Notes to the balance sheet

Unless otherwise stated, the following explanations on the balance sheet items as of December 31, 2023, relate to continuing operations and as of December 31, 2022, to continued and discontinued operations. In this respect, comparability with the respective previous year-end figures is limited in some cases.

(13) PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is measured at cost of purchase and cost of production in accordance with IAS 16 (Property, Plant and Equipment). Cost of production comprises individual costs as well as indirect costs which are directly allocatable.

If at least two years are required for manufacturing an asset in order to place it in its intended state in which it is capable of being used or sold, any directly attributable costs of debt are capitalized as costs of production of the asset. If a direct link cannot be established, the average cost of debt rate for the year under review is used. Value-added tax incurred in connection with the purchase or production of property, plant and equipment is only capitalized to the extent that authorization to deduct input tax is not given.

Subsequent costs are capitalized if the expenses enhance the economic benefit of the property, plant and equipment and if the costs can be reliably measured. Other repairs or maintenance, on the other hand, are generally recognized as an expense.

Components of property, plant and equipment that are significant in relation to the total cost of purchase and cost of production are recognized separately and written down over their useful life using the linear method.

Investment grants are deducted directly from the cost of purchase and cost of production of the subsidized assets.

Rights of use from leasing contracts

In the case of rented or leased assets, if they fall under the scope of IFRS 16, a right of use (in accordance with IFRS 16.24) and a lease liability are recognized as soon as the assets are available for use by DB Group. Depreciation is recognized using the straight-line method over the economic useful life of the asset or the duration of the lease, whichever is shorter. This is not applicable for lease contracts for minor-value assets (up to and including € 5,000) and short-term lease contracts with a duration of 12 months or less, the costs of which are recognized on a linear basis in the statement of income. Components of lease payments that do not relate to the use of the asset are not included in the measurement of the right of use and the lease liability.

Critical estimations and assessments

With regard to defining the duration of the lease, management takes account of all facts and circumstances that have an influence on the possible exercising of an extension option or termination option. This assessment is reviewed regularly.

PROPERTY, PLANT AND EQUIPMENT / € million	Land	Commercial, operating and other buildings	Permanent way structures	Track infrastructure, signaling and control equipment	Vehicles for passenger and freight transport	Technical equipment and machinery	Other operating and business equipment	Advance payments and assets under construction	Total
COST OF PURCHASE AND COST OF PRODUCTION									
As of Jan 1, 2023	4,754	14,465	16,186	16,690	39,558	2,345	6,114	8,523	**108,635**
Changes in the scope of consolidation	0	-1	0	–	-4	0	–	0	**-5**
thereof additions to scope of consolidation	0	0	–	–	1	–	1	–	**2**
thereof disposals from scope of consolidation	0	-1	0	–	-5	0	-1	0	**-7**
Additions	154	983	818	1,563	2,132	112	635	10,350	**16,747**
Addition of cost of debt	–	–	–	–	–	–	–	82	**82**
Investment grants	0	-219	-733	-1,436	-34	-38	-95	-6,728	**-9,283**
Transfers	16	232	245	236	390	65	130	-1,316	**-2**
Transfers of non-current assets held for sale	-203	-464	-11	-3	-2,997	-33	-358	-19	**-4,088**
Changes with no impact on profit and loss	–	0	–	–	–	–	–	–	**0**
Disposals	-24	-232	-11	-266	-742	-60	-429	102	**-1,662**
Currency translation effects	1	-45	2	0	28	0	-15	1	**-28**
As of Dec 31, 2023	**4,698**	**14,719**	**16,496**	**16,784**	**38,331**	**2,391**	**5,982**	**10,995**	**110,396**
ACCUMULATED DEPRECIATION									
As of Jan 1, 2023	-712	-6,579	-6,221	-13,062	-24,085	-1,570	-4,136	-2	**-56,367**
Changes in the scope of consolidation	0	0	0	–	3	0	–	–	**3**
thereof additions to scope of consolidation	–	0	–	–	0	–	-1	–	**-1**
thereof disposals from scope of consolidation	0	0	0	–	3	0	1	–	**4**
Depreciation	-50	-921	-206	-330	-1,756	-130	-531	–	**-3,924**
Impairments	-24	-13	0	-1	-17	-1	-1	–	**-57**
Reversals	–	4	0	16	0	0	0	–	**20**
Transfers	0	-1	0	1	1	-2	2	-1	**0**
Transfers of non-current assets held for sale	65	240	10	1	1,779	22	282	2	**2,401**
Disposals	14	162	7	254	691	55	373	–	**1,556**
Currency translation effects	1	24	-1	0	-24	0	9	0	**9**
As of Dec 31, 2023	**-706**	**-7,084**	**-6,411**	**-13,121**	**-23,408**	**-1,626**	**-4,002**	**-1**	**-56,359**
Carrying amount as of Dec 31, 2023	**3,992**	**7,635**	**10,085**	**3,663**	**14,923**	**765**	**1,980**	**10,994**	**54,037**
Carrying amount as of Dec 31, 2022	4,042	7,886	9,965	3,628	15,473	775	1,978	8,521	**52,268**

PROPERTY, PLANT AND EQUIPMENT / € million	Land	Commercial, operating and other buildings	Permanent way structures	Track infra-structure, signaling and control equipment	Vehicles for passenger and freight transport	Technical equipment and machinery	Other operating and business equipment	Advance payments and assets under construction	Total
COST OF PURCHASE AND COST OF PRODUCTION									
As of Jan 1, 2022	4,675	13,740	15,928	16,602	38,300	2,294	5,922	7,257	**104,718**
Changes in the scope of consolidation	7	- 107	–	–	152	- 12	- 4	- 1	**35**
thereof additions to scope of consolidation	25	39	–	–	424	0	19	1	**508**
thereof disposals from scope of consolidation	- 18	- 146	–	–	- 272	- 12	- 23	- 2	**- 473**
Additions	109	1,096	954	1,404	2,084	119	552	8,463	**14,781**
Addition of cost of debt	–	–	–	–	–	–	–	61	**61**
Investment grants	- 10	- 195	- 699	- 1,288	- 60	- 30	- 76	- 6,239	**- 8,597**
Transfers	25	275	13	244	386	37	89	- 1,082	**- 13**
Transfers of non-current assets held for sale	- 5	- 69	0	–	- 408	- 4	- 17	- 1	**- 504**
Changes with no impact on profit and loss	–	1	–	–	–	–	0	–	**1**
Disposals	- 32	- 226	- 7	- 272	- 764	- 55	- 340	66	**- 1,630**
Currency translation effects	- 15	- 50	- 3	0	- 132	- 4	- 12	- 1	**- 217**
As of Dec 31, 2022	**4,754**	**14,465**	**16,186**	**16,690**	**39,558**	**2,345**	**6,114**	**8,523**	**108,635**
ACCUMULATED DEPRECIATION									
As of Jan 1, 2022	- 677	- 6,008	- 6,024	- 13,012	- 23,418	- 1,505	- 3,966	- 8	**- 54,618**
Changes in the scope of consolidation	5	76	–	–	55	8	2	–	**146**
thereof additions to scope of consolidation	0	- 19	–	–	- 105	0	- 16	–	**- 140**
thereof disposals from scope of consolidation	5	95	–	–	160	8	18	–	**286**
Depreciation	- 51	- 898	- 204	- 335	- 1,713	- 130	- 498	–	**- 3,829**
Impairments	–	- 1	0	0	- 3	0	- 1	–	**- 5**
Reversals	–	–	–	23	0	0	1	–	**24**
Transfers	0	0	0	0	- 1	0	3	6	**8**
Transfers of non-current assets held for sale	0	45	0	–	212	2	12	–	**271**
Disposals	9	176	5	262	707	51	303	0	**1,513**
Currency translation effects	2	31	2	0	76	4	8	0	**123**
As of Dec 31, 2022	**- 712**	**- 6,579**	**- 6,221**	**- 13,062**	**- 24,085**	**- 1,570**	**- 4,136**	**- 2**	**- 56,367**
Carrying amount as of Dec 31, 2022	**4,042**	**7,886**	**9,965**	**3,628**	**15,473**	**775**	**1,978**	**8,521**	**52,268**
Carrying amount as of Dec 31, 2021	3,998	7,732	9,904	3,590	14,882	789	1,956	7,249	**50,100**

Leased assets

DB Group classifies every lease for which it is the lessor as either an operating lease or a finance lease. A lease is classified as a finance lease if it transfers essentially all risks and opportunities associated with the ownership. If this is not the case, the lease is classified as an operating lease.

The additions to the cost of debt contain an average cost of debt rate of 1.44% (previous year: 1.34%).

The impairments of € 57 million (previous year: € 5 million) related primarily to leased real estate (see also “Rights of use from leasing contracts (IFRS 16)”) and vehicles for passenger and freight transport.

Reversals of € 20 million (previous year: € 24 million) were mainly attributable to track infrastructure in the DB Netze Track segment.

In 2023, the carrying amount disposals for assets under construction included positive carrying amount disposals of € 125 million (previous year: € 75 million). These were attributable to the repayment of investment grants that had been received in previous years and deducted from assets.

Rights of use from leasing contracts (IFRS 16)

DB Group leases mainly consist of real estate. Compared with a solution involving purchasing of such assets, leasing provides much greater flexibility and results in lower amounts of capital being tied up. DB Group simultaneously participates in positive market developments by regularly agreeing extension options. In addition, DB Group rents rolling stock particularly if the economic useful life considerably exceeds the duration of the transport contract for which the rolling stock is intended.

Property, plant and equipment contains rights of use from leases that are shown separately in the following overview:

€ million	Rights of use for: Land	Commercial, operating and other buildings	Permanent way structures	Track infrastructure, signaling and control equipment	Vehicles for passenger and freight transport	Technical equipment and machinery	Other operating and business equipment	Total
AS OF DEC 31, 2023								
Additions	25	625	1	0	187	11	39	**888**
Depreciation	- 40	- 679	- 1	- 1	- 246	- 30	- 21	**- 1,018**
Carrying amount	342	3,284	1	13	456	121	49	**4,266**
AS OF DEC 31, 2022								
Additions	58	764	1	1	234	9	25	**1,092**
Depreciation	- 42	- 661	- 2	- 1	- 223	- 32	- 17	**- 978**
Carrying amount	391	3,492	1	14	615	142	37	**4,692**

Further details of leasing-related liabilities, expenses and other financial obligations are set out in the Notes (6) 237 ff., (7) 239 f., (9) 240, (28) 253 ff. and (35) 272 as well as in the Notes to the statement of cash flows 265 f.

The main reason for the decrease in the carrying amounts for rights of use compared to December 31, 2022, was the reclassification of the assets of the former DB Arriva segment as being available for sale.

Rented assets

The rental activities of DB Group related mainly to premises in stations as well as the leasing of excess locomotive and rail car capacities. Agreements are not normally made with regard to assuring any residual values.

Subletting activities are carried out to a minor extent, mainly at DB Schenker. Where appropriate, storage facilities are rented only for the purpose of fulfilling a logistics contract with a specific customer. If these customers take on the economic opportunities and risks with regard to the leased premises, the subletting income is not recognized in the income statement; instead, this is recognized as a sub-financing lease. Income from subletting amounted to € 37 million (previous year: € 31 million).

The assets which in certain cases are determined on the basis of retrospective calculations and completed surveys and which are leased by way of operating leases have the following residual carrying amounts:

RENTED ASSETS CLASSIFIED AS OPERATING LEASES / € million	Real estate	Mobile assets
Cost of purchase and cost of production	1,246	7,040
Accumulated depreciation	- 420	- 4,932
Carrying amount as of Dec 31, 2023	**826**	**2,108**
Cost of purchase and cost of production	1,428	6,880
Accumulated depreciation	- 511	- 4,701
Carrying amount as of Dec 31, 2022	**917**	**2,179**

The process of renting the assets is expected to generate rental and leasing inflows in future years as shown in the following overview:

EXPECTED RENTAL AND LEASING INFLOWS (NOMINAL VALUES) / € million	Residual maturity: Up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years	Total more than 1 year	Total
AS OF DEC 31, 2023								
Minimum lease payments	359	193	147	131	119	393	**983**	**1,342**
AS OF DEC 31, 2022								
Minimum lease payments	374	198	178	135	121	473	**1,105**	**1,479**

(14) INTANGIBLE ASSETS

Purchased intangible assets are recognized at their acquisition cost in accordance with IAS 38 (Intangible Assets). Intangible assets manufactured in-house are recognized at their cost of production, if the reporting criteria are met, and consist mainly of software.

Costs of production mainly comprise costs for material and services, wage and salary costs as well as relevant indirect costs.

Intangible assets (excluding goodwill) are subsequently valued at cost of purchase and cost of production less scheduled amortization and impairments plus any reversals of previous impairments.

