CRITICAL ASSESSMENTS AND APPRAISALS

The consolidated financial statements are based on assessments and assumptions relating to the future. Based on past experience and reasonable expectations of future events, the estimates and assessments which are derived are continuously reviewed and adjusted where appropriate. Nevertheless, the assessments will not always correspond to subsequent actual circumstances.

The assessments and assumptions which may involve a significant risk during the next year under review in the form of major adjustments to the carrying amounts of assets and liabilities are discussed under the relevant items.

GRI 201-1

NOTES TO THE STATEMENT OF INCOME

Revenues generated in DB Group relate to the provision of passenger transport, freight transport and logistics services, the provision of rail infrastructure, the sale of goods and other services related particularly to rail operations, less value-added tax, discounts and any price reductions. They are recognized with their fair value.

Services provided by DB Group are normally completed within a few hours/days. Accordingly, with the exception of season tickets, revenues in regional and long-distance services are recognized at the time at which the tickets are sold. Exceptions in this respect are the segments DB Regional and DB Arriva, where order processing in the form of long-term transport contracts concluded with the contracting organizations of the Federal states in Germany and the franchisors in other European countries are very important for the development of business. Contractual relations with customers covering several years also exist in the contract logistics line of business in the DB Schenker segment, which accounts for about 7% of Group revenues.

Revenue recognition in accordance with IFRS 15 is based on the principle that revenues are recognized when control over a product or service is transferred to the customers. Revenues generated by the rendering of services are recognized with the amount which is expected as the consideration as soon as control over the services has been transferred.

All expense and income items are normally recognized without being netted, unless the accounting principles under IFRS permit or require netting.

Expenses are recognized in the income statement at the point at which the service is used or at the point at which the expenses are incurred.

The special items detailed at income and expenses ("Total") are issues which are considered to be unusual either in terms of the amount involved and/or the actual reason behind the issue. Irrespective of the amount involved, this item is used for disclosing book profits and losses arising from transactions with investments/financial investments as well as depreciation on long-term customer contracts, which have been capitalized as part of the purchase price allocation process in connection with company acquisitions. In addition, the special items recognize individual issues if they are of an exceptional nature, if they are definable for accounting purposes, if they can be measured and if the amount involved is material. In addition to the special items, effects from changes in the scope of consolidation and effects from changes in exchange rates are also disclosed separately. The item "Total – comparable" does not involve IFRS figures; instead, it involves additional disclosures in accordance with internal reporting.

(1) Revenues

(€ million)	2020	2019
Revenues from freight and passenger transport services [1]	35,058	39,472
thereof concession fees for rail transport	6,529	6,585
Revenues from operating rail infrastructure	2,050	1,907
Revenues from letting and leasing	374	444
Revenues from sales of products [1]	1,690	1,690
Other revenues	805	1,004
Revenue reductions	–76	–87
Total	**39,901**	**44,430**
± Special items	1	1
± Effects from changes in scope of consolidation	–44	–101
± Effects from changes in exchange rates	339	0
Total – comparable	**40,197**	**44,330**

[1] Previous year figure adjusted.

The revenues from freight and passenger transport services were generated mainly by companies operating in the segments DB Schenker, DB Regional, DB Arriva, DB Long-Distance and DB Cargo. They include a minor amount of revenues from sub-operating leases in the segment DB Schenker. Revenues from operating rail infrastructure related to the segments DB Netze Track and DB Netze Stations. Rental and leasing revenues were generated mainly in the segment DB Netze Stations, and revenues from product sales were mainly generated in the segments DB Netze Energy and DB Schenker. Other revenues related to virtually all segments.

In the year under review, revenues decreased by € 4,529 million (–10.2%) to € 39,901 million. The decline in revenues in DB Group is mainly attributable to lower numbers of passengers resulting from the Covid-19 crisis. The recommended Covid-19-related mobility restrictions have resulted in considerable declines in revenues particularly at DB Long-Distance, DB Regional and DB Arriva. A further decline in revenues (€ –719 million) is attributable to the transfer of the transport contract of Arriva Rail North to the Department for Transport (DfT) on March 1, 2020.

Revenues included negative exchange rate effects of € 339 million, mainly affecting DB Schenker. These exchange rate effects were mainly attributable to the currency regions responsible for generating strong revenues, namely the United Kingdom and the USA, as well as the weaker rates of the Norwegian krone.

Even when adjusted for special items, effects from changes in the scope of consolidation and exchange rates, the revenues were below the previous year figure (€ –4,133 million, –9.3%).

Movements in revenues broken down according to business segments and regions are set out in segment reporting.

As was the case in the previous year, revenue reductions of long-term transport contracts (contractual penalties) were netted directly with the revenues of freight and passenger services. The separately disclosed revenue reductions (€ 76 million) also related mainly to revenues of freight and passenger services (for instance passenger rights).

