4.5-5.0

*S&P Global Ratings-adjusted metrics. Adjustments include deconsolidation of U.K. TOCs. A--Actual. E--Estimate.

Company Description

Deutsche Bahn AG (DB) is Germany's integrated rail group. It owns and manages Germany's rail network and is the country's dominant rail passenger and freight operator. Although DB operates as an integrated company, its railway transport services and infrastructure companies are operationally separate, in line with the fourth European Railway Package.

While rail business in Germany accounts for about 70% of DB's EBITDA, the company also has significant asset-light international operations that it uses to strengthen its overall market position--partly given a gradually shrinking market share in regional and rail freight transportation services in Germany, but primarily to strengthen the group's financial position. The platform for operating passenger transport outside Germany is DB Arriva, one of the largest transport service operators in Europe providing services in 14 countries. DB Arriva generates more than 50% of its EBITDA in the U.K. It conducts global freight forwarding and logistics operations through DB Schenker.

With about €43 billion reported revenues and €4.5 billion reported EBITDA (in FY2017) it is one of the largest rail and logistics companies in the world, operating in over 130 countries.

Business Risk: Strong

The company's business risk profile is supported by its low-risk transportation infrastructure operation in a large and wealthy area, which generates 86% of its EBITDA. The vertical integration combines infrastructure management (which contributes about 40% of EBITDA) and transportation services, and gives DB bigger scale and more earnings stability compared to pure rail operators that are largely exposed to customer demand risk.

DB's earnings growth is strongly supported by Germany's long distance rail and Arriva's European rail, bus, and light rail services, as well as DB Schenker's global freight forwarding and logistics operations. In Europe, DB is the largest company in regional rail passenger transport, and a market leader in rail freight and land transport.

DB is the dominant transportation services provider in Germany. In FY2017 it had about 67% of the domestic regional rail passenger market and about 60% of the rail freight transport market. We notice that market shares have stabilized at 2016 levels, following a decrease of about 1-2 percentage points per year concentrated in the regional transportation services, where contracts are relatively long and capital-intensive, and in rail freight, which involves lower margins.

DB competes with a large number of railways in Germany, which have a share of about 30% of total train-path demand. We expect DB's market share in regional transportation in Germany to decrease further to about 60% by 2021. Only in the capital-intensive long-distance service, which requires investment in fleet, does DB hold almost 100% of its domestic market.

Exposure to intense competition, combined with a relatively high level of fixed costs, in particular personnel (about half of total operating costs) and energy expenses, constrain DB's profitability. We consider its adjusted EBITDA margin of 12.9% to be below average for other transportation infrastructure companies such as toll road and airport operators, despite being comparatively higher than that of some pure train operators. For instance, French rail operator SNCF Mobilite and Netherlands-based NS Groep had adjusted EBITDA margins of 11% and 13.2% in 2017, respectively.

DB operates in a stable and supportive legal environment, based on the constitutional obligation by the German government to finance infrastructure capex (Art. 87e of the German constitution). 64% of DB's gross capex is covered by investment grants and more funds that the state makes available. In addition, regional governments provide funds for financing of local public transport services according to the German regionalization act.