INTANGIBLE ASSETS / € million	Capitalized development costs for products currently in use 2023	2022	Capitalized development costs for products under development 2023	2022	Purchased intangible assets 2023	2022	Goodwill 2023	2022	Advance payments 2023	2022	**Total 2023**	**2022**
COST OF PURCHASE AND COST OF PRODUCTION												
As of Jan 1	987	897	483	425	2,321	2,193	2,956	3,144	0	1	**6,747**	**6,660**
Changes in the scope of consolidation	- 13	- 21	0	0	–	28	0	- 27	–	–	**- 13**	**- 20**
thereof additions to scope of consolidation	–	1	–	–	1	77	–	53	–	–	**1**	**131**
thereof disposals from scope of consolidation	- 13	- 22	0	0	- 1	- 49	0	- 80	–	–	**- 14**	**- 151**
Additions	50	37	210	179	87	356	–	–	0	0	**347**	**572**
Investment grants	- 1	- 2	- 26	- 4	- 2	0	–	–	–	–	**- 29**	**- 6**
Transfers	256	86	- 262	- 95	8	23	–	0	0	- 1	**2**	**13**
Transfers of non-current assets held for sale	- 64	–	- 1	0	- 685	- 49	- 1,211	- 127	–	–	**- 1,961**	**- 176**
Changes with no impact on profit and loss	–	–	–	–	–	–	–	–	–	–	**–**	**–**
Disposals	- 28	0	- 3	- 22	- 18	- 199	0	–	–	0	**- 49**	**- 221**
Currency translation effects	1	- 10	0	0	7	- 31	- 10	- 34	–	–	**- 2**	**- 75**
As of Dec 31	**1,188**	**987**	**401**	**483**	**1,718**	**2,321**	**1,735**	**2,956**	**0**	**0**	**5,042**	**6,747**
ACCUMULATED AMORTIZATION												
As of Jan 1	- 465	- 390	0	0	- 1,744	- 1,958	- 1,684	- 1,925	–	–	**- 3,893**	**- 4,273**
Changes in the scope of consolidation	9	12	–	–	1	43	0	70	–	–	**10**	**125**
thereof additions to scope of consolidation	–	0	–	–	0	0	–	–	–	–	**0**	**0**
thereof disposals from scope of consolidation	9	12	–	–	1	43	0	70	–	–	**10**	**125**
Depreciation	- 115	- 89	–	–	- 77	- 82	–	–	–	–	**- 192**	**- 171**
Impairments	0	- 3	0	–	0	- 1	- 12	- 13	–	–	**- 12**	**- 17**
Reversals	–	–	–	–	–	–	–	–	–	–	**–**	**–**
Transfers	–	–	–	–	0	- 8	–	–	–	–	**0**	**- 8**
Transfers of non-current assets held for sale	50	–	0	–	597	42	1,212	127	–	–	**1,859**	**169**
Disposals	20	0	–	–	17	199	0	–	–	–	**37**	**199**
Currency translation effects	- 1	5	–	–	- 8	21	- 23	57	–	–	**- 32**	**83**
As of Dec 31	**- 502**	**- 465**	**0**	**0**	**- 1,214**	**- 1,744**	**- 507**	**- 1,684**	**–**	**–**	**- 2,223**	**- 3,893**
Carrying amount as of Dec 31	**686**	**522**	**401**	**483**	**504**	**577**	**1,228**	**1,272**	**0**	**0**	**2,819**	**2,854**
Carrying amount as of Dec 31 of previous year	522	507	483	425	577	235	1,272	1,219	0	1	**2,854**	**2,387**

The acquired intangible assets mainly included claims from capital expenditures made for a transport contract that are to be recognized in accordance with IFRIC 12 (carrying amount as of December 31, 2023: € 406 million; as of December 31, 2022: € 340 million) and software (carrying amount as of December 31, 2023: € 74 million; as of December 31, 2022: € 92 million).

The impairments of € 12 million (previous year: € 17 million) were recognized in the DB Netze Track segment.

The allocation of the reported goodwill to the segments is shown in Segment information by segments 226f.

(15) INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

Shares in associated companies and joint ventures are accounted for using the equity method in accordance with IAS 28. The carrying amount, based on the acquisition cost of DB Group at the time of the purchase, is updated according to the DB Group share of changes in equity position of the company accounted for using the equity method.

The shares in the companies accounted for using the equity method have developed as follows:

€ million	**2023**	2022
As of Jan 1	446	461
Additions	0	0
Disposals	0	- 20
Share of DB Group in profit	11	11
Capital increase	1	3
Other movements in capital	–	- 2
Dividends received	- 7	- 9
Impairments	- 4	0
Reversals	–	11
Reclassifications	0	–
Transfers of non-current assets held for sale	- 42	–
Currency translation effects	0	0
Other valuation	3	- 9
As of Dec 31	**408**	**446**

The figure shown in the balance sheet as of December 31, 2023, was mainly attributable to the shares held in the associated companies EUROFIMA European Company for the Financing of Railroad Rolling Stock (EUROFIMA), Basel/Switzerland. The shares in EUROFIMA are subject to restrictions in terms of being sold; new shareholders must be railway administration entities which also require a guarantee from their respective state guaranteeing their obligations.

(16) DEFERRED TAXES

Deferred taxes are calculated in accordance with IAS 12 (Income Taxes).

The theoretical income tax rate for corporations of 31.2% is used as the basis for calculating deferred taxes for domestic companies (previous year: 30.5%). The income tax rate comprises the corporate income tax rate plus solidarity surcharge and an average trade tax rate, which increased compared to the end of the previous year. Foreign subsidiaries use their relevant local tax rates for calculating deferred taxes.

A deferred tax asset is recognized in accordance with IAS 12.24 or IAS 12.34 if, after corresponding deferred tax liabilities have been deducted, it is likely that adequate taxable income is available. The mid-term planning with additional estimates is used for the domestic companies as the basis of this process. The international companies use mid-term planning as the basis. Deferred tax assets relating to income which can be generated after the forecast period are not recognized, on the grounds that they cannot be reliably determined.

Deferred taxes are established on the basis of the tax rates that can be expected for the period in which the deferred tax is realized on the basis of existing laws or laws that have in essence been adopted.

Critical estimations and assessments

The calculation of deferred tax assets is based on the mid-term planning. If the sum of net profits planned in the medium-term planning were to decline by 10% in conjunction with otherwise unchanged tax parameters, deferred tax assets would have to be reduced by € 35 million (previous year: € 14 million).

Deferred tax assets are broken down as follows:

AS OF DEC 31 / € million	2023	2022
Deferred tax assets in respect of temporary differences	368	343
Deferred tax assets in respect of tax losses carried forward	284	167
Total	**652**	**510**

No deferred tax assets have been created in relation to the following losses carried forward and temporary differences:

AS OF DEC 31 / € million	2023	2022
Tax loss carry-forwards for which no deferred tax asset has been created	24,256	23,531
Temporary differences for which no deferred tax asset has been created	3,269	2,853
Temporary differences that are subject to prohibition of recognition under IAS 12.24b in conjunction with 12.33	1,696	1,771
Total	**29,221**	**28,155**

The losses carried forward are mainly attributable to the tax law treatment of Federal Government grants paid in the past to DB AG in accordance with Section 21 (5) and Section 22 (1) of the Deutsche Bahn Foundation Act (Deutsche Bahn Gründungsgesetz; DBGrG) as a contribution as well as further tax losses in recent years.

On the basis of current law, the domestic losses carried forward are fully permissible in accordance with current legislation (in terms of the actual amount and justification).

The temporary differences which are not permitted to be recognized in accordance with IAS 12.33 relate exclusively to additional tax depreciation from previously received tax-free investment grants.

The following deferred tax assets and deferred tax liabilities shown in the balance sheet were due to statement and valuation differences for the individual balance sheet items and tax losses carried forward:

	Deferred tax assets		Deferred tax liabilities	
AS OF DEC 31 / € million	2023	2022	2023	2022
NON-CURRENT ASSETS				
Property, plant and equipment [1]	58	80	180	252
Intangible assets	38	0	2	25
CURRENT ASSETS				
Trade receivables	9	7	4	5
NON-CURRENT LIABILITIES				
Leasing liabilities	129	130	0	0
Derivative financial instruments	0	0	1	0
Pension obligations [2]	90	83	62	60
Other provisions [1,2]	153	134	86	126
CURRENT LIABILITIES				
Trade liabilities	63	76	0	0
Other liabilities	29	29	0	0
Other provisions [1]	25	42	0	11
Losses carried forward	284	167	0	0
Subtotal	**878**	**748**	**335**	**479**
Balancing [1,2,3]	-226	-238	-226	-238
Amount stated in the balance sheet	**652**	**510**	**109**	**241**

[1] Previous year's figure adjusted for deferred tax assets.
[2] Previous year's figure adjusted for deferred tax liabilities.
[3] To the extent permissible under IAS 12 (Income Taxes).

Tax claims and liabilities are netted if they exist in relation to the same tax authority, if they are of congruent maturity and if they relate to the same tax subject.

Under IAS 12.22A, deferred tax assets and liabilities for temporary differences arising from leases for foreign companies were reported on an unnetted basis for the first time. For domestic companies, deferred tax assets of € 962 million on lease liabilities were offset against deferred tax liabilities of € 890 million on right-of-use assets from leases.

Of the deferred tax assets of € 878 million (as of December 31, 2022: € 748 million), € 126 million (as of December 31, 2022: € 154 million) will probably be realized in the course of the next 12 months. Of the deferred tax liabilities of € 335 million (as of December 31, 2022: € 479 million), € 4 million (as of December 31, 2022: € 16 million) will probably be realized in the course of the next 12 months.

The deferred taxes recognized in the balance sheet include deferred tax assets, set up with no impact on profit and loss, of € 15 million (as of December 31, 2022: € 71 million) and deferred tax liabilities, set up with no impact on profit and loss, of € 1 million (as of December 31, 2022: € 8 million).

DB Group makes use of the exemption from recognizing deferred taxes in connection with income taxes within the framework of minimum taxation for companies, which was the subject of the amendment to IAS 12 published in May 2023.

(17) OTHER INVESTMENTS AND SECURITIES

Other investments are accounted for at fair value if the relevant information can be derived. Changes in the fair value with no impact on profit and loss are shown in the "Fair value securities and equity investments" reserve.

Long- or short-term securities are recognized at their fair values as of the balance sheet date where such values exist. Changes in fair value are taken into account with no impact on profit and loss in the reserve from the fair value assessment of securities.

Other investments and securities developed as follows:

€ million	Other investments 2023	Other investments 2022	Securities 2023	Securities 2022	Total 2023	Total 2022
As of Jan 1	132	97	504	3	**636**	**100**
Currency translation effects	0	0	0	0	**0**	**0**
Additions	6	8	67	501	**73**	**509**
Disposals	-3	-3	-50	0	**-53**	**-3**
Fair value changes	-72	30	0	0	**-72**	**30**
Reclassifications	0	0	-1	-	**-1**	**0**
Transfers of non-current assets held for sale	-2	-	-	-	**-2**	**-**
Other	0	0	-	-	**0**	**0**
As of Dec 31	**61**	**132**	**520**	**504**	**581**	**636**
thereof at cost/acquisition cost	-	-	-	0	**-**	**0**
thereof fair value (with no impact on profit and loss)	28	31	1	2	**29**	**33**
thereof fair value (recognized in the income statement)	33	101	519	502	**552**	**603**
Non-current share	61	132	1	2	**62**	**134**
Current share	-	-	519	502	**519**	**502**

In the year under review, there were fair value changes in other investments totaling € –72 million (previous year: € 30 million). This included € –66 million for the revaluation of the shares in Volocopter GmbH, Bruchsal. The valuation of the shares in Volocopter GmbH as of December 31, 2023, was based, among other things, on information from probable future financing transactions of the company. Further fair value adjustments of € –6 million were attributable to the shares in Gideon Brothers (USA) Inc., Dover/USA.

Of the additions to other investments recognized at fair value, € 3 million was attributable to FERNRIDE GmbH, Munich, and € 1 million to Versorger-Allianz 450 Beteiligungs GmbH & Co. KG, Bonn. The disposals amounting to € 3 million resulted from the sale of the shares in InstaDeep Limited, London/United Kingdom.

The additions and disposals within the securities mainly related to acquisitions and disposals of money market funds by DB AG. Money market funds are available on a daily basis and are comparable in liquidity to cash and cash equivalents. Due to potential risks of changes in value, they are recognized under other investments and securities.

(18) INVENTORIES

All costs which are directly related to the procurement process are capitalized as the acquisition costs of the inventories. The average method is used as the basis for establishing the acquisition cost of fungible and homogeneous raw materials and supplies. The costs of production comprise the individual costs and also the directly attributable indirect costs; borrowing costs and idle costs are not capitalized, and instead are recognized as expense in the period in which they are incurred.

As of the balance sheet date, inventories are measured with the lower of cost or net realizable value.

CO_2 certificates are also reported under inventories.

Inventories are broken down as follows:

AS OF DEC 31 / € million	2023	2022
Raw materials and supplies	2,443	2,256
Unfinished goods, unfinished services	156	139
Finished goods and products	6	145
Advance payments	0	0
Impairments	-506	-464
Total	**2,099**	**2,076**

(19) RECEIVABLES AND OTHER ASSETS

In general, receivables and other financial assets are measured at amortized acquisition cost. Finance lease receivables, advance payments made and plan assets in accordance with IAS 19 (Employee Benefits) are not allocated to any category of IFRS 9. With regard to the measurement categories according to IFRS 9 please refer to Additional disclosures relating to the financial instruments 271.

For trade receivables, DB Group uses the simplified approach according to IFRS 9 in order to measure the risk provision for the expected loan losses. Accordingly, for all trade receivables, the loan losses expected over the life of the receivables are used for this purpose. To this end, trade receivables were initially allocated to various collectives on the basis of common credit risk characteristics. The expected credit losses were then estimated using impairment rates that take into account past data and country-specific future-related risk characteristics.

For receivables from financing, other financial receivables and contractual assets, DB Group uses the general approach under IFRS 9 to measure the expected loan losses. Receivables for which objective indications of impairment are available are individually impaired.

The fair values of receivables and other assets, trade receivables, as well as other receivables and assets essentially correspond to the carrying amounts.

Any impairments that are recognized are deducted from financial assets on the assets side of the balance sheet. Previous impairments are reversed if the reasons for the original impairments are no longer applicable. In DB Group, the maturities of the receivables and default risks are monitored constantly.

Some transport contracts include a handover obligation specifying that the deployed assets owned by DB Group have to be handed over at the end of the contract. Other transport contracts include a clause specifying that the deployed assets have to be rented from the contracting organization or a capital service guarantee is to be provided by the contracting organization for leasing from independent financial service providers. In accordance with IFRIC 12 (Service Concession Arrangements), the corresponding capital expenditures are capitalized as receivables from transport concession arrangements at the end of the contract, with the guaranteed residual values being separated. The receivables are redeemed out of the concession fees, which means that not all of the concession fees result in revenues. The residual value receivables are disclosed at their present value under the financing receivables.

Commitments and claims from the independent acknowledgement of debt have been recognized in the balance sheet. The commitments correspond to equal amounts of receivables from supply contracts, hedged by bank guarantees, in the event of a claim.

