Notes to the Statement of Income

5 Earnings per share

Earnings per share

		2019	2018
Income after taxes from continuing operations	million €	2,546	4,116
of which noncontrolling interests	million €	46	200
Net income from continuing operations	**million €**	**2,500**	**3,916**
Income after taxes from discontinued operations	million €	5,945	863
of which noncontrolling interests	million €	24	72
Net income from discontinued operations	**million €**	**5,921**	**791**
Income after taxes	million €	8,491	4,979
of which noncontrolling interests	million €	70	272
Net income	**million €**	**8,421**	**4,707**
Weighted average number of outstanding shares	1,000	918,479	918,479
Earnings per share			
From continuing operations	€	2.72	4.26
Diluted	€	2.70	4.25
From discontinued operations	€	6.45	0.86
Diluted	€	6.45	0.86
From continuing and discontinued operations	€	9.17	5.12
Diluted	€	9.15	5.11

In accordance with IAS 33, a potential dilutive effect must be considered in the **diluted earnings per share** for those BASF shares that will be granted in the future as part of BASF's "plus" share program. This applies regardless of the fact that the necessary shares are acquired on the market by third parties on behalf of BASF and that there are no plans to issue new shares. The dilutive effect of the issue of "plus" shares amounted to €0.02 in 2019 (2018: €0.01).

6 Sales revenue

Sales revenue from contracts with customers is recognized in the amount of the consideration BASF expects to receive in exchange for the goods or services when control of the goods or services is transferred to the customer.

BASF primarily generates income from the sale of goods. It is recognized as sales revenue at the point in time when control of the product is transferred from BASF to the customer; this is generally the case on delivery. If products are delivered to a consignment warehouse, BASF normally retains control. Revenue is recognized when the customer consumes the goods. Long-term supply agreements usually contain variable prices dependent on the development of raw materials prices and variable volumes.

Sales revenue from the sale or licensing of technologies or technical expertise is recognized according to the contractually agreed-upon transfer of the rights and obligations associated with these technologies. Recognition of revenue from granting licenses for technology and intellectual property depends on whether they are based on usage rights or access rights. Revenue from usage-based rights is recognized at the point in time when the license is granted. Revenue from access-based rights is recognized over the term of the contract with the customer. Sales revenue from sales and usage-based licenses is recognized in accordance with the underlying settlement agreements.

Sales revenue from the sale of precious metals to industrial customers is recognized on delivery and the corresponding purchase prices are recorded as cost of sales. In the trading of precious metals and their derivatives with traders, where there is usually no physical delivery, revenues are netted against the associated costs.

Services rendered to customers are invoiced according to work completed and recognized as revenue accordingly.

For more information on the allocation of sales revenue, see the Management's Report from page 47 onward

If the consideration promised in a contract includes variable components, BASF estimates the amount of consideration to which it will be entitled in exchange for transferring the promised goods to the customer. Variable components are only recognized as revenue when it is highly unlikely that a reversal of sales revenue will occur.

Expected rebates and other trade discounts are accrued in accordance with the principle of individual measurement to cover probable risks related to the return of goods, future warranty obligations and other claims.

BASF grants customers rebates if the goods purchased by the customer exceed a contractually defined threshold within the period specified. Rebates are usually deducted from the amounts payable by the customer. Depending on the terms of the underlying contract, BASF uses either the expected value or the most likely amount to estimate the variable consideration for expected future rebates. The method that is the best predictor of variable consideration is primarily determined by the number of volume thresholds contained in the contract. All available historical, current and forecast information is taken into account when calculating rebates. Customers generally have a right of return if the supplied goods do not meet the agreed specifications. Furthermore, certain contracts grant the customer the right to return the goods within a defined period of time. BASF uses the expected value method to estimate the goods that will be returned, as this method is the best predictor of the amount of variable consideration to which BASF will be entitled.

BASF applies the practical expedient in IFRS 15, which means that it does not adjust the promised amount of consideration for the effects of a significant financing component if, at contract inception, it is expected that the period between the transfer of the promised goods or services to a customer and payment for these goods or services by the customer will be one year or less.

Pursuant to IFRS 15, no information on remaining performance obligations as of December 31, 2019 that have an expected original term of one year or less was reported.