Peer comparison

Table 1

Deutsche Bahn AG -- Peer Comparison

Industry Sector: Infrastructure

	Deutsche Bahn AG	**Ferrovie dello Stato Italiane**	**SNCF Mobilites**	**NS Groep N.V.**
Rating as of Aug. 2, 2018	AA-/Stable/A-1+	BBB/Stable/--	AA-/Stable/A-1+	A+/Negative/--
	--Fiscal year ended Dec. 31--			
(Mil. €)	**2017**	**2016**	**2017**	**2017**
Revenues	40,601.3	8,563.0	31,831.0	3,577.8
EBITDA	5,255.4	2,369.0	3,501.0	473.7
Funds from operations (FFO)	3,965.3	2,222.5	2,653.5	288.6
Net income from cont. oper.	745.0	758.0	1,136.0	24.0
Cash flow from operations	3,146.8	1,919.5	2,591.5	12.6
Capital expenditures	3,504.6	5,745.0	2,482.0	612.0
Free operating cash flow	(357.8)	(3,825.5)	109.5	(599.4)
Discretionary cash flow	(969.8)	(3,871.5)	(19.5)	(678.4)
Cash and short-term investments	3,069.1	2,337.0	6,070.9	342.1
Debt	28,076.7	11,006.1	15,108.5	1,457.8
Equity	14,238.0	38,412.0	5,429.0	3,419.5
Adjusted ratios				
EBITDA margin (%)	12.9	27.7	11.0	13.2
Return on capital (%)	3.9	2.2	10.7	1.5
EBITDA interest coverage (x)	5.0	8.7	5.1	7.4
FFO cash int. cov. (x)	7.9	17.4	11.3	16.0
Debt/EBITDA (x)	5.3	4.6	4.3	3.1
FFO/debt (%)	14.1	20.2	17.6	19.8
Cash flow from operations/debt (%)	11.2	17.4	17.2	0.9
Free operating cash flow/debt (%)	(1.3)	(34.8)	0.7	(41.1)
Discretionary cash flow/debt (%)	(3.5)	(35.2)	(0.1)	(46.5)

Note: S&P Global Ratings' adjusted numbers for FY2017 for Ferrovie dello Stato Italiane are not yet available.

In Europe, DB is the largest regional rail passenger transport group and second after SNCF Mobilités in long-distance rail passenger transport, both based on revenues. We see Italy-based rail company Ferrovie dello Stato Italiane (FSI) as the closest peer to DB in terms of business mix, despite the significant difference in scale and diversification.

FSI and DB are vertically integrated, so are both rail operator and owner and manager of the national rail network. In general, vertical integration leads to bigger size, more stable operations, and higher profitability; whereas, pure rail operators such as SNCF Mobilités and Dutch-based NS Groep, which do not own the infrastructure, are subject to demand risk, earnings volatility, and lower EBITDA margins.

The Italian, Dutch, and German markets are all fully liberalized, and DB, FSI, and NS Groep all maintain leading market positions in their respective markets. FSI faces less competition than DB, although a new entrant, Nuovo Trasporto Viaggiatori (NTV) with the brand Italo, has challenged the incumbent on high-speed services between the main cities.

In terms of size and market share in Europe, SNCF Mobilités ranks close to DB. DB is more exposed to competition and contract renewals and has lost market share in regional transportation, but its freight and logistics division is larger and more profitable. In our opinion, the German regulatory framework is more favorable and transparent, as discussed above, which is emphasized by the support package deployed in 2017. The French government previously separated the infrastructure ownership from service operations, and it has now recently approved a reform package for the creation of an integrated railway group that will own both the infrastructure manager and the train operator.

Financial Risk: Intermediate

We expect the group's ability to deleverage over the short-to-medium term will continue to be hampered by DB's large capex requirements to improve punctuality, quality, efficiency, and growth. We note that DB is especially focused on investing in those business where it preserves a competitive advantage, i.e. DB Long Distance and Schenker, and is now investing in DB Cargo, following the government's strategy to sustain rail freight transport, its "Rail Freight Masterplan." Net capex (excluding government grants) will reach about €17.5 billion over 2018-2021 and we estimate a progressive improvement in EBITDA margins.

Despite dividends being lowered by €350 million each year, we estimate reported discretionary cash flow will still be negative until at least FY2020.

Under our base case, adjusted FFO to debt will start improving from its lowest level of 14.1% in FY2017 to 15%-16% in FY2018 and 16.0%-17.0% going forward, benefiting from the low interest rate environment. Indeed, DB issued nine bonds in 2017 and has issued five in 2018 so far, at competitive interest rates and in various currencies, and it is likely to issue an additional €0.7 billion by the end of the year.