Critical estimations and assessments

The calculation of expected credit losses to a considerable extent comprises assessments and appraisals that are based on the creditworthiness of the particular customer, current economic developments as well as an analysis of historical bad debts at the portfolio level. If the provision for expected credit losses is derived on the basis of historical default rates at the portfolio level, any decline in the overall volume of receivables results in a corresponding decrease in such provisions (and vice versa).

The receivables and other assets are broken down as follows:

€ million	Trade receivables	Financial receivables and earmarked bank deposits	Receivables from transport concessions	Advance payments	Other assets	Total
AS OF DEC 31, 2023						
Gross value	5,614	1,106	895	269	2,382	**10,266**
Impairments	-143	0	–	–	-35	**-178**
Net value	**5,471**	**1,106**	**895**	**269**	**2,347**	**10,088**
thereof due to related parties	50	2	–	–	180	**232**
AS OF DEC 31, 2022						
Gross value	6,517	1,033	855	343	2,878	**11,626**
Impairments	-163	-10	–	–	-43	**-216**
Net value	**6,354**	**1,023**	**855**	**343**	**2,835**	**11,410**
thereof due to related parties	41	2	–	0	221	**264**

DB Group concluded factoring agreements with a bank; according to the terms of this agreement, the bank is obliged to purchase on a revolving basis current trade receivables (denominated in euro and Swedish kronar) in companies of the DB Schenker segment up to a maximum volume of € 692 million (previous year: € 695 million) and under which rights or obligations remain with DB Group. The agreement has been concluded for an indefinite period of time. DB Group will continue to be responsible for sales ledger accounting and the dunning system on behalf of the bank until further notice. The risks relating to the receivables that are sold and that are relevant for the risk assessment are the credit risk and the risk of late payment. The purchase price is equivalent to the nominal amount. DB Group bears credit-risk-related default and late payment risks from the various tranches up to a certain amount in each case. The other bad debts related to the credit risk are borne by the bank. Virtually none of the opportunities and risks associated with the receivables have been transferred or retained (breakdown of major risks between DB Group and bank).

For some of the receivables, the right of disposal over the receivables that have been sold has been transferred to the bank as the bank has the actual ability to sell on the receivables. These receivables have been completely derecognized.

Disclosures on DB Group's continuing involvement in fully derecognized trade receivables:

€ million	2023	2022
Receivables sold as of Dec 31	260	260
Carrying amount of liabilities recorded in the balance sheet, which represent the sustained exposure as of Dec 31 [1]	0	0
Maximum risk of loss from sustained exposure to credit and late payment risks as of Dec 31	85	74
EFFECT ON THE CONSOLIDATED STATEMENT OF INCOME		
Expenses in the year under review	10	2
Expenses accumulated since the start of the contract	17	7
Expenses from the transfer within the scope of the factoring agreement	1	1

[1] Essentially corresponds to the fair value.

DB Group continues to account for the remainder of the trade receivables transferred under factoring agreements for which the power of disposal does not pass to the bank in the amount of its continued commitment, i.e. the maximum amount in which DB Group is still liable for the credit risk and the late payment risk of the sold receivable, and has a corresponding obligation within the other liabilities (continuing involvement). The receivables and the associated liabilities are derecognized to the extent that DB Group's sustained exposure is reduced due to the receipt of payments from customers.

Disclosures on DB Group's sustained exposure in partially derecognized trade receivables:

AS OF DEC 31 / € million	2023	2022
Receivables sold as of Dec 31	432	435
Remaining carrying amount of transferred receivables as of Dec 31 [1]	132	114
Carrying amount of the associated liabilities as of Dec 31 [1]	145	126
EFFECTS ON THE CONSOLIDATED STATEMENT OF INCOME		
Expenses in the year under review	14	4
Expenses accumulated since the start of the contract	33	13
Expenses from the transfer within the scope of the factoring agreement	2	2

[1] The fair values of the receivables and the associated liabilities essentially correspond to their carrying amounts.

Purchase price payments received by the bank in the year under review increased the cash flow from operating activities.

The financial receivables and earmarked bank deposits include residual values agreed with the contracting organizations of transport contracts of € 532 million (as of December 31, 2022: € 470 million). These residual value receivables mainly relate to rolling stock that is sold for a fixed price at the end of the transport contract to the contracting organization or to a third party designated by the contracting organization. In addition, financial receivables and earmarked bank deposits also disclosed a figure of € 322 million for finance lease receivables (as of December 31, 2022: € 340 million) and cash collateral in the form of credit support agreements (CSAs) of € 228 million (as of December 31, 2022: € 142 million). As of

December 31, 2022, this item still included earmarked cash and cash equivalents in the amount of € 27 million, which can only be used for contributions to certain retirement benefit plans.

The other assets include contract fulfillment costs of € 1 million (December 31, 2022: € 6 million).

The impairments recognized for receivables and other assets classified in accordance with IFRS 7 have developed as follows:

€ million	Trade receivables	Financial receivables and earmarked bank deposits	Receivables from transport concessions	Other assets	Total
As of Jan 1, 2023	-163	-10	–	-43	**-216**
Additions	-32	–	–	-6	**-38**
Reversals	30	10	–	1	**41**
Amounts used	14	–	–	1	**15**
Reclassifications to short-term assets	7	0	–	12	**19**
Changes in the scope of consolidation	0	–	–	0	**0**
Currency translation effects	1	–	–	0	**1**
As of Dec 31, 2023	**-143**	**0**	**–**	**-35**	**-178**
As of Jan 1, 2022	-182	-11	0	-46	**-239**
Additions	-22	0	–	-3	**-25**
Reversals	28	–	0	4	**32**
Amounts used	4	–	–	2	**6**
Reclassifications to short-term assets	–	–	–	–	**–**
Changes in the scope of consolidation	9	–	–	0	**9**
Currency translation effects	0	1	–	0	**1**
As of Dec 31, 2022	**-163**	**-10**	**–**	**-43**	**-216**

Expenses increased to € 88 million in the year under review for the complete derecognition of receivables and other assets (previous year: € 48 million).

Income of € 3 million was reported for payments received in relation to previously derecognized receivables and other assets (previous year: € 4 million).

The expected loan losses amounted to € 25 million as of December 31, 2023 (as of December 31, 2022: € 32 million):

AS OF DEC 31 / € million	Net carrying amount	Expected loss rate (%)	Risk provisioning	thereof risk provisioning for overdue receivables	thereof risk provisioning for non-overdue receivables
Trade receivables	5,471	0.46	25	15	10

As of December 31, 2023, a risk provision of € 5 million was formed for receivables from financing, other financial receivables and contractual assets (as of December 31, 2022: € 3 million).

The following overview shows the maturity structure of the receivables for the financial instruments classified in accordance with IFRS 7 and the advance payments that have been made:

	Residual maturity							
€ million	Up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years	Total more than 1 year	Total
AS OF DEC 31, 2023								
Trade receivables	5,447	5	11	4	3	1	**24**	**5,471**
Financial receivables and earmarked bank deposits	377	58	46	27	18	580	**729**	**1,106**
Receivables from transport concessions	90	84	85	83	83	470	**805**	**895**
Advance payments	208	61	–	–	–	–	**61**	**269**
Other assets	1,657	157	255	158	101	19	**690**	**2,347**
Total	**7,779**	**365**	**397**	**272**	**205**	**1,070**	**2,309**	**10,088**
thereof non-financial assets	775	165	226	149	100	15	**655**	**1,430**
AS OF DEC 31, 2022								
Trade receivables	6,334	5	5	10	0	0	**20**	**6,354**
Financial receivables and earmarked bank deposits	341	58	42	36	26	520	**682**	**1,023**
Receivables from transport concessions	78	87	77	76	76	461	**777**	**855**
Advance payments	278	65	–	–	–	–	**65**	**343**
Other assets	2,106	218	235	154	43	79	**729**	**2,835**
Total	**9,137**	**433**	**359**	**276**	**145**	**1,060**	**2,273**	**11,410**
thereof non-financial assets	1,160	231	167	153	42	77	**670**	**1,830**

The trade receivables decreased compared with the previous year. The decline in the DB Schenker segment was partially offset by increases in the Subsidiaries / Other, DB Regional and DB Cargo segments.

The decline in other current assets resulted in particular from the decrease in claims from independent debt recognitions and an increase in the Subsidiaries / Other segment.

As a result of the large number of customers in the various operating segments, there was no evidence of concentration of credit risks with trade receivables.

The maximum default risk was essentially equivalent to the carrying amount in each case. Collateral is not regularly held.

As of December 31, 2023, there were no indications that debtors of the receivables that are neither impaired nor overdue will not meet their payment obligations.

(20) INCOME TAX RECEIVABLES

The income tax receivables relate to advance payments that have been made as well as allowable withholding taxes.

(21) DERIVATIVE FINANCIAL INSTRUMENTS

Upon conclusion of the contract, derivative financial instruments are generally classified as hedging instruments for hedging cash flows (cash flow hedges) and changes in value (fair value hedges) from contractual obligations or anticipated transactions.

Cash flow hedges

Cash flow hedges are used to provide protection against fluctuations in the cash flows of financial assets or liabilities or anticipated transactions. When future cash flows are hedged, the hedging instruments are also recognized with their fair value. Changes in value are initially recognized in other comprehensive income with no impact on profit and loss, and are only recognized in the statement of income at the point at which the corresponding losses or profits from the underlying transaction have an impact on the statement of income or the transactions expire. Any ineffectiveness is recognized in the statement of income in accordance with IFRS 9.

Fair value hedges

Fair value hedges are used to hedge assets or liabilities against the risk of a change in fair value. The results from the hedging instruments are reported in the consolidated statement of income, in which the hedged underlying transaction is also shown.

Derivative financial instruments that do not satisfy the requirements for recognizing hedges in accordance with IFRS 9

If hedges that in economic terms are used for interest, currency or price hedging do not satisfy the requirements of IFRS 9 for being recognized as a hedge, the changes in fair value are immediately recognized in the statement of income.

Calculation of the fair value

The fair value of financial instruments that are traded in an active market is derived from the share price applicable on the balance sheet date. Common valuation methods such as option price or present value models are used for determining the fair value of financial instruments which are not traded in an active market. If valuation-relevant parameters are not directly observable on the market, forecasts are used based on comparable financial instruments that are traded in an active market; these forecasts are then adjusted by premiums or discounts on the basis of historical data. The mean value of bid and offer rates is used. DB AG operates with long-dated financial derivatives on a hedged basis, and does not perform any credit risk adjustment for the fair value for hedged transactions. For considerations of materiality, no credit risk adjustment is used for short-term derivatives. If credit risk adjustment is used, the relevant discounts are derived from the credit default swap (CDS) figures observable on the market.

All derivatives used in DB Group are measured using common methods such as option price or present value models, because their fair values are not traded on an active market. No parameters from non-observable markets are used for assessment purposes.

The volume of hedges concluded is shown in the following overview of nominal values:

AS OF DEC 31 / € million	Nominal value of hedging instrument		Residual maturity up to 1 year		Residual maturity more than 1 year	
	2023	2022	**2023**	2022	**2023**	2022
INTEREST-BASED CONTRACTS						
Interest swaps	1,400	800	–	–	1,400	800
	1,400	**800**	**–**	**–**	**1,400**	**800**
CURRENCY-BASED CONTRACTS						
Currency swaps	331	260	331	260	0	0
Currency forwards	1,789	2,704	1,683	2,675	106	29
Cross-currency swaps	8,677	8,925	773	622	7,904	8,303
	10,797	**11,889**	**2,787**	**3,557**	**8,010**	**8,332**

AS OF DEC 31 / 1,000 t	Volume		Residual maturity up to 1 year		Residual maturity more than 1 year	
	2023	2022	**2023**	2022	**2023**	2022
OTHER CONTRACTS						
Diesel	335	428	80	94	255	334
Hard coal	1,428	1,380	840	1,092	588	288

A further interest rate swap was concluded in the financial year to hedge interest rate risks, increasing the portfolio to € 1,400 million (as of December 31, 2022: € 800 million). The changes in the holdings of currency swaps and forwards vary in line with the corresponding hedging requirements of the subsidiaries of DB Group. The nominal value of the cross-currency swaps fell by € 248 million (as of December 31, 2022: increase of € 744 million), as effects from expired transactions exceeded the effects from new business.

The scope of diesel hedging fell due to lower levels of hedging and the (planned) sale of subsidiaries. As of December 31, 2023, coal hedges remained almost unchanged at 1.4 million t.

The following table shows the average hedging prices/hedging rates for the main derivative hedging instruments of DB Group (per currency):

	Hedging price per 1,000 t		Hedging rate			
Currency	Diesel	Hard coal	Cross-currency swaps (CCS)	Interest rate swaps (IRS)	Currency swaps	Currency forwards
EUR	657.13	126.39	–	0.02	–	–
USD	–	–	1.13	–	1.06	1.10
GBP	591.47	–	0.87	–	–	0.86
CHF	–	–	1.09	–	–	0.97
JPY	–	–	119.66	–	–	157.67
NOK	–	–	9.24	–	–	11.41
SEK	–	–	10.20	–	–	11.15
DKK	–	–	7.44	–	–	7.45
CAD	–	–	–	–	–	1.47
AUD	–	–	1.56	–	–	1.63
NZD	–	–	–	–	–	1.76
HKD	–	–	–	–	–	8.49
MXN	–	–	–	–	–	19.11
SGD	–	–	1.56	–	1.45	1.45
PLN	3,729.19	–	4.44	–	–	4.34
CZK	19,458.74	–	26.78	–	–	24.98
HUF	–	–	377.90	–	–	383.05
RON	–	–	4.85	–	5.02	4.98
CNY	–	–	–	–	–	7.99
ILS	–	–	–	–	–	4.03
SAR	–	–	–	–	–	4.08
AED	–	–	–	–	–	3.98
QAR	–	–	4.25	–	–	3.98
ZAR	–	–	–	–	–	20.46
THB	–	–	–	–	–	38.20

All derivative financial instruments are marked-to-market on the reporting date. The following overview shows the allocation of the item stated in the balance sheet depending on the type of underlying hedge:

	Assets		Liabilities	
AS OF DEC 31 / € million	2023	2022	2023	2022
INTEREST-BASED CONTRACTS				
Interest swaps	14	–	43	78
Interest forwards	0	–	–	–
	14	**–**	**43**	**78**
CURRENCY-BASED CONTRACTS				
Currency swaps	0	0	2	4
Currency forwards	12	26	9	12
Other currency derivatives	0	0	0	0
Cross-currency swaps	762	608	303	239
thereof effects from currency hedges	583	429	361	222
	774	**634**	**314**	**255**
OTHER CONTRACTS				
Energy price derivatives	11	114	75	72
	11	**114**	**75**	**72**
Total	**799**	**748**	**432**	**405**
Non-current share	679	559	336	329
Interest-based contracts	14	–	43	78
Currency-based contracts	658	507	262	225
Other contracts	7	52	31	26
Current share	120	189	96	76

Cash flow hedges

In order to minimize the interest rate and exchange rate risk, foreign currency issues as well as intra-Group foreign currency loans are converted into euros as a matter of principle, and floating-rate financial liabilities are generally converted into fixed-interest financial liabilities. Energy price hedging served to reduce price fluctuations attributable to energy sourcing.

