Notes to the statement of income

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

Services provided by DB Group are normally completed within a few hours/days. Accordingly, with the exception of season tickets, revenues in regional and long-distance services are recognized at the time at which the tickets are sold. Exceptions in this respect are the segments DB Regional and DB Arriva, where order processing in the form of long-term transport contracts concluded with the ordering organizations of the Federal states in Germany and the franchisors in other European countries are very important for the development of business. Contractual relations with clients covering several years also exist in the contract logistics line of business in the DB Schenker segment, which accounts for about 6% of Group revenues.

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

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

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

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

(1) Revenues

(€ million)	2018	2017
Revenues from freight and passenger transport services	39,490	38,293
thereof concession fees for rail transport	6,472	4,761
Revenues from operating infrastructure	1,760	1,704
Revenues from letting and leasing	437	432
Revenues from sales of products	1,393	1,339
Other revenues	1,057	1,004
Revenue reductions	-72	-79
Total	**44,065**	**42,693**
± Special items	-41	11
± Effects from changes in scope of consolidation	-45	-1
± Effects from changes in exchange rates	507	-
Total – comparable	**44,486**	**42,703**

The revenues from freight and passenger transport services were generated mainly by companies operating in the segments DB Schenker, DB Regional, DB Arriva and DB Long-Distance. Revenues from operating infrastructure relate to the segments DB Netze Track and DB Netze Stations. Revenues generated by product sales were recorded mainly in the segment DB Netze Energy, and rental and leasing revenues were mainly generated in the segment DB Netze Stations. Other revenues relate to virtually all segments.

Compared with the previous year, there has been a change to the disclosure of the "thereof" item "concession fees for rail transport" from gross contracts at DB Regional. In the previous year, the concession fees disclosed as part of gross contracts were reduced by allowable fare revenues. In the year under review, fees of DB Regional from gross contracts are disclosed entirely as concession fees. If the same disclosure method had been used, the previous year figure would have been € 921 million higher. This has not changed the revenues from freight and passenger transport services.

In the year under review, revenues increased by € 1,372 million (+3.2%) to € 44,065 million. This revenue growth compared with the previous year is mainly attributable to DB Long-Distance, DB Regional and DB Schenker. DB Schenker reflects the impact of higher transport volumes as well as higher air freight rates on the procurement side. These cost increases can be passed on to customers to a certain extent. The higher revenues of DB Long-Distance are attributable to considerably higher volume sold as well as a higher specific revenue rate. As a result of higher concession fees (adjusted by the change in disclosure), DB Regional is up on the previous year, due to various factors, including the dynamization of concession fees. DB Arriva has also outperformed the previous year in terms of revenues, mainly as a result of higher concession fees at Arriva Rail North.

Revenues include negative exchange rate effects of € 507 million, mainly affecting DB Schenker. These negative exchange rate effects are mainly attributable to the weaker development (compared with the previous year) of the Swedish krona and the US dollar.

Even when adjusted for special items, effects from changes in the scope of consolidation and exchange rates, the revenues are higher than the previous year figure (€ +1,783 million, +4.2%).

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

Revenue reductions of long-term transport contracts (contractual penalties) are netted directly with the revenues of freight and passenger services. The separately disclosed revenue reductions (€ −72 million) also relate mainly to revenues of freight and passenger services (for instance passenger rights).

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

Secured order book (nominal values) as of Dec 31 (€ million)	2018
Transport contracts	62,222
Logistics contracts [1]	208
Other contracts [1]	114
Total	**62,544**

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

Most of the secured order book will be fulfilled within a period of ten years, with percentages declining over a period of time **(order book in passenger transport 114).**

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

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

Claims relating to contractual assets[1] of € 29 million are recognized together with the other receivables and assets and have developed as follows:

Contractual assets (€ million)	2018
As of Jan 1	96
Additions	113
Impairments	-1
Changes due to changed terms of payment	-
Fulfillment/payment	-118
Other changes	-61
As of Dec 31	**29**

A figure of € 12 million is attributable to long-term contractual assets.

The contractual liabilities in DB Group include advance payments received as well as other payments received in advance in relation to revenues for subsequent periods (for example for season tickets). Obligations from contractual liabilities of € 1,266 million (thereof non-current € 40 million) are shown under the trade payables and deferred items and have developed as follows:

Contractual liabilities (€ million)	2018
As of Jan 1	1,158
Additions	3,157
Fulfillment of liabilities	-3,177
Other changes	128
As of Dec 31	**1,266**

Most of the fulfillment as of the balance sheet date relates to contractual liabilities which accrued in the year under review.