The order book of customer contracts with contractually agreed outstanding revenues (secured revenues) was broken down as follows:

Secured order book as of Dec 31 (€ million)	**2020**	2019
Passenger transport contracts	64,142	64,652
Logistics and freight transport contracts [1]	248	218
Other contracts [1]	197	139
Total	**64,587**	**65,009**

[1] Contracts with a duration of at least 12 months and a total volume of at least € 5 million.

Most of the secured order book will be fulfilled within a period of ten years, with percentages declining over a period of time. Further information can be found in the Group management report in the sections *Order book of DB Regional* 122 f. and *Order book of DB Arriva* 156 f.

The exemption regulation of IFRS 15.121 (a) has been used for the logistics contracts and the other contracts.

Variable considerations of transport contracts as well as price escalation clauses or contractual penalty are only taken into consideration for estimating the assured revenues if they are highly likely.

Claims relating to contractual assets[1] were recognized together with the other receivables and assets and developed as follows:

Contractual assets (€ million)	**2020**	2019
As of Jan 1	29	29
Additions	131	114
Fulfillment/payment	-55	-54
Other changes	-70	-60
As of Dec 31	**35**	**29**

A figure of € 15 million (as of December 31, 2019: € 10 million) was attributable to long-term contractual assets.

The contractual liabilities in DB Group include advance payments received as well as other payments received in advance in relation to revenues for subsequent periods (for example for season tickets). Obligations from contractual liabilities were shown under the trade liabilities and deferred items and have developed as follows:

Contractual liabilities (€ million)	**2020**	2019
As of Jan 1	1,308	1,266
Additions	2,353	3,161
Fulfillment of liabilities	-2,509	-3,118
Other changes	-32	-1
As of Dec 31	**1,120**	**1,308**
thereof long-term	111	164

(2) Inventory changes and other internally produced and capitalized assets

(€ million)	**2020**	2019
Inventory changes	1	-29
Other internally produced and capitalized assets	3,563	3,195
Total	**3,564**	**3,166**
± Special items	-	-
± Effects from changes in scope of consolidation	0	-1
± Effects from changes in exchange rates	1	-
Total – comparable	**3,565**	**3,165**

Own investments relate mainly to construction and project business in rail infrastructure and also the modernization of rolling stock as well as the processing of appropriate spare parts. The increase compared with the previous year was attributable to a higher construction volume in rail infrastructure.

(3) Other operating income

(€ million)	**2020**	2019
SERVICES FOR THIRD PARTIES AND SALE OF MATERIALS		
Income from maintenance and repair	3	4
Sale of materials and energy	98	98
Other services for third parties	527	509
	628	**611**
Leasing and rental income	176	188
Income from claims for damages and cost refunds	174	259
INCOME FROM FEDERAL GRANTS		
Federal compensation payments	94	115
Other investment grants	0	0
Income from release of deferred items	143	144
Other Federal grants	1,181	346
	1,418	**605**
Income from the disposal of property, plant and equipment and intangible assets	121	277
Income from the disposal of non-current financial instruments	4	0
Income from the reversal of provisions	130	267
OTHER INCOME		
Income from third-party fees	21	24
Income from remediation of ecological burdens	51	46
Utilization of provisions for potential losses	152	156
Miscellaneous other income	564	597
	788	**823**
Total	**3,439**	**3,030**
± Special items	-48	-22
± Effects from changes in scope of consolidation	0	-2
± Effects from changes in exchange rates	8	-
Total – comparable	**3,399**	**3,006**

Adjusted by special items, effects from changes in scope of consolidation and in exchange rates, other operating income was higher than the previous year (€ +393 million).

This increase was almost entirely attributable to income from other Federal grants, which were paid out mainly in connection with the Covid-19 crisis. Covid-19-related grants were paid to individual subsidiaries of DB Group for instance for maintaining passenger transport services, particularly in the segments DB Regional and DB Arriva. Further Federal grants, for which the subsidy process had not been completed by the end of the year under review, have been recognized with the probable amount of the subsidy. Various factors have been taken into consideration in this respect, including the application and approval process up to the point at which Covid-19 support has been received. This is an estimation, which is subject to considerable uncertainty in view of the imponderable factors associated with the Covid-19 crisis.

The leasing and rental income included subletting income of € 23 million.

[1] The contractual assets also show claims relating to work-in-progress from long-term orders.

The decline in income from the disposal of property, plant and equipment and intangible assets compared with the previous year was mainly attributable to lower book profits of property sales in the segments DB Netze Stations, DB Regional and DB Netze Track.

The miscellaneous other income comprises the reversal of liabilities as well as a range of individual issues which individually are of a minor nature.