The performance of the cross-currency swaps was mainly based on the development of interest rates in the individual currencies, in particular the Swiss franc and the Norwegian krone, as well as the devaluation of the euro against the Swiss franc. The appreciation of the euro against the Norwegian krone and the Australian dollar had a partially offsetting effect.

The market value of the energy price derivatives reflected the development on the underlying raw materials markets.

The fair values of the cash flow hedges are shown as follows under assets and liabilities:

	Assets		Liabilities	
AS OF DEC 31 / € million	2023	2022	2023	2022
CURRENCY-BASED CONTRACTS				
Currency swaps	0	0	2	4
Cross-currency swaps	762	608	292	223
	762	**608**	**294**	**227**
OTHER CONTRACTS				
Energy price derivatives	3	114	66	72
	3	**114**	**66**	**72**
Total	**765**	**722**	**360**	**299**
Non-current share	659	558	271	235
Currency-based contracts	658	506	249	209
Other contracts	1	52	22	26
Current share	106	164	89	64

Cash flow hedges are not classified under any category of IFRS 9.

The hedged cash flows of the underlying transactions are expected to materialize, and have an impact on the income statement, in 2024 to 2072 (interest payments and payments of principal) or in 2024 to 2027 (payments for energy).

The underlying and hedging transactions, as well as the hedge reserve of cash flow hedges, developed as follows:

	2023		as of Dec 31, 2023	2022		as of Dec 31, 2022
€ million	Changes in hedges and underlying transactions	thereof ineffective (with impact on income statement)	Status of the hedging reserve cash flow hedges	Changes in hedges and underlying transactions	thereof ineffective (with impact on income statement)	Status of the hedging reserve cash flow hedges
INTEREST-BASED CONTRACTS						
Interest swaps	+ 0	–	–	–	–	–
CURRENCY-BASED CONTRACTS						
Currency swaps	+ 2	–	+ 1	- 9	–	+ 2
Cross-currency swaps	+ 87	- 39	+ 150	+ 262	+ 3	+ 152
OTHER CONTRACTS						
Energy price hedges	- 105	- 2	- 66	- 28	–	+ 38

In the case of interest and cross-currency hedges, the effectiveness of the hedge is assessed using the critical terms match method. This method is used because the major valuation parameters of the underlying transaction and hedges are identical. Ineffectiveness is measured as of every balance sheet date by means of the hypothetical derivative method. In this method, the development in value of the hedge which is actually taken out is compared with the development in value of a theoretical hedge in which all valuation-relevant parameters are identical to those of the underlying transaction. In the case of energy price derivatives, the effectiveness of the hedge is assessed using linear regression. The ineffectiveness is calculated using the dollar-offset method. In this case, the fair value changes of the underlying transactions are compared with the fair value changes of the hedging instrument. The resultant quotient determines the ineffectiveness.

As in the previous year, in the year under review the inefficiencies of cash flow hedges of the energy price derivatives recognized in the income statement were immaterial.

Fair value hedge derivatives

The fair values are shown under assets and liabilities as follows:

AS OF DEC 31 / € million	Assets 2023	Assets 2022	Liabilities 2023	Liabilities 2022
INTEREST-BASED CONTRACTS				
Interest swaps	14	–	43	78
Total	**14**	**–**	**43**	**78**
Non-current share	14	–	43	78
Interest-based contracts	14	–	43	78
Current share	–	–	–	–

The interest rate swaps were used to hedge issued senior bonds (included in the balance sheet item financial liabilities 253ff.) with a nominal value of € 1,400 million. The effectiveness of the hedging relationship was checked using the critical terms match method. There was no ineffectiveness in the year under review.

The performance of the interest rate swaps is attributable to a declining interest rate level in the Eurozone as of the valuation date.

Non-hedge derivatives

Currency forwards taken out to hedge operations are normally classified as non-hedge derivatives.

The fair values of the non-hedge derivatives are shown under assets and liabilities as follows:

AS OF DEC 31 / € million	Assets 2023	Assets 2022	Liabilities 2023	Liabilities 2022
CURRENCY-BASED CONTRACTS				
Currency forwards	12	26	9	12
Other currency derivatives	0	0	0	0
Cross-currency swaps	–	–	11	16
	12	**26**	**20**	**28**
OTHER CONTRACTS				
Energy price derivatives	8	–	9	–
Miscellaneous / other derivatives	–	–	–	–
	8	**–**	**9**	**–**
Total	**20**	**26**	**29**	**28**
Non-current share	6	1	22	16
Currency-based contracts	–	1	13	16
Other contracts	6	–	9	–
Current share	14	25	7	12

The cross-currency swaps are based on a redesignation of hedges as a result of the transfer of transactions between banks. The conditions including the cash flows of the derivatives were unchanged and the economic hedge is thus still in place. The decline was attributable to the reversal of the redesignated amounts in line with the remaining maturities of the swaps.

The energy price derivatives relate to diesel swaps concluded externally by DB AG and passed on to companies in discontinued operations.

The non-hedge derivatives are classified under the “held-for-trading” category of IFRS 9.

(22) CASH AND CASH EQUIVALENTS

This item comprises cash in hand and checks, deposits at banks that are due on sight, as well as time deposits with a maturity of up to three months.

Cash and cash equivalents are recognized with their nominal value (at amortized cost).

Cash and cash equivalents are broken down as follows:

AS OF DEC 31 / € million	2023	2022
Cash in hand and bank deposits	2,631	5,137
Cash equivalents	0	1
Total	**2,631**	**5,138**

The interest rates for short-term bank deposits were in a range of between 1.81 % and 4.08 % (previous year: −0.58 % to 2.00 %) and relate to euro-denominated cash investments. The durations of the investments are between one day and three months.

For a definition of cash and cash equivalents, please refer to Notes to the statement of cash flows 265f.

(23) NON-CURRENT ASSETS HELD FOR SALE AND LIABILITIES IN CONNECTION WITH ASSETS HELD FOR SALE

Under IFRS 5, non-current assets are classified as non-current assets held for sale if their carrying amount is to be realized by way of sale and not by way of continued use. This can be an individual asset, a disposal group or a business area of a company. Non-current assets held for sale are measured at the lower of the carrying amount or the fair value, less costs of disposal incurred.

Non-current assets held for sale and liabilities in connection with assets held for sale have developed as follows:

€ million	Jan 1, 2023	Disposal	Addition	Dec 31, 2023
Property, plant and equipment	36	- 36	1,362	1,362
Intangible assets	7	- 7	81	81
Investments accounted for using the equity method	–	–	32	32
Financial assets available for sale	0	0	2	2
Inventories	17	- 17	68	68
Receivables and other assets	75	- 75	1,299	1,299
Derivative financial instruments	–	–	0	0
Cash and cash equivalents	14	- 14	445	445
Deferred tax assets	3	- 3	17	17
Assets	**152**	**- 152**	**3,306**	**3,306**
Financial debt	30	- 30	536	536
Other liabilities	69	- 69	1,011	1,011
Derivative financial instruments	–	–	0	0
Pension obligations	0	0	47	47
Other provisions	58	- 58	224	224
Deferred income	2	- 2	243	243
Deferred tax liabilities	2	- 2	96	96
Liabilities	**161**	**- 161**	**2,157**	**2,157**

The companies held for sale as of December 31, 2022, from the former DB Arriva segment (in Denmark, Serbia and Poland) and DB Schenker (in Russia) were sold in the year under review. The item in the balance sheet as of December 31, 2023, related to discontinued operations.

(24) SUBSCRIBED CAPITAL

The share capital of DB AG is € 2,150 million. It consists of 430,000,000 no-par-value bearer shares. All shares are held by the Federal Republic of Germany.

(25) RESERVES

a) Capital reserves

Capital reserves comprise reserves that have not been part of profits. In the year under review, as in the previous year, € 1.1 billion was paid to DB InfraGO AG (formerly: DB Netz AG) from funds from the Climate Action Program.

b) Reserve resulting from valuation with no impact on profit or loss

RESERVE FOR CURRENCY TRANSLATION DIFFERENCES

The currency translation effects resulting from the functional currency method (IAS 21) are shown separately as part of consolidated shareholders' equity.

RESERVE FOR THE FAIR VALUE ASSESSMENT OF SECURITIES AND EQUITY INVESTMENTS

The reserve includes the changes in the fair value of financial instruments with no impact on profit and loss. The reserve is to be released to or derecognized from the profit or loss upon the sale, maturity or reclassification of a financial instrument if it is an equity instrument.

RESERVE FROM THE FAIR VALUE ASSESSMENT OF CASH FLOW HEDGES

The development of the reserve is shown in the following:

€ million	2023	2022
As of Jan 1	188	-87
Change in fair value [1]	-31	464
Hedging results reclassified to the carrying amount of acquired inventories during the year [2]	-28	-
RECLASSIFICATIONS		
Financial result	-93	50
Net interest income	-3	-34
Cost of materials [1]	49	-201
Changes in deferred taxes	7	-4
As of Dec 31	**89**	**188**

[1] Previous year figure adjusted.
[2] From January 1, 2023, the effects of diesel price hedging will be reported in the item "Hedging results reclassified to the carrying amount of acquired inventories during the year." A corresponding change in presentation as of December 31, 2022, would have resulted in a disclosure of € -109 million for this item.

RESERVE FOR THE REVALUATION OF PENSIONS

The effects resulting from the revaluation of defined benefit plans in accordance with IAS 19 (Employee Benefits) are recognized in other income with no impact on profit and loss.

OTHER CHANGES IN THE RESERVES

This item mainly shows amounts resulting from transactions in relation to reductions or increases in non-controlling interests between the shareholders of DB AG and the non-controlling interests.

(26) GENERATED PROFITS

The generated shareholders' equity comprises the entire net profits generated since January 1, 1994, less the goodwill offset under the German Commercial Code (Handelsgesetzbuch; HGB) up to December 31, 2002, as well as the dividends paid to the shareholders.

This item also shows the impact on shareholders' equity attributable to the first-time adoption of IFRS if they are not included in the reserves attributable to valuation with no impact on profit and loss.

Based on the resolution of the Annual General Meeting on November 27, 2023, DB AG paid a profit distribution of € 650 million to the Federal Government for the 2022 financial year in the year under review.

(27) HYBRID CAPITAL AND NON-CONTROLLING INTERESTS

In October 2019, Deutsche Bahn Finance GmbH (DB Finance) issued two junior hybrid bonds with a total volume of € 2 billion. The hybrid bonds have undated durations with an initial termination right for the issuer after 5.5 years (coupon: 0.95%) and ten years (coupon: 1.6%) respectively; the issue proceeds amounted to € 997 million and € 995 million respectively. The two hybrid bonds do not have a repayment obligation and do not have a termination right for the creditor. In addition, any retained interest payments only have to be made when a dividend is paid. According to IAS 32 (Financial Instruments: Presentation), the hybrid bonds have to be classified entirely as equity as there is no regular repayment obligation for the hybrid bonds, nor is there any termination right for the bond holders. Interest payments to be made to the bond holders (less the taxes on income) are recognized directly in equity. Interest payments of € 25 million were made in the year under review (previous year: € 25 million).

Non-controlling interests comprise the share of third parties in the net assets of consolidated subsidiaries. Third-party interests in the currency reserve amounted to € -24 million (as of December 31, 2022: € -19 million).

(28) FINANCIAL DEBT

In accordance with IFRS 9, financial debt and other non-current liabilities are initially measured at fair value, taking into account transaction costs and premiums/discounts. Subsequently, they are stated using amortized acquisition costs using the effective interest method. The differences between the disbursement amount less transaction costs and the repayment amount are recognized in profit or loss over the term.

Interest-free loans that are related to capital expenditures on infrastructure are recognized with the present value of the amounts to be repaid, and are adjusted to their nominal repayment amount over their life. The difference between the nominal amount of the loan and the present value is recognized as an interest benefit under accruals. The income from pro rata reversal of these accruals is shown as other operating income.

Liabilities from lease contracts for which a right of use has to be recognized in accordance with IFRS 16 are shown as the present value of the following lease payments: fixed payments less payments of the lessor that are received, variable payments based on an index, expected payments for residual value guarantees, the purchase price for probably exercised purchase options, probable compensation payments in the event of early *termination. The assessment of the lease liability also includes lease payments in relation to adequately certain utilization of extension options. The leasing installments are broken down into an interest component and a redemption component. The interest component of the leasing installment is recognized in the statement of income. The interest rate used corresponds to the implied interest rate of the lease contract or, if this is not known, the maturity-related marginal borrowing rate. Liabilities arising from leases are not classified under any category of IFRS 9.*

Some transport contracts comprise the leasing particularly of rolling stock from contracting organizations or from independent financial service providers, where the latter receive a capital service guarantee, a redeployment guarantee or similar from the contracting organization. The present value of these payment obligations is shown under the financing liabilities from transport concessions.

