Bayer AG Financial Statements

2021

Science for a **better life**

The management report of Bayer AG is combined with the management report of the Bayer Group. The Combined Management Report is published in Bayer's Annual Report for 2021. The financial statements and the Combined Management Report of the Bayer Group and Bayer AG for fiscal 2021 have been submitted to the operator of the Federal Gazette and are accessible via the Company Register website.

Contents

Income Statements

€ million	Note	2020 [11] (adjusted)	2021
Net sales	[1]	14,543	15,497
Increase or decrease in inventories of finished goods and work in process		96	109
Other own work capitalized		6	7
Other operating income	[2]	4,367	3,207
Costs of materials	[3]	(10,014)	(10,224)
Expenses for raw materials, supplies and purchased goods		(4,082)	(4,062)
Expenses for purchased services		(5,932)	(6,162)
Personnel expenses	[4]	(2,564)	(3,003)
Wages and salaries		(2,053)	(2,395)
Social expenses and expenses for pensions and other benefits		(511)	(608)
of which for pensions		*(239)*	*(324)*
Write-downs on intangible assets and property, plant and equipment	[5]	(96)	(108)
Other operating expenses	[6]	(8,385)	(6,923)
Operating income		**(2,047)**	**(1,438)**
Income from investments in affiliated companies – net	[7]	(206)	5,660
Interest income/expense – net	[8]	43	88
Other financial income/expense – net	[9]	252	81
Nonoperating income		**89**	**5,829**
Income taxes	[10]	(577)	(270)
Other taxes	[11]	(12)	(11)
Income after taxes/net income		**(2,547)**	**4,110**
Allocation from other retained earnings		4,512	–
Allocation to other retained earnings		–	(2,055)
Distributable profit		**1,965**	**2,055**

Statements of Financial Position

€ million	Note	Dec. 31, 2020	Dec. 31, 2021
ASSETS			
Noncurrent assets			
Intangible assets	[12]	369	398
Property, plant and equipment	[13]	44	38
Investments	[14]	66,370	72,038
		66,783	**72,474**
Current assets			
Inventories	[15]	2,396	2,579
Receivables and other assets			
Trade accounts receivable	[16]	1,855	2,057
Receivables from subsidiaries	[17]	4,633	2,001
Other assets	[18]	1,645	795
	[19]	8,133	4,853
Marketable securities	[20]	2,801	1,219
Cash and cash equivalents		2,760	2,555
		16,090	**11,206**
Deferred charges	**[21]**	**192**	**164**
Surplus from offsetting	**[22]**	**224**	**251**
		83,289	**84,095**
EQUITY AND LIABILITIES			
Equity	**[23]**		
Capital stock		2,515	2,515
Capital reserves		18,845	18,845
Other retained earnings		4,980	7,035
Distributable profit		1,965	2,055
		28,305	**30,450**
Provisions			
Provisions for pensions	[24]	1,696	1,913
Other provisions	[25]	3,094	3,138
		4,790	**5,051**
Other liabilities			
Bonds	[26]	11,300	14,550
Liabilities to banks		3,248	333
Down payments received on orders		12	125
Trade accounts payable	[27]	2,022	2,025
Payables to subsidiaries	[28]	33,098	29,900
Miscellaneous liabilities	[29]	445	1,596
	[30]	**50,125**	**48,529**
Deferred income	**[31]**	**69**	**65**
		83,289	**84,095**

Notes

Accounting Policies

The financial statements of Bayer AG, Leverkusen, Germany (which is entered in the commercial register of the Local Court of Cologne, Germany, HRB 48248), are prepared in accordance with the German Commercial Code (HGB), the Stock Corporation Act (AktG) and the German Energy Industry Act (EnWG).

Business lease agreements exist between Bayer AG on the one hand, and Bayer Pharma AG and Bayer CropScience AG – the former parent companies of the respective divisions – on the other. Bayer AG as lessee manages these two companies' operational businesses on the basis of these agreements. The agreements were initially concluded as of 2017 for a term of one calendar year and are each extended by successive periods of one year unless written notice of termination effective as of the end of the preceding year is given six months in advance by either party. As of 2021, none of the parties had terminated the agreements.

Bayer AG is a generator and supplier of utilities at multiple locations and thus an energy utility as defined in Section 3, No. 18 of the EnWG. Since utility supply networks are operated by a subsidiary in addition, Bayer AG also constitutes a vertically integrated energy utility under Section 3, No. 38 of the EnWG.

Certain items in the income statement and statement of financial position are combined for the sake of clarity; they are explained in the Notes. Likewise for reasons of clarity, "of which" information required for certain items in the financial statements is usually presented in the Notes. Financial income and expenses whose disclosure is not covered by a legally required item are reported under other financial income or expense.

In fiscal 2021, the total cost (nature of expense) method was adopted for preparing the income statement. The primary reason for the switch was the cost-of-sales method's conceptual design, which suits the needs of the Bayer Group. The reconciliation switch from the Group perspective to that of the Bayer AG's individual financial statements required significant manual adjustments to the presentation of functional costs. Moreover, modifications of internal functional cost accounting required increased manual effort due to Bayer AG's company-specific needs. The total cost (nature of expense) method was therefore adopted to better present Bayer AG's results of operations.

The previous year’s income statement, which was prepared using the cost-of-sales method, is shown up to the “operating income” line item in the table below:

€ million	2020
Net sales	13,985
Cost of goods sold	(6,761)
Gross profit	**7,224**
Selling expenses	(5,381)
Research and development expenses	(2,401)
General administration expenses	(1,714)
Other operating income	334
Other operating expenses	(252)
Operating income	**(2,190)**

For details on how the switch to the total cost (nature of expense) method affects individual items, please see the “Notes to the Income Statement” section.

A declaration of compliance with the German Corporate Governance Code has been issued pursuant to Section 161 of the German Stock Corporation Act (AktG) and made permanently available to stockholders online as part of the Declaration on Corporate Governance pursuant to Section 289f of the German Commercial Code (HGB). It can be downloaded from www.investor.bayer.com/en/bayer-group/corporate-governance.

As the parent company, Bayer AG prepares the consolidated financial statements for both the largest and the smallest scope of consolidation. As in the previous year, the management report of Bayer AG has been combined with the management report of the Bayer Group pursuant to Section 315, Paragraph 3 of the German Commercial Code (HGB) in conjunction with Section 298, Paragraph 2 HGB.

Changes in Corporate Structure

In the second half of 2021, the Crop Science Division transferred the sale of active ingredients and finished goods in Brazil to Bayer CropScience Deutschland GmbH (BCSD GmbH). In this context, the Crop Science Division continues to operate as a producer of crop protection products for the Brazilian market. Sales of these products are now handled through BCSD GmbH, which, in turn, is a member of a consortium that has assumed the task of selling these products in Brazil. Bayer AG and BCSD GmbH entered into a license agreement governing the consortium’s use of Bayer AG’s intellectual property. Bayer AG participates in the substantial sales and earnings growth of BCSD GmbH through existing profit and loss transfer agreements.

Following the merger of Bayer Business Services GmbH into Bayer AG in 2020, a global service hub was implemented within the Bayer AG enabling functions in 2021. The main task of this global service hub involves the central coordination of administrative activities and the charging-on of said activities within the Bayer Group on a cost source basis.

Recognition and Valuation Principles

Intangible assets that have been acquired are recognized at cost and amortized on a straight-line basis (pro rata temporis) over their estimated useful lives on an individual basis. Self-generated intangible assets are not capitalized.

Property, plant and equipment is carried at the cost of acquisition or construction less depreciation of assets that are subject to wear and tear in line with their individual useful lives. The straight-line method of depreciation is normally used. Movable assets that were already recognized as of December 31, 2007, are depreciated by the declining balance method at the maximum depreciation rates permitted for tax purposes, switching to the straight-line method as soon as this leads to higher annual depreciation.

Depreciation of the individual categories of property, plant and equipment, and amortization of the individual categories of intangible assets, are based on the following useful lives:

Useful Life of Intangible Assets and Property, Plant and Equipment	
Software	3 to 4 years
Other concessions, industrial property rights, similar rights and assets, and licenses thereunder	max. 30 years
Commercial buildings	25 to 40 years
Infrastructure facilities	12 to 20 years
Plant facilities	12 to 20 years
Plant and equipment	5 to 20 years
Laboratory and research equipment	3 to 5 years
Factory and office equipment	6 to 12 years
Communication technology	3 to 10 years
Vehicles	5 to 15 years
Computer equipment	3 to 4 years

Assets that can be utilized separately and are subject to depletion are depreciated in full in the year of acquisition if their cost of acquisition or construction does not exceed €800.

Write-downs are made for any declines in value that go beyond the depletion reflected in depreciation or amortization and are expected to be permanent. If the reasons for a write-down no longer apply, a write-back is made, provided that this does not cause the carrying amount to exceed the cost of acquisition or construction less depreciation or amortization.

The cost of construction of self-constructed property, plant and equipment comprises the direct cost of materials, direct manufacturing expenses, appropriate allocations of material and manufacturing overheads, and an appropriate share of the depreciation of assets used in construction.

Investments in subsidiaries and affiliated companies as well as securities recognized in noncurrent assets are carried at cost, less write-downs for any decline in value that is expected to be permanent. The shares of Zweite K-W-A Beteiligungsgesellschaft mbH were received against contribution of the shares of Bayer NV, Belgium; the accounting option was exercised to measure the shares of Zweite K-W-A Beteiligungsgesellschaft mbH at the fair value of the contributed shares according to exchange principles. This resulted in gains of €1,135 million from the sale of investments in affiliated companies. The shares of Neunte Bayer VV GmbH were received against contribution of the shares of Zweite K-W-A Beteiligungsgesellschaft mbH; the accounting option was exercised to measure the shares of Neunte Bayer VV GmbH at the fair value of the contributed shares according to exchange principles. This resulted in gains of €2,374 million from the sale of investments in affiliated companies. By contrast, the cost of the shares acquired as part of Bayer Pharma Aktiengesellschaft’s capital increase was measured at the outgoing carrying amount of the receivables contributed, such that there was no impact on income.

Where the reasons for write-downs made in previous years no longer apply or only partially apply, the respective items are written back accordingly, provided that the write-back does not cause the carrying amount to exceed the cost of acquisition.

Loans receivable that are interest-free or bear low rates of interest are carried at present value; other loans receivable are carried at nominal value. The loans also include jouissance right capital *(Genussrechtskapital)* provided to Bayer Pensionskasse VVaG, Leverkusen, Germany, and the latter’s drawings on a retroactive contribution to its effective initial fund.

Inventories are valued as follows: raw materials, supplies and goods purchased for resale at the average cost of acquisition less write-downs, and finished goods at the average cost of production. This comprises the direct cost of materials, direct manufacturing expenses, and appropriate allocations of material and manufacturing overheads, including manufacturing-related depletion of noncurrent assets. Write-downs are recognized if the fair value is below the carrying amount.

Receivables and other assets are stated at nominal value, less any necessary write-downs. The amounts of such write-downs reflect the probability of default. Non-interest-bearing or low-interest receivables that are due in more than one year are recognized at their discounted value.

Cash and bank deposits held in euros are recognized at their nominal value; such assets held in foreign currencies are translated at the spot rate on the closing date of the financial statements.

The deferred charges on the statement of financial position contain expenditures prior to the closing date that will give rise to expense in a defined subsequent period. Also included are the differences between the issue and settlement amount for bonds issued by Bayer AG that will be amortized over the maturity of the bonds.

The amounts required to meet credit balances on employees’ long-term worktime accounts and certain pension obligations are invested indirectly via intermediate investment vehicles through a Belgian investment company operating as a SICAV *(Société d’investissement à capital variable)*. They are invested in basically liquid international fixed-income bonds, shares, real estate and alternative investments. The assets are administered on behalf of Bayer AG by Bayer Pension Trust e. V. (BPT), Germany. All investments are protected from other creditors in the event that the employer files for insolvency. They are measured at fair value, which is derived from stock market prices and market interest rates. The trust assets held by BPT are offset against the underlying obligations. If the obligations of a given plan exceed its assets, a provision is recorded. If the value of the securities exceeds the obligations of a given plan, it is recorded in the statement of financial position as a surplus from offsetting. This was the case in 2021 for both surplus obligations and surplus assets. Accordingly, in the income statements, income from the trust assets is offset against the interest portion of the corresponding obligations and changes in the discount rate.

