Notes to the statement of income

As a general rule, all income and expenses are reported on an unnetted basis, unless IFRS accounting rules permit or require offsetting.

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 that 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 comprises book profits and losses arising from transactions with investments/financial assets as well as depreciation on long-term customer contracts that 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 exchange rate effects 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

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. In addition, revenues from the leasing of railway-related assets such as station space is also reported within revenues, while other rental revenues are recognized within other operating income.

In passenger transport, revenues from individual tickets are recorded in a simplified way on the first day of validity of the ticket. Revenues from season tickets are recorded over the validity period.

In the DB Regional and DB Arriva segments the order processing in the form of long-term transport contracts concluded with the contracting organizations of the Federal states in Germany and the franchisers in other European countries are very important for business development. 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 6% of Group revenues. Revenues are realized accordingly over the contractual term of the respective long-term contract.

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 from the provision of services is recorded at the amount expected to be received by a company in exchange for the transfer of promised goods or services to a customer (transaction price).

€ million	2022	2021
Revenues from freight and passenger transport services	49,965	41,683
thereof concession fees for rail transport	7,867	7,209
Revenues from operating track infrastructure	2,289	2,224
Revenues from rental and leasing	386	332
Revenues from sales of products	2,735	2,202
Other revenues	1,025	860
Revenue discounts	-104	-226
Total	**56,296**	**47,075**
± Special items	0	175
± Effects from changes in the scope of consolidation	-229	-322
± Exchange rate effects	-829	-
Total - comparable	**55,238**	**46,928**

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

In the year under review, DB Group revenues increased by € 9,221 million to € 56,296 million (+19.6%). The increase in revenues resulted significantly from the strong revenue development in the DB Schenker and DB Long-Distance segments. The main drivers at DB Schenker were significant increases in freight rates in ocean and air freight, as well as the recovery in demand at DB Long-Distance, which has largely reached pre-Covid-19 levels since April 2022. Significant revenue increases were also recorded in the DB Regional segments (due, among other things, to higher concession fees) and DB Netze Energy (due in part to price effects and higher revenues from energy trading).

Positive exchange rate effects of € 829 million, mainly from the DB Schenker segment, were included in revenues. This was mainly the result of strong performance of the US dollar and the Chinese renminbi against the euro.

Significantly higher revenues at DB Energie GmbH had an impact on the increase in revenues from goods sales. The sale of the MTS Brand Technology Group had a dampening effect.

Even when adjusted for special items, effects from changes in the scope of consolidation and exchange rates, revenues were significantly higher than in the previous year (€ +8,309 million, +17.7%).

Movements in revenues broken down according to business segments and regions are set out in Segment information according to segments 214f.

As was the case in the previous year, revenue discounts from long-term transport contracts (contractual penalties) were netted directly with the revenues from freight and passenger transport services. The decline resulted from the loss of provisions formed in the previous year.

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

ORDER BOOK SECURED AS OF DEC 31 / € million	**2022**	2021
Passenger transport contracts	87,183	74,765
Logistics and freight transport contracts [1]	304	221
Other contracts [1]	1,657	1,195
Total	**89,144**	**76,181**

[1] Contracts with a contract term of at least twelve months and a contract 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.

In addition to the DB Regional segment, the increase in order books for passenger transport contracts mainly affected the Subsidiaries/Other segment as a result of the conclusion of long-term contracts abroad. The order book in the DB Arriva segment declined. In terms of other contracts, there was a significant increase in the Subsidiaries/Other segment.

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 adjustment clauses or contractual penalty are only taken into consideration in the estimation of secured 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	**2022**	2021
As of Jan 1	30	35
Currency translation effects	-1	0
Additions	215	147
Impairments	0	0
Fulfillment/payment	-165	-24
Other changes	17	-140
Changes in the scope of consolidation	–	12
As of Dec 31	**96**	**30**

In particular, the clearing of advance payments received was included in the other changes. A figure of € 24 million (as of December 31, 2021: € 9 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	**2022**	2021
As of Jan 1	1,101	1,120
Currency translation effects	-2	7
Additions	2,098	2,655
Fulfillment of liabilities	-1,873	-2,726
Other changes	-35	37
Changes in the scope of consolidation	1	8
As of Dec 31	**1,290**	**1,101**
thereof long-term	213	110

The majority of the contractual obligations will be fulfilled in the following year.