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

(2) Inventory changes and internally produced and capitalized assets

(€ million)	2018	2017
Inventory changes	15	-36
Other internally produced and capitalized assets	3,076	2,936
Total	**3,091**	**2,900**
± Special items	-	-
± Effects from changes in scope of consolidation	0	-
± Effects from changes in exchange rates	0	-
Total - comparable	**3,091**	**2,900**

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

(3) Other operating income

(€ million)	2018	2017
SERVICES FOR THIRD PARTIES AND SALE OF MATERIALS		
Income from maintenance and repair	5	20
Sale of materials and energy	123	112
Other services for third parties	505	530
	633	**662**
Leasing and rental income	181	182
Income from claims for damages and cost refunds	271	268
INCOME FROM FEDERAL GRANTS		
Federal compensation payments	114	92
Other investment grants	0	1
Income from release of deferred items	144	144
Other Federal grants	278	161
	536	**398**
Income from the disposal of property, plant and equipment and intangible assets	278	257
Income from the disposal of non-current financial instruments	56	20
Income from reversal of provisions	341	336
OTHER INCOME		
Income from third-party fees	38	51
Income from remediation of ecological burdens	51	47
Utilization of provisions for potential losses	71	55
Miscellaneous other income	542	678
	702	**831**
Total	**2,998**	**2,954**
± Special items	-136	-152
± Effects from changes in scope of consolidation	-3	-1
± Effects from changes in exchange rates	7	-
Total - comparable	**2,866**	**2,801**

Adjusted by special items, effects from changes in scope of consolidation and in exchange rates, other operating income is slightly higher than the previous year (€ +65 million). The increase in income from Federal grants is mainly attributable to the promotion of rail freight transport via Federal grants for train-path usage fees as well as higher compensation payments for level crossings. The decline in the miscellaneous other income is mainly attributable to the refund of the nuclear fuel tax in the previous year (€ −104 million).

(4) Cost of materials

(€ million)	2018	2017
EXPENSES FOR RAW MATERIALS AND SUPPLIES AND OF PURCHASED GOODS		
Energy expenses		
Electricity	1,872	1,771
Electricity tax	158	156
Diesel, other fuel	1,078	1,052
Other energies	233	205
Energy price derivatives	18	51
	3,359	**3,235**
Other supplies and purchased goods	571	552
Price and value adjustments for materials	-176	-91
	3,754	**3,696**
EXPENSES FOR PURCHASED SERVICES		
Purchased transport services	12,058	11,660
Cleaning, security, disposal, winter service	397	359
Commissions	171	161
Expenses for utilization of infrastructure		
Train-path usage	351	359
Station usage [1]	57	63
Use of local installations	14	13
	422	**435**
Other purchased services	1,047	953
	14,095	**13,568**
Expenses for maintenance and production	4,409	4,193
Total	**22,258**	**21,457**
± Special items	-4	-16
± Effects from changes in scope of consolidation	-15	0
± Effects from changes in exchange rates	317	-
Total – comparable	**22,556**	**21,441**

[1] Previous year's figure adjusted.

Compared with the previous year, the cost of materials has risen by € 801 million (+3.7%).

The increases in value recognized in cost of materials amount to € 64 million (previous year: value adjustments of € 24 million). The decline of € 88 million in the recognized value adjustments is due mainly to the change in estimate parameters.

The expenses for electricity have increased compared with the previous year as a result of higher energy prices.

The expenses for purchased services have increased considerably compared with the previous year (+3.9%). This increase is attributable to higher expenses for purchased transport services at DB Schenker resulting from higher transport volumes as well as higher freight rates.

The expenses for maintenance and carrying out construction measures and processing spare parts increased by 5.2% in the year under review.

(5) Personnel expenses and employees

(€ million)	2018	2017
WAGES AND SALARIES		
Employees	13,024	12,324
Civil servants assigned	1,012	1,058
	14,036	**13,382**
SOCIAL SECURITY EXPENSES		
Employees	2,402	2,268
Civil servants assigned	229	238
Expenses for adjusting staffing levels	151	282
Retirement benefit expenses	483	495
	3,265	**3,283**
Total	**17,301**	**16,665**
± Special items	-152	-302
± Effects from changes in scope of consolidation	-19	-3
± Effects from changes in exchange rates	104	-
Total – comparable	**17,234**	**16,360**

The figure stated for personnel expenses (social security contributions) includes expenses of € 1,182 million for defined contribution plans (previous year: € 1,121 million).