Debt to EBITDA will gradually decrease from 5.3x in FY2017 to about 5.0x in FY2018 and 4.5x-5.0x thereafter, as a moderate increase in adjusted debt every year until FY2020 will be compensated for by growth in earnings.

We do not factor in large negative working capital requirements, but we notice that DB is exposed to swings in working capital over the year and this could cause cash on balance sheet to deteriorate if working capital swings differed from our projections.

Financial summary

Table 2

Deutsche Bahn AG Financial Summary

	--Fiscal year ended Dec. 31--				
	2017	**2016**	**2015**	**2014**	**2013**
Rating history	AA-/Stable/A-1+	AA-/Stable/A-1+	AA/Negative/A-1+	AA/Stable/A-1+	AA/Stable/A-1+
(Mil. €)					
Revenues	40,601.3	38,605.0	38,875.0	38,394.5	37,903.1
EBITDA	5,255.4	5,231.5	5,167.8	5,694.9	6,073.3
Funds from operations (FFO)	3,965.3	4,051.6	3,996.3	4,479.3	4,799.3
Net income from continuing operations	745.0	695.0	-1,325	966.0	657.0
Cash flow from operations	3,146.8	3,986.1	3,947.8	4,510.4	4,476.1
Capital expenditures	3,504.6	2,693.7	3,942.4	3,704.6	3,765.0
Free operating cash flow	(357.8)	1,292.4	5.4	805.8	711.1
Discretionary cash flow	(969.8)	429.4	(704.6)	597.8	180.1
Cash and short-term investments	3,069.1	4,086.5	4,253.3	3,785.3	2,861.0
Debt	28,076.7	27,736.9	27,287.9	26,580.5	25,344.5
Equity	14,238.0	12,732.0	12,871.0	13,862.0	14,514.0
Adjusted ratios					
EBITDA margin (%)	12.9	13.6	13.3	14.8	16.0
Return on capital (%)	3.9	3.6	(0.2)	4.3	5.1
EBITDA interest coverage (x)	5.0	4.9	4.7	4.9	5.1
FFO cash int. cov. (x)	7.9	8.1	7.7	8.4	9.4
Debt/EBITDA (x)	5.3	5.3	5.3	4.7	4.2
FFO/debt (%)	14.1	14.6	14.6	16.9	18.9
Cash flow from operations/debt (%)	11.2	14.4	14.5	17.0	17.7
Free operating cash flow/debt (%)	(1.3)	4.7	0.0	3.0	2.8
Discretionary cash flow/debt (%)	(3.5)	1.5	(2.6)	2.2	0.7

Liquidity: Adequate

The short-term rating is 'A-1+'. We assess DB's liquidity as adequate, reflecting our view that liquidity sources will cover uses by more than 1.2x in the 12 months to March 31, 2019. Our liquidity assessment continues to be supported by DB's high standing in the capital markets, sound relationship with banks, and generally prudent risk management, ensuring the maintenance of adequate liquidity.

Principal Liquidity Sources	Principal Liquidity Uses
• Unrestricted cash of about €2.3 billion as of March 31, 2018; • Availability of committed credit facilities expiring beyond 12 months of about €2.2 billion; • Unadjusted FFO of about €4.1 billion over the coming 12 months; • Bonds issued in May and June 2018 of about €479 million, part of ongoing issuance of €2.3 billion so far in 2018; and • Working capital inflow of about €116 million.	• Debt maturities of €2.5 billion; • Capex net of government grants of €4.7 billion; and • Dividend payments of €500 million.

Government Influence

We view DB as a government-related entity. It is 100% government owned, although as private joint stock company (Aktiengesellschaft) it is an independent legal entity with its own rights and obligations, and is subject to the same bankruptcy regime as any other limited liability company in Germany.

Our 'AA-' long-term corporate credit rating on DB incorporates four notches of uplift from the stand-alone credit profile of 'bbb+', to reflect our view that there is a very high likelihood that the German government would provide sufficient and timely extraordinary support to DB if needed.