(2) INVENTORY CHANGES AND OTHER INTERNALLY PRODUCED AND CAPITALIZED ASSETS

€ million	**2022**	2021
Inventory changes	-8	-3
Other internally produced and capitalized assets	4,137	3,887
Total	**4,129**	**3,884**
± Special items	–	–
± Effects from changes in the scope of consolidation	-2	0
± Exchange rate effects	0	–
Total - comparable	**4,127**	**3,884**

Own investments relate mainly to construction and project business in rail infrastructure and also the modernization of vehicles as well as the processing of appropriate spare parts. The increase compared to the previous year resulted from a higher construction volume in the track infrastructure.

(3) OTHER OPERATING INCOME

€ million	**2022**	2021
SERVICES FOR THIRD PARTIES AND SALE OF MATERIALS		
Income from maintenance and repair	3	1
Sale of materials and energy	169	158
Other services for third parties	582	520
	754	**679**
Leasing and rental income	181	169
Income from compensations for damages and refund of expenses	289	211
INCOME FROM GOVERNMENT GRANTS		
Federal Government compensation payments	116	99
Other investment grants	0	0
Income from reversal of deferred items	0	72
Other Government grants	1,663	3,412
	1,779	**3,583**
Income from the disposal of property, plant and equipment and intangible assets	275	147
Income from the disposal of non-current financial instruments	37	7
Income from the release of provisions	300	252
OTHER INCOME		
Income from third-party fees	29	19
Income from the rehabilitation of existing ecological damage	45	48
Utilization of provisions for impending losses	156	197
Miscellaneous other income	696	589
	926	**853**
Total	**4,541**	**5,901**
± Special items	-446	-2,179
± Effects from changes in the scope of consolidation	-2	-13
± Exchange rate effects	-5	–
Total - comparable	**4,088**	**3,709**

Adjusted for special items, effects from changes in scope of consolidation and exchange rate effects, other operating income was higher than the previous year (€ +379 million).

The decline before the adjustment for special items, effects from changes in the scope of consolidation and exchange rate effects was almost entirely attributable to income from other Government grants. The grants included, among other measures, temporary train-path price support from the Federal Government to deal with the consequences of the Covid-19 pandemic for long-distance rail passenger transport (€ 519 million; previous year: € 2,098 million). In addition, subsidiaries of DB Group were awarded

[1] The contractual assets include, among other things, claims from work-in-progress from long-term orders.

Covid-19 grants to compensate for the lack of revenues from fares among other things, particularly in the DB Regional and DB Arriva segments. In addition, € 170 million was attributable to compensation payments from the public sector as part of the 9-Euro-Ticket in the DB Regional segment. Government grants, for which the application and approval process to receive Covid-19 aid and for the 9-Euro-Ticket had not been completed as of the end of the year under review, were accounted for at the expected funding amount. The final approval may result in deviations from the estimated amount.

Federal payments to DB Group were reported as Government grants, provided these payments were not made on the basis of the Federal Government's legal status as a shareholder of DB Group and insofar as capital increases are to be reported.

The increase in income from the sale of materials and energy was mainly due to higher income from the sales of scrap in connection with construction work (DB Netze Track) due to increased scrap prices.

The leasing and rental income included subletting income of € 31 million (previous year: € 35 million).

The increase in income from the disposal of property, plant and equipment and intangible assets was due, among other factors, to the sale of non-operating real estate.