The financial debt comprises all interest-bearing liabilities including the interest-free loans stated with their present values. Financial debt has the following maturity structure:

€ million	Residual maturity							
	Up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years	Total more than 1 year	Total
AS OF DEC 31, 2023								
Interest-free loans	152	–	–	–	–	–	–	152
Senior bonds	1,966	1,973	2,216	2,801	2,101	18,985	28,076	30,042
Commercial paper	358	–	–	–	–	–	–	358
Bank borrowings	566	8	2,000	–	–	–	2,008	2,574
Leasing liabilities	1,052	788	610	470	361	1,506	3,735	4,787
Financing liabilities from transport concessions	21	21	20	19	18	52	130	151
Other financial liabilities	22	0	0	21	0	1	22	44
Total	**4,137**	**2,790**	**4,846**	**3,311**	**2,480**	**20,544**	**33,971**	**38,108**
thereof due to related parties	153	–	–	–	–	–	–	153
AS OF DEC 31, 2022								
Interest-free loans	153	145	–	–	–	–	145	298
Senior bonds	1,982	1,962	1,966	2,188	2,181	18,523	26,820	28,802
Commercial paper	–	–	–	–	–	–	–	–
Bank borrowings	539	0	6	–	–	–	6	545
Leasing liabilities	1,120	801	641	504	391	1,723	4,060	5,180
Financing liabilities from transport concessions	20	19	19	19	18	69	144	164
Other financial liabilities	273	2	1	1	0	7	11	284
Total	**4,087**	**2,929**	**2,633**	**2,712**	**2,590**	**20,322**	**31,186**	**35,273**
thereof due to related parties	153	146	–	–	–	–	146	299

The following fair values are summarized in comparison with the carrying amounts:

AS OF DEC 31 / € million	2023		2022	
	Carrying amount	Fair value	Carrying amount	Fair value
Interest-free loans	152	152	298	299
Senior bonds	30,042	27,306	28,802	24,512
Commercial paper	358	358	–	–
Bank borrowings	2,574	2,574	545	546
Leasing liabilities	4,787	4,323	5,180	4,787
Financing liabilities from transport concessions	151	144	164	151
Other financial liabilities	44	44	284	284
Total	**38,108**	**34,901**	**35,273**	**30,579**

The differences between the carrying amounts and the fair values of the financial debt are due to the mostly changed market interest rates for financial debt with a comparable risk profile. In view of the short maturities involved and also in view of the fact that interest charged is closely linked to market rates, there are no significant differences between the carrying amounts and the fair values of other financial liabilities.

Interest-free loans were also attributable almost exclusively to financing provided by the Federal Government for capital expenditures to expand and replace track infrastructure. This is based on the responsibility for the transport needs of the public which is anchored in Section 87e (4) of the German Basic Law (Grundgesetz; GG) and specified in the Federal Rail Infrastructure Extension Act (Bundesschienenwegeausbaugesetz; BSWAG).

The repayment of the loans is regulated in individual and collective financing agreements. In general, the loans are repaid in equal annual installments, which are based on the corresponding annual depreciation applicable for the financed assets.

Interest-free loans have developed as follows:

€ million	2023	2022
As of Jan 1	298	446
Addition	–	–
Redemption	-155	-157
Reclassifications	0	-7
Compounding	9	16
As of Dec 31	**152**	**298**

As of the balance sheet date, the senior bonds are issued as follows:

SENIOR BONDS AS OF DEC 31 / € million	Issue volume	Issue currency	Maturity (years)	Effective interest rate (%)	2023 Carrying amount	2023 Fair value	2022 Carrying amount	2022 Fair value
UNLISTED SENIOR BONDS								
DB Finance	1,185	AUD, JPY, EUR	0.4-8.8		1,141	1,086	1,180	1,088
Total					**1,141**	**1,086**	**1,180**	**1,088**
LISTED SENIOR BONDS OF DB FINANCE								
Bond 2010-2025	500	EUR	1.5	3.870	499	505	499	507
Bond 2012-2023	400	EUR	0.0	2.116	–	–	400	400
Bond 2012-2024	83	CHF	0.1	1.586	108	108	101	101
Bond 2012-2024	500	EUR	0.2	3.119	500	499	499	501
Bond 2012-2072	75	GBP	48.9	4.524	69	64	67	65
Bond 2013-2028	50	EUR	4.1	2.707	50	49	50	48
Bond 2013-2025	202	NOK	1.2	4.017	133	133	143	142
Bond 2013-2023	386	CHF	0.0	1.425	–	–	482	482
Bond 2013-2026	497	GBP	2.6	3.351	486	477	476	457
Bond 2013-2023	500	EUR	0.0	2.578	–	–	500	500
Bond 2014-2024	59	AUD	0.1	5.395	55	55	57	57
Bond 2014-2024	246	CHF	0.7	1.522	324	324	305	304
Bond 2014-2029	500	EUR	5.2	2.886	497	501	496	480
Bond 2015-2023	600	EUR	0.0	FRN	–	–	600	600
Bond 2015-2025	600	EUR	1.8	1.391	599	584	598	572
Bond 2015-2030	366	NOK	6.8	2.760	302	287	323	295
Bond 2015-2025	115	AUD	1.8	3.864	110	109	114	112
Bond 2015-2030	650	EUR	6.8	1.707	647	602	646	559
Bond 2015-2025	161	CHF	1.9	0.143	189	184	178	171
Bond 2016-2026	500	EUR	2.2	0.880	499	478	498	465
Bond 2016-2031	750	EUR	7.5	0.964	745	653	745	596
Bond 2016-2028	500	EUR	4.7	0.765	497	455	496	429
Bond 2016-2024	41	HKD	0.2	2.100	41	40	42	41
Bond 2017-2032	79	NOK	8.1	2.514	62	58	66	59
Bond 2017-2032	500	EUR	8.9	1.541	498	450	498	408
Bond 2017-2025	341	GBP	1.5	1.437	345	329	338	315
Bond 2017-2032	55	SEK	8.6	2.226	48	43	48	40
Bond 2017-2030	261	CHF	6.9	0.463	324	305	305	268
Bond 2017-2024	300	EUR	0.9	FRN	300	301	301	300
Bond 2018-2027	1,000	EUR	4.0	1.086	997	935	996	893
Bond 2018-2033	750	EUR	9.6	1.680	746	664	746	606
Bond 2018-2028	346	CHF	4.5	0.470	433	417	407	375
Bond 2018-2031	500	EUR	7.2	1.508	495	454	495	416
Bond 2018-2043	125	EUR	19.9	1.866	125	96	125	87
Bond 2019-2028	1,000	EUR	5.0	1.235	995	927	994	879
Bond 2019-2026	340	GBP	2.1	1.944	345	329	338	313
Bond 2019-2034	103	NOK	10.1	2.732	89	83	95	83
Bond 2019-2029	310	CHF	5.5	0.135	377	354	355	314
Bond 2019-2034	133	CHF	10.5	0.516	162	148	152	125
Bond 2019-2039	47	SEK	15.4	2.025	45	37	45	34
Bond 2020-2035	500	EUR	11.5	0.819	496	384	496	348
Bond 2020-2024	300	EUR	0.1	-0.062	300	299	300	290
Bond 2020-2032	150	EUR	8.2	0.257	150	121	150	108
Bond 2020-2027	900	EUR	3.3	0.639	896	839	895	800
Bond 2020-2040	750	EUR	16.3	1.433	744	574	743	523
Bond 2020-2029	850	EUR	5.5	0.411	848	755	848	698
Bond 2020-2039	650	EUR	15.5	0.977	640	467	640	421
Bond 2020-2035	48	SEK	11.5	1.544	45	37	45	34
Bond 2020-2050	1,000	EUR	26.9	0.656	992	550	992	483
Bond 2021-2036	370	CHF	12.1	0.100	433	373	407	305
Bond 2021-2026	339	GBP	2.9	0.523	344	312	336	288
Bond 2021-2026	494	SEK	2.1	0.524	450	423	449	401
Bond 2021-2036	1,000	EUR	12.3	0.759	984	745	983	669
Bond 2021-2033	296	CHF	9.4	0.211	351	315	330	267
Bond 2021-2041	168	AUD	17.4	3.124	159	112	165	116
Bond 2021-2051	1,000	EUR	27.4	1.159	992	628	992	548
Bond 2021-2036	196	NOK	12.5	2.241	177	154	190	154
Bond 2021-2031	750	EUR	7.7	0.393	748	622	747	566
Bond 2021-2031	279	CHF	7.8	0.241	324	298	305	257
Bond 2022-2042	191	AUD	18.0	3.350	184	133	190	137
Bond 2022-2027	200	EUR	3.1	0.791	200	189	199	181
Bond 2022-2034	750	EUR	10.2	1.389	747	641	747	580
Bond 2022-2030	900	EUR	6.4	1.992	892	850	891	804
Bond 2022-2040	52	SEK	16.7	3.511	49	49	49	47
Bond 2022-2032	308	CHF	8.7	1.903	324	340	305	297

SENIOR BONDS AS OF DEC 31 / € million	Issue volume	Issue currency	Maturity (years)	Effective interest rate (%)	2023 Carrying amount	2023 Fair value	2022 Carrying amount	2022 Fair value
Bond 2022-2034	51	NOK	10.7	4.370	44	48	47	49
Bond 2022-2042	500	EUR	18.8	3.924	495	538	495	502
Bond 2022-2042	151	CHF	18.9	2.285	161	187	151	152
Bond 2023-2037	750	EUR	14.0	3.664	747	781	-	-
Bond 2023-2033	600	EUR	9.4	3.413	592	618	-	-
Bond 2023-2035	287	CHF	11.7	1.927	296	314	-	-
Bond 2023-2027	600	EUR	3.7	3.590	598	617	-	-
Bond 2023-2033	149	AUD	9.9	6.053	153	163	-	-
Bond 2023-2043	650	EUR	19.9	4.140	639	707	-	-
Total					**28,930**	**26,220**	**27,706**	**23,424**
Adjustments from derivatives					- 29	-	- 84	-
Senior bonds, total amount					**30,042**	**27,306**	**28,802**	**24,512**

In 2023, three fixed-interest listed senior bonds from DB Finance amounting to € 400 million, € 500 million and CHF 475 million (€ 386 million), as well as a floating-rate listed senior bond amounting to € 600 million with a total value of € 1,886 million, were redeemed on schedule.

In 2023, DB Finance issued six fixed-interest, listed senior bonds with a total value of € 3,036 million. These include issues of € 750 million, € 600 million, CHF 275 million (€ 287 million), € 600 million, AUD 250 million (€ 149 million) and € 650 million. Some of the euro bonds were swapped from fixed-interest to floating-rate bonds. As a result, the valuation of the bond portfolio resulted in a reduction in carrying amount by € 29 million (as of December 31, 2022: € 84 million).

Commercial paper issues were carried out as part of short-term liquidity management. Commercial paper amounting to € 358 million was outstanding as of December 31, 2023 (December 31, 2022: none). This was composed as follows:

COMMERCIAL PAPER ISSUES AS OF DEC 31 / € million	Issue volume	Issue currency	Maturity (days)	Nominal interest rate (%)	2023 Carrying amount	2023 Fair value	2022 Carrying amount	2022 Fair value
as of December 11, 2023	54	USD	16	5.552	48	48	-	-
as of December 11, 2023	60	EUR	15	3.940	60	60	-	-
as of December 11, 2023	50	EUR	15	3.940	50	50	-	-
as of December 11, 2023	50	EUR	15	3.940	50	50	-	-
as of December 11, 2023	50	EUR	15	3.940	50	50	-	-
as of December 11, 2023	50	EUR	15	3.940	50	50	-	-
as of December 11, 2023	50	EUR	15	3.940	50	50	-	-
Total	**364**				**358**	**358**	**-**	**-**

Bank borrowings are detailed in the following table:

BANK BORROWINGS AS OF DEC 31 / € million	Currency	Maturity (years)	Nominal interest rate (%)	2023 Carrying amount	2023 Fair value	2022 Carrying amount	2022 Fair value
Bank loan 2023-2026	EUR	2.5	variable	500	500	-	-
Bank loan 2023-2026	EUR	2.5	variable	500	500	-	-
Bank loan 2023-2026	EUR	2.9	variable	500	500	-	-
Bank loan 2023-2026	EUR	2.9	variable	500	500	-	-
Other				574	574	545	546
Total				**2,574**	**2,574**	**545**	**546**

The increase in bank borrowings as of December 31, 2023, was mainly the result of taking out four bank loans as bridge financing for potential sales proceeds.

Other bank borrowings primarily consisted of collateral due in the short term (as of December 31, 2023: € 524 million; as of December 31, 2022: € 525 million) resulting from collateral agreements within the framework of derivative transactions.

Liabilities are not secured in DB Group as a ground rule.

As of December 31, 2023, further guaranteed credit facilities with a total volume of € 4,797 million were available to DB Group (as of December 31, 2022: € 4,589 million). Of this figure, € 2,100 million was attributable to back-up lines for the € 3.0 billion commercial paper program of DB AG (as of December 31, 2022: € 2,000 million). None of these back-up lines had been drawn down as of December 31, 2023. Global credit facilities totaling € 2,697 million (as of December 31, 2022: € 2,589 million) are used for working capital and surety for payment financing of subsidiaries with operations worldwide, primarily in the DB Schenker segment.

Liabilities attributable to leasing (Note (13) 242ff.) are secured by rights of the lessors in relation to the leased assets. As of December 31, 2023, the leased assets have a carrying amount of € 4,266 million (as of December 31, 2022: € 4,692 million).

The nominal values of the leasing liabilities are broken down as follows:

LEASING LIABILITIES / € million	Residual maturity							
	Up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years	Total more than 1 year	Total
AS OF DEC 31, 2023								
Nominal values of lease payments	1,064	885	686	532	408	1,828	**4,339**	**5,403**
AS OF DEC 31, 2022								
Nominal values of lease payments	1,136	902	720	566	442	2,063	**4,693**	**5,829**

The financing liabilities from transport concessions in accordance with IFRIC 12 are detailed in the following:

AS OF DEC 31 / € million	Currency	Maturity (years)	2023 Carrying amount	2023 Fair value	2022 Carrying amount	2022 Fair value
Diesel network Allgäu diesel multiple units (2020)	EUR	6.0	30	30	35	34
S-Bahn (metro) Nuremberg electric multiple units (2020)	EUR	7.0	53	52	60	57
S-Bahn (metro) Rhine-Neckar electric multiple units (2020)	EUR	11.0	8	7	8	7
S-Bahn (metro) Rhine-Neckar electric traction units (2021)	EUR	11.0	56	51	61	53
Other	EUR		4	4	–	–
Total			**151**	**144**	**164**	**151**

Various traction units were leased by the responsible contracting organizations for the fulfillment of regional rail passenger transport services.