Sales by division and by indication and sector

Million €

	2019	2018
Petrochemicals	6,670	8,561
Intermediates	2,862	3,133
Chemicals	**9,532**	**11,694**
Performance Materials	6,064	6,517
Monomers	5,402	6,753
Materials	**11,466**	**13,270**
Dispersions & Pigments	5,178	5,292
Performance Chemicals	3,211	3,828
Industrial Solutions	**8,389**	**9,120**
Catalysts	9,396	7,469
Coatings	3,746	3,730
Surface Technologies	**13,142**	**11,199**
Care Chemicals	4,118	4,244
Nutrition & Health	1,957	1,696
Nutrition & Care	**6,075**	**5,940**
Fungicides	2,305	2,287
Herbicides	2,616	2,436
Insecticides	800	670
Seed Treatment	639	463
Seeds & Traits	1,454	300
Agricultural Solutions	**7,814**	**6,156**
Other	**2,898**	**2,841**
BASF Group	**59,316**	**60,220**

Sales revenue of €44 million, that was included in contract liabilities as of January 1, 2019, was recognized in 2019.

Sales revenue for the 2019 fiscal year includes €279 million from performance obligations fulfilled in prior periods in connection with sales and usage-based licenses.

7 Functional costs

Under the cost of sales method, functional costs incurred by the operating functions are determined on the basis of cost center accounting. The functional costs particularly contain the personnel costs, depreciation and amortization accumulated on the underlying final cost centers as well as allocated costs within the cost accounting cycle. Operating expenses that cannot be allocated to the functional costs are reported as other operating expenses.

For more information on other operating expenses, see Note 8 from page 229 onward

Cost of sales

Cost of sales includes all production and purchase costs of the company's own products as well as merchandise that has been sold in the period, particularly plant, energy and personnel costs.

Selling expenses

Selling expenses primarily include marketing and advertising costs, freight costs, packaging costs, distribution management costs, commissions and licensing costs.

General administrative expenses

General and administrative expenses primarily include the costs of the central units, the costs of managing business units and divisions, and costs of general management, the Board of Executive Directors and the Supervisory Board.

Research and development expenses

Research and development expenses include the costs resulting from research projects as well as the necessary license fees for research activities.

For more information on research and development expenses by segment, see Note 4 from page 219 onward

8 Other operating income / other operating expenses

Other operating income

Million €	2019	2018
Income from the adjustment and release of provisions recognized in other operating expenses	111	81
Revenue from miscellaneous activities	189	158
Income from foreign currency and hedging transactions as well as from the measurement of LTI options	55	411
Income from the translation of financial statements in foreign currencies	11	7
Gains on divestitures and the disposal of noncurrent assets	822	118
Reversals of impairment losses on noncurrent assets	6	3
Income from the reversal of valuation allowances for business-related receivables	19	40
Other	882	994
Other operating income	**2,095**	**1,812**

Income from the adjustment and release of provisions recognized in other operating expenses was largely related to risks from lawsuits and damage claims, closures and restructuring measures, employee obligations, and various other individual items as part of the normal course of business. Provisions were reversed or adjusted if, based on the circumstances on the balance sheet date, utilization was no longer expected, or expected to a lesser extent.

Revenue from miscellaneous activities primarily included income from rentals, catering operations, cultural events and logistics services.

Income from foreign currency and hedging transactions as well as from the measurement of LTI options pertained to the foreign currency translation of receivables and payables as well as of currency derivatives and other hedging transactions. Of material significance to the decline was income arising from the release of provisions for the long-term incentive (LTI) program in the amount of €262 million in the previous year, while only a low amount was released in 2019.

Income from the translation of financial statements in foreign currencies included gains from the translation of companies' financial statements whose local currency is different from the functional currency.

Gains on divestitures and the disposal of noncurrent assets amounting to €390 million in 2019 related mainly to earnings from the transfer of BASF's paper and water chemicals business to the Solenis group and the sale of businesses in the Agricultural Solutions segment in accordance with the conditions imposed by antitrust authorities in connection with the acquisition of the Bayer businesses. In 2018, this line item included earnings in the amount of €21 million for the sale of the Austrian production site for styrene butadiene-based paper dispersions in Pischelsdorf. Furthermore, income of €421 million resulted from real estate divestitures in several countries in 2019 (2018: €14 million). Of material significance here was the sale of a building complex in Switzerland in the amount of €400 million.