Deferred taxes are assessed for temporary differences between the amounts of assets, liabilities, deferred charges and deferred income in the accounting statements and those in the tax statements. This assessment takes into account not only the differences reflected in Bayer AG’s own statement of financial position, but also those existing at subsidiaries with which it forms a fiscal entity for tax purposes and in which it holds an equity interest. In addition to temporary differences, tax loss carryforwards are taken into account. Deferred taxes are calculated on the basis of the combined income tax rate for the fiscal entity headed by Bayer AG, which is currently 29.57%. The combined income tax rate comprises corporate income tax, trade tax and the solidarity surcharge. In the case of partnerships, however, deferred taxes relating to temporary differences in the statement of financial position are calculated using a combined income tax rate that includes only corporate income tax and the solidarity surcharge; this combined rate is currently 15.83%. Any resulting tax liability would be recognized as a deferred tax liability in the statement of financial position. In the event of a tax receivable, the corresponding option to recognize the deferred tax asset would not be used. In 2021, there was a deferred tax asset, which therefore was not recognized in the statement of financial position.

The capital stock of Bayer AG is divided into 982,424,082 no-par registered shares, each of which has a theoretical proportionate interest of €2.56 in the total capital stock of €2,515,005,649.92.

Provisions for pensions are computed using the projected unit credit method on the basis of biometric probability using the Heubeck 2018 G reference tables. Expected future salary and pension increases are taken into account. We assume annual salary increases of 2.25% (2020: 2.25%) and annual pension increases of 1.80% (2020: 1.60%). For pension entitlements granted since January 1, 2000, an annual pension increase of 1.00% is generally accounted for as this has been promised to the employees. The discount rate used for pension provisions as at December 31, 2021, was 1.87% (December 31, 2020: 2.30%), which is the average market interest rate for the past 10 years for instruments with an assumed remaining maturity of 15 years, as published by the Deutsche Bundesbank for December 2021. Deficits from indirect pension commitments are not recognized in the statement of financial position.

Other provisions are established to cover all foreseeable risks and uncertain liabilities based on reasonable estimates of the future settlement amounts of such commitments. Future price and cost increases are taken into account where there are sufficient objective indications that such increases will most probably occur. Provisions maturing in more than one year are discounted to present value using the average market interest rate for the past seven years, based on their remaining maturities. For longer-term personnel-related provisions, such as provisions for long-service anniversaries, a discount rate of 1.35% (2020: 1.60%) is used for an assumed period of 15 years until utilization. Shorter-term personnel-related provisions, such as those for obligations under early retirement arrangements, are discounted using a rate that corresponds to their maturity, which in 2021 was three years. The discount rate was 0.40% (2020: 0.54%). These are the rates published or expected by the Deutsche Bundesbank for December 2021.

Liabilities are recognized at the settlement amount as of the closing date. Noncurrent liabilities containing an interest component are discounted using the average market interest rate in the past seven years applicable to their maturity.

Foreign currency receivables and liabilities, forward exchange contracts and other currency derivatives are recognized using the mark-to-market method. For this purpose, foreign currency receivables and payables are measured at spot rates, while the corresponding currency derivatives entered into for hedging purposes are valued at the market forward rates on the closing date. Unrealized gains and losses from hedging relationships are then offset in each currency using the net hedge presentation method. Provisions are set up for any net unrealizable losses; net unrealizable gains are only recognized if they relate to receivables and liabilities with a remaining maturity of up to one year.

The deferred income on the statement of financial position contains payments received prior to the closing date that will give rise to income in a specific future period. This includes license payments, the majority of which will be amortized over the estimated useful life of the asset, starting when marketing approval is obtained for the respective product.

Contingent liabilities arising from sureties and debt guarantees are shown at the amounts equivalent to the loans or commitments actually outstanding on the closing date.

Notes to the Income Statements

1. Sales

Sales by Business Unit

€ million	2020 (adjusted)	2021
Pharmaceuticals	9,479	9,866
Crop Science	4,471	4,636
Enabling Functions	593	995
	14,543	**15,497**

Sales by Region

€ million	2020	2021
Europe/Africa/Middle East	6,143	6,572
North America	3,389	3,623
Asia/Pacific	3,519	3,904
Latin America	1,492	1,398
	14,543	**15,497**

In connection with the switchover from the cost-of-sales method to the total cost (nature of expense) method, transactions relating to the business lease model, which previously had been reported as transitory without affecting the income statement, are now recognized as income or expense owing to the change in requirements to include full reporting of all cost types. As a result, the 2020 sales figure shown above is €558 million higher than the figure reported in the 2020 financial statements.

2. Other operating income

Other Operating Income

€ million	2020 (adjusted)	2021
Income from currency translation	4,024	2,535
Realized exchange gains	*3,938*	*2,497*
Unrealized income from valuation	*86*	*38*
Gains from the disposal of noncurrent assets	31	1
Income from the reversal of provisions	124	530
of which provisions for restructuring	*66*	*328*
of which energy-management obligations	*–*	*66*
Income from charging-on of costs in connection with the sale of the Animal Health business unit[1]	87	–
Intra-Group income from the sale of right-of-use assets	–	53
Gain from the merger with Bayer Business Services GmbH	28	–
State grants for research and development	13	15
Miscellaneous operating income	60	73
	4,367	**3,207**

[1] The prior-year figure of €79 million was adjusted.

In connection with the switchover from the cost-of-sales method to the total cost (nature of expense) method, income from currency translation is now shown under other operating income pursuant to Section 277, Paragraph 5, Sentence 2 of the German Commercial Code. In the prior-year's financial statements, however, such income was shown under other financial income and expenses. The prior-year figures have been adjusted accordingly.

3. Cost of materials

The primarily sales-related business lease fees paid to the lessors Bayer CropScience AG and Bayer Pharma AG are shown under expenses for purchased services. The same applies to license fees incurred relating to the use of production and marketing rights.

In connection with the switchover from the cost-of-sales method to the total cost (nature of expense) method, expenses relating to the business lease model, for example, are now reported as expenses for purchased services. As a result, the 2020 figure shown for the cost of materials is €4,917 million higher than the cost of materials figure reported in the Notes to the 2020 financial statements.

Energy costs are reported under expenses for raw materials, supplies and purchased goods. Energy costs are reported under expenses for raw materials, supplies and purchased goods, while energy purchases were included under expenses for purchased services within the cost of materials in the Notes to the 2020 financial statements.

4. Personnel expenses/employees

The personnel expenses shown here do not contain the interest portion of personnel-related provisions, especially pension provisions, which is included in net interest expense.

In connection with the switchover from the cost-of-sales method to the total cost (nature of expense) method, restructuring-related expenses, among others, are reported under other operating expenses. As a result, the 2020 figure shown below for personnel expenses is €406 million lower than the figure for personnel expenses reported in the Notes to the 2020 financial statements.

The average number of employees at Bayer AG in 2021 was 18,727, subdivided as follows:

Employees

	2021	
	Female	**Male**
Senior executives and senior managers	1,381	2,983
Junior managers and nonmanagerial employees	5,260	9,103
	6,641	**12,086**

Part-time employees are included in this figure on a prorated basis.

5. Write-downs on intangible assets and property, plant and equipment

In the prior-year financial statements, valuation write-downs were recorded under cost of goods sold, selling expenses, research and development expenses and administration expenses using the cost-of-sales method.

In 2021, write-downs of €29 million (2020: €5 million) were made on intangible assets. This figure included €23 million in write-downs related to the termination of a development collaboration.

6. Other operating expenses

Other Operating Expenses

€ million	2020 (adjusted)	2021
Expenses from currency translation	3,893	2,571
Realized exchange losses	*3,823*	*2,541*
Unrealized expenses from valuation	*70*	*30*
Expenses for severance payments	669	291
Expenses for logistics	180	208
Information expenses	545	375
Training expenses	47	29
External personnel expenses	158	133
Expenses for waste disposal	76	77
Dues and fees	38	24
Expenses for insurance and damage claims	95	92
Marketing and selling expenses	322	421
Rental and leasing expenses	379	343
Expenses for services	58	146
Research expenses	1,142	1,218
Consulting, auditing and administration expenses	376	313
Expenses for patents, trademarks and licenses	167	164
Donations, grants/funding	16	25
Expenses from the reimbursement of restructuring costs	33	288
Expenses in connection with the sale of the Animal Health business unit	89	9
Margin compensation for consortium businesses	–	67
Expenses in connection with the sale of the CEB facility in Wuppertal	55	–
Miscellaneous operating expenses	47	129
	8,385	**6,923**

In connection with the switchover from the cost-of-sales method to the total cost (nature of expense) method, expenses from currency translation are now shown under other operating expenses pursuant to Section 277, Paragraph 5, Sentence 2 of the German Commercial Code (HGB). In the prior-year financial statements, such expenses were shown under other financial income and expense. The prior-year figures have been adjusted accordingly.

In 2021, the switchover from the cost-of-sales method to the total cost (nature of expense) method resulted in some selling, research and development expenses as well as the general administration expenses being reclassified to other operating expenses. This means that the other operating expenses reported in the 2020 and 2021 financial statements are not comparable. The 2020 figures in this report have been adjusted accordingly.

7. Income from investments in affiliated companies – net

Income from Investments in Affiliated Companies – Net

€ million	2020	2021
Income from affiliated companies	500	204
of which from subsidiaries	*500*	*204*
Income from profit and loss transfer agreements with subsidiaries	290	2,073
Expenses from profit and loss transfer agreements with subsidiaries	(5,431)	(69)
Write-downs of investments in affiliated companies	(12)	(105)
Gains from the sale of investments in affiliated companies	4,447	3,557
	(206)	**5,660**

Details of the income and expenses from investments in affiliated companies are given in the Combined Management Report of Bayer AG and the Bayer Group.

The write-downs of investments in affiliated companies in 2021 included €89 million (2020: €12 million) for Bayer Türk Kimya Sanayii Limited Sirketi, Turkey, and €16 million for Bayer Capital Corporation B.V., Netherlands.

The €3,557 million in gains from the sale of investments in affiliated companies included €1,135 million from the placement of the shares of Bayer NV, Belgium, into Zweite K-W-A Beteiligungsgesellschaft mbH at their fair value, and €2,374 million from the placement of the shares of Zweite K-W-A Beteiligungsgesellschaft mbH into Neunte Bayer VV GmbH at their fair value in return for the granting of new shares.

8. Interest income/expense – net

Interest Income/Expense – Net

€ million	2020	2021
Income from other securities and loans recognized in noncurrent assets	617	554
of which from subsidiaries	*606*	*543*
Other interest and similar income	85	83
of which from subsidiaries	*64*	*57*
Interest and similar expenses	(460)	(333)
of which to subsidiaries	*(189)*	*(56)*
Interest income/expense portion of pension and other noncurrent personnel-related provisions (net)	(188)	(198)
Interest expense portion of other noncurrent provisions	(11)	(18)
	43	**88**

The development of the net interest position is explained in the Combined Management Report of Bayer AG and the Bayer Group.

Expenses relating to the interest portion of pension and other noncurrent personnel-related provisions comprised the net amount from the unwinding of discount on the present value of the defined benefit obligation after offsetting income from and changes in the value of the assets held by Bayer Pension Trust e. V. (BPT), Germany, and the impact of the change in the discount rate. The assets held by BPT serve the sole purpose of meeting pension obligations and the obligations arising from credit balances on employees' long-term worktime accounts. The Trust's assets are protected from other creditors.

The income from plan assets was netted with the interest portion of pension and other personnel-related provisions as follows:

Netting of the Interest Portion of Pension and Personnel-Related Provisions with Income from Plan Assets

€ million	2020	2021
Interest expense portion of pension and other noncurrent personnel-related provisions and expenses from changes in the discount rate (gross)	(508)	(579)
Income from assets held by Bayer Pension Trust e. V.	320	381
	(188)	**(198)**

9. Other financial income/expense – net

Other Financial Income/Expense – Net

€ million	2020 (adjusted)	2021
Changes in provisions for pensions and other noncurrent personnel-related provisions (excluding interest portion)	(47)	(70)
Allocation to pension provisions assigned to subsidiaries	88	91
Guarantee fees for sureties granted	50	46
Write-backs of securities recognized in noncurrent assets	49	–
Dividend income from Covestro AG	14	–
Bond fees	(14)	(10)
Gains from the sale of shares in Covestro AG	45	22
Income from Aspire[1]	48	11
Expenses from Aspire[1]	(22)	–
Repayment of exchangeable bond	52	–
Miscellaneous financial expenses	(11)	(9)
	252	**81**

[1] The presentation of income and expenses from Aspire takes into account the annual tranches.