Financial liabilities from transport concessions are opposed by receivables from transport concessions (Note (19) 247 ff.).

The fair values of the long-term financial debt are allocated to the following valuation categories:

AS OF DEC 31 / € million	2023 Level 1	2023 Level 2	2023 Level 3	2023 Total	2022 Level 1	2022 Level 2	2022 Level 3	2022 Total
FINANCIAL DEBT – NON-CURRENT								
Interest-free loans	–	–	–	**–**	–	146	–	**146**
Senior bonds	3,036	22,310	–	**25,346**	2,335	20,194	–	**22,529**
Commercial paper	–	–	–	**–**	–	–	–	**–**
Bank borrowings	–	2,008	–	**2,008**	–	7	–	**7**
Leasing liabilities	–	3,271	–	**3,271**	–	3,667	–	**3,667**
Financing liabilities from transport concessions	–	123	–	**123**	–	131	–	**131**
Other financial liabilities	–	22	–	**22**	–	11	–	**11**
Total	**3,036**	**27,734**	**–**	**30,770**	**2,335**	**24,156**	**–**	**26,491**

The interest-free loans shown at amortized acquisition cost are calculated by discounting the nominal values of the interest-free loans, which are broken down into maturity buckets using the DB interest curve (market interest curve plus current DB spread; source: Thomson Reuters or Bloomberg).

Market prices from an active market, multiplied by the foreign currency rates applicable on the balance sheet date, are used for senior bonds of DB Finance that are classified as level 1. Various sources are used for these prices, including Thomson Reuters and Bloomberg. The senior bonds for which the market activity does not meet the requirements of an active market have been allocated to level 2. For establishing the fair values of these senior bonds, binding offers were used from various sources, including Thomson Reuters and Bloomberg; these have been verified on the basis of the valuation models using the parameters that are observable on the market, such as interest rate curves and exchange rates.

The fair value of the leases and also of the financing liabilities from transport concessions is determined by discounting the outstanding lease payments with the corresponding DB interest rate curves (market interest curve plus current spread; source: Thomson Reuters or Bloomberg).

(29) LIABILITIES

In accordance with IFRS 9, the first-time assessment of liabilities is generally at fair value, taking into account transaction costs and premiums/discounts. Subsequently, non-current liabilities are stated using amortized acquisition cost using the effective interest method. The differences between the disbursement amount less transaction costs and the repayment amount are recognized in profit or loss over the term.

The fair values of the balance sheet items miscellaneous liabilities, trade liabilities and other liabilities essentially correspond to the carrying amounts.

Severance package commitments for agreements made as of the balance sheet date are recognized as other liabilities and – if they are not yet included in individual agreements and if they are part of a restructuring commitment in accordance with IAS 37 – are stated as other provisions.

Movements in the liabilities are shown in the following:

€ million	Residual maturity							
	Up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years	Total more than 1 year	Total
AS OF DEC 31, 2023								
Trade liabilities including advance payments received	6,224	38	18	43	10	6	**115**	**6,339**
Miscellaneous and other liabilities	3,998	96	242	164	17	352	**871**	**4,869**
Total	**10,222**	**134**	**260**	**207**	**27**	**358**	**986**	**11,208**
thereof non-financial liabilities	2,281	6	3	3	2	3	**17**	**2,298**
thereof advance payments received	90	2	2	2	1	3	**10**	**100**
thereof due to related parties	237	–	–	–	–	–	–	**237**
AS OF DEC 31, 2022								
Trade liabilities including advance payments received	7,940	76	21	6	6	8	**117**	**8,057**
Miscellaneous and other liabilities	4,463	170	160	167	17	302	**816**	**5,279**
Total	**12,403**	**246**	**181**	**173**	**23**	**310**	**933**	**13,336**
thereof non-financial liabilities	2,660	8	3	2	2	4	**19**	**2,679**
thereof advance payments received	297	2	2	2	1	4	**11**	**308**
thereof due to related parties	185	–	–	–	–	–	**-**	**185**

Of the decline in trade liabilities, € 733 million was attributable to the DB Schenker segment and € 290 million to the DB Regional segment. Miscellaneous and other liabilities increased in the DB Regional (€ +247 million) and DB Long-Distance (€ +119 million) segments and decreased in the Subsidiaries/Other segment (€ −252 million). Please also refer to Segment information by segments 226f.

Non-financial liabilities and received prepayments are not classified under any category of IFRS 9.

The miscellaneous and other liabilities were broken down as follows:

AS OF DEC 31 / € million	2023	2022
PERSONNEL-RELATED LIABILITIES		
Unused vacation entitlements	302	318
Outstanding overtime liability	297	304
Social security	101	129
Severance payments	56	36
Christmas bonuses	6	11
Vacation pay	23	25
Other personnel obligations	1,120	1,163
OTHER TAXES		
Value-added tax	43	81
Payroll and church taxes, solidarity surcharge	178	198
Miscellaneous other taxes	72	108
Interest payable	199	183
Revenue discounts	50	59
Deferred investment grants	273	286
Independent acknowledgement of debt issued for delivery transactions	537	771
Liabilities in accordance with the Railroad Crossings Act	2	4
Miscellaneous liabilities	1,610	1,603
Total	**4,869**	**5,279**

The increase in personnel-related liabilities resulted in particular from an increase in other personnel obligations in connection with the payment of pension obligations in Sweden and due to the increase in performance-related bonuses in the DB Schenker segment.

As of December 31, 2023, the liabilities were still collateralized with € 0 million.

The miscellaneous other liabilities included risks from factoring agreements.

The commitments from issued independent acknowledgement of debt correspond to equal amounts of receivables from supply contracts that are hedged by bank guarantees in the event of a claim.

(30) INCOME TAX LIABILITIES

Income tax liabilities as of December 31, 2023, related in particular to obligations to the tax authorities in Germany and Singapore.

(31) PENSION OBLIGATIONS

DB Group grants post-employment benefits to its employees in numerous countries. The form of the pension commitments depends on the legal, economic and tax conditions applicable in the particular country.

In DB Group, there are defined benefit as well as defined contribution retirement pension systems. The defined benefit commitments are assessed and accounted for in accordance with IAS 19. Major pension obligations exist only in Germany and in the United Kingdom. For this reason, only these pension obligations are described in greater detail in the following.

Germany

DB Group's pension obligations in Germany apply to both civil servants and employees.

After they retire, civil servants assigned to DB Group companies receive retirement benefits from the Federal Railway Fund (Bundeseisenbahnvermögen; BEV) under the Civil Servants Benefits Act (Beamtenversorgungsgesetz).

Only while the assigned civil servants are actively working for DB Group are payments made to the Federal Railway Fund as part of a pro forma settlement in the same way as for newly recruited employees (Section 21 (1) DBGrG). This also includes theoretical amounts for contributions to statutory pension insurance schemes as well as theoretical costs in accordance with the collective bargaining agreements regarding the additional company pension scheme for employees of DB AG (Tarifvertrag über die betriebliche Zusatzversorgung; ZVersTV) and company pension plan (Tarifvertrag über die betriebliche Altersvorsorge; bAV-TV) of the employees of DB AG. The payments made to the Federal Railway Fund for retirement pensions of civil servants are defined contribution retirement schemes.

The pension obligations with regard to employees mainly relate to the following:

a) Employees who were employed by Deutsche Bundesbahn before DB AG was established (January 1, 1994) enjoy supplementary benefits in view of their former membership of the public sector. The employees are entitled to benefits from this additional pension insurance from Deutsche Rentenversicherung Knappschaft-Bahn-See (KBS). As an official authority, KBS has not only assumed responsibility for managing and paying the statutory pension for DB Group employees; it also continues the additional pension insurance for the transferred employees who are beneficiaries.

During the active phase of the employment agreement, a pro forma refund of expenses is also provided to the Federal Railway Fund for these employees. When the employees retire, this payment is no longer made to the Federal Railway Fund.

The Federal Railway Fund bears the costs of these additional benefits, less the contribution made by the employees themselves (Section 14 (2) DBGrG). Accordingly, DB AG does not set aside any provisions for these public sector benefits.

b) Employees of the former Deutsche Reichsbahn and employees who were recruited after January 1, 1994, and before December 31, 2021, receive an additional company pension from DB AG within the framework of the ZVersTV. This supplementary company pension is a defined benefit scheme, which is linked to salary and length of service. The current pension benefits are adjusted every year in line with the regulations of the Company Pensions Act (Betriebsrentengesetz). Retirement benefits, invalidity benefits and benefits to surviving dependents are provided in the form of a lifetime pension. No plan assets are created for this scheme.

In addition, the employees in most Group companies receive a monthly contribution to the company pension plan in the amount of 3.3% of the employee's monthly standard salary as well as of most of the salary elements paid in the month. The monthly contribution is paid into a pension plan (DEVK-Pensionsfonds). It is not necessary for provisions to be created for this purpose.

c) Various defined benefit pension obligations exist with regard to executives in DB Group who were granted an executive commitment before January 1, 2007. The extent of the benefits depend on the length of service and the salary of the beneficiary. In general, retirement benefits, invalidity benefits and benefits to surviving dependents are provided in the form of a lifetime pension. With the exception of a small number of reinsurance policies, there are no plan assets.

d) Executives of DB Group who were granted an executive commitment after December 31, 2006, are provided with a retirement benefit scheme in the form of a defined contribution commitment. For this purpose, a benefit module is calculated in each year of service, depending on the salary and age of the beneficiaries. These benefits are financed by way of a contractual trust arrangement (CTA), namely Deutsche Bahn Pension Trust e.V. The extent of the benefits depends on the yield of the CTA, whereby a minimum return is guaranteed (guarantees up to and including 2014: 2.25% p.a.; guarantees from 2015 onwards: only maintenance of contribution). To avoid longevity risks, the benefits are granted in the form of a five-year installment. The assets of the CTA are classified as plan assets. The pension obligation is covered by the plan assets on the assumption that the CTA produces a corresponding performance, thus minimizing investment risks. There are no legal or regulatory obligations requiring Deutsche Bahn Pension Trust e.V. to make minimum payments into the scheme. The contributions are invested in line with the fundamental assumption that the benefit commitment is guaranteed by a corresponding guarantee element. For each payment relating to an individual beneficiary, an age-related amount is invested in prime zero bonds. The investment amount remaining after the payment has been made into the guarantee element is mainly invested in passively managed European equity and bond funds (or equivalent products) with the aim of optimizing returns.

e) Executives are able to participate in a deferred compensation program. This employee-financed form of company pension plan constitutes a defined benefit obligation.

United Kingdom

a) The company pension scheme of DB Cargo (UK) Holdings Limited is essentially a defined benefit pension plan (linked to salary and length of service) within the British Railway Pension Scheme. The plan assets are managed by an independent trustee. The process of collating the data of members in the plan for the purpose of compliance with legal requirements in relation to the members of the plan is generally carried out every three years. As of the intermediate valuation dates, the obligations in the plan are measured on the basis of the correspondingly updated data. The pension plan is based on final salary, and lifetime pensions are provided as benefits. The pension obligations are covered by plan assets. Capital is invested by the trustee of the plan assets following liaison with DB Group.

b) The discontinued DB Arriva segment mainly comprises defined benefit pension commitments. Important defined benefit plans (related to salary and length of service) relate to employees of DB Arriva within the Railway Pension Scheme in the United Kingdom. These are sections other than the DB Cargo UK plan within the Railway Pension Scheme. The costs of the pension plans are reduced in a ratio of 60:40 (employer:employee) and accordingly recognized in the balance sheet. The pension plan is based on final salary, and lifetime pensions are provided as benefits. The corresponding pension obligations are essentially covered by plan assets. Capital is invested by the trustee of the plan assets following liaison with DB Group.

Some companies pay contributions within the framework of a franchise agreement to the British Railway Pension Scheme for employees employed for the duration of the agreement (franchise period). The obligations to these employees as well as the plan assets are completely disclosed after deduction of the element financed by the employees (40%). Within the framework of recognizing the effect of franchise agreements, the present value of the contributions payable for the duration of the franchise agreements for reducing a scheme deficit remains as a net liability recognized in the balance sheet. The current contributions to the benefit scheme are shown as personnel expenses.

In addition, individual companies of DB Arriva also issued defined contribution retirement benefit commitments to their employees. Under such arrangements, the employer does not enter into any obligations apart from paying contributions to an external benefit scheme. The extent of the future pension benefits depends exclusively on the amount of contributions paid to the external benefit scheme, including the income generated by investing these contributions.

In addition, some contributions have also been paid to social pension funds within the context of statutory regulations (government schemes).

Critical estimations and assessments

In the case of the defined benefit pension obligations in Germany and abroad, the actuarial risks are borne by DB Group. Actuarial methods have been used for measuring defined benefit pension commitments as well as benefit commitments which are similar to pensions and the resultant expenses and income. The valuations are based on actuarial assumptions. There are the following actuarial risks which are considered to be typical for companies with defined benefit schemes:

- ***Interest risk:*** *The discount factors which are used reflect the interest rates (giving due consideration to the duration of the underlying obligation) which are achieved on the balance sheet date for high-quality fixed-interest senior bonds with a corresponding duration. A change in the discount rate results in a change in the present value of the total obligation (DBO).*
- ***Inflation risk:*** *Part of the pension obligations, particularly as a result of adjustments to current pensions, is linked to the development of inflation.*
- ***Longevity risk:*** *A longevity risk may occur in the form of extended periods in which pensions are paid out as a result of an increase in life expectancy in future.*
- ***Investment risk:*** *In the case of externally financed pension plans, the values of the corresponding plan assets or the refund claims are based on the fair values as of the balance sheet date. The capital investment is exposed to numerous risks, which may have an impact on the present value recognized for the plan assets. In the case of pension schemes with an obligation to pay into the scheme, the amount of future contributions may be affected by the investment risk.*

Key assumptions for expenses and income attributable to pension commitments and benefit commitments similar to pensions are to some extent based on current market conditions. Expenses and income relating to pension commitments and benefit commitments similar to pensions may change as a result of changes to these underlying key assumptions.