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

The retirement benefit expenses relate to active persons as well as persons who are no longer employed in DB Group or their surviving dependants. They are attributable primarily to service costs, employers' contributions to the company top-up benefit scheme as well as the contributions to Pensions-Sicherungs-Verein aG (pension backing association). The interest expense resulting from compounding the pension obligations and the expected income from plan assets is shown in financial result. For detailed explanations regarding the development of pension obligations, please refer to **Note (32) 220 ff.**

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

The increase in wages and salaries in Germany is mainly attributable to the elective model applicable since January 1, 2018 (linear increase of 2.6% in remuneration rates, six days more vacation or reduction of one hour in weekly working time) from the collective bargaining arrangement 2016/2017. The decision of the employees for 2.6% resulted in increased remuneration rates. The decision for six days more vacation or a reduction of one hour in weekly working time resulted in an increased personnel requirement and consequently in an increase in personnel. The one-off payment of € 1,000 per employee for the period October 2018 to June 2019 agreed in the collective bargaining agreement 2018/2019 also had an impact. It has been recognized for 2018 on a pro rata basis in personnel expenses.

In addition, the increase in the number of employees has also resulted in a considerable rise in personnel expenses.

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

	As of Dec 31		Annual average	
(FTE)	2018	2017	2018	2017
Employees	298,343	288,565	294,337	284,459
Civil servants	20,185	22,370	22,564	24,212
Employees	**318,528**	**310,935**	**316,901**	**308,671**
Trainees and dual degree students	11,053	10,983	9,695	9,857
Total	**329,581**	**321,918**	**326,596**	**318,528**

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

At the end of the year, the number of persons employed in DB Group was higher than at the end of the previous year. At the level of the segments, the increase in the number of employees is evident particularly at DB Schenker as a result of the continuing growth in the field of contract logistics and at DB Netze Track in the fields of maintenance and construction projects. There has also been an increase in the number of employees at DB Long-Distance and DB Cargo.

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

	As of Dec 31	
(NP)	2018	2017
Employees	310,443	300,391
Civil servants	21,125	22,990
Employees	**331,568**	**323,381**
Trainees and dual degree students	11,053	10,983
Total	**342,621**	**334,364**

(6) Depreciation and impairments

For property, plant and equipment, depreciation is taken to the income statement on a straight-line basis over the expected service life of the asset. The following useful-service lives for the main groups of property, plant and equipment are taken as a basis:

	Years
Permanent way structures, tunnels, bridges, railway crossings	15-100
Track infrastructure	13-30
Buildings, halls, roofs	10-75
Other structures	8-60
Signaling equipment	10-40
Telecommunications equipment	5-20
Traction current installations	10-40
Rolling stock	10-30
Other technical equipment, machinery and vehicles	5-40
Fixtures and fittings	3-15

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

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

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

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

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

Impairments of assets

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

Definition of cash-generating units

Goodwill impairment tests have to be carried out at the level of individual assets as part of the asset impairment test. If it is not possible to determine future cash flows, which are to a large extent independent, for an individual asset, so-called cash-generating units (CGUs) have to be formed as an aggregation of assets whose future cash flows depend on each other. Since the beginning of the 2016 financial year, the CGU structure is fully in line with the planning and reporting structure of DB Group. In the 2018 financial year, no adjustments were made to the CGU structure.

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

The impairment test for goodwill is carried out at the level of the CGU or group of CGUs to which the goodwill has been allocated. This has been equivalent to the operating segments since January 1, 2016. Significant goodwill currently exists in the CGUs DB Arriva and DB Schenker. With regard to the recognition of goodwill for each CGU, please also refer to the segment information according to business segments.