(4) Cost of materials

(€ million)	2020	2019
EXPENSES FOR RAW MATERIALS AND SUPPLIES AND OF PURCHASED PRODUCTS		
ENERGY EXPENSES		
Electricity	1,906	1,824
Electricity tax	145	155
Diesel, other fuel	961	1,120
Other energies	185	217
Energy price derivatives	-78	-2
	3,119	**3,314**
Other supplies and purchased goods	647	556
Price and value adjustment for materials	-31	-78
	3,735	**3,792**
EXPENSES FOR PURCHASED SERVICES		
Purchased transport services	12,470	11,980
Cleaning, security, disposal, winter service	410	401
Commissions	80	179
EXPENSES FOR UTILIZATION OF INFRASTRUCTURE		
Train-path usage	367	462
Station usage	63	84
Use of local installations	3	16
	433	**562**
Other purchased services	849	959
	14,242	**14,081**
Expenses for maintenance and production	4,780	4,389
Total	**22,757**	**22,262**
± Special items	-74	-3
± Effects from changes in scope of consolidation	-29	-71
± Effects from changes in exchange rates	233	-
Total - comparable	**22,887**	**22,188**

Adjusted by special items, effects from changes in scope of consolidation and in exchange rates, the cost of materials increased by € 699 million compared with the previous year (+3.2%).

The impairments on inventories recognized in cost of materials amount to € 87 million in the year under review (previous year: € 32 million); this was opposed by a one-off effect. The energy expenses declined in the year under review as a result of volume and price effects. The cessation of the Arriva Rail North franchise also had an impact.

The expenses for purchased services increased slightly by € 161 million compared with the previous year (+1.1%). The purchased transport services were higher than the corresponding previous year level mainly due to sharp Covid-19-related increases in airfreight rates at DB Schenker. This was opposed by lower expenses for commissions due to lower ticket sales as well as train-path and station usage due to the cessation of the Arriva Rail North franchise.

The expenses for maintenance and production increased by € 391.1 million (+8.9%), and were mainly attributable to the segments DB Netze Track and DB Long-Distance.

(5) Personnel expenses and employees

(€ million)	2020	2019
WAGES AND SALARIES		
Employees	13,836	13,714
Civil servants assigned	856	963
	14,692	**14,677**
SOCIAL SECURITY EXPENSES		
Employees	2,594	2,569
Civil servants assigned	204	221
Expenses for adjusting staffing levels	155	142
Retirement benefit expenses	652	543
	3,605	**3,475**
Total	**18,297**	**18,152**
± Special items	-130	-141
± Effects from changes in scope of consolidation	-9	-12
± Effects from changes in exchange rates	66	-
Total - comparable	**18,224**	**17,999**

The figure stated for personnel expenses (social security expenses) included expenses of € 1,238 million for defined contribution plans (previous year: € 1,215 million).

The amount shown for adjusting staffing levels mainly comprises expenses for restructuring costs, obligation surpluses relating to employment agreements as well as costs of severance payment and semi-retirement agreements.

The retirement benefit expenses related to active persons as well as persons who are no longer employed in DB Group or their surviving dependants. They were attributable primarily to service costs, employers' contributions to the company top-up benefit scheme as well as the contributions to Pensions-Sicherungs-Verein aG (pension backing association). The interest expense resulting from compounding the pension obligations and the expected income from plan assets is shown in financial result. For detailed explanations regarding the development of pension obligations, please refer to *Note (31)* → *219 ff.* The increase in retirement benefit expenses was driven mainly by the increase in the employer's contribution to the company retirement benefit scheme as of January 1, 2020 due to collective bargaining agreements in Germany.

The activities of civil servants in DB Group are based on statutory allocation within the framework of the Rail Restructuring Act (Eisenbahnneuordnungsgesetz; ENeuOG), Art. 2 §12. For the work of the allocated civil servants, DB AG reimburses to the Federal Railroad Fund (Bundeseisenbahnvermögen; BEV) those costs which would be incurred if an employee covered by collective bargaining arrangements were to be employed instead of the allocated civil servant (pro forma calculation).

The increase of 2.6% in wages and salaries in Germany was mainly attributable to the collective bargaining agreements as of July 1, 2020. This was to a certain extent opposed by lower additions to personnel-related liabilities, such as director's fees, unused holiday entitlements and overtime.

In addition, the reduction of the number of employees abroad also resulted in a slight reduction in personnel expenses.

The development in the number of employees in DB Group, converted to full-time employees (FTE) in each case, is shown in the following:

	As of Dec 31		Annual average	
(FTE)	2020	2019	2020	2019
Employees	306,131	305,342	303,925	302,327
Civil servants	16,637	18,602	17,964	20,051
Employees	**322,768**	**323,944**	**321,889**	**322,378**
Trainees and dual degree students	12,796	11,962	11,201	10,296
Total	**335,564**	**335,906**	**333,090**	**332,674**

In the event of changes in the scope of consolidation, the employees are included on a pro rata basis up to the time of deconsolidation or after the date of initial consolidation.