The figures stated for pension provisions in the balance sheet are detailed in the following table:

	Germany		Europe (excluding Germany)		Rest of world		**Total**	
AS OF DEC 31 / € million	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	**2022**
Commitments for funded benefits	581	339	1,653	3,943	38	40	**2,272**	**4,322**
Commitments for unfunded benefits	3,308	2,782	50	58	13	11	**3,371**	**2,851**
Total obligations	**3,889**	**3,121**	**1,703**	**4,001**	**51**	**51**	**5,643**	**7,173**
Fair value of the plan assets	- 555	- 271	- 1,723	- 3,949	- 32	- 33	**- 2,310**	**- 4,253**
Effects due to cost sharing	–	–	- 6	- 34	–	–	**- 6**	**- 34**
Effects due to franchise agreements	–	–	0	- 34	–	–	**0**	**- 34**
Amount not recognized as an asset as a result of the IAS 19.64 restriction	54	–	–	0	–	–	**54**	**0**
Asset recorded on the balance sheet as receivables from plan assets	–	–	111	118	–	–	**111**	**118**
Net obligations recognized in the balance sheet	**3,388**	**2,850**	**85**	**102**	**19**	**18**	**3,492**	**2,970**

The total pension commitment has developed as follows:

	Germany		Europe (excluding Germany)		Rest of world		**Total**	
€ million	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	**2022**
Commitments as of Jan 1	3,121	4,795	4,001	6,659	51	76	**7,173**	**11,530**
Service cost, excluding employee contributions	117	189	36	48	2	3	**155**	**240**
Employee contributions	3	3	24	25	1	0	**28**	**28**
Interest expense	123	52	162	92	2	1	**287**	**145**
Payments	- 108	- 98	- 178	- 192	- 4	- 7	**- 290**	**- 297**
thereof pension payments	- 108	- 94	- 178	- 184	- 4	- 7	**- 290**	**- 285**
thereof payments for settlements	–	- 4	–	- 8	–	–	**–**	**- 12**
Past service costs and profit or losses from settlements	5	4	- 3	- 2	0	0	**2**	**2**
Transfers	181	1	- 2,541	0	0	–	**- 2,360**	**1**
Changes in the scope of consolidation	–	- 8	0	- 18	–	–	**0**	**- 26**
thereof additions to scope of consolidation	–	–	–	–	–	–	**–**	**–**
thereof disposals from scope of consolidation	–	- 8	0	- 18	–	–	**0**	**- 26**
Actuarial gains (-) / losses (+)	447	- 1,817	116	- 2,370	–	- 22	**563**	**- 4,209**
from revaluations based on experience	- 2	- 125	95	485	- 4	0	**89**	**360**
from changes in demographic assumptions	- 4	- 2	- 48	- 38	1	- 1	**- 51**	**- 41**
from changes in financial assumptions	453	- 1,690	69	- 2,817	3	- 21	**525**	**- 4,528**
Exchange rate effects	–	–	86	- 241	- 1	0	**85**	**- 241**
Scope of commitments as of Dec 31	**3,889**	**3,121**	**1,703**	**4,001**	**51**	**51**	**5,643**	**7,173**

The transfers in the Europe column (excluding Germany) concerned the reclassification of pension provisions of the former DB Arriva segment into liabilities related to assets held for sale.

The development of the plan assets is detailed in the following overview:

	Germany		Europe (excluding Germany)		Rest of world		**Total**	
€ million	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	**2022**
Fair value of plan assets as of Jan 1	271	328	3,949	5,207	33	40	**4,253**	**5,575**
Employer contributions	37	30	73	79	2	2	**112**	**111**
Employee contributions	0	1	24	25	0	0	**24**	**26**
Notional return from plan assets	17	4	165	86	1	0	**183**	**90**
Payments	- 18	- 5	- 171	- 185	- 3	- 7	**- 192**	**- 197**
thereof pension payments	- 18	- 5	- 171	- 177	- 3	- 7	**- 192**	**- 189**
thereof payments for settlements	–	–	–	- 8	–	–	**–**	**- 8**
Transfers	236	–	- 2,468	–	0	–	**- 2,232**	**–**
Changes in the scope of consolidation	–	0	–	- 13	–	–	**–**	**- 13**
Revaluation	12	- 87	75	- 1,016	0	- 2	**87**	**- 1,105**
Administrative costs: costs of pension assurance	–	–	- 8	- 10	- 1	0	**- 9**	**- 10**
Exchange rate effects	–	–	84	- 224	0	0	**84**	**- 224**
Fair value of plan assets as of Dec 31	**555**	**271**	**1,723**	**3,949**	**32**	**33**	**2,310**	**4,253**

The transfers in the Europe (excluding Germany) column related almost exclusively to plan assets in the former DB Arriva segment.

The reported plan assets are broken down as follows:

	Germany		Europe (excluding Germany)		Rest of world		**Total**	
AS OF DEC 31 / € million	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	**2022**
Stocks and other securities	24	12	377	1,866	8	10	**409**	**1,888**
thereof with market price listing	24	12	377	1,866	8	10	**409**	**1,888**
Interest-bearing securities	190	158	1,190	1,426	22	21	**1,402**	**1,605**
thereof with market price listing	190	158	1,190	1,426	22	21	**1,402**	**1,605**
Reinsurance	66	68	98	96	–	–	**164**	**164**
thereof with market price listing	66	68	91	82	–	–	**157**	**150**
thereof without market price listing	–	–	7	14	–	–	**7**	**14**
Private equity	–	–	76	158	–	–	**76**	**158**
thereof without market price listing	–	–	76	158	–	–	**76**	**158**
Investments in infrastructure	–	–	1	167	–	–	**1**	**167**
thereof with market price listing	–	–	1	167	–	–	**1**	**167**
Cash and other assets	275	33	- 19	236	2	2	**258**	**271**
thereof with market price listing	41	33	- 28	69	0	0	**13**	**102**
thereof without market price listing	234	–	9	167	2	2	**245**	**169**
	555	**271**	**1,723**	**3,949**	**32**	**33**	**2,310**	**4,253**
thereof assets recorded as receivables from plan assets	–	–	- 111	- 118	0	–	**- 111**	**- 118**
	555	**271**	**1,612**	**3,831**	**32**	**33**	**2,199**	**4,135**

Changes in the net pension provisions are detailed in the following:

	Germany		Europe (excluding Germany)		Rest of world		**Total**	
€ million	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	**2022**
Provision as of Jan 1	2,850	4,467	102	528	18	36	**2,970**	**5,031**
Pension expenses	232	243	38	62	5	4	**275**	**309**
thereof service cost	117	189	36	48	2	3	**155**	**240**
thereof employee contributions	2	2	–	–	1	–	**3**	**2**
thereof interest income and interest expenses	108	48	- 3	6	1	1	**106**	**55**
thereof administrative expenses	–	–	8	10	1	0	**9**	**10**
thereof past service costs and profits or losses from settlements	5	4	- 3	- 2	0	0	**2**	**2**
Employer contributions	- 36	- 30	- 73	- 79	- 2	- 2	**- 111**	**- 111**
Payments	- 90	- 93	- 7	- 7	- 1	0	**- 98**	**- 100**
thereof pension payments	- 90	- 89	- 7	- 7	- 1	0	**- 98**	**- 96**
thereof payments for settlements	–	- 4	–	0	–	–	**–**	**- 4**
Transfers	5	1	11	0	0	–	**16**	**1**
Changes in the scope of consolidation	–	- 8	0	- 5	–	–	**0**	**- 13**
thereof additions to scope of consolidation	–	–	–	–	–	–	**–**	**–**
thereof disposals from scope of consolidation	–	- 8	0	- 5	–	–	**0**	**- 13**
Revaluation	427	- 1,730	21	- 414	0	- 20	**448**	**- 2,164**
from revaluations based on experience	- 2	- 125	65	405	- 4	0	**59**	**280**
from changes in demographic assumptions	- 4	- 2	- 37	- 36	0	- 1	**- 41**	**- 39**
from changes in financial assumptions	453	- 1,690	54	- 1,756	3	- 21	**510**	**- 3,467**
Difference between actual income and theoretical income from plan assets	- 12	87	- 61	973	1	2	**- 72**	**1,062**
Changes to the asset limit	- 8	–	0	0	–	–	**- 8**	**0**
Exchange rate effects	–	–	2	- 6	- 1	0	**1**	**- 6**
Change in recognized assets	–	–	- 9	23	–	–	**- 9**	**23**
Provision as of Dec 31	**3,388**	**2,850**	**85**	**102**	**19**	**18**	**3,492**	**2,970**

The actuarial parameters used for assessing the value of most of the pension provision are set out in the following:

%	2023	2022
INTEREST RATE		
Germany and rest of world (excluding United Kingdom)	3.20	3.80
United Kingdom	4.50	4.75
EXPECTED RATE OF SALARY INCREASES		
Germany and rest of world (excluding United Kingdom)	4.10	4.10
United Kingdom	3.10	3.30
EXPECTED RATE OF PENSION INCREASE (DEPENDING ON GROUP OF PERSONNEL)		
Germany and rest of world (excluding United Kingdom)	2.25	2.00
United Kingdom	2.10	2.30

The 2018 G mortality tables of Professor Dr. Klaus Heubeck have been used without changes for valuing the pension obligations for the German Group companies. Country- or benefit-scheme-specific mortality tables have been used for valuing the pension obligations of the other Group companies.

Sensitivities and additional information:

AS OF DEC 31 / € million	2023	2022
Total obligation for an interest rate increased by 1 percentage point	4,905	6,225
Total obligation for an interest rate reduced by 1 percentage point	6,578	8,364
Total obligation with salary growth increased by 0.5 %	5,667	7,239
Total obligation for pensions increased by 0.5 %	5,930	7,473
Total obligation for life expectancy increased by 1 year	5,792	7,411
Total obligations	5,644	7,173
thereof active beneficiaries	2,504	3,027
thereof former employees	798	1,245
thereof pensioners	2,341	2,901
Expected payments into plan assets for next year	63	110
Direct pension payments for next year	128	116
Duration of benefit obligation (years)	15.4	15.5

The sensitivity figures have been established using the method which was used for calculating the extent of the commitment. One assumption was modified while the other assumptions were retained, which means that interdependencies between the individual assumptions were disregarded.

(32) OTHER PROVISIONS

Other provisions are recognized if a legal or constructive commitment exists as a result of a past event, the probability of its utilization is greater than 50 % and it will lead to an outflow of resources, and if a reliable estimate of the extent of the commitment can be made (IAS 37 Provisions, Contingent Liabilities and Contingent Assets).

Non-current provisions are discounted using market interest rates. Provisions for environmental protection for the rehabilitation of existing ecological damage are discounted on the basis of real interest rates, which are adjusted to reflect the risk and the period until fulfillment. The difference between the nominal value of the expected outflows and the present value recognized for the provisions for environmental protection of DB AG for transferred liabilities for the elimination of existing damage from the time previous to the foundation of DB AG is stated under deferred items, and represents the interest benefit resulting from the longer-term release of the provision. The compounding expense attributable to other provisions is recognized in net interest income. Provisions for impending losses are measured as the lower of the amount of the expected costs for fulfilling the agreement and the expected costs for terminating the agreement.

Critical estimations and assessments

The process of determining all types of provisions is associated with estimates regarding the extent and/or timing of obligations.

The provisions for environmental protection relate primarily to the commitment of DB AG to remedy the ecological burdens which arose before January 1, 1994, on the land of the former Deutsche Bundesbahn and the former Deutsche Reichsbahn. Ecological burdens are defined as contamination of soil and groundwater that requires rehabilitation and that pose risks, considerable disadvantages or considerable problems for private individuals or society at large. The legal basis for deriving remediation obligations is summarized in the soil and water laws of the Federal Government and the Federal states. The process of dealing with ecological burdens also comprises necessary rehabilitation measures for existing sewers, in order to avoid soil and groundwater contamination caused by leaks from the sewer system, as well as measures for shutting down old landfill sites.

The provision has been calculated on the basis of a discounting method using the present value, where remediation measures are probable, the remediation costs can be reliably estimated and no future benefit is expected to be derived from these measures.

The estimation of future remediation costs is subject to various factors. Major drivers in this respect can be the application of innovative rehabilitation measures, changes in legal conditions and also the development in market prices for disposing of ecological burdens. In order to make a realistic assessment of the remediation costs in individual cases, the working programs have included adjustments to cost estimates as a result of greater knowledge and official agreements in the successive processing stages.

For the valuation of provisions as of the balance sheet date, the investigation and rehabilitation obligations which are currently known have been used as the basis for estimating the expected costs in relation to the current price level. The provision is discounted on the basis of expected cash outflows, using a risk-adjusted interest rate of 0.18 % (as of Dec 31, 2022: 0.09 %).

Provisions for impending losses from pending transactions are created if a loss is probable and can be reliably estimated. In view of the uncertainty associated with this assessment, the actual losses may differ from the original estimates and may thus also differ from the amount of the provision. In DB Group, such uncertainty results particularly from the estimation of future income from transport contracts, the associated material- and personnel-related expenses as well as any penalty payments. Changes in the estimations of these impending losses from pending transactions may have a considerable impact on the future results of operations.

The provisions for decommissioning are measured mainly on the basis of estimations that, for decommissioning and disposal costs, are derived mainly from sector-specific appraisals. The provisions are shown with their discounted settlement amount at the point at which they originate.