Income from the reversal of valuation allowances for business-related receivables resulted both from the reversal of impairments for settled customer receivables for which impairments had been recorded previously as well as from adjusted expectations regarding default on individual customer receivables.

Other income included government grants and government assistance from several countries amounting to €27 million in 2019 and €43 million in 2018. These were primarily due to grants for research projects, regional business development subsidies in China and electricity price compensation in the 2019 fiscal year.

Further income resulted from refunds and compensation payments in the amount of €232 million in 2019 and €569 million in 2018. In 2019, these included insurance refunds in the amount of €44 million for damage at the citral plant in Ludwigshafen, Germany, in 2017, for which insurance refunds were also made in 2018, and earnings from a contractually agreed compensation payment in the amount of €46 million. Insurance refunds in the previous year also related to income for fire damages at the North Harbor in Ludwigshafen, Germany. Additional income resulted in 2019 from plan adjustments for pension benefits and similar obligations in the amount of €137 million. Moreover, income in both years was related to gains from precious metal trading, refunds of consumption taxes and a number of additional items.

Other operating expenses

Million €	2019	2018
Restructuring and integration measures	697	404
Environmental protection and safety measures, costs of demolition and removal, and project costs not subject to mandatory capitalization	320	342
Depreciation, amortization and impairments of noncurrent assets	426	72
Costs from miscellaneous revenue-generating activities	173	151
Expenses from foreign currency and hedging transactions as well as from the measurement of LTI options	249	160
Losses from the translation of financial statements in foreign currencies	18	39
Losses from divestitures and the disposal of noncurrent assets	16	75
Expenses from the addition of valuation allowances on business-related receivables	67	62
Expenses for derecognition of obsolete inventory	286	242
Other	782	801
Other operating expenses	**3,034**	**2,348**

In 2019, expenses from **restructuring and integration measures** in the amount of €481 million were mainly attributable to the implementation of the new BASF strategy and, to a lesser extent, to site closures in North America and Asia. In 2018, expenses resulting from site closures in North America amounted to €13 million and from outsourcing computer centers in the amount of €11 million as well as from restructuring measures in the Care Chemicals division in the amount of €20 million. In 2018, expenses also arose from global restructuring measures in the Coatings division in the amount of €17 million and in the Catalysts division in the amount of €16 million due primarily to the restructuring of the global emissions catalysts business and the restructuring of the licensed battery materials business.

Expenses from integration measures amounted to €43 million in 2019 and related to the integration of significant parts of Bayer's seed and non-selective herbicide business as well as its vegetable seeds business, which were acquired in 2018. These expenses totaled €99 million in the previous year. In both years, expenses also arose in connection with the preparation of the acquisition of Solvay's global polyamide business.

Environmental protection and safety measures, costs of demolition and removal, and project costs were expensed if they were not subject to mandatory capitalization pursuant to IFRS. Expenses for demolition, removal and project planning totaled €243 million in 2019 and €245 million in 2018. In both years, these mainly related to the Ludwigshafen site in Germany. Further expenses of €77 million in 2019 and €97 million in 2018 arose from the addition to environmental provisions. In both years, these concerned several discontinued sites in North America.

Depreciation, amortization and impairments of noncurrent assets amounting to €426 million in 2019 related primarily to the impairment of project costs for a planned methane-based propylene production plant on the U.S. Gulf Coast, as well as to the optimization of production sites within the Nutrition & Health division in Europe. In 2018, amortization, depreciation and impairments of noncurrent assets amounted to €72 million. The impairments resulted primarily from discontinued investment projects.

Costs from miscellaneous revenue-generating activities relate to the items presented in other operating income.

Expenses from foreign currency and hedging transactions as well as from the measurement of LTI options related to foreign currency translation of receivables and payables as well as changes in the fair value of currency derivatives and other hedging transactions. Expenses resulting from the measurement of LTI options amounted to €39 million in 2019. Higher currency hedging costs also arose in 2019 due to a changed position with respect to the U.S. dollar after the acquisition of Bayer's seed and non-selective herbicide business.