At the end of the year under review, the number of persons employed in DB Group was slightly lower than at the end of the previous year. At the level of the segments, this decline was mainly attributable to the cessation of the Arriva Rail North franchise at DB Arriva as well as a downturn at DB Schenker due to economic factors. In the integrated rail system, however, the number of persons employed compared with the previous year increased in the DB Netze Track segment in the maintenance/construction project field and in the operational service as well as due to additional services at DB Fernverkehr AG and DB Regio AG. An increase in the number of employees in the segment Subsidiaries/Other was reported as a result of an increased order volume as well as the expansion of innovative topic areas mainly at DB Fahrzeuginstandhaltung GmbH, DB AG as well as DB Systel GmbH.

The development in the number of employees, based on the number of natural persons (NP), is shown in the following:

	As of Dec 31	
(NP)	2020	2019
Employees	319,185	318,809
Civil servants	17,093	19,102
Employees	**336,278**	**337,911**
Trainees and dual degree students	12,796	11,962
Total	**349,074**	**349,873**

(6) Depreciation and impairments

In the case of property, plant and equipment, depreciation is recognized using the straight-line method over the expected useful life of the assets or, in the case of leased assets, over the shorter contract duration. The following useful-service lives for the main groups of property, plant and equipment are taken as a basis:

	Years
Permanent way structures, tunnels, bridges, railway crossings	15–100
Track infrastructure	13–30
Buildings, halls, roofs	10–85
Other structures	5–60
Signaling equipment	7–40
Telecommunications equipment	5–20
Traction current installations	10–52
Rolling stock	10–30
Other technical equipment, machinery and vehicles	5–40
Fixtures and fittings	3–15

The appropriateness of the chosen depreciation method and the service lives is subject to an annual review. Our expectations regarding the residual value are also updated annually.

Intangible assets are depreciated using the straight-line method. The following useful lives are used as the basis for depreciation:

	Years
Franchises, rights, etc.	Duration of contract
Trademarks	Economic life
Brand names	Unlimited
Customer base	Economic life
Purchased software	3–10
Software produced in-house	3–25

Goodwill arises as a positive difference between the costs of purchasing the shares and the fair values of the individually acquired assets, absorbed liabilities and contingent liabilities. It is not depreciated; instead, it is subject to an annual impairment test. Impairment losses in relation to goodwill are not reversed.

The adequacy of the depreciation method and the service life are subject to an annual review.

IMPAIRMENTS OF ASSETS

IAS 36 governs the impairment test for property, plant and equipment and intangible assets with a certain economic life, which is carried out using a so-called indicator-based asset impairment test. Such an asset impairment test has to be carried out when indicators (so-called triggering events) indicate a possible loss of value. In addition, according to IAS 36, goodwill as well as intangible assets with an indefinite service life have to be subjected at least once a year to an impairment test.

Definition of cash-generating units

Goodwill impairment tests have to be carried out at the level of individual assets as part of the asset impairment test. If it is not possible to determine future cash flows, which are to a large extent independent, for an individual asset, so-called cash-generating units (CGUs) have to be formed as an aggregation of assets whose future cash flows depend on each other. The CGU structure is fully in line with the planning and reporting structure of DB Group. In the 2020 financial year, no adjustments were made to the CGU structure.

Due to the congruence between management structure and legal structure, the identified CGUs also always consist of at least one legal unit. This means that the data necessary for the asset impairment test can be derived from annual financial statements and planning data.

The impairment test for goodwill is carried out at the level of the CGU or group of CGUs to which the goodwill has been allocated. This is applicable for the operating segments. Significant goodwill currently exists exclusively in the CGU DB Schenker. With regard to the recognition of goodwill for each CGU, please also refer to the *Segment information according to segments → 188 f.*

Method

In the impairment test in accordance with IAS 36, the carrying amount of an asset or a CGU has to be compared with the corresponding recoverable amount. If the positive carrying amount is no longer covered by the recoverable amount, this results in a corresponding impairment requirement.

The carrying amount of a CGU is established by adding the carrying amounts of the assets less the liabilities which are related to the relevant assets (net position). In addition, for determining the carrying amount of a CGU, it is also necessary to recognize corporate assets and corporate liabilities jointly used by several CGUs, and the working capital necessary for the corresponding CGU must also be taken into consideration.

The recoverable amount is defined as the higher of the fair value less costs of disposal and the value in use. In the impairment tests carried out in DB Group, the recoverable amount is represented by the value in use. The value in use is established as the present value of the free cash flows before interest and after tax attributable to the continuation of a CGU. A global tax rate of 30.5% has again been used in relation to EBIT (unchanged compared with the previous year). The forecast of cash flows reflects previous experience, and takes account of management expectations with regard to future market developments. This cash flow forecast is based on the medium and long-term planning adopted by the Management Board of DB AG and which covers a planning horizon of five or ten years, respectively. If cash flow forecasts are necessary beyond the ten-year planning horizon, a sustainable free cash flow is derived from the forecast and is extrapolated on the basis of a growth rate related to the specific market development. As was the case in the previous year, a uniform average growth rate of 1% p.a. has been assumed in DB Group.