In connection with the switchover from the cost-of-sales method to the total cost (nature of expense) method, expenses and income from currency translation are now shown under other operating expenses and other operating income respectively, pursuant to Section 277, Paragraph 5, Sentence 2 of the German Commercial Code. In the 2020 financial statements, these items were presented under other financial income and expense. The 2020 figures in this report have been adjusted accordingly.

The interest portion of allocations to pension and other noncurrent personnel-related provisions is included in interest expense. Other financial income and expense contains further changes in pension provisions, not related to the interest portion, pertaining to former employees of Bayer AG who retired before the hive-down of the business areas and service areas (effective date: July 1, 2002) or who left the company before then and have vested pension rights. Changes of this kind occur in the event of changes in actuarial valuation parameters.

The expenses for allocations to the above provisions for employees who retired or left the company before July 1, 2002, are generally reimbursed by the subsidiaries on a prorated basis under the respective carve-out agreements.

The write-backs of securities recognized in noncurrent assets in 2020 pertained entirely to shares of Covestro AG, Germany.

10. Income taxes

The tax expense reflected here comprises amounts paid or owed for corporate income tax, trade tax and the solidarity surcharge, and income taxes paid outside Germany totaling €270 million, of which €41 million pertained to prior-year tax expenses.

As permitted by the option in Section 274, Paragraph 1, Sentence 2 of the German Commercial Code (HGB), the €1,563 million excess of deferred tax assets over deferred tax liabilities at year-end 2021 was not recognized.

Deferred tax assets mainly resulted from the valuation of pension obligations being higher in the accounting statements than in the tax statements. Other deferred tax assets resulted from provisions that are not tax-deductible, such as those for impending losses and pre-retirement leave, and from differences in the measurement of, for example, provisions for early retirement and service anniversaries, as well as interests in partnerships. There was also a deferred tax asset relating to an as yet unused tax loss carryforward.

Deferred tax liabilities principally arose from differences between the valuations of noncurrent assets and assets invested with Bayer Pension Trust e. V., Germany, which cover pension commitments, in the accounting statements and the valuations in the tax statements.

11. Other taxes

In connection with the switchover from the cost-of-sales method to the total cost (nature of expense) method, other taxes are reported separately as a separate item in 2021. In the prior-year financial statements, they were reported under other operating expenses and functional costs. The prior-year figures have been adjusted accordingly.

Notes to the Statements of Financial Position

12. Intangible assets

Intangible Assets

€ million	Acquired concessions, industrial property rights, similar rights and assets, and licenses thereunder	Advance payments	Total
Gross carrying amounts, Dec. 31, 2020	459	65	524
Additions	89	36	125
Retirements	–	–	–
Transfers	42	(42)	–
Gross carrying amounts, Dec. 31, 2021	**590**	**59**	**649**
Accumulated amortization and write-downs, Dec. 31, 2020	155	–	155
Amortization and write-downs	90	6	96
Retirements	–	–	–
Accumulated amortization and write-downs, Dec. 31, 2021	**245**	**6**	**251**
Net carrying amounts, Dec. 31, 2021	**345**	**53**	**398**
Net carrying amounts, Dec. 31, 2020	304	65	369

13. Property, plant and equipment

Property, Plant and Equipment

€ million	Land and buildings	Plant and equipment	Furniture, fixtures and other equipment	Advance payments and assets under con-struction	Total
Gross carrying amounts, Dec. 31, 2020	63	30	36	9	138
Additions	–	2	5	3	10
Retirements	–	2	8	2	12
Transfers	–	3	1	(4)	–
Gross carrying amounts, Dec. 31, 2021	**63**	**33**	**34**	**6**	**136**
Accumulated depreciation and write-downs, Dec. 31, 2020	61	16	17	–	94
Depreciation and write-downs	–	4	7	–	11
Retirements	–	1	6	–	7
Accumulated depreciation and write-downs, Dec. 31, 2021	**61**	**19**	**18**	**–**	**98**
Net carrying amounts, Dec. 31, 2021	**2**	**14**	**16**	**6**	**38**
Net carrying amounts, Dec. 31, 2020	2	14	19	9	44

14. Investments

Investments

€ million	Investments in subsidiaries	Loans to subsidiaries	Investments in other affiliated companies	Securities included in investments	Other loans	Total
Gross carrying amounts, Dec. 31, 2020	49,437	15,932	102	415	792	66,678
Additions	14,876	1	53	–	–	14,930
Retirements	6,799	2,063	22	415	2	9,301
Transfers	–	–	–	–	–	–
Gross carrying amounts, Dec. 31, 2021	**57,514**	**13,870**	**133**	**–**	**790**	**72,307**
Accumulated write-downs, Dec. 31, 2020	161	5	–	141	1	308
Write-downs	105	–	–	–	–	105
Write-backs	–	1	–	–	–	1
Retirements	2	–	–	141	–	143
Accumulated write-downs, Dec. 31, 2021	**264**	**4**	**–**	**–**	**1**	**269**
Net carrying amounts, Dec. 31, 2021	**57,250**	**13,866**	**133**	**–**	**789**	**72,038**
Net carrying amounts, Dec. 31, 2020	49,276	15,927	102	274	791	66,370

Further information on the development of financial assets is given in the Combined Management Report of Bayer AG and the Bayer Group.

Other loans mainly comprised jouissance right capital (*Genussrechtskapital*) and the capital provided for the effective initial fund. Bayer AG undertook to provide jouissance right capital with a nominal volume of €150 million for Bayer-Pensionskasse VVaG under a jouissance rights agreement. This repayable capital has been drawn in three €50 million installments, with each installment being provided for a period of at least five years.

In 2008, Bayer AG established a repayable "effective initial fund" of €800 million for Bayer-Pensionskasse VVaG, Germany, which was increased to €1,600 million in 2012. Of this amount, the pension fund has so far drawn €635 million. The jouissance right capital and the capital provided for the effective initial fund are interest-bearing, but interest is only payable under certain contractually agreed conditions. Interest must be deferred if it would result in the pension fund reporting a net loss.

Details of the subsidiary and affiliated companies of Bayer AG pursuant to Section 285, Numbers 11, 11a and 11b of the German Commercial Code are included in the annual financial statements that have been certified and submitted for publication in the German Federal Gazette (Bundesanzeiger). They are also available at www.bayer.com/shareownership2021.

15. Inventories

Inventories

€ million	Dec. 31, 2020	Dec. 31, 2021
Raw materials and supplies	618	697
Work in process	1,153	1,334
Finished goods	505	433
Goods purchased for resale	120	115
	2,396	**2,579**

16. Trade accounts receivable

Trade Accounts Receivable

€ million	Dec. 31, 2020	Dec. 31, 2021
Accounts receivable from subsidiaries	1,507	1,662
Accounts receivable from other customers	348	395
	1,855	**2,057**

17. Accounts receivable from subsidiaries

Accounts receivable from subsidiaries mainly comprised financial receivables, for example, in connection with loans or overnight funds, accrued interest, and receivables relating to profit transfers from subsidiaries that form a fiscal entity with Bayer AG.

18. Other assets

Other Assets

€ million	Dec. 31, 2020	Dec. 31, 2021
Payroll receivables	23	16
Claims for tax refunds	306	192
Short-term investments	1,200	492
Receivables under collaboration agreements	8	–
Receivables from call deposits and current account at non-banks	45	44
Advance payments disbursed	21	20
Other	42	31
	1,645	**795**

The other assets included €3 million (2020: €9 million) for assets that did not legally come into being until after year end. With some insignificant exceptions, these consisted entirely of accrued interest.

19. Receivables and other assets maturing in more than one year

As in the previous year, all receivables and other assets were due in less than one year.

20. Securities

The €1,219 million in securities reported here are short-term euro investments with indefinite maturities (2020: €2,801 million).

21. Deferred charges

The deferred charges as of December 31, 2021, included unamortized discounts totaling €40 million pertaining to bonds issued by Bayer AG. The amount of €25 million recognized in the prior year was increased by €17 million due to additions and was diminished by €2 million due to reversals.

Likewise reported here are accrued charges of €5 million (2020: €11 million) for credit facilities that Bayer had arranged for the acquisition of Monsanto, among other things.

The remaining deferred charges comprised advance payments of charges for other credit facilities, prepaid premiums for business insurance and other accrued charges.

22. Surplus from offsetting

Obligations arising from credit balances on employees' long-term worktime accounts and from pension commitments are either fully or partially secured. The assets invested under individual contractual trust arrangements (CTAs) are offset against the underlying obligations. Any positive difference is capitalized as a surplus from offsetting, otherwise it is reflected in provisions. As of December 31, 2021, the offset resulted in a positive difference of €251 million (2020: €224 million), of which €181 million (2020: €132 million) comprised obligations from long-term worktime accounts and €70 million (2020: €92 million) comprised pension commitments.

Surplus from Offsetting for Work-Time Accounts

€ million	Dec. 31, 2020	Dec. 31, 2021
Settlement value of obligations relating to credit balances on employees' long-term worktime accounts	229	272
Fair value of assets invested with Bayer Pension Trust	361	453
Excess of assets over obligations relating to long-term worktime accounts (surplus from offsetting)	**132**	**181**
Acquisition cost of assets invested with Bayer Pension Trust	306	374

Surplus from Offsetting for Pension Commitments

€ million	Dec. 31, 2020	Dec. 31, 2021
Settlement value of pension commitments	601	676
Fair value of assets invested with Bayer Pension Trust	693	746
Excess of assets over obligations relating to pension commitments (surplus from offsetting)	**92**	**70**
Acquisition cost of assets invested with Bayer Pension Trust	533	536

The collateral assets are measured at fair value. Their fair value as of December 31, 2021, was €5,450 million. Offsetting €1,199 million of the collateral assets against underlying obligations resulted in a positive difference, which was recorded as a surplus from offsetting; offsetting of the remaining €4,251 million against obligations was reported under provisions for pensions.

23. Equity

Equity

€ million	Dec. 31, 2020	Dividend for 2020	Net income	Allocation to other retained earnings	Dec. 31, 2021
Capital stock	2,515	–	–	–	2,515
Capital reserve	18,845	–	–	–	18,845
Other retained earnings	4,980	–	–	2,055	7,035
Distributable profit	1,965	(1,965)	4,110	(2,055)	2,055
	28,305	**(1,965)**	**4,110**	**–**	**30,450**

The capital stock of Bayer AG remained at €2,515,005,649.92. As in the previous year, it was divided into 982,424,082 no-par registered shares and was fully paid up, with each share conferring one voting right.

For the purpose of the employee stock participation program BayShare, Bayer AG acquired 499,970 no-par registered shares at an average price of €51.41 per share on November 10, 2021, pursuant to Section 71, Paragraph 1, No. 8 of the German Stock Corporation Act. These shares corresponded to €1,279,923.20, or 0.05%, of the capital stock. The value of these shares was around €26 million at the date of acquisition. Of the shares acquired, 499,786.03 were placed in employees' share deposit accounts in November 2021 at a price of €51.33 per share. The remaining 183.97 shares were sold on the stock market at a price of €45.81 per share. This generated a loss of €41,059 in total. Bayer AG did not hold any own shares as of December 31, 2021.

Information on amounts barred from distribution pursuant to Section 253, Paragraph 6 and Section 268, Paragraph 8 of the German Commercial Code (HGB)

The provisions for pensions recognized in the statement of financial position (before deduction of the corresponding assets) were calculated on the basis of the relevant average market interest rate for the past 10 years. If the average for the past seven years had been used, the obligations would have been €602 million higher.

To secure pension obligations and credit balances on employees' long-term worktime accounts, funds have been transferred to Bayer Pension Trust e. V. (BPT), Germany, under several contractual trust arrangements (CTAs). They may only be used for the specified purpose and are protected from other creditors in the event that the employer becomes insolvent. They are measured at fair value. The total fair value of the fund assets of all the CTAs was €1,222 million above their total acquisition cost of €4,227 million.

The sum of the difference between the pension obligations based on the average interest rates for 10 and seven years and the difference between the higher fair value and the acquisition cost of the assets held by BPT was €1,824 million. Since the freely available retained earnings amount to €7,035 million, there is no restriction on the use of the distributable profit of €2,055 million.