Losses from divestitures and the disposal of noncurrent assets resulted in 2019 in connection with the planned divestiture of the global pigments business. Expenses totaling €26 million in 2018 were related to the merger of the paper and water chemicals business with Solenis.

In both years, **other** expenses included expenses for litigation, for REACH, for the provision of services, for activities related to the BASF 4.0 project and for planning the new Verbund site in Guangdong, China.

9 Income from companies accounted for using the equity method

Income from companies accounted for using the equity method

Million €	2019	2018
Proportional income after taxes	433	279
of which joint ventures	412	250
associated companies	21	29
Other adjustments to income and expenses	(317)	(10)
of which joint ventures	(314)	(9)
associated companies	(3)	(1)
Income from companies accounted for using the equity method	**116**	**269**

Income from companies accounted for using the equity method decreased by a total of €153 million in 2019 primarily due to lower earnings at BASF-YPC Company Ltd., Nanjing, China. Wintershall Dea GmbH, Kassel/Hamburg, Germany, which was recognized as a joint venture for the first time, accounted for a loss in earnings due in part to additional impairments from the purchase price allocation. Moreover, adjustments were made for Wintershall Dea GmbH's earnings contributions, which had already been recognized at BASF Group level as part of initial measurement of the shareholding at fair value.

10 Financial result

Financial result

Million €	2019	2018
Dividends and similar income	15	21
Income from the disposal of shareholdings	17	13
Income from profit transfer agreements	2	1
Income from tax allocation to shareholdings	(1)	–
Income from other shareholdings	**33**	**35**
Expenses from loss transfer agreements	(55)	(54)
Write-downs on / losses from the sale of shareholdings	(23)	(24)
Expenses from other shareholdings	**(78)**	**(78)**
Net income from shareholdings	**(45)**	**(43)**
Interest income from cash and cash equivalents	168	160
Interest and dividend income from securities and loans	15	14
Interest income	**183**	**174**
Interest expenses	**(648)**	**(537)**
Interest result	**(465)**	**(363)**
Net interest income from overfunded pension plans and similar obligations	–	2
Income from the capitalization of borrowing costs	35	31
Miscellaneous financial income	–	–
Other financial income	**35**	**33**
Write-downs on / losses from securities and loans	(8)	(22)
Net interest expense from underfunded pension plans and similar obligations	(155)	(131)
Net interest expense from other long-term personnel obligations	(5)	–
Unwinding the discount on other noncurrent liabilities	(11)	(5)
Miscellaneous financial expenses	(96)	(210)
Other financial expenses	**(275)**	**(368)**
Other financial result	**(240)**	**(335)**
Financial result	**(750)**	**(741)**

Net income from shareholdings was at prior-year level at minus €45 million.

The **interest result** declined by €102 million year on year, from minus €363 million to minus €465 million, as a result of higher interest expenses. The increase in interest expenses was mainly due to the higher financial debt, particularly commercial paper and interest on lease liabilities.

Write-downs on / losses from securities and loans decreased due to lower impairments on loans and to lower losses from fair value measurement of securities.

The **net interest expense from underfunded pension plans and similar obligations** increased in comparison with the previous year as a result of the increase in net defined benefit liability as of December 31, 2018. Net interest expense of the respective fiscal year is based on the discount rate and the defined benefit obligation at the beginning of the year.

The decline in **other financial expenses** was primarily due to lower expenses for hedging bonds and U.S. dollar commercial paper against interest and currency risk.

11 Income taxes

Accounting policies

In Germany, a uniform corporate income tax rate of 15.0% as well as a solidarity surcharge of 5.5% thereon are levied on all distributed and retained earnings. In addition to corporate income tax, income generated in Germany is subject to a trade tax that varies depending on the municipality in which the company is represented. Due to a higher rate of assessment for Ludwigshafen, Germany, in 2019, the weighted average trade tax rate was 14.5% (2018: 14.1%). The 30% rate used to calculate deferred taxes for German Group companies remained unchanged in 2019. The income of foreign Group companies is assessed using the tax rates applicable in their respective countries. These are also generally used to calculate deferred taxes to the extent that tax rate adjustments for the future have not yet been enacted.