A weighted average cost of capital is used for discounting the free cash flows; this reflects the expectation of return on the capital market for providing debt capital and shareholders' equity to the relevant CGU. Because free cash flow after taxes has been calculated, a cost-of-capital rate after tax has also been used. Risks of free cash flows are recognized by a risk-equivalent capitalization rate.

The WACCs of the CGUs which are applicable for the 2019 and 2020 annual financial statements are detailed in the following table:

	2020		2019	
(%)	**Before taxes**	**After taxes**	Before taxes	After taxes
DB Long-Distance	6.7	4.7	5.5	3.8
DB Regional	5.6	3.9	4.5	3.1
DB Cargo	8.2	5.7	7.9	5.5
DB Netze Track	4.8	3.4	4.2	2.9
DB Netze Stations	5.8	4.0	5.6	3.9
DB Netze Energy	4.0	2.8	3.9	2.7
DB Arriva	6.1	4.2	4.5	3.1
DB Schenker	8.4	5.9	8.1	5.7

The changes in the WACCs compared with the previous year are attributable to current expectations of medium- to long-term developments of the capital market.

Asset impairment test

Processes which comply with the specific requirements of IAS 36 have been implemented in order to carry out the asset impairment test. The service lives of the individual CGUs used for the asset impairment test are based on the service life of the asset or a group of homogeneous assets which is (are) most significant for the particular CGU.

In addition, the process of establishing the service life disregards assets or future cash flows which result from major structural changes, disinvestment measures or extension capital expenditures. Resultant adjustments to the original plans relate mainly to the major new and expansion infrastructure projects, where it is assumed that the construction process will be completed beyond the observation period (beyond 2030) and for which most of the planned own funds have not yet been invested. The cash flow forecasts take account of internal transfer prices within DB Group on the basis of arm's length assessments of the companies involved. The published infrastructure prices are applicable for goods and services exchanged between transport and infrastructure segments; price increases in the period covered by the forecast have also been taken into consideration.

The calculation takes account of a long-term growth rate of 1.0% in relation to the capital employed. The purpose of growth retention is to present an inflation-adjusted reinvestment rate. This ensures that a steady state is reflected in the perpetual yield in the extrapolation of cash flows.

After completion of medium-term planning, a regular check is carried out to assess whether it is necessary for impairments to be recognized at the CGU level. In addition to this annual cycle, a test is also performed if current issues arising from the development in business or changes in assumptions indicate that there has been a major deterioration in the value in use.

DB Cargo is still facing major challenges from the market and the competition. At the CGU DB Cargo, there is a shortfall in the value in use compared with the carrying amount of the assets employed as of the balance sheet date. In this case, it is also necessary for the fair value less the costs to sell to be determined for the affected assets. If this figure is higher than the carrying amount of the assets, no impairment has to be recognized. In 2020, DB Cargo determined market values for most of its assets (in particular locomotives and freight cars). Overall, no shortfall of the carrying amounts was established, and no impairment therefore had to be recognized as of the balance sheet date.

In the observed period, all CGUs, with the exception of DB Cargo, were able to cover their carrying amounts with the value in use.

Independently of the impairment tests carried out in relation to the CGUs, impairments are recognized in relation to individual assets which are no longer capable of being used fully. These impairments are shown under the disclosures for the respective balance sheet item.

Goodwill impairment test

A goodwill impairment test must be carried out annually for all CGUs to which goodwill can be allocated. Because the goodwill which arises in DB Group as a result of acquisitions is always clearly allocated to a CGU, this goodwill impairment test is an integral part of the asset impairment test which is always carried out annually for all CGUs.

The goodwill impairment tests carried out for the segments which are carrying goodwill did not identify any impairment requirement for the CGUs. This is not applicable for the impairment recognized during the year at the CGU DB Arriva.

The respective recoverable amount is represented by the value in use of the CGU, which in turn has been derived from the planning of the relevant segments. The details relating to methods presented above are thus applicable correspondingly. At DB Arriva and DB Schenker it also has to be borne in mind that separate assumptions relating to the development of the economy, market and competition as well as currency relations have been made for the relevant international markets. These assumptions have been based on the external and internal expert assessments available at the time of the planning.

Critical assessments and appraisals

IMPAIRMENT OF CASH-GENERATING UNITS (CGUS)

The profit and cash flow planning in the segment DB Arriva has been reduced considerably, mainly in connection with the Covid-19 crisis; together with the much higher costs of capital in connection with the impairment test, this has meant that the net assets (carrying amount) shown in the balance sheet are no longer covered by future surpluses which are derived from medium-term planning (value-in-use). In consequence, this has resulted in an impairment requirement of € 1,411 million, which is attributable entirely to the write-down of the goodwill previously recognized by DB Arriva.