Notifications of direct and indirect stockholdings pursuant to Section 33, Paragraph 1 of the Securities Trading Act (WpHG)

As of the closing date, we had received the following notifications of stockholdings in Bayer AG pursuant to Section 33, Paragraph 1 of the German Securities Trading Act (WpHG). In cases where stockholdings reached, exceeded or fell below the thresholds set out in this legislation on several occasions, only the most recent notification is mentioned.

Voting Rights Notifications

Name, domicile and country of the reporting company	Date of change	Notification according to WpHG	Percent	Shares
BlackRock Inc., Wilmington, U.S.A.	Mar. 26, 2018	§ 34 WpHG	7.170	59,256,963
		§ 38 (1) Nr. 1 WpHG Securities Lending	0.260	2,119,910
		§ 38 (1) Nr. 2 WpHG Call Option	0.005	30,500
		§ 38 (1) Nr. 2 WpHG Contract for Difference	0.020	143,918
		§ 39 WpHG	7.455	61,551,291
Government of Singapore, Singapore	Apr. 18, 2018	§ 34 WpHG	3.970	34,078,853
		§ 38 (1) Nr. 2 WpHG Put Option	0.200	1,684,676
		§ 39 WpHG	4.170	35,763,529
Harris Associates L.P., Wilmington, U.S.A.	Nov. 20, 2020	§ 34 WpHG	3.020	29,633,044
		§ 39 WpHG	3.020	29,633,044
Massachusetts Financial Services Company, Boston, U.S.A.	July 8, 2021	§ 34 WpHG	2.990	29,363,589
		§ 39 WpHG	2.990	29,363,589
The Goldman Sachs Group, Wilmington, U.S.A.	Sept. 15, 2021	§ 34 WpHG	0.050	489,729
		§ 38 (1) Nr. 1 WpHG Right To Recall	0.500	4,896,107
		§ 38 (1) Nr. 1 WpHG Swap	0.020	231,752
		§ 38 (1) Nr. 1 WpHG Call Option	0.920	9,010,408
		§ 38 (1) Nr. 1 WpHG Future	0.410	4,035,094
		§ 38 (1) Nr. 1 WpHG Call Warrant	0.010	107,540
		§ 38 (1) Nr. 2 WpHG Call Option	0.330	3,232,145
		§ 38 (1) Nr. 2 WpHG Put Option	0.410	3,985,370
		§ 38 (1) Nr. 2 WpHG Swap	0.920	9,028,722
		§ 38 (1) Nr. 2 WpHG Call Warrant	0.280	2,730,284
		§ 38 (1) Nr. 2 WpHG Put Warrant	0.050	484,781
		§ 38 (1) Nr. 2 WpHG Forward	0.100	946,561
		§ 38 (1) Nr. 2 WpHG Future	0.790	7,803,133
		§ 39 WpHG	4.790	46,981,626

For further details, please see the individual voting rights notifications received, which are published on our website at www.bayer.com/en/investors/voting-rights-announcements.

24. Provisions for pensions

This item includes provisions for current and future pension entitlements.

It also includes commitments to former employees of the business areas and service areas hived down into separate legal entities in 2002 and 2003 who retired before July 1, 2002, or who left the company before this date and have vested pension rights. The respective companies reimburse Bayer AG for these expenses as a matter of course.

Obligations arising from pension commitments are partially secured by assets invested with Bayer Pension Trust e. V., Leverkusen. Any positive difference from the offsetting of these assets against the underlying obligations is capitalized as a surplus from offsetting, while any negative difference is reflected in provisions.

Further information on the CTA is given in Note 22.

Provisions for Pensions

€ million	Dec. 31, 2020	Dec. 31, 2021
Settlement value of pension commitments	5,533	6,164
Fair value of assets invested with Bayer Pension Trust	3,837	4,251
Net value of pension commitments (provisions)	**(1,696)**	**(1,913)**
Acquisition cost of assets invested with Bayer Pension Trust	3,193	3,318

The deficit due to unrecognized pension obligations from indirect commitments under Section 28, Paragraph 2 of the Introductory Law to the German Commercial Code (EGHGB) amounted to €509 million.

25. Other provisions

Other Provisions

€ million	Dec. 31, 2020	Dec. 31, 2021
Provisions for taxes	732	571
Other provisions	2,362	2,567
– Early retirement	352	300
of which restructuring- and personnel-related	*328*	*285*
– Service-anniversary obligations	94	98
– Stock programs for employees	105	113
– Restructuring related to personnel	812	663
– Restructuring not related to personnel	38	292
– Variable, one-time payments to employees	189	528
– Impending losses	471	415
– Miscellaneous provisions	301	158
	3,094	**3,138**

26. Bonds and promissory notes

Bonds

	Nominal value	Stated rate	Effective rate	Dec. 31, 2020	Dec. 31, 2021
		%	%	**€ million**	**€ million**
Hybrid bond 2014/2074[1]	EUR 1,500 million	3.750	3.811	1,500	1,500
Hybrid bond 2015/2075[2]	EUR 1,300 million	2.375	2.517	1,300	1,300
Hybrid bond 2019/2079[3]	EUR 1,000 million	2.375	2.597	1,000	1,000
Hybrid bond 2019/2079[4]	EUR 750 million	3.125	3.192	750	750
Bond 2014/2021	EUR 750 million	1.875	2.086	750	–
Bond 2020/2024	EUR 1,500 million	0.375	0.528	1,500	1,500
Bond 2020/2027	EUR 1,500 million	0.750	0.898	1,500	1,500
Bond 2020/2030	EUR 1,500 million	1.125	1.163	1,500	1,500
Bond 2020/2032	EUR 1,500 million	1.375	1.412	1,500	1,500
Bond 2021/2025	EUR 1,200 million	0.050	0.053	–	1,200
Bond 2021/2029	EUR 1,000 million	0.375	0.484	–	1,000
Bond 2021/2031	EUR 1,000 million	0.625	0.749	–	1,000
Bond 2021/2036	EUR 800 million	1.000	1.089	–	800
				11,300	**14,550**

[1] Redeemable at 12 months' notice from 2024, fixed interest rate until 2024, thereafter floating rate based on 5-year swap rate
[2] Redeemable at 12 months' notice from 2022; fixed interest rate until 2022, thereafter rate based on 5-year swap rate plus 200.7 basis points
[3] Redeemable at 12 months' notice from 2025; fixed interest rate until 2025, thereafter floating rate based on 5-year swap rate
[4] Redeemable at 12 months' notice from 2027; fixed interest rate until 2027, thereafter floating rate based on 5-year swap rate

27. Trade accounts payable

Trade Accounts Payable

€ million	Dec. 31, 2020	Dec. 31, 2021
Payables to subsidiaries	745	589
Payables to other suppliers	1,277	1,436
	2,022	**2,025**

28. Payables to subsidiaries

The payables to subsidiaries mainly comprised financial liabilities such as loans and overnight funds made available to Bayer AG by subsidiaries, plus the respective accrued interest.

29. Miscellaneous liabilities

Miscellaneous Liabilities

€ million	Dec. 31, 2020	Dec. 31, 2021
Accrued interest	105	115
Commercial paper/short-term borrowings	43	1,223
Liabilities from hedges	49	85
Social insurance liabilities	1	–
Liabilities from employees' income and church taxes	100	90
Liabilities relating to income and sales taxes	37	32
Current account liabilities	10	18
Purchase price adjustment from the sale of the Animal Health business unit	77	2
Other	23	31
	445	**1,596**

As in the previous year, the other miscellaneous liabilities included payroll and other operating liabilities.

30. Further information on liabilities

Maturity Structure of Other Liabilities

	Dec. 31, 2020		Dec. 31, 2021	
€ million	Maturing in 2021	Maturing after 2021	Maturing in 2022	Maturing after 2022
Bonds	750	10,550	1,300	13,250
Liabilities to banks	3,248	–	333	–
Down payments received on orders	12	–	125	–
Trade accounts payable	2,019	3	2,025	–
Payables to subsidiaries	32,598	500	29,400	500
Miscellaneous liabilities	445	–	1,596	–
	39,072	**11,053**	**34,779**	**13,750**

Of the total other liabilities, €8,050 million (2020: €8,050 million) had residual maturities of more than five years. The 2021 amount consisted entirely of bonds, as in the previous year.

The total other liabilities included €115 million (2020: €105 million) in accrued interest that did not legally come into being until after year end.

31. Deferred income

The deferred income comprised advance payments under licenses and settlement agreements as well as payments for services to be delivered in the future.

Other Information

32. Contingent liabilities

Liabilities arising from debt guarantees totaled €23,042 million (2020: €25,328 million). They were issued in favor of subsidiaries. Based on our knowledge of their respective economic situations, all of these companies are able to meet the underlying liabilities. The contingent liabilities are therefore not expected to materialize.

Debt Guarantees

	Dec. 31, 2020 Nominal amount	Dec. 31, 2020 € million	Dec. 31, 2021 Nominal amount	Dec. 31, 2021 € million
Guarantees for current and former Group companies				
Bayer Capital Corporation B.V., Netherlands				
– 1.250% DIP notes, maturing in 2023	EUR 500 million	500	EUR 500 million	500
– 0.000% DIP notes, maturing in 2022[1]	EUR 750 million	750	EUR 750 million	750
– 0.625% DIP notes, maturing in 2022	EUR 1,000 million	1,000	EUR 1,000 million	1,000
– 1.500% DIP notes, maturing in 2026	EUR 1,750 million	1,750	EUR 1,750 million	1,750
– 2.125% DIP notes, maturing in 2029	EUR 1,500 million	1,500	EUR 1,500 million	1,500
Bayer Corporation, U.S.A.				
– 6.650% notes, maturing in 2028	USD 350 million	285	USD 350 million	308
– Commercial paper	USD 21 million	18	–	–
– Liabilities to banks	USD 81 million	66	USD 81 million	71
Bayer US Finance LLC, U.S.A.				
– 3.000% notes, maturing in 2021	USD 1,500 million	1,222	–	–
– 3.375% notes, maturing in 2024	USD 1,750 million	1,426	USD 1,750 million	1,545
Bayer US Finance II LLC, USA				
– 3.500% notes, maturing in 2021	USD 1,250 million	1,019	–	–
– 0.881% notes, maturing in 2021[2]	USD 1,250 million	1,019	–	–
– 2.750% notes, maturing in 2021	USD 318 million	259	–	–
– 2.200% notes, maturing in 2022	USD 189 million	154	USD 189 million	166
– 1.213% notes, maturing in 2023[3]	USD 1,250 million	1,019	USD 1,250 million	1,104
– 3.875% notes, maturing in 2023	USD 2,250 million	1,834	USD 2,250 million	1,986
– 3.375% notes, maturing in 2024	USD 609 million	497	USD 609 million	538
– 2.850% notes, maturing in 2025	USD 250 million	204	USD 250 million	220
– 5.500% notes, maturing in 2025	USD 276 million	225	USD 276 million	244
– 4.250% notes, maturing in 2025	USD 2,500 million	2,038	USD 2,500 million	2,207
– 4.375% notes, maturing in 2028	USD 3,500 million	2,853	USD 3,500 million	3,090
– 4.200% notes, maturing in 2034	USD 427 million	348	USD 427 million	377
– 5.500% notes, maturing in 2035	USD 318 million	259	USD 318 million	281
– 5.875% notes, maturing in 2038	USD 212 million	173	USD 212 million	188
– 4.625% notes, maturing in 2038	USD 1,000 million	815	USD 1,000 million	883
– 3.600% notes, maturing in 2042	USD 241 million	196	USD 241 million	213
– 4.650% notes, maturing in 2043	USD 292 million	238	USD 292 million	258
– 4.400% notes, maturing in 2044	USD 916 million	746	USD 916 million	809
– 3.950% notes, maturing in 2045	USD 449 million	366	USD 449 million	396
– 4.875% notes, maturing in 2048	USD 2,000 million	1,630	USD 2,000 million	1,765
– 4.700% notes, maturing in 2064	USD 727 million	592	USD 727 million	642
Bayer Holding Ltd., Japan				
– 0.230% DIP bond, maturing in 2021	JPY 10 billion	79	–	–
– 0.260% DIP bond, maturing in 2022	JPY 10 billion	79	JPY 10 billion	77
Monsanto Company, U.S.A.				
– Lease contracts	USD 120 million	98	USD 120 million	106
Silver Birch Trustees Ltd., U.K.[4]				
– Pension obligations	–	–	–	–
Bayer Real Estate GmbH, Germany				
– Contractual obligations to Bayer-Pensionskasse VVaG	EUR 64 million	64	EUR 61 million	61
Guarantees for other Group companies		7		7
		25,328		**23,042**

[1] 3-month Euribor +0.55%
[2] 3-month USD-Libor +0.63%
[3] 3-month USD-Libor +1.01%
[4] The guarantee is provided for the amount in excess of the assets.