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

(4) COST OF MATERIALS

€ million	2022	2021
EXPENSES FOR RAW MATERIALS AND SUPPLIES AND PURCHASED PRODUCTS		
ENERGY EXPENSES		
Electricity	2,904	2,259
Electricity tax	151	148
Diesel, other fuel	1,508	995
Other energies	519	294
Energy price derivatives	- 310	- 51
	4,772	**3,645**
Other supplies and purchased goods	510	539
Price adjustments and impairments for materials	- 92	- 20
	5,190	**4,164**
EXPENSES FOR PURCHASED SERVICES		
Purchased transport services	20,864	17,206
Cleaning, security, disposal, winter service	504	499
Commissions	205	92
EXPENSES FOR UTILIZATION OF INFRASTRUCTURE		
Train-path usage	324	348
Station usage	59	58
Use of local installations	0	0
	383	**406**
Other purchased services	964	826
	22,920	**19,029**
Expenses for maintenance and production	5,513	5,226
Total	**33,623**	**28,419**
± Special items	0	- 20
± Effects from changes in the scope of consolidation	- 122	- 168
± Exchange rate effects	- 588	-
Total - comparable	**32,913**	**28,231**

Adjusted for special items, effects from changes in scope of consolidation and exchange rate effects, the cost of materials increased by € 4,682 million compared with the previous year (+16.6 %).

The impairments on inventories recognized in cost of materials amount to € 24 million (previous year: € 43 million). Write-ups amounting to € 25 million (previous year: € 3 million) were recognized, in particular due to changes in estimates in the valuation of materials.

The energy expenses increased in the year under review as a result of price and volume effects. Due to long-term procurement contracts and hedging transactions, the sharp rise in market prices only partially resulted in additional charges in the year under review.

The expenses for purchased services increased significantly by € 3,891 million compared with the previous year (+20.4 %). The purchased transport services were higher than the corresponding previous year's level, mainly due to sharp increases in ocean and air freight rates and exchange rate effects at DB Schenker.

The expenses for maintenance and production increased by € 287 million (+5.5 %), and were mainly attributable to the DB Netze Track and Subsidiaries/Other segments.

(5) PERSONNEL EXPENSES AND EMPLOYEES

€ million	2022	2021
WAGES AND SALARIES		
for employees	15,663	14,682
for assigned civil servants	688	778
	16,351	**15,460**
SOCIAL SECURITY EXPENSES		
for employees	2,907	2,771
for assigned civil servants	164	189
Expenses for personnel adjustment	199	155
Retirement benefit expenses	679	644
	3,949	**3,759**
Total	**20,300**	**19,219**
± Special items	- 137	- 93
± Effects from changes in the scope of consolidation	- 67	- 104
± Exchange rate effects	- 121	-
Total - comparable	**19,975**	**19,022**

The figure stated for personnel expenses (social security expenses) included expenses of € 1,353 million for defined contribution plans (previous year: € 1,293 million).

The amount shown for personnel adjustment mainly comprises expenses for restructuring costs, obligation surpluses relating to employment agreements as well as costs of severance packages 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 dependents. 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. Detailed explanations on the development of pension obligations can be found in Note (31) 247 ff.

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

The increase in wages and salaries in Germany was largely due to the collective bargaining agreement 2020/2021: from 1 January 2022, scale wages were increased by 1.5%. In addition to the payment made in 2021, Covid-19-related aid was agreed for the period January to March 2022 in the amount of € 400 to € 500 (Railway and Transport Workers Union (EVG): € 500; German Train Drivers' Union (Gewerkschaft Deutscher Lokomotivführer; GDL): € 400), which was paid out in March 2022.

In addition, an energy bonus of € 150 per employee was paid out in December 2022. Also, increased provisions for bonuses, holiday entitlements and overtime led to an increase in 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	2022	2021	2022	2021
Employees	311,800	309,402	311,135	308,123
Civil servants	12,336	14,314	13,225	15,482
Employees	**324,136**	**323,716**	**324,360**	**323,605**
Trainees and dual degree students	13,351	13,173	11,961	11,782
Total	**337,487**	**336,889**	**336,321**	**335,387**