Method

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

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

The recoverable amount is defined as the higher of the fair value less costs of disposal and the value in use. In the impairment tests carried out in DB Group, the recoverable amount is represented by the value in use. The value in use is established as the present value of the free cash flows before interest and after tax attributable to the continuation of a CGU. A global tax rate of 30.5% has again been used in relation to EBIT (unchanged compared with the previous year). The forecast of cash flows reflects previous experience, and takes account of management expectations with regard to future market developments. These cash flow forecasts are based on the mid-term planning adopted by the Group Management Board of DB AG and which covers a planning horizon of five years. If cash flow forecasts are necessary beyond the five-year planning horizon, a sustainable free cash flow is derived from the forecast and is extrapolated on the basis of a growth rate related to the specific market development. As was the case in the previous year, an average growth rate of 1% per annum has been assumed. For the CGU DB Arriva, a growth rate of 1% has also been used since the 2018 financial year (previous year: 2%); a uniform assumption for growth has thus been made for all CGUs in DB Group.

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

Compared with the previous year, the cost of capital of DB Group has declined from 4.8% to 4.7%. Taking account of the typical tax rate of 30.5% in relation to EBIT, this is equivalent to a corresponding capitalization rate before tax of 6.8% (previous year: 7.0%).

A specific cost of capital rate is determined for passenger transport, freight transport and logistics as well as infrastructure.

The WACCs of the CGUs of the various segments which are applicable for the 2017 and 2018 annual financial statements are detailed in the following table:

	2018		2017	
(%)	**Before taxes**	**After taxes**	Before taxes	After taxes
DB Group	6.8	4.7	7.0	4.8
Passenger transport	6.9	4.8	7.3	5.1
Freight transport and logistics	8.5	5.9	8.6	6.0
Infrastructure	5.8	4.0	6.0	4.2

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

Asset impairment test

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

In addition, the process of establishing the service life disregards assets or future cash flows which result from major structural changes, disinvestment measures or extension investments. Resultant adjustments to the original plans relate mainly to the major new and expansion infrastructure projects, where it is assumed that the construction process will be completed beyond the mid-term (beyond 2023) and for which most of the planned own funds have not yet been invested. Accordingly, the project Stuttgart 21 also did not have to be taken into consideration for calculating the value in use (in accordance with IAS 36.44) because a major part of the capital expenditures had not been realized as of the balance sheet date and because the project is to be completed beyond the mid-term period. The cash flow forecasts take account of internal transfer prices on the basis of arm's length assessments of the companies involved. The published infrastructure prices are applicable for goods and services exchanged between transport and infrastructure segments; price increases in the period covered by the forecast have also been taken into consideration.

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

The impairment tests carried out in the period under review identified surplus cover for all CGUs.

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

Goodwill impairment test

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

The goodwill impairment tests carried out for the segments which are carrying goodwill did not identify any impairment requirement for the CGUs.

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

Critical assessments and appraisals

Impairment of cash-generating units (CGUs)

Within the framework of the impairment tests, the main assumptions which have an impact on the value of a CGU are reviewed in the form of standard sensitivity analyses.

DB Cargo is still facing major challenges from the market and the competition. Sustainable stabilization of the profit situation continues to be expected starting in the 2019 financial year.

Also infrastructure CGUs are still exposed to risks relating to the extent of long-term investment grants for replacement capital expenditures in the existing network and the related extent of own funds at the infrastructure companies. The investment grants included in mid-term planning are based on the Performance and Financing Agreement (Leistungs- und Finanzierungsvereinbarung; LuFV) II which has since been signed by the Federal Ministry of Transport and Digital Infrastructure (Bundesministerium für Verkehr und digitale Infrastruktur; BMVI) and DB Group.

EBIT margin

The risk of an EBIT margin reduced by 10% has been considered for analyzing a scenario in which results fail to perform in line with budget. This model calculation has identified an impairment requirement at DB Cargo of € 303 million; this means that the value-in-use for this CGU no longer provides adequate cover for the carrying amount of the capital employed. In scenarios in which the EBIT margin is reduced, the CGU DB Cargo is robust up to a reduction of 5.8%. All other CGUs report stable surplus coverage even if the EBIT margin is reduced by 10%.

Average real growth rate of cash flows

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

Weighted average cost of capital

Risks relating to the assumptions of the capitalization rate, which is normally used for calculating the present value of value in use, have been analyzed by simulating the value of each CGU in conjunction with a capital cost mark-up of 10%. The currently used weighted costs of capital (after tax) have been used as the basis of this simulation: DB Group 4.7%, passenger transport 4.8%, freight transport and logistics 5.9%, infrastructure 4.0%. In this scenario, there is no impairment requirement for any CGU. The CGU DB Cargo shows slight surplus cover in this scenario.