Bayer AG issued commitments for its subsidiaries Bayer CropScience Beteiligungsgesellschaft mbH, Bayer CropScience Vermögensverwaltungsgesellschaft mbH and Monsanto Agrar Deutschland GmbH under which it assumed liability until the end of 2022 for obligations of these companies that arose in 2021. Based on our knowledge of their respective economic situations, these companies are able to meet the underlying obligations. The contingent liabilities are therefore not expected to materialize.

The company remains liable for pension obligations of €406 million (2020: €365 million) that were transferred to a subsidiary through a liability assumption agreement or via carve-outs. The company's liability in this regard is not expected to materialize. To our knowledge, the subsidiary concerned is able to meet the respective obligations.

In connection with the Contribution, Indemnification and Post-Formation Agreement between Bayer AG and Covestro AG, Germany, arrangements have been made to settle possible claims for taxes. These may result in corresponding liabilities.

In connection with the sale of the Animal Health business to Elanco Animal Health Incorporated, agreements were reached regarding the potential settlement of tax claims that may result in corresponding liabilities.

33. Other financial commitments

In addition to provisions, other liabilities and contingent liabilities, there were also other financial commitments.

Other Financial Commitments

	€ million
Rental and lease agreements	4,530
of which with subsidiaries	*4,373*
Collaboration agreements	4,599
of which with subsidiaries	*859*
Planned or ongoing capital expenditure projects (with order commitments)	408
of which with subsidiaries	*1*
Effective initial fund of Bayer-Pensionskasse	965
Effective initial fund of Rheinische Pensionskasse	200
	10,702

34. Derivatives/hedging relationships

In the course of their business, Bayer AG and companies in the Bayer Group are exposed to foreign exchange, interest-rate and price risks, which are hedged principally by means of derivatives. Most of these are over-the-counter (OTC) instruments. Derivative financial instruments are employed on the basis of uniform guidelines and are subject to strict internal controls. Apart from a few low-value exceptions, their use is confined to the hedging of the Bayer Group's operating business and of the related investments and financing transactions. The instruments used for currency hedging are mainly forward exchange contracts, currency options and cross-currency interest-rate swaps. Interest-rate swaps are used to hedge interest rates. Stock options are used to hedge fluctuations in the value of commitments to employees under stock-based compensation programs.

The main objective of using derivatives is to reduce fluctuations in earnings and cash flows associated with changes in foreign exchange rates, interest rates, share prices and market prices.

There is a risk that the value of derivatives could change as a result of fluctuations in underlying parameters such as exchange rates, interest rates, share prices or market prices. Where derivatives are designated as hedges, possible declines in their value are offset by corresponding increases in the value of the hedged contracts.

In the case of derivatives with a positive fair value, a credit or default risk arises if the counterparties cannot meet their obligations. To minimize this risk, contract limits are assigned to the individual banks according to their creditworthiness.

The notional amount of financial derivatives contracts concluded with external counterparties was €15.0 billion as of December 31, 2021 (December 31, 2020: €21.1 billion). Back-to-back derivatives contracts in a notional amount of €7.0 billion (December 31, 2020: €6.5 billion) were concluded with Group companies. Thus the total notional amount of derivatives was €22.0 billion (December 31, 2020: €27.6 billion), including those forming hedging relationships. The derivatives comprised the following:

Derivatives

	Notional amounts		Positive fair values		Negative fair values	
€ million	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2020**	**Dec. 31, 2021**	**Dec. 31, 2020**	**Dec. 31, 2021**
Currency contracts	23,870	20,767	194	126	(191)	(230)
Currency options	258	515	5	9	(6)	(9)
Cross-currency interest-rate swaps	306	117	43	22	(43)	(22)
Interest-rate swaps	2,300	–	3	–	(8)	–
Stock options	849	602	125	61	(163)	(78)
	27,583	**22,001**	**370**	**218**	**(411)**	**(339)**

Measurement methods

The fair values of financial derivatives are measured by the usual methods and based on the market data available at the measurement date. The following principles are applied:

- Currency contracts are measured individually at their forward rates on the closing date. The forward rates depend on spot rates, including time spreads.
- The fair values of currency options are determined using a Black-Scholes model.
- The fair values of interest-rate swaps are determined by discounting expected future cash flows. Discounting applies market interest rates for the remaining term of these instruments.
- The fair values of stock options are determined by a Monte Carlo simulation.

Hedging relationships

Due to existing and planned transactions, the company is subject to currency, interest-rate and share-price risks that in most cases are hedged through the use of financial derivatives that are pooled together to form hedging relationships. The table below presents the obligations that would arise without the hedging.

Hedging Relationships

€ million	Type of risk	Hedging relationship	Amount of the underlying transaction	Hedged risk Dec. 31, 2021
Hedging of currency risks through currency contracts and options				
– Assets and liabilities in foreign currencies	Currency risk	Macro-hedge	1,034	20
– Currency contracts passed on to Group companies	Currency risk	Portfolio hedge	6,450[1]	27
– Currency loans and deposits with Group companies	Currency risk	Portfolio hedge	3,121	2
– Planned future sales	Currency risk	Micro-hedge	2,502	1
Hedging of currency risks through cross-currency interest-rate swaps				
– Cross-currency interest-rate swaps passed on to Group companies	Currency risk	Micro-hedge	70[1]	22
Hedging of share-price risks from customized forward trade contracts				
– Customized forward trade contracts passed on to Group companies	Share-price risk	Portfolio hedge	261[1]	–

[1] These figures pertain to the nominal volumes of the hedging transactions.

Currency-based portfolio hedges were also formed with the respective transactions underlying the hedges, which were concluded for Bayer AG. Provisions of €4.8 million were established for the negative ineffectiveness of micro-hedges. Currency contracts concluded to hedge Group companies' transactions are generally passed through to the respective companies by way of appropriate internal transactions. The effects of these internal and external transactions cancel each other out when the contracts are closed out. Currency-based portfolio hedges were formed. The underlying transactions mature in 2022. Cross-currency interest-rate swaps exist to hedge Group loans granted by Bayer World Investments B.V., Netherlands. As a result of back-to-back agreements with Bayer World Investments B.V., the positive and negative fair values within multiple portfolio hedges formed according to the different maturities of the cross-currency interest-rate swaps canceled each other out.

Bayer AG has concluded customized forward trade contracts with external counterparties to hedge a portion of the obligations arising from the Aspire stock-based compensation programs. These contracts were passed through to other companies in the Bayer Group. They expire in 2022 and 2023 in line with the duration of the respective Aspire tranches. The contracts passed through to Group companies formed micro-hedges with the contracts concluded with external counterparties. The amounts resulting from these contracts therefore canceled each other out.

Derivatives that do not form hedging relationships

Financial derivatives that do not form hedging relationships were used to hedge a portion of the obligations arising from the Aspire stock-based compensation programs of Bayer AG. The customized forward trade contracts concluded for this purpose had a negative fair value of €17 million, which was recognized in provisions for impending losses.

Items in the statement of financial position and carrying amounts

The carrying amounts of hedging transactions that did not form hedging relationships or that led to ineffectiveness were recognized under the following items in the statement of financial position:

€ million	Item in the statement of financial position	Carrying amount Dec. 31, 2021
Options premiums paid	Other assets	11
Provisions for impending losses from forward exchange transactions	Other provisions	1
Provisions for impending losses from forward stock transactions	Other provisions	17
Options premiums received	Other liabilities	1

35. Legal risks

As a global company with a diverse business portfolio, the Bayer Group is exposed to numerous legal risks, particularly in the areas of product liability, competition and antitrust law, anticorruption, patent disputes, tax assessments and environmental matters. The outcome of any current or future proceedings cannot normally be predicted. It is therefore possible that legal or regulatory judgments or future settlements could give rise to expenses that are not covered, or not fully covered, by insurers' compensation payments and could significantly affect our sales and earnings. Legal proceedings we currently consider to be material are outlined below. The legal proceedings referred to do not represent an exhaustive list.

The legal risks outlined in the following are presented irrespective of whether claims are asserted or threatened solely or directly against Bayer AG, or only against Group companies. Nothing in the descriptions that follow represents an acknowledgement by Bayer AG of any legal responsibility whatsoever or, in particular, of a joint or contingent liability of Bayer AG for claims filed primarily or exclusively against Group companies. The legal risks described are those to which Bayer AG is exposed either directly or through subsidiaries. For information on the corresponding provisions established at subisidiaries, please see the Notes to the Consolidated Financial Statements of the Bayer Group as of December 31, 2021.

Product-related litigation

Xarelto™: In the United States, a large number of plaintiffs alleged personal injuries, including cerebral, gastrointestinal or other bleeding and death, from the use of Xarelto™, an oral anticoagulant for the treatment and prevention of blood clots. Plaintiffs claimed, among other things, that Xarelto™ is defective and that Bayer failed to adequately warn its users. In 2019, after prevailing in all six cases that went to trial, Bayer and Janssen Pharmaceuticals reached a global agreement to settle virtually all pending US cases for US$775 million, split equally between the two companies. The Xarelto settlement program is well-established, with fund allocation and dismissal of settled cases continuing to proceed. At this time, there remain only a very small number opt-out cases. As of February 1, 2022, eleven Canadian lawsuits relating to Xarelto™ seeking class action certification and one individual action had been served upon Bayer. Two of the proposed class actions have been certified. Bayer believes it has meritorious defenses and intends to defend itself vigorously against all claims that are not yet settled.

Essure™: In the United States, a large number of lawsuits by users of Essure™, a medical device offering permanent birth control with a nonsurgical procedure, had been served upon Bayer. Plaintiffs allege personal injuries from the use of Essure™, including hysterectomy, perforation, pain, bleeding, weight gain, nickel sensitivity, depression and unwanted pregnancy, and seek compensatory and punitive damages.

By February 1, 2022, Bayer had reached agreements in principle with plaintiff law firms to resolve approximately 99% of the nearly 40,000 total filed and unfiled U.S. Essure™ claims involving women who allege device-related injuries. The settlements include all of the jurisdictions with significant volumes of Essure™ cases, including the state of California Joint Council Coordinated Proceedings (JCCP) and the Federal District Court for the Eastern District of Pennsylvania (EDPA). Taking into account the payments already made, the remaining provision for settlements amounts to US$0.2 billion as of December 31, 2021. This includes an allowance for outstanding claims, and the company is in resolution discussions with counsel for the remaining plaintiffs. At the same time, we continue to support the safety and efficacy of the Essure™ device and are prepared to vigorously defend it in litigation where no amicable resolution can be achieved.

As of February 1, 2022, two Canadian lawsuits relating to Essure™ seeking class action certification had been served upon Bayer. One of the proposed class actions was certified. Certification in the other class action has been denied; the decision has been appealed by plaintiffs. In addition, approximately 130 single-plaintiff claims have been served on Bayer. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

Class actions over neonicotinoids in Canada: Proposed class actions against Bayer were filed in Quebec and Ontario (Canada) concerning crop protection products containing the active substances imidacloprid and clothianidin (neonicotinoids). The plaintiffs are honey producers, who have filed a proposed nationwide class action in Ontario and a Quebec-only class action in Quebec. Plaintiffs claim for compensatory damages and punitive damages and allege Bayer and another crop protection company were negligent in the design, development, marketing and sale of neonicotinoid pesticides. The proposed Ontario class action is in a very early procedural phase. In Quebec, a court certified a class proposed by plaintiffs in 2018. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

Roundup™ (glyphosate): A large number of lawsuits from plaintiffs claiming to have been exposed to glyphosate-based products manufactured by Bayer’s subsidiary Monsanto have been served upon Monsanto in the United States. Glyphosate is the active ingredient contained in a number of Monsanto’s herbicides, including Roundup™-branded products. Plaintiffs allege personal injuries resulting from exposure to those products, including non-Hodgkin lymphoma (NHL) and multiple myeloma, and seek compensatory and punitive damages. Plaintiffs claim, inter alia, that the glyphosate-based herbicide products are defective and that Monsanto knew, or should have known, of the risks allegedly associated with such products and failed to adequately warn its users. Additional lawsuits are anticipated. The majority of plaintiffs have brought actions in state courts in Missouri and California. Cases pending in U.S. federal courts have been consolidated in a multidistrict litigation (MDL) in the Northern District of California for common pre-trial management.