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 higher than at the end of the previous year. In the Subsidiaries/Other segment, the increase resulted in particular from increased business activities of the DB E.C.O. Group in Germany and abroad. At DB Systel, the expansion of innovative topics and the increased vertical production resulted in the higher number of employees. The increase in the DB Netze Track segment can be attributed to the increase in employees, mainly in construction project management. The increase in personnel at DB Cargo resulted in particular from the takeover of FLS from DB Schenker. At DB Schenker, the increase was driven by the land transport line of business (due to the acquisition of USA Truck) and the positive business development in the air and ocean freight line of business. This was counteracted by a lower number of employees in the DB Arriva segment, mainly due to the sale of the Arriva Transportes Sul do Tejo S.A. Group, Almada/Portugal and the Arriva Sverige AB Group, Nacka/Sweden.

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	2022	2021
Employees	324,174	322,261
Civil servants	12,710	14,729
Employees	**336,884**	**336,990**
Trainees and dual degree students	13,351	13,173
Total	**350,235**	**350,163**

(6) DEPRECIATION AND IMPAIRMENTS

In the case of property, plants 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 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
Operating and business equipment	3 - 15

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

Intangible assets are amortized using the straight-line method. The following useful lives are used as the basis for scheduled amortization:

	Years
Franchises, rights, etc.	Duration of contract
Brand names	Indefinite useful life
Customer base	8 - 15
Purchased software	3 - 10
Software produced in-house	3 - 25

The adequacy of the amortization method and the useful life are subject to an annual review.

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

Impairment of assets

IAS 36 governs the impairment test for substantial and intangible assets with a certain useful 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 useful 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. With no changes compared to the previous year, the CGU structure is fully in line with the planning and reporting structure of DB Group.

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. Regardless of the presence of impairment indicators, an annual asset impairment test is carried out at the level of the groups of CGUs, which corresponds to the operating segments of DB AG. In addition, a test is also performed if current issues arising from business development or changes in assumptions indicate that there has been a major deterioration in the value in use.

The impairment test on goodwill is carried out at the level of the group of CGUs to which goodwill has been allocated. This is also applicable for the operating segments. Significant goodwill currently exists in the DB Schenker CGU. With regard to the recognition of goodwill for each CGU, please also refer to Segment information according to segments 214f.

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 taxes attributable to the continuation of a CGU.

The flat tax rate for the CGUs of the Integrated Rail System remains unchanged compared with the previous year at 30.5%. Since the actual tax rates outside Germany sometimes differ significantly from the tax rate of 30.5%, the tax rates for the two CGUs operating mainly internationally were adjusted in the 2022 financial year. Accordingly, a tax rate of 23.0% is used for DB Arriva and 22.0% for DB Schenker. The forecast of cash flows reflects previous experience, and takes account of corporate 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, which covers a planning horizon that extends until 2030. For cash flow forecasts beyond the planning horizon, a sustainable free cash flow is derived and is extrapolated on the basis of a growth rate related to the specific market development. In order to take account of increased inflation expectations, a growth rate of +1.5% p.a. is expected for the carriers DB Long-Distance, DB Regional and DB Cargo. Due to the higher growth rates and expansion opportunities worldwide, the international CGUs DB Arriva and DB Schenker are expected to achieve sustainable growth in free cash flow of +2.0% p.a. For the remaining rail infrastructure CGUs, the long-term growth rate is in line with the derivation method used by the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railways (BNetzA) for costs of capital and remains unchanged compared with the previous year at +1.0% p.a.

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

The WACC of the CGUs that are applicable for the 2021 and 2022 annual financial statements are detailed in the following table:

%	**2022** Before taxes	**2022** After taxes	2021 Before taxes	2021 After taxes
DB Long-Distance	8.6	6.0	6.2	4.3
DB Regional	7.8	5.4	+5.3	3.7
DB Cargo	10.6	7.4	8.3	5.8
DB Netze Track	3.4	2.4	4.6	3.2
DB Netze Stations	3.6	2.5	6.1	4.2
DB Netze Energy	6.2	4.3	4.0	2.8
DB Arriva	7.8	6.0	5.8	4.0
DB Schenker	10.6	8.3	8.3	5.8

The changes in the WACCs compared with the previous year are attributable to current expectations of medium- to long-term developments in the capital market. For the CGUs of the rail infrastructure, DB Netze Track and DB Netze Stations, the WACC determined by BNetzA has been used to discount cash flows since this year. This change significantly reduces the WACCs of DB Netze Track and DB Netze Stations CGUs compared with the previous year. The reduction in WACCs reduced the value in use through the lower discounting of cash flows.