This assessment is based on our view of DB's:

- Very important role fulfilling one of the key objectives of the government: building, maintaining, and operating the rail network. Nevertheless, despite DB's strategic, socioeconomic, and political importance as the country's leading provider of passenger rail services, as well as its position as the dominant rail-freight and logistics operator and the evidence of continuous financial support, in terms of subsidies and capital, DB does not benefit from any explicit and timely guarantee of its liabilities by the government.
- Very strong link to the government, reflecting a constitutional requirement that the state remains the owner of the country's rail infrastructure with responsibility for providing a functional rail network. Given this constitutional requirement that and a lack of a political will to even partially privatize DB, we expect that the group will remain in full government ownership in the future.

Ratings Score Snapshot

Issuer Credit Rating

AA-/Stable/A-1+

Business risk: Strong

- **Country risk:** Low
- **Industry risk:** Low
- **Competitive position:** Strong

Financial risk: Intermediate

- **Cash flow/Leverage:** Intermediate

Anchor: bbb+

Modifiers

- **Diversification/Portfolio effect:** Neutral (no impact)
- **Capital structure:** Neutral (no impact)
- **Financial policy:** Neutral (no impact)
- **Liquidity:** Adequate (no impact)
- **Management and governance:** Satisfactory (no impact)
- **Comparable rating analysis:** Neutral (no impact)

Stand-alone credit profile : bbb+

- **Related government rating:** AAA
- **Likelihood of government support:** Very high (+4 notches from SACP)

Issue Ratings--Subordination Risk Analysis

Capital structure

Deutsche Bahn's capital structure consists primarily of senior unsecured bonds, whereby the finance subsidiary Deutsche Bahn Finance GmbH continues to act as the only capital-market-focused legal entity within the DB Group. The priority liabilities at subsidiaries in the form of loans or secured export type financing are limited.

Reconciliation

Table 3

Reconciliation Of Deutsche Bahn AG Reported Amounts With S&P Global Ratings Adjusted Amounts (Mil. €)

	--Fiscal year ended Dec. 31, 2017--								
	Debt	**Shareholders' equity**	**Revenues**	**EBITDA**	**Operating income**	**Interest expense**	**EBITDA**	**Cash flow from operations**	**Capital expenditures**
Reported	22,076.0	14,073.0	42,693.0	4,535.0	1,688.0	651.0	4,535.0	2,329.0	3,800.0
S&P Global Ratings adjustments									
Interest expense (reported)	--	--	--	--	--	--	(651.0)	--	--

Table 3

Reconciliation Of Deutsche Bahn AG Reported Amounts With S&P Global Ratings Adjusted Amounts (Mil. €) (cont.)

Interest income (reported)	--	--	--	--	--	--	44.0	--	--
Current tax expense (reported)	--	--	--	--	--	--	(180.0)	--	--
Trade receivables securitizations	375.0	--	--	--	--	17.5	(17.5)	(52.0)	--
Operating leases	3,521.6	--	--	1,097.4	241.4	241.4	856.0	856.0	--
Postretirement benefit obligations/deferred compensation	4,114.0	--	--	12.0	12.0	78.0	(66.0)	(77.0)	--
Surplus cash	(2,485.0)	--	--	--	--	--	--	--	--
Capitalized interest	--	--	--	--	--	38.0	(38.0)	(38.0)	(38.0)
Capitalized development costs	--	--	--	(203.0)	(189.0)	--	(203.0)	(203.0)	(203.0)
Dividends received from equity investments	--	--	--	19.0	--	--	19.0	--	--
Deconsolidation / consolidation	(99.4)	--	(2,091.7)	(65.0)	(41.3)	(1.0)	(51.8)	44.2	(54.4)
Asset retirement obligations	242.6	--	--	--	--	17.0	(141.4)	287.6	--
Non-operating income (expense)	--	--	--	--	63.0	--	--	--	--
Non-controlling Interest/Minority interest	--	165.0	--	--	--	--	--	--	--
Debt - Accrued interest not included in reported debt	257.0	--	--	--	--	--	--	--	--
Debt - Foreign currency hedges	75.0	--	--	--	--	--	--	--	--
EBITDA - Gain/(Loss) on disposals of PP&E	--	--	--	(121.0)	(121.0)	--	(121.0)	--	--
EBITDA - Other	--	--	--	(19.0)	(19.0)	--	(19.0)	--	--
Working capital - Other	--	--	--	--	--	--	--	(89.0)	--
OCF - Other	--	--	--	--	--	--	--	89.0	--
Total adjustments	6,000.7	165.0	(2,091.7)	720.4	(53.9)	390.8	(569.7)	817.8	(295.4)