Within the framework of the impairment tests, the main assumptions which have an impact on the value of a CGU are reviewed in the form of standard sensitivity analyses. As was the case in the previous year, the sensitivity analysis at the CGU DB Cargo was carried out in relation to the market values established for the main assets. Similar to the situation in the previous year, it can be assumed that there is no impairment requirement even in conjunction with a reduction of 10 % in relation to the market value.

Infrastructure CGUs are also exposed to risks relating to the extent of long-term investment grants for replacement capital expenditures in the existing network and the related extent of own funds at the infrastructure companies. The investment grants included in the medium- and long-term planning are based on the Performance and Financing Agreement signed by the Federal Ministry of Transport and Digital Infrastructure (Bundesministerium für Verkehr und digitale Infrastruktur; BMVI) and DB Group as well as the project and financing concept agreed between the Federal Government and DB Group for setting out the objectives of the Climate Action Program 2030.

The sensitivities shown in the following relate merely to an impairment test on the basis of the value-in-use. If a shortfall is identified in the course of the scenario analyses, this does not necessarily result in an impairment requirement. If the assumption set out in the respective scenario analysis materializes, a second step would be to analyze the coverage of carrying amounts via the market values (fair value less costs of disposal). The scenario analyses detailed here do not make any statement regarding the development of the market values or a risk in the development of market values.

EBIT MARGIN

The risk of an EBIT margin reduced by 10 % has been considered for analyzing a scenario in which profits fail to perform in line with budget. This model calculation has identified an impairment requirement at the CGUs DB Long-Distance (€ −317 million), DB Regional (€ −309 million), DB Netze Track (€ −4,324 million), DB Netze Stations (€ −611 million) and DB Arriva (€ −772 million); this means that the value-in-use for these CGUs no longer provides adequate cover for the carrying amount of the capital employed. The CGU DB Long-Distance can withstand a reduction of up to 8.6 % in the EBIT margin; the corresponding figures applicable for other CGUs are up to 8.4 % (DB Regional), up to 1.7 % (DB Netze Track), up to 3.4 % (DB Netze Stations) and up to 1.6 % (DB Arriva). All other CGUs report stable surplus coverage even if the EBIT margin is reduced by 10 %.

AVERAGE REAL GROWTH RATE OF CASH FLOWS

A reduction of 10 % in the long-term growth rate has been simulated in order to assess the sensitivity of the impairment test result in relation to the assumed long-term growth of cash flow (1 %). As was the case in the previous year, no impairment requirement has been identified for any of the CGUs considered in this scenario.

WEIGHTED AVERAGE COST OF CAPITAL

Risks relating to the assumptions of the capitalization rate, which is normally used for calculating the present value of value in use, have been analyzed by simulating the value of each CGU in conjunction with a capital cost markup of 10 %. The currently used weighted costs of capital (after tax) have been used as the basis of this simulation: this model calculation has identified the following shortfalls for the CGUs DB Netze Track (€ −1,852 million), DB Netze Stations (€ −275 million) and DB Arriva (€ −178 million). The maximum cost of capital markup, up to which the above-mentioned CGUs covered the respective carrying amounts, amounted to 3.0 % at DB Netze Track, 5.0 % at DB Netze Stations and 4.3 % at DB Arriva.

USEFUL LIFE AND RESIDUAL VALUE

With regard to the assumptions relating to useful life and residual value, the effect of a 10 % reduction in the residual value at the end of useful life (terminal value) was analyzed. This model calculation identified shortfalls at the CGUs DB Netze Track (€ −1,056 million), DB Netze Stations (€ −99 million) and DB Arriva (€ −102 million). With a reduction in the residual value at the end of the useful life, DB Netze Track would report surplus cover of up to 4.6 %, DB Netze Stations would report surplus cover of up to 7.6 %, and DB Arriva would report a corresponding figure of up to 6.0 %. All other CGUs show stable surplus cover in the scenario analysis.

Depreciation was broken down as follows:

(€ million)	2020	2019
Depreciation	3,828	3,688
Recognized impairments	1,558	10
Recognized recoveries in value	-14	-27
Total	**5,372**	**3,671**
± Special items	-1,467	-72
± Effects from changes in scope of consolidation	-4	-1
± Effects from changes in exchange rates	10	-
Total - comparable	**3,911**	**3,598**

In the year under review, depreciation was higher than in the previous year, and related mainly to the property, plant and equipment used as rail infrastructure as well as the rolling stock. It is shown in the income statement less any recovery in value recognized in the reporting period. Of the figure recognized for impairments, € 1,411 million relates to the complete write-down of the goodwill previously recognized by DB Arriva.