In 2020, Monsanto reached an agreement in principle with plaintiffs, without admission of liability, to settle most of the current Roundup™ litigation and to put in place a mechanism to resolve potential future claims. As of February 1, 2022, Monsanto had reached settlements and/or was close to settling in a substantial number of claims. As we now have greater visibility regarding the number and quality of claims made, we consider that, of the approximately 138,000 claims in total which have been brought, approximately 107,000 have been settled or are not eligible for various reasons.

The three adverse verdicts – Johnson, Hardeman and Pilliod – are not covered by the settlement. In August 2021, the California Court of Appeal ruled against Monsanto in the Pilliod appeal. In November 2021, the California Supreme Court denied review of the appeal. The Company is considering its options with respect to seeking review by the Supreme Court of the United States. The Johnson case was concluded with payment of the US$20.5 million final judgment plus interest in March 2021. In May 2021, the United States Court of Appeals for the 9th Circuit ruled against Monsanto in the Hardeman appeal. The company has petitioned the U.S. Supreme Court for review in Hardeman. In December 2021 the Supreme Court invited the U.S. Solicitor General to file a brief in the matter stating the government’s views. In light of the Supreme Court’s solicitation of views from the government, Bayer will not entertain any further settlement discussions with plaintiff lawyers at this point in time.

Bayer is convinced that the verdicts are not supported by the evidence at trial and the law and therefore intends to pursue the appeals vigorously.

In October 2021, the jury in another trial, Clark, issued a verdict in Monsanto's favor. The jury determined that Roundup™ did not cause the plaintiff's child's lymphoma. The Clark trial took place in the Superior Court of the State of California for the County of Los Angeles.

In December 2021, the jury in another trial, Stephens, issued a verdict in Monsanto's favor. The jury determined that Roundup™ did not cause the plaintiff's lymphoma. The Stephens trial took place in the Superior Court of the State of California for the County of San Bernardino.

The mechanism to resolve potential future claims involved a class settlement agreement between Monsanto and plaintiffs' counsel. In May 2021, this agreement failed to obtain approval by Judge Chhabria of the U.S. District Court for the Northern District of California. Following the judge's denial, in May 2021 Bayer announced a series of measures to resolve potential future glyphosate litigation, combining both legal and commercial actions. In July 2021, Bayer provided an update on the progress made and announced additional details. Bayer has developed two scenarios based on a potential ruling by the Supreme Court of the United States in the Hardeman case. If the Supreme Court accepts the petition filed by Bayer in August 2021 for review and rules in favor of Bayer, it would effectively end potential future litigation. The second scenario assumes that the Supreme Court either refuses to hear the Hardeman case or issues a ruling in favor of the plaintiff, in which case Bayer would activate its own claims administration program. Bayer has implemented corresponding accounting measures for this scenario.

Bayer is confident that this provides an effective path to manage and address any risks from potential future Roundup™ litigation, while simultaneously giving Bayer more control going forward. Bayer continues to believe there is no reason for safety concerns in connection with these products.

As of February 1, 2022, a total of 28 Canadian lawsuits relating to Roundup™ had been served upon Bayer, including 11 seeking class action certification.

Bayer believes it has meritorious defenses and intends to defend the safety of glyphosate and our glyphosate-based formulations vigorously.

Dicamba: In November 2016, Bader Peach Farms filed a lawsuit against Monsanto and BASF in Missouri state court. Subsequently, lawsuits from approximately 250 plaintiffs were filed in both U.S. state and federal courts alleging crop damage claims against Monsanto, primarily for soybeans, and there were approximately six non-soybean lawsuits. The general claims are that off-target movement from the dicamba herbicide and/or the Xtend™ system has damaged non-dicamba-tolerant soybean and other crops. The Dicamba Herbicide MDL, which currently includes approximately 30 cases, was formed in U.S. federal court in 2018; it is pending in the Eastern District of Missouri, Southeastern Division. In June 2021, a group of approximately 50 Texas grape vineyard growers filed a lawsuit in Texas state court (Timmons et al.) alleging dicamba damage to their vineyards, and a honey bee farmer (Coy's Honey Farm) filed a lawsuit in Arkansas federal court alleging damages due to dicamba. Both of those cases were subsequently transferred to the MDL, where a motion to dismiss is currently pending in the Coy's Honey Farm case, and the Timmons case was remanded back to Texas state court.

The first dicamba trial was the Bader Farms case which was heard in January 2020. The jury rendered a verdict for plaintiffs in the amount of US$15 million in compensatory damages and US$250 million in punitive damages, jointly and severally against defendants Monsanto and BASF. Monsanto filed post-trial motions resulting in the punitive damages being reduced to US$60 million, thereby reducing the total verdict to US$75 million. We have appealed to the 8th Circuit Court of Appeals.

With respect to all of the other dicamba cases except for Bader and a small number of newly filed lawsuits and claims, Monsanto has entered into a mass tort settlement agreement. The settlement will provide for the payment of substantiated claims by soybean growers in crop years 2015-2020 who can demonstrate a yield loss due to the application of dicamba products to an Xtend™ crop. That portion of the settlement is capped at US$300 million. The settlement also provides additional funds of up to US$100 million to pay for dicamba damage claims made by growers of other, non-soybean crops, as well as attorneys' fees, litigation costs, and settlement administration costs. Claims could be filed until May 2021, and the settlement claims administrator is currently in the process of determining claim eligibility and the amounts to be awarded to eligible claimants. Taking into account the payments already made, the remaining provision for settlements amounts to US$0.3 billion as of December 31, 2021.

Insurance against statutory product liability claims

In connection with the above-mentioned product-related litigations, Bayer is insured against statutory product liability claims to the extent customary in the respective industries and has, based on the information currently available, taken corresponding accounting measures. The accounting measures relating to, in particular, Essure™, dicamba and Roundup™ (glyphosate) claims exceed the available insurance coverage.

Patent disputes

Bollgard II RR Flex™/Intacta™: In 2019, the Cotton Producers Association of the State of Mato Grosso (AMPA) in Brazil filed a patent invalidity action in federal court seeking to invalidate four of Bayer's patents covering Bollgard II RR Flex™, a cotton technology owned by Bayer. In 2020, the Brazilian patent office, in the court proceedings, acknowledged the validity of all four challenged patents. Two of the patents are also being challenged in administrative nullity proceedings before the Brazilian patent office. One of the patents, the promoter patent, is also at issue in a patent invalidation action filed in Brazilian federal court by the Soybean Growers Association from the State of Mato Grosso (Aprosoja/MT) in 2017 regarding the Intacta™ soybean technology. In addition to the patent invalidity claims, both lawsuits seek a refund of twice the amount of the paid royalties. Both lawsuits were filed as collective actions and are proceeding before the same federal judge. Bayer's Intacta™ soybean technology is further protected by two other patents, one of which has been challenged in administrative nullity proceedings before the Brazilian patent office by the Soybean Growers Association from the State of Rio Grande do Sul (Aprosoja/RS).

In addition to the action filed in 2017 regarding the promoter patent, the Soybean Growers Association from the State of Mato Grosso (Aprosoja/MT) is also seeking a correction of the expiration dates of all three patents protecting Bayer's Intacta™ soybean technology in a separate action claiming that two of these patents had already expired and is additionally seeking a corresponding refund of paid royalties and reduction of ongoing royalty payments. In December 2021, the federal court decided to grant the requests by further soybean grower associations and the Cotton Producers Association of the State of Mato Grosso (AMPA) to be admitted as co-plaintiffs to this lawsuit. One of the two patents, the promoter patent, also covers Bollgard II RR Flex™ and is at issue in the disputes with AMPA. Aprosoja/MT argues that the term of the patents had been determined unconstitutionally. In September 2021, a decision by the Brazilian Supreme Court – that the term of patents previously determined to be a minimum of 10 years from the patent being granted is unconstitutional, and that this term shall instead be set at 20 years from the filing of the patent application – became final. This will apply retroactively to certain patents, thereby shortening their term. However, Bayer believes that neither Aprosoja/MT nor other associations are entitled to a refund of paid royalties or to a reduction of ongoing royalty payments.

Bayer believes it has meritorious defenses in the above patent disputes and intends to defend itself vigorously.

Further legal proceedings

Trasylol™/Avelox™: A qui tam complaint relating to marketing practices for Trasylol™ (aprotinin) and Avelox™ (moxifloxacin) filed by a former Bayer employee is pending in the U.S. District Court in New Jersey. The case is proceeding with discovery. The U.S. government has declined to intervene at the present time.

Baycol™: A qui tam complaint (filed by the same relator as in the Trasylol™/Avelox™ complaint) asserting Bayer fraudulently induced a contract with the Department of Defense is pending in the U.S. District Court in Minnesota. The case is proceeding with discovery.

BASF arbitration: In 2019, Bayer was served with a request for arbitration by BASF SE. BASF alleges to have indemnification claims under the asset purchase agreements signed in 2017 and 2018 related to the divestment of certain Crop Science businesses to BASF. BASF alleges that particular cost items, including certain personnel costs, had not been appropriately disclosed and allocated to some of the divested businesses. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

Newark Bay environmental matters: In the United States, governmental and private parties have asserted that Bayer is liable for remediation costs and natural resource damages associated with the Lower Passaic River and/or the Newark Bay Complex in northern New Jersey. Bayer, along with a number of other parties, participated in an EPA-sponsored but non-binding allocation process for the Lower Passaic River remediation before an independent allocator. In 2020, the allocator issued its final report. The allocation assigned a very low share to Bayer, giving confidence that this connection will not result in a material liability. Bayer is a backup indemnitor for certain other liabilities from the Lower Passaic River and/or the Newark Bay Complex, which are being satisfied by an unrelated company. Bayer is currently unable to determine the extent of its potential future liability for this matter.

Asbestos: In many cases, plaintiffs allege that Bayer and co-defendants employed third parties on their sites in past decades without providing them with sufficient warnings or protection against the known dangers of asbestos. Additionally, a Bayer affiliate in the United States is the legal successor to companies that sold asbestos products until 1976. Union Carbide has agreed to indemnify Bayer for this liability. Similarly, Bayer's subsidiary Monsanto faces numerous claims based on exposure to asbestos at Monsanto premises without adequate warnings or protection and based on the manufacture and sale of asbestos-containing products. Bayer believes it has meritorious defenses and intends to defend itself vigorously.

PCBs: Bayer's subsidiary Monsanto has been named in lawsuits brought by various governmental entities in the United States claiming that Monsanto, Pharmacia and Solutia, collectively as a manufacturer of PCBs, should be responsible for a variety of damages due to PCBs in the environment, including bodies of water, regardless of how PCBs came to be located there. PCBs are chemicals that were widely used for various purposes until the manufacture of PCBs was prohibited by the EPA in the United States in 1979.

In 2020, Bayer reached an agreement for a nation-wide class settlement to settle claims of approximately 2,500 municipal government entities across the United States for a total payment, including class benefits and attorney fees, of approximately US$650 million. This settlement assumes a minimum participation rate of 98% of all qualified municipal entities, failing which Monsanto will have the option to cancel the settlement agreement. This agreement will require court approval before it becomes effective.

Additionally, in 2020, Bayer reached agreements to settle individual suits brought by the Attorneys General of the States of New Mexico and Washington, as well as the District of Columbia for a total amount of approximately US$170 million. Suits by Ohio and New Hampshire were settled in 2021, for a total amount of approximately US$105 million. Individual suits by Attorneys General of the States of Pennsylvania, Oregon, Delaware and Maryland are currently pending. A relatively small number of other states are expected to follow. Bayer will continue its vigorous defense of any case that remains pending.

Monsanto also faces numerous lawsuits claiming personal injury and/or property damage due to use of and exposure to PCB products. In July 2021, a jury in King County, Washington, awarded a total amount of US$185 million (compensatory and punitive damages) to three plaintiffs alleging personal injury from allegedly being exposed to PCBs in their workplace, the Sky Valley Education Center. Bayer disagrees with the verdict and has appealed. That case was followed by a second case, which began in November 2021, involving the same school building where the jury awarded approximately US$62 million (compensatory and punitive damages) in total to eight plaintiffs. Bayer disagrees with this second verdict based on many of the same errors seen in the first trial and plans to appeal. The undisputed evidence in these cases does not support the conclusions that plaintiffs were exposed to unsafe levels of PCBs or that any exposure could have possibly caused their claimed injuries. There are approximately 200 plaintiffs in connection with the relevant building. We believe that we also have meritorious defenses in these matters and intend to defend ourselves vigorously.