S&P Global Ratings adjusted amounts

	Debt	Equity	Revenues	EBITDA	EBIT	Interest expense	Funds from operations	Cash flow from operations	Capital expenditures
Adjusted	28,076.7	14,238.0	40,601.3	5,255.4	1,634.1	1,041.8	3,965.3	3,146.8	3,504.6

We deconsolidate DB's U.K. rail operations (The Chiltern Railway Company Ltd., Arriva Train Wales, Arriva Rail North Ltd., Arriva Rail London Ltd., XC Trains Ltd.) because U.K. TOCs are insulated from DB. They are ring-fenced businesses whose earnings and cash are not freely available to their parent company. Therefore, in our opinion, treating U.K. TOCs as equity investments better reflects the economic and contractual relationship that exists between them and their parent.

We add to reported debt:

- Trade receivables sold for €375 million through factoring;
- Commitments related to postretirement benefits of €4.1 billion corresponding to the unfunded liability, which is net of the effect cost sharing and franchise pension agreements that are borne by the employees;
- The net present value of minimum non-cancellable operating lease commitments of €3.5 billion;
- The tax-affected value of DB's provision for the closure, decommissioning and disposal of Neckarwestheim Nuclear Power Station (€242.6 million); and
- Accrued interest not included in reported debt (€257 million) and foreign currency hedges (€75 million).

We deduct from EBITDA:

- Gain from sale of property plant and equipment for €121 million; and
- Income from the disposal of non-current financial instruments for €19 million.

Related Criteria

- Criteria - Corporates - General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Methodology For Linking Long-Term And Short-Term Ratings, April 7, 2017
- General Criteria: Guarantee Criteria, Oct. 21, 2016
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March 25, 2015
- Criteria - Corporates - General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- General Criteria: Group Rating Methodology, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria - Corporates - Industrials: Key Credit Factors For The Transportation Infrastructure Industry, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology, Nov. 19, 2013
- Criteria - Corporates - General: Corporate Methodology: Ratios And Adjustments, Nov. 19, 2013
- General Criteria: Ratings Above The Sovereign--Corporate And Government Ratings: Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities And Insurers, Nov. 13, 2012
- General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010

- General Criteria: Use Of CreditWatch And Outlooks, Sept. 14, 2009
- General Criteria: Methodology: Criteria For Determining Transfer And Convertibility Assessments, May 18, 2009

Business And Financial Risk Matrix

	Financial Risk Profile					
Business Risk Profile	Minimal	Modest	**Intermediate**	Significant	Aggressive	Highly leveraged
Excellent	aaa/aa+	aa	a+/a	a-	bbb	bbb-/bb+
Strong	aa/aa-	a+/a	**a-/bbb+**	bbb	bb+	bb
Satisfactory	a/a-	bbb+	bbb/bbb-	bbb-/bb+	bb	b+
Fair	bbb/bbb-	bbb-	bb+	bb	bb-	b
Weak	bb+	bb+	bb	bb-	b+	b/b-
Vulnerable	bb-	bb-	bb-/b+	b+	b	b-

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