Deferred taxes are recorded for temporary differences between the carrying amount of assets and liabilities in the financial statements according to IFRS and the carrying amounts for tax purposes as well as for tax loss carryforwards and unused tax credits. These also comprise temporary differences arising from business combinations, with the exception of goodwill. Deferred tax assets and liabilities are calculated using the respective country-specific tax rates applicable for the period in which the asset or liability is realized or settled. Tax rate changes enacted or substantively enacted on or before the balance sheet date are taken into consideration.

Deferred tax assets are offset against deferred tax liabilities provided they are related to the same taxation authority and have the same maturities. Surpluses of deferred tax assets are only recognized provided that the tax benefits are likely to be realized. The valuation of deferred tax assets is based on the probability of a reversal of the differences and the assessment of the ability to utilize tax loss carryforwards and unused tax credits. This depends on whether future taxable profits will exist during the period in which temporary differences are reversed and in which tax loss carryforwards and unused tax credits can be claimed. The valuation of deferred tax assets is based on internal projections of the future earnings of the particular Group company.

Changes in deferred taxes in the balance sheet are recorded as deferred tax expense or income if the underlying transaction is not to be recognized directly in equity or in income and expenses recognized in equity. For those effects which have been recognized in equity, changes to deferred tax assets and tax liabilities are also recognized directly in equity.

Deferred tax liabilities are recognized for differences between the proportional IFRS equity and the tax base of the investment in a consolidated subsidiary if a reversal of these differences is expected in the foreseeable future. Deferred tax liabilities are recognized for dividend distributions planned for the following year if these distributions lead to a reversal of temporary differences.

Provisions for German trade income tax, corporate income tax and similar income taxes are calculated and recognized based on the expected taxable income of the consolidated companies less any prepayments that have been made. Provisions are set up for interest accrued. Other taxes to be assessed are considered accordingly.

Tax expense and tax rate

The current tax expense for corporate income tax, solidarity surcharge and trade taxes (Germany) declined due to lower income from tax group companies in Germany.

As in the previous year, changes in valuation allowances on deferred tax assets for tax loss carryforwards resulted in an expense of €1 million in 2019. Other taxes included real estate taxes and other comparable taxes totaling €101 million in 2019 and €103 million in 2018.

The BASF Group tax rate amounted to 22.9% in 2019, after 21.3% in 2018. The increase was mainly attributable to taxes for prior years, especially in Germany and the United States. In Germany, income from the release of tax provisions in 2018 contrasted with expenses for additions to tax provisions in 2019. In the United States, tax-exempt income for prior years was lower than in 2018. The main offsetting effect was lower trade tax expenses as a result of the lower taxable income of the German companies.

Tax expense

Million €

	2019	2018
Current tax expense	**1,053**	**1,229**
Corporate income tax, solidarity surcharge and trade taxes (Germany)	114	394
Foreign income tax	929	1,094
Taxes for prior years	10	(259)
Deferred tax expense (+) / income (–)	**(297)**	**(112)**
From changes in temporary differences	(298)	(67)
From changes in tax loss carryforwards/unused tax credits	23	(35)
From changes in the tax rate	(26)	(18)
From valuation allowances on deferred tax assets	4	8
Income taxes	**756**	**1,117**
Other taxes as well as sales and consumption taxes	224	229
Tax expense	**980**	**1,346**

Reconciliation of income taxes and the effective tax rate

	2019		2018	
	Million €	**%**	**Million €**	**%**
Income before income taxes	3,302		5,233	
Expected tax based on German corporate income tax rate (15%)	495	15.0	783	15.0
Solidarity surcharge	2	0.1	12	0.2
German trade tax	12	0.4	154	2.9
Foreign tax rate differential	257	7.8	432	8.2
Tax-exempt income	(41)	(1.2)	(24)	(0.5)
Nondeductible expenses	61	1.8	62	1.2
Income of companies accounted for using the equity method (Income after taxes)	(17)	(0.5)	(40)	(0.8)
Taxes for prior years	10	0.3	(259)	(4.9)
Deferred tax liabilities for the future reversal of temporary differences associated with shares in participating interests	(6)	(0.2)	(5)	(0.1)
Changes in the tax rate	(26)	(0.8)	(18)	(0.3)
Other	9	0.2	20	0.4
Income taxes/effective tax rate	**756**	**22.9**	**1,117**	**21.3**

Deferred taxes result from temporary differences between tax balances and the measurement of assets and liabilities according to IFRS as well as from tax loss carryforwards and unused tax credits. The remeasurement of all the assets and liabilities associated with acquisitions according to IFRS 3 has resulted in significant deviations between fair values and the values in the tax accounts. This primarily leads to deferred tax liabilities.