Shareholder litigation concerning Monsanto acquisition: In Germany and the United States, investors have filed lawsuits claiming damages suffered due to the drop in the company’s share price. Plaintiffs allege that the company's capital market communication in connection with the acquisition of Monsanto Company was flawed and that the information provided by Bayer on the risks, in particular regarding glyphosate product liability claims in the United States, was insufficient. In Germany, as of December 31, 2021, two claims were filed and served upon Bayer which are still at an early stage. A model case proceeding in accordance with the Capital Markets Model Case Act has been requested. Further claims were filed in December 2021 which will be served upon Bayer successively. In the parallel proceeding in the United States, one lawsuit seeking class action certification has been served upon Bayer. In October 2021, the United States District Court for the Northern District of California, San Francisco Division, decided that the lawsuit shall move forward with regard to some of the allegations. Bayer believes it has duly complied with its capital markets law obligations at all times in connection with the acquisition of Monsanto Company and its disclosures concerning glyphosate product liability claims and intends to defend itself vigorously against the claims in all shareholder lawsuits.

36. Related parties

Related parties are legal entities or natural persons that are able to exert influence on Bayer AG or over which Bayer AG exercises control or has a significant influence.

Transactions with related parties mainly comprise rental, service and financing transactions with subsidiaries, joint ventures and other affiliated companies, and with pension plans. Such transactions are conducted on market terms (arm’s length principle).

Bayer AG has undertaken to provide jouissance right capital *(Genussrechtskapital)* totaling €150 million for Bayer-Pensionskasse. The entire amount remained drawn in both 2020 and 2021.

Furthermore, in 2008 the establishment of a repayable “effective initial fund” was agreed with Bayer-Pensionskasse. This was increased by €800 million to €1,600 million in 2012. The amount drawn as of December 31, 2021, was €635 million, and was thus unchanged from a year earlier.

Moreover, in 2019, the establishment of a further repayable “effective initial fund” totaling €200 million had also been agreed with Rheinische Pensionskasse. This had not been drawn upon as of December 31, 2021.

37. Disclosures pursuant to Section 6b Paragraph 2 of the German Energy Act

There were no unusual transactions in connection with energy supply that were of material significance for the net assets and results of operations of Bayer AG and required disclosure under Section 6b, Paragraph 2 of the German Energy Act (EnWG).

38. Audit fees

Information on audit fees for 2021 is provided in the Notes to the Consolidated Financial Statements of the Bayer Group. The exemption under Section 285, No. 17 of the German Commercial Code (HGB) is applied in this respect.

The fees for the financial statements audit services of Deloitte GmbH Wirtschaftsprüfungsgesellschaft primarily comprised those for the audits of the consolidated financial statements of the Bayer Group and of the financial statements of Bayer AG and its subsidiaries. The audit-related services and other audit work performed by Deloitte GmbH Wirtschaftsprüfungsgesellschaft in 2021 mainly concerned voluntary financial statements audits and audit reviews in connection with the planned sale of the Environmental Science business. In addition, other Deloitte companies performed financial statements audit services for subsidiaries of Bayer AG as well as compliance-related tax consultancy services that do not materially or directly impact the consolidated financial statements of the Bayer Group or the financial statements of Bayer AG.

39. Total compensation of the Board of Management and the Supervisory Board and loans

Total Compensation of the Board of Management

€ thousand	2020	2021
Fixed compensation	5,070	5,975
Fringe benefits	1,651	2,982
Pension installment	–	303
Short-term variable cash compensation	2,963	11.105
Long-term stock-based cash compensation (Aspire)[1]	7,605	8,809
Aggregate compensation	**17,289**	**29,174**
Pension service cost[2]	2,285	2,803

[1] Fair value at the grant date
[2] Including company contribution to Bayer-Pensionskasse VVaG or Rheinische Pensionskasse VVaG

The total compensation of the Board of Management included €577 thousand (2020: €557 thousand) in fixed compensation, €311 thousand (2020: €435 thousand) in fringe benefits, €1,087 thousand (2020: €525 thousand) in short-term variable cash compensation, and €839 thousand (2020: €836 thousand) in long-term stock-based cash compensation that members of the Board of Management received from our subsidiary Bayer Consumer Care AG, Switzerland. Of the pension service cost, €180 thousand (2020: €182 thousand) pertained to commitments at subsidiaries outside of Germany.

The expense for 2021 contained the following components relating to long-term stock-based cash compensation (Aspire) that differ from the amounts included in aggregate compensation:

Multi-Year Variable Compensation of the Board of Management

€ thousand	2020	2021
Long-term stock-based cash compensation (Aspire)		
– Entitlements earned in the fiscal year	7,605	8,809
– Change in the value of entitlements earned in previous years	(2,530)	(760)
	5,075	**8,049**
Expense	**5,075**	**8,049**

Pension payments to former members of the Board of Management and their surviving dependents in 2021 amounted to €11,789 thousand (2020: €12,151 thousand). Provisions for pensions and similar commitments to former members of the Board of Management and their surviving dependents amounting to €188,952 thousand (2020: €171,388 thousand) were reflected in the statement of financial position of Bayer AG.

The total compensation of the Supervisory Board in 2021 was €4,564 thousand (2020: €3,866 thousand). This included attendance fees of €239 thousand (2020: €27 thousand).

There were no loans to members of the Board of Management or the Supervisory Board as of December 31, 2021, nor were any loans repaid during the year.

Further information on the compensation of the Board of Management and Supervisory Board is provided in the Compensation Report, which is publicly accessible at www.bayer.com/cpr.

40. Proposal for the use of the distributable profit

The Board of Management will propose to the Annual Stockholders' Meeting on April 29, 2022, that, of the distributable profit of €2,055,045,684.07 reported in the annual financial statements for the fiscal year 2021, an amount of €1,964,848,164.00 be used to pay a dividend of €2.00 per share carrying dividend rights and the remaining amount of €90,197,520.07 be allocated to other retained earnings.

Governance Bodies

Supervisory Board

Members of the Supervisory Board held offices as members of the supervisory board or a comparable supervising body of the corporations listed (as at December 31, 2021, or the date on which they ceased to be members of the Supervisory Board of Bayer AG) and as shown attended the meetings of the Supervisory Board and committees to which he or she belonged.

Prof. Dr. Norbert Winkeljohann*
Osnabrück, Germany
(born November 5, 1957)

Chairman of the Supervisory Board effective April 2020

Member of the Supervisory Board effective May 2018

Independent management consultant

Memberships on other supervisory boards:

- Bohnenkamp AG (Chairman)
- Deutsche Bank AG
- Georgsmarienhütte Holding GmbH
- heristo aktiengesellschaft (Chairman) (until January 2021)
- Sievert AG (Chairman)

Attendance at Supervisory Board and committee meetings: 25 of 25

Oliver Zühlke
Solingen, Germany
(born December 11, 1968)

Vice Chairman of the Supervisory Board effective July 2015

Member of the Supervisory Board effective April 2007

Chairman of the Bayer Central Works Council

Attendance at Supervisory Board and committee meetings: 17 of 19

Dr. Paul Achleitner
Munich, Germany
(born September 28, 1956)

Member of the Supervisory Board effective April 2002

Chairman of the Supervisory Board of Deutsche Bank AG

Memberships on other supervisory boards:

- Deutsche Bank AG (Chairman)

Memberships in comparable supervising bodies of German or foreign corporations:

- Henkel AG & Co. KGaA (Shareholders' Committee)

Attendance at Supervisory Board and committee meetings: 17 of 19

Dr. rer. nat. Simone Bagel-Trah
Düsseldorf, Germany
(born January 10, 1969)

Member of the Supervisory Board effective April 2014

Chairwoman of the Supervisory Board of Henkel AG & Co. KGaA and Henkel Management AG and of the Shareholders' Committee of Henkel AG & Co. KGaA

Memberships on other supervisory boards:

- Henkel AG & Co. KGaA (Chairwoman)
- Henkel Management AG (Chairwoman)
- Heraeus Holding GmbH

Memberships in comparable supervising bodies of German or foreign corporations:

- Henkel AG & Co. KGaA (Shareholders' Committee, Chairwoman)

Attendance at Supervisory Board and committee meetings: 10 of 10

Horst Baier**
Hanover, Germany
(born October 20, 1956)

Member of the Supervisory Board effective April 2020

Independent consultant

Memberships in comparable supervising bodies of German or foreign corporations:

- DIAKOVERE gGmbH
- Ecclesia Holding GmbH
- Whitbread PLC (Board of Directors)

Attendance at Supervisory Board and committee meetings: 15 of 15

Dr. Norbert W. Bischofberger
Hillsborough, U.S.A.
(born January 10, 1956)

Member of the Supervisory Board effective April 2017

President and Chief Executive Officer of Kronos Bio, Inc.

Memberships in comparable supervising bodies of German or foreign corporations:

- Morphic Holding, Inc. (Board of Directors)

Attendance at Supervisory Board and committee meetings: 11 of 11

André van Broich
Dormagen, Germany
(born June 19, 1970)

Member of the Supervisory Board effective April 2012

Chairman of the Bayer Group Works Council

Chairman of the Works Council of the Dormagen site

Attendance at Supervisory Board and committee meetings: 18 of 18

Ertharin Cousin
Chicago, U.S.A.
(born May 12, 1957)

Member of the Supervisory Board effective October 2019

Independent consultant

Memberships in comparable supervising bodies of German or foreign corporations:

- Camelot North America (Board of Directors)
- Mondelez International, Inc. (Board of Directors) (effective January 2022)

Attendance at Supervisory Board and committee meetings: 10 of 10

Dr. Thomas Elsner
Düsseldorf, Germany
(born April 24, 1958)

Member of the Supervisory Board effective April 2017

Chairman of the Bayer Group Managerial Employees' Committee

Chairman of the Managerial Employees' Committee of Bayer AG Leverkusen

Attendance at Supervisory Board and committee meetings: 15 of 15

Johanna W. (Hanneke) Faber
Amstelveen, Netherlands
(born April 19, 1969)

Member of the Supervisory Board until April 2021

President Foods & Refreshments at Unilever PLC

Attendance at Supervisory Board meetings: 3 of 3

Colleen A. Goggins
Princeton, U.S.A.
(born September 9, 1954)

Member of the Supervisory Board effective April 2017

Independent consultant

Memberships in comparable supervising bodies of German or foreign corporations:

- The Toronto-Dominion Bank (Board of Directors)
- IQVIA Holdings Inc. (Board of Directors)
- SIG Combibloc Group AG (Board of Directors)

Attendance at Supervisory Board and committee meetings: 12 of 12

Robert Gundlach
Velten, Germany
(born November 23, 1957)

Member of the Supervisory Board effective December 2019

Chairman of the Works Council of the Berlin site (until April 2021)

Vice Chairman of the Works Council of the Berlin site (effective 2021)

Attendance at Supervisory Board and committee meetings: 11 of 11

Heike Hausfeld
Leverkusen, Germany
(born September 19, 1965)

Member of the Supervisory Board effective April 2017

Chairwoman of the Works Council of the Leverkusen site

Attendance at Supervisory Board and committee meetings: 14 of 14

Reiner Hoffmann
Wuppertal, Germany
(born May 30, 1955)

Member of the Supervisory Board effective October 2006

Chairman of the German Trade Union Confederation

Attendance at Supervisory Board meetings: 9 of 9

Dr. Fei-Fei Li
Palo Alto, U.S.A.
(born July 3, 1976)

Member of the Supervisory Board effective April 2021

Professor in the Computer Science Department at Stanford University and Co-Director of Stanford's Human-Centered Artificial Intelligence Institute

Memberships in comparable supervising bodies of German or foreign corporations:

- Nimble Robotics, Inc. (Board of Directors)
- Reinvent Technology Partners (Board of Directors)
- Twitter Inc. (Board of Directors)

Attendance at Supervisory Board meetings: 5 of 6

Frank Löllgen
Cologne, Germany
(born June 14, 1961)

Member of the Supervisory Board effective November 2015

North Rhine District Secretary of the German Mining, Chemical and Energy Industrial Union

Memberships on other supervisory boards:

- Evonik Industries AG

Attendance at Supervisory Board and committee meetings: 12 of 14

Prof. Dr. Wolfgang Plischke
Aschau im Chiemgau, Germany
(born September 15, 1951)

Member of the Supervisory Board until April 2021

Independent consultant

Memberships on other supervisory boards:

- Evotec SE (Chairman)

Attendance at Supervisory Board and committee meetings: 5 of 5

Petra Reinbold-Knape
Gladbeck, Germany
(born April 16, 1959)

Member of the Supervisory Board effective April 2012

Member of the Executive Committee of the German Mining, Chemical and Energy Industrial Union (until October 2021)

Trade Union Secretary at the German Mining, Chemical and Energy Industrial Union, board division 1, overall management (effective October 2021)

Memberships on other supervisory boards:

- Covestro AG
- Covestro Deutschland AG

Attendance at Supervisory Board and committee meetings: 13 of 14

Andrea Sacher
Berlin, Germany
(born May 8, 1981)

Member of the Supervisory Board effective September 2020

Vice Chairwoman of the Works Council of the Berlin site (until April 2021)

Chairwoman of the Works Council of the Berlin site (effective April 2021)

Vice Chairwoman of the Bayer Central Works Council

Attendance at Supervisory Board meetings: 9 of 9

Michael Schmidt-Kießling
Schwelm, Germany
(born March 24, 1959)

Member of the Supervisory Board effective April 2012

Chairman of the Works Council of the Elberfeld site

Attendance at Supervisory Board meetings: 9 of 9

Alberto Weisser
Igrejinha, Portugal
(born June 26, 1955)

Member of the Supervisory Board effective April 2021

Senior Consultant at Temasek International Pte. Ltd.