Movements in other provisions are shown in the following:

€ million	Personnel-related provisions 2023	Personnel-related provisions 2022	Revenue discounts 2023	Revenue discounts 2022	Provisions for impending losses 2023	Provisions for impending losses 2022	Decommissioning obligations 2023	Decommissioning obligations 2022	Environmental protection 2023	Environmental protection 2022	Other provisions 2023	Other provisions 2022	Total 2023	Total 2022
As of Jan 1	828	910	2,604	2,254	545	590	465	433	1,383	1,443	1,745	1,866	**7,570**	**7,496**
Currency translation effects	- 2	0	0	0	1	- 4	–	–	0	0	- 5	- 4	**- 6**	**- 8**
Changes in the scope of consolidation	0	- 5	–	- 24	0	–	–	–	–	–	0	10	**0**	**- 19**
thereof additions to scope of consolidation	–	0	–	–	–	–	–	–	–	–	–	19	**–**	**19**
thereof disposals from scope of consolidation	0	- 5	–	- 24	0	–	–	–	–	–	0	- 9	**0**	**- 38**
Amounts used	- 265	- 250	- 502	- 485	- 151	- 164	- 49	- 44	- 46	- 45	- 355	- 253	**- 1,368**	**- 1,241**
Reversals	- 52	- 83	- 286	- 202	- 38	- 38	- 10	- 8	0	0	- 217	- 217	**- 603**	**- 548**
Reclassifications	- 14	- 22	142	13	- 70	- 32	–	–	- 2	- 1	- 136	- 35	**- 80**	**- 77**
Additions	390	310	1,696	1,048	223	212	29	89	30	1	444	442	**2,812**	**2,102**
Compounding and discounting	13	- 32	–	–	7	- 19	- 4	- 5	- 12	- 15	4	- 64	**8**	**- 135**
As of Dec 31	**898**	**828**	**3,654**	**2,604**	**517**	**545**	**431**	**465**	**1,353**	**1,383**	**1,480**	**1,745**	**8,333**	**7,570**

The following table breaks down the other provisions into current and non-current amounts, and also details their estimated residual maturity:

€ million	Residual maturity: Up to 1 year	1 to 2 years	2 to 3 years	3 to 4 years	4 to 5 years	More than 5 years	Total more than 1 year	Total
AS OF DEC 31, 2023								
Personnel-related provisions	413	137	103	62	45	138	**485**	**898**
Revenue discounts	3,654	–	–	–	–	–	–	**3,654**
Provisions for impending losses	220	126	60	44	25	42	**297**	**517**
Decommissioning commitments	53	49	44	45	45	195	**378**	**431**
Environmental protection	63	61	67	54	62	1,046	**1,290**	**1,353**
Other provisions	1,053	85	122	70	59	91	**427**	**1,480**
Total	**5,456**	**458**	**396**	**275**	**236**	**1,512**	**2,877**	**8,333**
AS OF DEC 31, 2022								
Personnel-related provisions	336	143	98	62	46	143	**492**	**828**
Revenue discounts	2,604	–	–	–	–	–	–	**2,604**
Provisions for impending losses	241	97	93	43	35	36	**304**	**545**
Decommissioning commitments	79	45	45	45	45	206	**386**	**465**
Environmental protection	55	58	59	57	52	1,102	**1,328**	**1,383**
Other provisions	1,295	106	99	61	60	124	**450**	**1,745**
Total	**4,610**	**449**	**394**	**268**	**238**	**1,611**	**2,960**	**7,570**

Personnel-related provisions

Benefits arising on the occasion of the termination of employment agreements (severance packages) become payable if employees are released from their duties under the terms of early retirement or part-time working in the lead-up to retirement scheme before the regular retirement age (which would not involve any reduction of retirement benefits) or if employees voluntarily terminate their employment contract in return for a severance package. Severance payments are recognized if there is a demonstrable commitment either to terminate the employment agreements of current employees in accordance with a detailed formal plan that cannot be reversed or to make severance payments if the employment contract is voluntarily terminated by employees within the framework of employment contract termination agreements.

Severance package commitments for agreements made as of the balance sheet date are recognized as other liabilities and – if they are not yet included in individual agreements and if they are part of a restructuring commitment in accordance with IAS 37 – are stated as other provisions.

Individual contractual agreements on part-time working in the lead-up to retirement are usually based on the block model. The top-up amounts paid in addition to salary by DB Group during the part-time working in the lead-up to retirement period as well as additional contributions to the statutory pension insurance scheme are collected in installments up to the end of the active phase of the part-time working in the lead-up to retirement period and are recognized as provisions in accordance with IAS 19. The compensation backlog (plus the employer's contributions to social security insurance) for the additional work performed during the employment phase is also shown with the present pro rata present value as another non-current employee benefit.

If certain conditions are satisfied, under the collective bargaining agreement, DB Group offers its employees the opportunity to reduce their working hours to a level below their regular working hours (special semi-retirement arrangement). In these cases, the number of working hours is reduced to 81% of the reference or regular working hours, while the employees' remuneration is topped up to 90%. Payments into the company pension plan are granted on the basis of 100% of the reference or regular working hours.

The personnel-related provisions were structured as follows:

AS OF DEC 31 / € million	2023	2022
Personnel contractual commitments	454	385
Early retirement and part-time working in the lead-up to retirement obligations	188	184
Service anniversary provisions	89	92
Other	167	167
Total	**898**	**828**

The personnel-related provisions included commitments arising from employment agreements that result from the entitlement of many employees under labor law and the willingness of DB AG not to terminate employment contracts for operational reasons. In such cases, DB Group will incur losses in the form of personnel expenses which will have to be borne until the employment contract is terminated or the employee is placed with another company; no reciprocal benefit will be provided in return for these expenses (commitment surpluses relating to employment agreements). In addition, personnel contractual commitments included restructuring provisions. Amounting to € 93 million, these affected the DB Schenker segment and in particular covered expenses due to the centralization of financial functions. In addition, provisions for the transformation of DB Cargo amounting to € 23 million were formed.

A figure of about € 330 million was allocated to the provision for obligation surpluses from employment arrangements as of December 31, 2023 (as of December 31, 2022: € 346 million); this item accounted for a considerable percentage of the personnel-related provisions in DB Group. This provision recognizes the personnel-related commitments of DB AG for the employment guarantee included in the collective bargaining agreement designed to address demographic change (Demografietarifvertrag; DemografieTV).

The provisions for part-time working in the lead-up to retirement and early retirement commitments take into account the commitments arising from collective bargaining agreements, and have been calculated on the basis of actuarial reports. The regulations of DemografieTV on special part-time work in old age included an amount of € 90 million (as of December 31, 2022: € 86 million) for the entitlement of employees with many years of service and also many years of shift working to enjoy special semi-retirement benefits.

Revenue discounts

The increase in revenue discounts resulted mainly from contractual penalties due to train cancellations, delays and quality defects due in particular to the extensive construction work in the area of infrastructure, increased sickness rates and strike days as part of industrial action measures, as well as from the special settlement procedure for the reimbursement of fare losses by the German Federal Government and states in connection with the introduction of the Germany-Ticket on May 1, 2023.

Provisions for impending losses

The provisions for impending losses mainly relate to transport contracts in which commitment surpluses build up over the duration of the contracts. The additions related mainly to DB Regional.

As of December 31, 2023, an amount of € 91 million (as of December 31, 2022: € 164 million; as of December 31, 2022: € 8 million to DB Arriva) was added to DB Regional.

Decommissioning provisions

The provisions for decommissioning commitments referred to the pro rata decommissioning commitment in relation to a joint power generation plant. The valuation of the provision considered a standard cost increase rate in this sector of 2.96 % (as of December 31, 2022: 3.25 %) and a nominal interest rate of 3.54 % (as of December 31, 2022: 3.00 %).

Provisions for environmental protection

€ 1,339 million of the provision for environmental protection (as of December 31, 2022: € 1,374 million) is attributable to DB AG. The change of € 35 million resulted from the utilization of restructuring obligations (€ –44 million), an addition (€ +21 million) and an interest effect (€ +12 million). In order to take account of the remedial action obligations recognized in the provisions for environmental protection, DB AG has set up various programs, including the following:

- the 4-stage program for soil remediation
- the 3-stage sewerage network program
- the 2-stage landfill shut-down program

The structured processing ensures that the procedure for identifying and assessing risks and taking appropriate remedial action is consistent with all legal requirements and optimized in terms of costs.

In the 4-stage soil decontamination program, existing soil and / or groundwater contamination is localized via the stages “historic exploration,” “orienting investigation” and “detail investigation,” and is assessed on the basis of the relevant statutory testing criteria. If any negative change in soil conditions or ecological burdens is identified, implementation of the necessary remedial action is planned by the steps feasibility study, model planning and approval planning. The process of carrying out the remedial action is supported by a binding remedial action plan or a public-sector agreement with defined remedial action objectives.

The 3-stage sewerage network program aims to remedy any contamination of soil and / or groundwater resulting from leaks. The program also involves a plan to optimize the existing sewerage network to ensure that it is capable of meeting future requirements and to ensure that the need to take remedial action can be limited to this future network. Any network that is not necessary for operation will be decommissioned. The sewerage program will be carried out via the stage 1 “recording,” stage 2 “inspection” and stage 3 “remedial action / decommissioning.” Legal requirements are set out in the Water Resources Accounting Act (Wasserhaushaltsgesetz; WHG), the Water Acts of the Federal states and the own control regulations.

The two-stage program “shut-down of landfill sites” systematically records all legacy landfill sites operated by DB Group (stage 1). The requirements resulting from the Recycling Accounting Act (Kreislaufwirtschaftsgesetz; KrWG) and the Landfill Site Regulation (Deponieverordnung; DepV) are used as the basis for planning and implementing the processes of decommissioning and recultivating the areas (stage 2a) and the subsequent maintenance (stage 2b).

The provision was revalued in the year under review. This resulted in the transfer of € 21 million.

Other provisions

The other provisions comprised provisions for project risks, compensation for damages, real estate risks, decommissioning and demolition obligations, guarantee and warranty obligations, insurance, liabilities, third-party obligations for maintenance and other tax risks as well as numerous other issues which individually are of minor significance.

(33) DEFERRED ITEMS

DB Group receives various public-sector grants, which are provided in relation to specific assets or on the basis of a specific performance. The grants are recognized in the balance sheet as soon as it is certain that they will be provided and as soon as the conditions necessary for receiving the grants have been satisfied. The grants related to assets, and in particular investment grants, are deducted directly from the assets for which the grants have been received. The interest benefit (spread between nominal value and present value) of interest-free loans is deferred on the basis of the contractual grant conditions. The income from pro rata reversal of these accruals is shown as other operating income.

The deferred items contained the following:

AS OF DEC 31 / € million	2023	2022
Deferred public-sector grants	111	137
Deferred income	862	904
Other	390	384
Total	**1,363**	**1,425**
Non-current share	598	526
Current share	765	899

Notes to the statement of cash flows

The statement of cash flows shows the changes in cash and cash equivalents in the year under review, and was prepared in accordance with IAS 7 (Statement of Cash Flows). The indirect method has been used for showing cash flow from regular business operations.

The following explanations relate to the continuing operations:

- Interest income and interest payments, dividend income and tax payments are stated under operating activities.
- Cash and cash equivalents include the cash and cash equivalents stated in the balance sheet with a residual maturity of up to three months (cash in hand, cash at banks as well as security investments). As of December 31, 2023, of the total figure stated for cash and cash equivalents, € 6 million (as of December 31, 2022: € 1,277 million) was restricted. In the previous year, restricted cash balances of companies operating at country level were shown in certain countries from which the transfer of money appeared difficult. Our experience has now shown that transfers can be made on a regular basis, meaning that the cash balances of these companies operating at country level are no longer shown as restricted cash.
- Current receivables due from banks (as of December 31, 2023: € 228 million; as of December 31, 2022: € 142 million), resulting from collateral agreements in connection with financial futures, are shown under current other receivables and assets. Because it is becoming increasingly difficult to predict the performance of financial futures, it can only be assumed to a limited extent that such hedges represent current liquidity.

Cash flow from the discontinued operations relates to the former DB Arriva segment.

CASH FLOW FROM OPERATING ACTIVITIES

The cash flow from operating activities is calculated by adjusting the net profit/loss for the period before taxes by non-cash amounts (in particular additions to and reversals of other provisions) and by adding other changes in current assets, in liabilities (excluding financial debt) and provisions. The cash inflow from operating activities is then established after due consideration is given to interest and tax payments.

In accordance with IFRS 16, outflows related to leases are recognized in cash flow from financing activities if they are redemption payments, and are recognized in cash flow from operating activities if they are payments of interest.

The cash inflow from operating activities has decreased considerably in the year under review. This was due to a significantly reduced net profit for the year, adjusted for increased depreciation on property, plant and equipment and intangible assets, lower trade liabilities and significantly increased non-cash expenses.

Non-cash expenses and income increased in the year under review, particularly as a result of a significantly increased balance of expenses from additions to and reversals of other provisions (€ +926 million).

CASH FLOW FROM INVESTING ACTIVITIES

The cash flow from investing activities is calculated as the cash inflow provided by the disposal of property, plant and equipment and intangible assets as well as by investment grants, and the cash outflow for capital expenditures on property, plant and equipment and intangible assets, as well as cash flow from the addition and disposal of non-current financial assets.

Payments received from investment grants are shown under investing activities due to the close connection between investment grants received and the payments made for investments in property, plant and equipment assets.

The increase in cash outflows from investing activities was particularly the result of a significant increase in payments for investments in property, plant and equipment and intangible assets (€ +2,119 million/+15.0%) and an increase in the payment balance from investment grants (€ +701 million; +8.3%). This was countered by payments for investments in financial assets (€ –565 million) and payments for the acquisition of shares in consolidated companies (€ –272 million). On balance, inflows and outflows for investments in financial assets included outflows of € 243 million (previous year: € 326 million) for investments from the acquisition of transport concessions (IFRIC 12).

When changes take place in the scope of consolidation as a result of the acquisition or sale of companies, the acquisition price paid (excluding any liabilities that are transferred) less the acquired or sold financial resources are stated as cash flow from investing activities.

CASH FLOW FROM FINANCING ACTIVITIES

The cash flow from financing activities is due to additions to capital, the net inflows and outflows attributable to senior bonds issued, changes in bank borrowings and loans as well as outflows for the redemption of finance leasing liabilities and interest-free loans.