Useful life and residual value

With regard to the assumptions relating to useful life and residual value, the effect of a 10% reduction in the residual value at the end of useful life (= terminal value) was analyzed. All CGUs also showed surplus cover in this scenario.

Depreciation is broken down as follows:

(€ million)	**2018**	2017
Scheduled depreciation	2,714	2,880
Recognized impairments	25	165
Recognized recoveries in value	-51	-198
Total	**2,688**	**2,847**
± Special items	-60	-69
± Effects from changes in scope of consolidation	-3	-
± Effects from changes in exchange rates	6	-
Total - comparable	**2,631**	**2,778**

In the year under review, depreciation was lower than in the previous year, and relates mainly to the property, plant and equipment used as rail infrastructure as well as the rolling stock. It is shown in the income statement less any recovery in value recognized in the reporting period. The decline in depreciation is attributable to the recognition of higher useful lives for individual asset classes **(Comparability with the previous year 189).**

For further explanations, please refer to the details concerning the development in property, plant and equipment or intangible assets under **Notes (13) 202ff. and (14) 204f.**

(7) Other operating expenses

(€ million)	2018	2017
EXPENSES FROM LEASING, RENTS AND LEASES		
Operating lease expenses	1,801	1,768
Conditional leasing expenses	1	2
	1,802	**1,770**
Legal, consultancy and audit fees	355	345
Fees and contributions	248	249
Insurance expenses	172	179
Advertising and sales promotion expenses	178	188
Printing and stationery expenses	69	73
Travel and representation expenses	323	311
Research and non-capitalized development costs	29	23
OTHER PURCHASED SERVICES		
Purchased IT services	487	435
Other communication services	47	55
Other services	794	745
	1,328	**1,235**
Expenses from claims for damages	175	164
Impairments recognized in relation to receivables and other assets [1]	27	36
Losses from the disposal of property, plant and equipment and intangible assets	116	136
Expenses from disposal of non-current financial instruments	19	1
Other operating taxes	67	66
OTHER EXPENSES		
Grants for third-party facilities	94	81
Concession fees for passenger transport	124	111
Other personnel-related expenses	230	213
Miscellaneous other expenses	732	709
	1,180	**1,114**
Total	**6,088**	**5,890**
± Special items	-253	-218
± Effects from changes in scope of consolidation	-11	-1
± Effects from changes in exchange rates	71	-
Total - comparable	**5,895**	**5,671**

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

The other operating expenses have increased by € 198 million (+3.4%) compared with the previous year.

This increase is mainly attributable to other purchased services. The purchased IT services have increased in virtually all segments. The increase in other services is attributable to the expansion of business in contract logistics in the segment DB Schenker.

The increase in other expenses is mainly attributable to the segment DB Arriva. The miscellaneous other expenses include the addition to the provision for potential losses at DB Arriva. On the other hand, the miscellaneous other expenses declined in the segment Subsidiaries/Other due to the fact that the addition to the provision for ecological burdens included in the previous year is now longer applicable.

The legal, consultancy and audit fees comprise fees of € 29.4 million for the auditor of the consolidated financial statements (previous year: € 27.6 million[1]); this figure comprises auditing services of € 8.2 million (previous year: € 8.1 million), other certification services of € 5.0 million (previous year: € 4.2 million), tax advice services of € 0.6 million (previous year: € 0.6 million) as well as other services of € 15.6 million (previous year: € 14.7 million[1]). Of the figure shown for the other rendered services, € 8.5 million (previous year: € 7.4 million) is attributable to services of associates of the auditor of the consolidated financial statements.

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

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

(€ million)	2018	2017
JOINT VENTURES		
VT-ARRIVA Személyszállíto es Szolgáltató Kft., Székesfehérvár/Hungary	5	6
Trieste Trasporti S.P.A., Trieste/Italy	4	3
Other	0	4
	9	**13**
ASSOCIATED COMPANIES		
EUROFIMA European Company for the Financing of Railroad Rolling Stock (EUROFIMA), Basel/Switzerland	3	3
Other	0	-2
	3	**1**
Total	**12**	**14**