ASSET IMPAIRMENT TEST

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

In addition, the process of establishing the value in use disregards assets or future cash flows that 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 (2030) and for which most of the intended DB 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 service relationships between transport and infrastructure segments; price increases in the forecast period have also been taken into consideration.

As of the balance sheet date, the value in use of the DB Netze Track and DB Cargo CGUs is lower than the carrying amount of the assets used. The impairment requirement amounts to € −14,455 million at DB Netze Track and € −1,522 million at DB Cargo. Subsequently, it was examined to what extent the identified shortfall can be allocated to individual assets. At the DB Netze Track CGU, the goodwill allocated to the CGU was first written-off in full (see "Goodwill impairment test" below). Since for all other assets of the DB Netze Track CGU a further recognition of the calculated impairment would result in the carrying amounts of the individual assets falling below their respective fair values, no further impairment loss was recognized in accordance with IAS 36.105. For the assets of the DB Cargo CGU, it also applies that recognition of the calculated impairment loss at the level of the individual assets would cause the carrying amounts of the assets to fall below their respective fair values. Here, too, no further impairment loss was recognized in accordance with IAS 36.105.

During the period under discussion, all other CGUs were able to cover their carrying amount 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 allocated to a CGU, this goodwill impairment test is an integral element of the asset impairment test that is always carried out annually for all CGUs.

Impairment losses of € 13 million resulted from the transfer of the FLS business from the DB Schenker CGU to the DB Cargo CGU. The value in use of the DB Cargo CGU amounted to € 2.1 billion as of the balance sheet date.

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 for the asset impairment tests presented above are thus applicable correspondingly.

CRITICAL ESTIMATIONS AND ASSESSMENTS

Impairment requirement at cash-generating units (CGUs)

Within the framework of the impairment test, the key premises and assumptions that have an impact on the impairment of a CGU were reviewed in the form of standardized sensitivity analyses. In the case of the DB Cargo CGU, the sensitivity analysis was carried out based on the calculated fair value less costs of the disposal of the material assets. Similarly to the previous year, there is no impairment requirement for a discount of 10 % to the fair value less disposal costs. With the DB Netze Track CGU, it can be assumed that the fair value less costs of disposal has no scope for sensitivities. The fair value derivation method outlined in the methodological statements ensures a correlation between achievable returns and the costs of capital, which makes it unlikely that the rail infrastructure assets will require impairment.

Rail 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 scope 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 for Digital and Transport (Bundesministerium für Digitales und Verkehr; BMDV, formerly 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 fair value less costs of disposal, similar to DB Cargo and DB Netze Track. A scenario analysis of the fair value is only carried out if the fair value represents the relevant valuation variable in the financial year.

EBIT margin

For the scenario analysis of profit shortfalls, the risk of a 10 % reduction in EBIT margin was considered. This model calculation identified a shortfall at the DB Long-Distance (€ –979 million) and DB Regional (€ –665 million) CGUs; this means that the value in use for these CGUs no longer provides adequate cover for the carrying amount of the capital employed. The DB Long-Distance CGU can withstand a reduction of up to 5.8 % in the EBIT margin and the DB Regional CGU up to 5.5 %. The rest of the 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 was simulated in order to assess the sensitivity of the impairment test result in relation to the assumed long-term growth rate of cash flows. As was the case in the previous year, no impairment requirement was 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 the value in use, were analyzed by simulating the impairment of each CGU in conjunction with a capital cost markup of 10 %. The basis for this simulation was the current weighted cost of capital (after taxes). This model calculation resulted in a shortfall for the DB Long-Distance CGU (€ –495 million). The maximum cost of capital surcharge up to which DB Long-Distance has surplus coverage is 7.0 %.