For further explanations, please refer to the details concerning the development in property, plant and equipment or intangible assets under *Note (13)* → *203 ff.* and *(14)* → *205 f.*

(7) Other operating expenses

(€ million)	2020	2019
LEASING, RENTS AND LEASES		
Leasing expenses	758	903
Conditional leasing expenses	0	1
	758	**904**
Legal, consultancy and audit fees	219	271
Fees and contributions	221	242
Insurance expenses	159	151
Advertising and sales promotion expenses	115	174
Printing and stationery expenses	57	65
Travel and representation expenses	243	334
Research and non-capitalized development costs	40	28
OTHER PURCHASED SERVICES		
Purchased IT services	580	521
Other communication services	51	50
Other services	790	840
	1,421	**1,411**
Expenses from claims for damages	239	204
Impairments recognized in relation to receivables and other assets [1]	91	59
Losses from the disposal of property, plant and equipment and intangible assets	217	132
Expenses from disposal of non-current financial instruments	0	1
Other operating taxes	73	73
OTHER EXPENSES		
Grants for third-party facilities	127	93
Concession fees for passenger transport	24	114
Other personnel-related expenses	260	241
Miscellaneous other expenses	971	660
	1,382	**1,108**
Total	**5,235**	**5,157**
± Special items	-230	-258
± Effects from changes in scope of consolidation	0	-7
± Effects from changes in exchange rates	22	-
Total - comparable	**5,027**	**4,892**

[1] Including payments for receivables written down in the previous year.

The other operating expenses increased by a total of € 78 million (+1.5%), mainly as a result of higher miscellaneous other expenses as well as an increase in the losses resulting from the disposal of property, plant and equipment and intangible assets.

The increase in the miscellaneous other expenses is almost entirely attributable to the increase (compared with the previous year) in the expenses for the creation of provisions for pending losses in the segment DB Regional. The increase in the losses from the disposal of property, plant and equipment and intangible assets was essentially attributable to no longer usable modules of transport and logistics software in the segment DB Schenker as well as asset disposals in the Infrastructure segments.

This was opposed by a considerable reduction in the expenses for leasing, rents and leases mainly due to the cessation of the Arriva Rail North franchise. The other leasing expenses related to the service element of capitalized leasing arrangements as well as short-term leases (€ 233 million; previous year: € 320 million) and also leased assets of minor value (€ 48 million; previous year: € 41 million).

The travel and representation expenses also declined due to Covid-19-related factors as well as increased utilization of Web and video conferences. The advertising and sales promotion expenses in the year under review also declined as a result of the Covid-19 crisis.

In the other purchased services, purchased IT services increased in virtually all segments. On the other hand, the expenses for other services declined particularly in the segment DB Schenker as a result of a reduction in the use of temporary employees.

The concession fees for passenger transport declined because the transport authorities of The Chiltern Railway Company Limited, Sunderland / United Kingdom, and XC Trains Limited, Sunderland / United Kingdom (both segment DB Arriva) waived their entitlement to part of the concession fees as a result of contractual adjustments.

The legal, consultancy and audit fees comprise fees of € 20.9 million for the auditor of the consolidated financial statements (previous year: € 32.8 million); this figure comprised auditing services of € 8.8 million (previous year: € 14.7 million), other certification services of € 7.3 million (previous year: € 9.0 million), tax advice services of € 0.3 million (previous year: € 0.4 million) as well as other services of € 4.5 million (previous year: € 8.7 million). Of the figure shown for the other rendered services, € 2.8 million (previous year: € 6.6 million) were attributable to services of associates of the auditor of the consolidated financial statements.

(8) Result of investments accounted for using the equity method

The following contributions to profits are recognized in the income statement as a result of shares in companies over which significant influence can be exercised or which are managed as joint ventures:

(€ million)	2020	2019
JOINT VENTURES		
Trieste Trasporti S.P.A., Trieste / Italy	1	4
Intercambiador de Transportes Principe PIO S. A., Madrid / Spain	2	5
Other	1	2
	4	**11**
ASSOCIATED COMPANIES		
EUROFIMA European Company for the Financing of Railroad Rolling Stock (EUROFIMA), Basel / Switzerland	6	3
Barraqueiro SGPS SA, Lisbon / Portugal	-4	-3
GHT Mobility GmbH, Berlin [1]	-32	-27
Other	5	4
	-25	**-23**
Total	**-21**	**-12**

[1] In the year under review, the cumulative losses (€ 32 million) in excess of the purchased costs of the shares were deducted from the financial receivables due from GHT Mobility GmbH.

(9) Net interest income

(€ million)	2020	2019
INTEREST INCOME		
Net interest income from pension provisions	5	5
Other interest and similar income	25	32
Income from securities	1	0
Operating interest income	**31**	**37**
Interest income from the reversal of deferred items and other interest income	83	11
	114	**48**
INTEREST EXPENSES		
Other interest and similar expenses	-427	-472
Net interest expenses for pension provisions	-65	-92
Interest expenses for leasing liabilities	-81	-94
Operating interest expenses	**-573**	**-658**
Compounding of long-term provisions and liabilities	-156	-45
	-729	**-703**
Total	**-615**	**-655**
± Special items	1	2
± Effects from changes in scope of consolidation	0	0
± Effects from changes in exchange rates	-2	-
Total - comparable	**-616**	**-653**
For information only:		
Net operating interest income	-542	-621

Interest income and interest expenses are recognized in the income statement using the effective interest method in the period in which the income arises.