Deferred taxes

Deferred tax assets and liabilities 2019

Million €

	January 1, 2019, net	Effects recognized in income	Effects recognized in equity (OCI)	Business combinations	Other	Recognized in equity	December 31, 2019, net	Deferred tax assets	Deferred tax liabilities
Intangible assets	(1,265)	149	(4)	59	125	–	(934)	148	(1.082)
Property, plant and equipment	(976)	(113)	(16)	(2)	26	–	(1.081)	122	(1.203)
Financial assets	12	35	(1)	–	(182)	–	(136)	54	(190)
Inventories and accounts receivable	(203)	48	(47)	(14)	17	–	(199)	261	(460)
Provisions for pensions and similar obligations	2,149	(48)	354	–	(31)	–	2.424	3.153	(729)
Other provisions and liabilities	633	222	(23)	–	9	–	841	942	(101)
Tax loss carryforwards	205	13	1	5	(31)	–	193	193	–
Other	0	(9)	(5)	(4)	33	–	15	83	(68)
Deferred tax assets (liabilities) before netting	**555**	**297**	**259**	**44**	**(34)**	**–**	**1.123**	**4.956**	**(3.833)**
Netting	–	–	–	–	–	–	–	(2.069)	2.069
Deferred tax assets (liabilities) after netting	**555**	**297**	**259**	**44**	**(34)**	**–**	**1.123**	**2.887**	**(1.764)**

Deferred tax assets and liabilities 2018

Million €	January 1, 2018, net	Effects recognized in income	Effects recognized in equity (OCI)	Business combinations	Other	Recognized in equity	December 31, 2018, net	Deferred tax assets	Deferred tax liabilities
Intangible assets	(1,184)	34	(5)	(272)	162	–	(1,265)	94	(1,359)
Property, plant and equipment	(2,464)	(127)	(1)	6	1,610	–	(976)	115	(1,091)
Financial assets	(39)	52	0	–	(1)	–	12	60	(48)
Inventories and accounts receivable	(69)	(62)	38	(40)	(70)	–	(203)	272	(475)
Provisions for pensions and similar obligations	1,986	2	122	13	26	–	2,149	2,657	(508)
Other provisions and liabilities	975	148	(1)	6	(495)	–	633	738	(105)
Tax loss carryforwards	222	(11)	0	0	(6)	–	205	205	–
Other	(40)	76	0	0	(36)	–	0	83	(83)
Deferred tax assets (liabilities) before netting	**(613)**	**112**	**153**	**(287)**	**1,190**	**–**	**555**	**4,224**	**(3,669)**
Netting	–	–	–	–	–	–	–	(1,882)	1,882
Deferred tax assets (liabilities) after netting	**(613)**	**112**	**153**	**(287)**	**1,190**	**–**	**555**	**2,342**	**(1,787)**

Undistributed earnings of subsidiaries resulted in temporary differences of €13,335 million in 2019 (2018: €14,088 million) for which deferred tax liabilities were not recognized, as they are either not subject to taxation on payout or they are expected to be reinvested for an indefinite period of time.

Changes in valuation allowances on deferred tax assets amounted to €98 million in 2019, compared with €87 million in 2018. Of this figure, €65 million pertained to tax loss carryforwards in 2019 (2018: €23 million).

Tax loss carryforwards

The regional distribution of tax loss carryforwards is as follows:

Tax loss carryforwards

Million €	Tax loss carryforwards		Deferred tax assets	
	2019	2018	2019	2018
Germany	0	0	–	–
Foreign	950	1,143	195	205
Total	**950**	**1,143**	**195**	**205**

Tax loss carryforwards exist in all regions. Tax losses in Germany may be carried forward indefinitely. In some foreign countries, tax loss carryforwards are only possible for a limited period of time. Overall, just under half of the tax loss carryforwards will expire. The bulk of the expirable tax loss carryforwards will expire in Asia by 2023 and in Europe and North America after 2024. No deferred tax assets were recognized for tax loss carryforwards of €205 million in 2019 (2018: €370 million).