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 resulted in a shortfall for all the CGUs under investigation.

Depreciation was broken down as follows in the year under review:

€ million	2022	2021
Scheduled depreciation and amortization	4,000	3,881
Recognized impairments	22	14
Recognized reversals	- 24	- 91
Total	**3,998**	**3,804**
± Special items	- 41	35
± Effects from changes in the scope of consolidation	- 45	- 27
± Exchange rate effects	- 12	-
Total - comparable	**3,900**	**3,812**

In the year under review, depreciation was slightly 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 statement of income less any reversals recognized in the reporting period. The recorded reversals of € 23 million related to write-ups of track infrastructure in the DB Netze Track segment.

Further explanations on the development of property, plant and equipment or intangible assets can be found under Notes (13) 231 ff. and (14) 234.

(7) OTHER OPERATING EXPENSES

€ million	2022	2021
LEASING, RENT AND LEASES		
Leasing expenses	864	741
Variable leasing expenses	19	9
	883	**750**
Legal, consultancy and audit costs	264	222
Fees and contributions	227	212
Insurance expenses	190	171
Advertising and sales promotion expenses	173	148
Printing and stationery expenses	60	56
Travel and representation expenses	336	234
Research and non-capitalized development costs	31	44
OTHER PURCHASED SERVICES		
Purchased IT services	718	654
Other communication services	56	57
Other services	1,040	931
	1,814	**1,642**
Expenses for compensation for damages	239	358
Impairments recognized in relation to receivables and other assets [1]	42	76
Losses from the disposal of property, plant and equipment and intangible assets	250	270
Expenses from disposal of non-current financial instruments	6	3
Impairments from disposal groups	198	-
Other operating taxes	59	87
OTHER EXPENSES		
Grants for third-party facilities	135	126
Concession fees for passenger transport	- 5	9
Other personnel-related expenses	292	230
Miscellaneous other expenses	583	1,078
	1,005	**1,443**
Total	**5,777**	**5,716**
± Special items	- 253	- 672
± Effects from changes in the scope of consolidation	- 22	- 21
± Exchange rate effects	- 34	-
Total - comparable	**5,468**	**5,023**

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

Other operating expenses only increased slightly overall by € 61 million (+1.1%). In most cases, price-related cost increases in almost all types of expenses were contrasted with lower expenses due to the absence of special items from the previous year for other expenses and compensation for damages.

The decline in expenses for compensation for damages resulted from the effects of the reversal of provisions in the previous year in connection with an accident (DB Netze Track segment).

The decline in miscellaneous other expenses resulted mainly from an addition to provisions from the revaluation of ecological burdens (Subsidiaries/Other segment) in the previous year.

Leasing expenses increased by € 133 million (+17.7%) and, in addition to the service element of capitalized leasing arrangements, also related to short-term leases (€ 213 million; previous year: € 210 million) and also leased assets of minor value (€ 69 million; previous year: € 58 million). This increase also resulted from higher rents for rolling stock at DB Regional, DB Long-Distance and DB Cargo, software and ancillary rental costs.

Travel and representation expenses have risen to pre-Covid-19 levels again following the lifting of Covid-19-related restrictions.

The decline in other operating taxes in the year under review resulted from the partial release of provisions for revenues tax of € 40 million.

For information on impairments from disposal groups, see Note (23) 241f.

(8) RESULT FROM INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

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

€ million	2022	2021
JOINT VENTURES		
Trieste Trasporti S.P.A., Trieste/Italy	1	1
Intercambiador de Transportes Principe PIO S. A., Madrid/Spain	2	2
Other	2	0
	5	**3**
ASSOCIATED COMPANIES		
EUROFIMA European Company for the Financing of Railroad Rolling Stock (EUROFIMA), Basel/Switzerland	4	4
Barraqueiro SGPS SA, Lisbon/Portugal	-3	-3
GHT Mobility GmbH, Berlin	-16	-18
Container Terminal Dortmund GmbH, Dortmund	1	1
TriCon Container-Terminal Nürnberg GmbH, Nuremberg	1	0
Other	3	3
	-10	**-13**
Total	**-5**	**-10**