The increase in interest income from the reversal of deferred items and other interest income is mainly attributable to the adjustment of the discount rate for provisions for ecological burdens.

The expenses for other interest and similar expenses have declined as a result of the average lower interest rates for the senior bonds issued in the year under review compared with the senior bonds repaid in this period despite an overall increase in financial debt.

The increase in the expenses for the compounding of long-term provisions and liabilities was mainly attributable to the adjustment to the discount rate for the provision for the rectification of ecological burdens and a provision for the pro rata costs relating to the decommissioning of a joint power generation plant.

(10) Other financial result

(€ million)	2020	2019
Result from equity investment	1	2
Result from exchange rate effects	120	-128
Result from currency-related derivatives	-145	110
Result from other derivatives	-2	2
Result from disposal of financial instruments	0	0
Impairments on financial instruments	-56	-5
Other financial result	-9	-17
Total	**-91**	**-36**
± Special items	–	-
± Effects from changes in scope of consolidation	0	-24
± Effects from changes in exchange rates	18	-
Total - comparable	**-73**	**-60**

Dividend income is recognized at the point at which the right to receive the payment arises.

The result from exchange rate effects was attributable to the conversion of foreign currency liabilities and receivables with an impact on the income statement using the spot rate applicable on the reference date (IAS 21). The result from exchange rate effects has to be netted with the result from currency-related derivatives. The strong exchange rate fluctuations in the year under review are mainly attributable to the development of the exchange rate between the euro and the British pound, the Swiss franc and the Norwegian krone. The result from currency-related derivatives comprises reclassifications of currency-related changes in the market value of cash flow hedges recognized under shareholders' equity with no impact on the income statement. The result from other derivatives relates to the development in the market value of derivatives which are not classified as effective hedges in accordance with IFRS 9 (Financial Instruments).

Of the figure shown for impairments on financial instruments, the associated company Barraqueiro SGPS SA, Lisbon/Portugal accounted for € 43 million. See *Note (15) → 206.*

(11) Taxes on income

(€ million)	2020	2019
Actual tax expense	-213	-240
Income due to lapsing of tax obligations	33	103
Actual taxes on income	**-180**	**-137**
Deferred tax expense (previous year: deferred tax income)	-43	136
Taxes on income	**-223**	**-1**

The actual taxes on income in the year under review were incurred mainly at foreign Group companies. The increase compared with the previous year is attributable to higher contributions to profits made by some international Group companies as well as lower income from the lapsing of tax obligations. An expense (previous year: income) was reported for the deferred taxes. This is due to the lower anticipated future utilization of tax losses carried forward, whereas deferred tax income from the extension of the planning horizon was reported in the previous year.

Starting with the net profit/loss of DB Group before taxes on income and the theoretical taxes on income calculated using a theoretical tax rate of 30.5%, the following reconciles the calculated taxes with the actual taxes on income:

(€ million)	2020	2019
Profit/loss before taxes on income	-5,484	681
Group tax rate (%)	30.5	30.5
Deferred tax expense (-)/tax income (+)	**1,673**	**-208**
Adjustment of the expected future use of loss carry-forwards and new temporary differences which have arisen and loss carry-forwards	-1,398	151
Income not subject to tax	24	33
Tax effects related to IAS 12.33	40	48
Expenses not deductible for tax purposes	-372	-27
Differences in tax rates for foreign companies	-154	21
Other effects	-36	-19
Taxes on income as reported	**-223**	**-1**
Effective tax rate (%)	-4.1	0.1

In the year under review, there were considerable new tax losses carried forward as well as additional temporary differences in relation to which no deferred tax assets were created, because adequate taxable profit had not been expected for the losses carried forward in the previous year and temporary differences in the period of long-term planning.

The reconciliation amount as detailed in IAS 12.33 related exclusively to additional tax write-downs resulting from the fact that tax-free grants in the IFRS financial statements have been deducted directly from the costs of purchasing the assets. It is not permissible for deferred taxes to be created in relation to these temporary differences.

In the year under review, the other effects included in particular effects attributable to the difference in the assessment bases of different income tax bases, and additional local income taxes outside Germany.

(12) Earnings per share

Under IAS 33 (Earnings per Share), undiluted earnings per share are calculated by dividing the net profit/loss of DB Group attributable to the shareholders of DB AG by the weighted average number of shares in issue during the year under review. Undiluted earnings per share correspond to diluted earnings per share.

(€ million)	2020	2019
Net profit/loss for the year	-5,707	680
thereof due to shareholders of DB AG	-5,710	662
thereof attributable to providers of hybrid capital	26	5
thereof attributable to non-controlling interests	-23	13
Number of issued shares as of Dec 31	430,000,000	430,000,000
EARNINGS PER SHARE (€ PER SHARE)		
Undiluted	-13.28	1.54
Diluted	-13.28	1.54