(9) Net interest income

(€ million)	2018	2017
INTEREST INCOME		
Net interest income from pension provisions	6	4
Other interest and similar income	21	43
Income from securities	0	1
Operating interest income	**27**	**48**
Interest income from the reversal of deferred items and other interest income	-3	5
	24	**53**
INTEREST EXPENSES		
Other interest and similar expenses	-519	-624
Net interest expenses for pension provisions	-99	-82
Interest expenses from finance leases	-27	-27
Operating interest expenses	**-645**	**-733**
Compounding of long-term provisions and liabilities	-24	-24
	-669	**-757**
Total	**-645**	**-704**
± Special items	-	0
± Effects from changes in scope of consolidation	1	0
± Effects from changes in exchange rates	-1	-
Total - comparable	**-645**	**-704**
For information only:		
Net operating interest income	-618	-685

Of the figure shown for the decline in income from other interest and similar income, about € 17 million is attributable to the refund of the nuclear fuel tax in the previous year.

[1] Figure adjusted.

The expenses from other interest and similar expenses have declined considerably as a result of the average lower interest rates for the bonds issued in the year under review and the previous year compared with the bonds repaid in this period despite an overall increase in financial debt. The decline is also attributable to the fact that interest expenses of one-off items in the previous year are no longer applicable.

(10) Other financial result

(€ million)	2018	2017
Result from equity investments	1	0
Result from currency exchange gains	-57	324
Result from currency-related derivatives	59	-343
Result from other derivatives	0	5
Result from disposal of financial instruments	0	-
Impairments on financial instruments	-8	-
Other financial result	-9	-16
Total	**-14**	**-30**
± Special items	-	-
± Effects from changes in scope of consolidation	0	0
± Effects from changes in exchange rates	-3	-
Total – comparable	**-17**	**-30**

Dividend income is recognized at the point at which the right to receive the payment arises. Interest income is recognized in the income statement using the effective interest method in the period in which the income arises.

The result from exchange rate effects is attributable to the conversion of foreign currency liabilities and receivables with an impact on the income statement using the spot rate applicable on the reference date (IAS 21). The result from exchange rate effects has to be netted with the result from currency-related derivatives. The moderate exchange rate fluctuations in the year under review are mainly attributable to the development of the exchange rate between the euro and the Swiss franc, the Australian dollar and the Japanese yen. The significant exchange rate fluctuations in the previous year were due to the exchange rate between the euro and most other currencies, and in particular the Swiss franc. The result from currency-related derivatives comprises reclassifications of currency-related changes in the market value of cash flow hedges recognized under shareholders' equity with no impact on the income statement. The result from other derivatives relates to the development in the market value of derivatives which are not classified as effective hedges in accordance with IAS 39 (Financial Instruments: Recognition and Measurement).

(11) Taxes on income

(€ million)	2018	2017
Actual tax expense	-222	-202
Income due to lapsing of tax obligations	30	22
Actual taxes on income	**-192**	**-180**
Deferred tax expense	-438	-23
Taxes on income	**-630**	**-203**

The actual taxes on income continued to be incurred mainly at foreign Group companies. In the year under review, the expenses associated with deferred taxes were considerably higher than was the case in the previous year. This is attributable almost exclusively to Germany, and is the result primarily of the writing down of deferred tax assets. Because of the weaker expectations for profits in the planning period, it is expected that there will be less utilization in future of loss carry-forwards as well as temporary differences. Outside Germany, there are effects attributable to higher income tax risks as well as new tax losses which will probably not be able to be used for offsetting purposes.

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

(€ million)	2018	2017
Profit before taxes on income	1,172	968
Group tax rate (%)	30.5	30.5
Expected tax expense (-)	**-357**	**-295**
Adjustment of the expected future use of loss carry-forwards and new temporary differences which have arisen and loss carry-forwards	-299	-3
Impact of tax rate changes	0	-15
Income not subject to tax	30	28
Tax effects related to IAS 12.33	55	59
Expenses not deductible for tax purposes	-16	-7
Differences in tax rates for foreign companies	30	48
Other effects	-73	-18
Taxes on income as reported	**-630**	**-203**
Effective tax rate (%)	53.8	21.0

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

In the year under review, the other effects include in particular effects attributable to the difference in the assessment bases of different income tax bases, and the creation of provisions for income tax risks outside Germany.

(12) Earnings per share

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

(€ million)	2018	2017
Net profit for the year	542	765
thereof attributable to non-controlling interests	14	20
thereof due to shareholders of DB AG	528	745
Number of issued shares as of Dec 31	430,000,000	430,000,000
Earnings per share (€ per share)		
undiluted	1.23	1.73
diluted	1.23	1.73