Tax liabilities

Tax liabilities primarily include assessed income taxes and other taxes as well as estimated income taxes not yet assessed for the current year. BASF began reporting tax provisions, previously included in other provisions, with effective and deferred tax liabilities in 2019. The prior-year figures have been restated accordingly. Tax liabilities amounted to €3,036 million as of December 31, 2019 (December 31, 2018: €3,041 million).

12 Noncontrolling interests

Noncontrolling interests

Million €	2019	2018
Noncontrolling interests in profits	98	292
Noncontrolling interests in losses	(28)	(20)
Total	**70**	**272**

Noncontrolling interests in profits declined year on year in 2019, especially at Shanghai BASF Polyurethane Company Ltd., Shanghai, China, primarily due to lower TDI and MDI sales prices and margins, and at BASF TOTAL Petrochemicals LLC, Port Arthur, Texas, mainly due to the scheduled turnaround of the steam cracker and lower propylene sales prices.

Noncontrolling interests in profits were only recognized for Wintershall companies until April 30, 2019.

For more information on noncontrolling interests in consolidated companies, see Note 21 on page 253

13 Personnel expenses and employees

Personnel expenses

The BASF Group's expenses for wages and salaries, social security contributions and pensions and assistance in 2019 totaled €10,924 million (2018: €10,659 million). In 2019, this amount included personnel expenses from the disposal group for the construction chemicals business and proportionally for the oil and gas business in the amount of €557 million. By contrast, the amount in 2018 included personnel expenses from the disposal group for the oil and gas business in the amount of €276 million. The increase in personnel expenses was due primarily to higher expenses for the long-term incentive program, a higher level of wages and salaries and the higher average number of employees resulting from the acquisition of significant businesses from Bayer. Offsetting factors were the merger of the oil and gas businesses of Wintershall and DEA in the joint venture Wintershall Dea, as well as the decrease in expenses for pension benefits due to plan curtailments.

Personnel expenses

Million €	2019	2018
Wages and salaries	8,825	8,470
Social security contributions and assistance expenses	1,545	1,459
Pension expenses	554	730
Personnel expenses	**10,924**	**10,659**

Number of employees

As of December 31, 2019, the number of employees decreased to 117,628 employees compared with 122,404 employees as of December 31, 2018. This number includes 6,964 employees in the disposal group for the construction chemicals business as of December 31, 2019 (December 31, 2018: 2,017 employees in the disposal group for the oil and gas business).

Of material significance to the decrease in the number of employees were the merger of the oil and gas businesses of Wintershall and DEA in the joint venture Wintershall Dea, as well as the sale of the paper and water chemicals business. As a result, the number of employees decreased by more than 3,000 employees.

The number of employees in the BASF Group was distributed over the regions as follows:

Number of employees as of December 31

	2019	2018
Europe	72,153	75,188
of which Germany	54,028	55,839
North America	19,355	20,069
Asia Pacific	18,634	19,303
South America, Africa, Middle East	7,486	7,844
BASF Group	**117,628**	**122,404**
of which apprentices and trainees	3,161	3,174
temporary staff	2,606	3,226

Employees from joint operations are included in the number of employees as of the year-end relative to BASF's share in the company. These had a total of 96 employees (2018: 526 employees). Of material significance to the decrease in the number of employees in joint operations was the merger of the oil and gas businesses of Wintershall and DEA in the joint venture, Wintershall Dea.

The average number of employees was distributed over the regions as follows:

Average number of employees

	2019	2018
Europe	73,126	73,067
of which Germany	54,722	54,749
North America	19,624	19,051
Asia Pacific	18,843	18,713
South America, Africa, Middle East	7,607	7,540
BASF Group	**119,200**	**118,371**
of which apprentices and trainees	2,811	2,819
temporary staff	2,922	3,120

Employees from joint operations are included in the average number of employees relative to BASF's share in the company. On average, these had a total of 206 employees (2018: 492 employees).

BASF Group's average number of employees for 2019 includes 6,801 employees from the disposal group for the construction chemicals business and for 2018 2,021 employees from the disposal group for the oil and gas business.