(9) NET INTEREST INCOME

€ million	2022	2021
INTEREST INCOME		
Net interest income from pension provisions	7	2
Other interest and similar income	62	29
Income from securities	1	1
Operating interest income	**70**	**32**
Interest income from the reversal of deferred items and other interest income	168	23
	238	**55**
INTEREST EXPENSES		
Other interest and similar expenses	-396	-430
Net interest expenses for pension provisions	-62	-28
Interest expenses for leasing liabilities	-86	-80
Operating interest expenses	**-544**	**-538**
Compounding of long-term provisions and liabilities	-45	-45
	-589	**-583**
Total	**-351**	**-528**
± Special items	7	42
± Effects from changes in the scope of consolidation	4	2
± Exchange rate effects	2	-
Total - comparable	**-338**	**-484**
For information only:		
Operating interest balance	-474	-506

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 other interest and similar income was due in particular to increased interest income from banks as a result of increased market interest rates.

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 other provisions.

The increase in net interest expenses for pension provisions resulted from an increase in the discount rate.

(10) OTHER FINANCIAL RESULT

€ million	2022	2021
Result from subsidiaries	3	2
Result from exchange rate effects	60	-268
Result from currency-related derivatives	-50	295
Result from other derivatives	6	9
Result from disposal of financial instruments	0	0
Fair value change of financial instruments	29	32
Impairment losses and write-ups on financial instruments	10	-
Other financial result	-38	-22
Total	**20**	**48**
± Special items	-	-
± Effects from changes in the scope of consolidation	0	0
± Exchange rate effects	33	-
Total - comparable	**53**	**48**

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 balance sheet date (IAS 21). The result from exchange rate effects has to be netted with the result from currency-related derivatives. The 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 and the Swiss franc. The result from currency-related derivatives contains reclassifications in other income from currency-induced fair value changes in cash flow hedges with no impact on profit and loss. The result from other derivatives relates to the development in the fair value of derivatives that are not classified as effective hedges in accordance with IFRS 9 (Financial Instruments).

The fair value changes to financial instruments related to the positive performance from the fair value assessment of other investments (Note (17) 235 f.).

(11) TAXES ON INCOME

€ million	2022	2021
Actual tax expense	-509	-321
Income due to discontinuation of tax obligations	54	19
Actual taxes on income	**-455**	**-302**
Deferred tax expense (previous year: deferred tax income)	-704	179
Taxes on income	**-1,159**	**-123**

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. Deferred taxes resulted in expense (previous year: income). This is due to the significantly 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 imputed taxes on income calculated using an imputed tax rate of 30.5%, the tax reconciliation to the actual income taxes is presented below:

€ million	2022	2021
Loss before taxes on income	932	-788
Group tax rate (%)	30.5	30.5
Anticipated tax revenue	**-284**	**240**
Adjustment of the expected future use of loss carry-forwards and new temporary differences that have arisen and loss carry-forwards	-868	-411
Income not subject to tax	32	34
Tax effects related to IAS 12.33	29	40
Expenses not deductible for tax purposes	-69	-35
Differences in tax rates for foreign companies	83	63
Other effects	-82	-54
Taxes on income as reported	**-1,159**	**-123**
Effective tax rate (%)	124.4	-15.6

In the year under review, there were new tax loss carryforwards for which deferred tax assets were not recognized in full, as at the time of the forecast period sufficient taxable income was not expected for the loss carryforwards and temporary differences that existed in the previous year.

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 asset acquisition costs. 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	2022	2021
Net loss for the year	-227	-911
thereof due to shareholders of DB AG	-274	-946
thereof attributable to providers of hybrid capital	25	26
thereof attributable to non-controlling interests	22	9
Number of issued shares as of Dec 31	430,000,000	430,000,000
EARNINGS PER SHARE (€/SHARE)		
Undiluted	-0.64	-2.20
Diluted	-0.64	-2.20