Memberships in comparable supervising bodies of German or foreign corporations:

- Linde plc (Board of Directors) (effective November 2021)
- PepsiCo, Inc. (Board of Directors)

Attendance at Supervisory Board and committee meetings: 9 of 9

Prof. Dr. med. Dr. h. c. mult. Otmar D. Wiestler
Berlin, Germany
(born November 6, 1956)

Member of the Supervisory Board effective October 2014

President of the Hermann von Helmholtz Association of German Research Centers e.V.

Attendance at Supervisory Board and committee meetings: 11 of 11

* Expert member in the field of auditing pursuant to Section 100, Paragraph 5 of the German Stock Corporation Act (AktG)

** Expert member in the field of accounting pursuant to Section 100, Paragraph 5 of the German Stock Corporation Act (AktG)

Board of Management

Members of the Board of Management held offices as members of the supervisory board or a comparable supervising body of the corporations listed (as at February 18, 2022, or the date on which they ceased to be members of Board of Management):

Werner Baumann
(born October 6, 1962)

Member of the Board of Management effective January 1, 2010, appointed until April 30, 2024

Chairman

Labor Director until January 31, 2021

Sarena Lin
(born January 9, 1971)

Member of the Board of Management effective February 1, 2021, appointed until January 31, 2024

Transformation and Talent

Labor Director effective February 1, 2021

Wolfgang Nickl
(born May 9, 1969)

Member of the Board of Management effective April 26, 2018, appointed until April 25, 2025

Finance

Stefan Oelrich
(born June 1, 1968)

Member of the Board of Management effective November 1, 2018, appointed until October 31, 2025

Pharmaceuticals

- InforMed Data Systems Inc. (Board of Directors)

Rodrigo Santos
(born May 28, 1973)

Member of the Board of Management effective January 1, 2022, appointed until December 31, 2024

CropScience

Heiko Schipper
(born August 21, 1969)

Member of the Board of Management effective March 1, 2018, appointed until February 28, 2025

Consumer Health

- Royal FrieslandCampina N.V.

Member of the Board of Management until December 31, 2021

Liam Condon
(born February 27, 1968)

Crop Science

Standing committees of the Supervisory Board of Bayer AG (as at December 31, 2021)

Presidial Committee/ Mediation Committee
Winkeljohann* (Chairman), Achleitner, Reinbold-Knape, Zühlke

Audit Committee
Baier** (Chairman), Elsner, Löllgen, Weisser, Winkeljohann*, Zühlke

Human Resources Committee
Winkeljohann* (Chairman), Achleitner, van Broich, Hausfeld

Nomination Committee
Winkeljohann* (Chairman), Achleitner, Bagel-Trah, Goggins

Innovation Committee
Wiestler (Chairman), Bischofberger, van Broich, Cousin, Gundlach, Löllgen, Winkeljohann*, Zühlke

Glyphosate Litigation Committee (until December 31, 2021)
Winkeljohann* (Chairman), Achleitner, Baier**, van Broich, Elsner, Goggins, Reinbold-Knape, Zühlke

ESG Committee (effective January 1, 2022)
Cousin (Chairwoman), Achleitner, van Broich, Goggins, Hausfeld, Sacher, Winkeljohann*, Zühlke

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the financial statements give a true and fair representation of the assets, liabilities, financial position and profit or loss of the company, and the Combined Management Report includes a fair review of the development and performance of the business and the position of the Bayer Group and Bayer AG, together with a description of the principal opportunities and risks associated with the expected development of Bayer Group and Bayer AG.

Leverkusen, February 18, 2022
Bayer Aktiengesellschaft

The Board of Management

Werner Baumann   Sarena Lin   Wolfgang Nickl

Stefan Oelrich   Rodrigo Santos   Heiko Schipper

Independent Auditor's Report

To Bayer Aktiengesellschaft, Leverkusen

REPORT ON THE AUDIT OF THE ANNUAL FINANCIAL STATEMENTS AND COMBINED MANAGEMENT REPORT

Audit opinions

We have audited the annual financial statements of Bayer Aktiengesellschaft, Leverkusen/Germany, which comprise the statements of financial position as at December 31, 2021 and the income statements for the financial year from January 1 to December 31, 2021, and the notes to the annual financial statements, including a description of accounting policies. In addition, we have audited the combined management report of Bayer Aktiengesellschaft, Leverkusen/Germany, for the financial year from January 1 to December 31, 2021. In accordance with the German legal requirements, we have not audited the content of those parts of the combined management report presented in the Appendix to the Independent Auditor's Report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law applicable to corporations and, in compliance with the German Generally Accepted Accounting Standards, give a true and fair view of the assets, liabilities and financial position of the Company as at December 31, 2021 and of its financial performance for the financial year from January 1 to December 31, 2021; and
- the accompanying combined management report as a whole provides an appropriate view of the Company's position. In all material respects, this combined management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the combined management report does not cover the content of those parts of the combined management report presented in the Appendix to the Independent Auditor's Report.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the annual financial statements and combined management report.

Basis for the audit opinions

We conducted our audit of the annual financial statements and combined management report in accordance with Section 317 HGB and the EU Audit Regulation (No 537/2014; referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW). We performed the audit of the annual financial statements in supplementary compliance with the International Standards on Auditing (ISA). Our responsibilities under those requirements, principles and standards are further described in the "Responsibilities of the independent auditor for the audit of the annual financial statements and combined management report" section of our Independent Auditor's Report. We are independent of the Company in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In accordance with Article 10 (2) letter (f) of the EU Audit Regulation, we further declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the annual financial statements and combined management report.

Key audit matters in the audit of the annual financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the financial year from January 1 to December 31, 2021. These matters were addressed in the context of our audit of the annual financial statements as a whole and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In the following, we present the key audit matters we have determined in the course of our audit:

1. Depiction of restructuring measures
2. Recoverability of shares in affiliated companies
3. Calculation of the acquisition costs of shares received in the course of an equity investment restructuring.

Our presentation of these key audit matters has been structured as follows:

a) Description of the matter in question (including reference to the corresponding statements in the annual financial statements)
b) Auditor's response.

1. Depiction of restructuring measures

a) In the last years, Bayer Aktiengesellschaft has successively initiated various comprehensive, Groupwide restructuring programs that also entail extensive workforce adjustment measures. A not inconsiderable part of the workforce adjustment measures is attributable to Germany, where layoffs for operational reasons are excluded until 2025 owing to works agreements. In consultation with the competent employee representative bodies, the units affected by the workforce adjustment measures in the individual restructuring areas have been identified and the affected employees have been informed with the goal of concluding appropriate termination agreements. To the extent that the communicated workforce reduction targets have not yet been covered by concluded termination agreements, the expenses for the still outstanding termination agreements have been estimated on the basis of the knowledge gained from the termination agreements that have already been concluded, the experience made with the implementation of comparable programs in the last years, and the specific compensation and age structures in the affected restructuring areas. As of December 31, 2021, a provision in the amount of € 948 million was recognized on the books of Bayer Aktiengesellschaft for the severance payment obligations specified from that time to the end of the financial year. In our view, this matter was of particular importance for our audit, as the recognition and measurement of the provision are to a large extent based on discretionary estimates and assumptions made by the Executive Directors.

   The statements of the Executive Directors on the subject of the restructuring provision are provided in Section 25 of the notes to the annual financial statements.

b) We assessed whether a provision for uncertain liabilities pursuant to Section 249 (1) sentence 1 HGB had been properly recognized in the correct amount in respect of these matters. For this purpose, we sought to verify the existence of a legally or economically established external obligation as of the reporting date, the settlement of which is probable. In the course of our audit, we assessed the fulfillment of these recognition criteria and the correct measurement of the restructuring provision. For this purpose, we verified the corresponding evidence and calculation documents of the Executive Directors and critically assessed and verified the plausibility of the underlying estimates and assumptions related to the recognition and measurement of the provisions. In particular, we evaluated the implementation status and the negotiations with employees and employee representatives, mainly to determine whether the employees were informed in sufficient detail about the restructuring programs and individual components of the planned restructuring measures. For the severance agreements already concluded with employees, we sought to determine whether the provisions set up for this purpose are based on the underlying contractual agreements. In order to assess the plausibility of the amount of the provisions in those cases in which individual severance agreements have not yet been concluded, we analyzed the restructuring programs involving job cuts developed in the personnel departments with respect to the assumptions made regarding the scope and amount of the severance offers to employees and the expected acceptance rates – also on the basis of experience to date and/or actually concluded agreements – and discussed them with the persons responsible in the personnel departments.

2. Recoverability of shares in affiliated companies

a) Shares in affiliated companies are presented in the amount of EUR 57.3 billion (68.1% of total assets) in the annual financial statements of Bayer Aktiengesellschaft as of December 31, 2021. Bayer Aktiengesellschaft assessed the recoverability of the carrying amounts of these equity investments as of the reporting date by means of internally conducted company valuations. As a general rule, Bayer Aktiengesellschaft determines a total company value for significant shares in affiliated companies, which is then corrected for the net financial positions. The respective carrying amount of the shares is then checked against the equity value so calculated and if a permanent impairment is found, the carrying amount is written down to the lower fair value. The total company values are generally calculated as the present value of the future cash flows expected by the Executive Directors on the basis of discounted cash flow models. The total company values are particularly dependent on the Executive Directors' estimate of future cash flows, the discount factors and growth rates applied in each case, and the determination of the net financial position. The valuations are therefore fraught with uncertainties. Even minor changes in the assumptions applied can have major effects. In view of this uncertainty and given the significance of this matter for the assets, liabilities and financial performance of Bayer Aktiengesellschaft, we deemed this to be a key audit matter.

   The statements of the Executive Directors on the subject of non-current financial assets and the recoverability of those assets are presented in Note 7 and Note 14 of the notes to the financial statements.

b) In the course of our audit, we obtained an understanding of the process applied by the Company to assess the recoverability of the shares held in affiliated companies. Among other things, we assessed whether the valuation models applied in each case to determine the total company value accurately reflect the conceptual requirements of the relevant valuation standards and whether the calculations were correctly performed in the respective models. We also assured ourselves that the fair values were correctly calculated in observance of the relevant valuation standards. To this end, we assessed, among other things, whether the expected future cash flows and assessed capital costs together provide a suitable basis. In our audit, we also relied upon a comparison with general and sector-specific market expectations, among other things, as well as extensive explanations of the Executive Directors on the subject of the main value drivers and planning assumptions. We also assessed the parameters applied to calculate the discount factor by checking them against market data and reconstructed the calculation formula both logically and computationally. In performing individual audit areas, we also consulted internal specialists from the Valuation Services Department.

3. Calculation of the acquisition costs of shares received in the course of an equity investment restructuring

a) In the course of an equity investment restructuring, Bayer Aktiengesellschaft made capital contributions in the form of in-kind contributions, which led to the exploitation of unrealized gains in the total amount of EUR 3,509 million, in December 2021. In the first step, Bayer Aktiengesellschaft contributed its 13.573% equity interest in N.V. Bayer S.A., Diegem/Belgium, to Zweite K-W-A Beteiligungsgesellschaft mbH, Leverkusen, in the form of an in-kind capital increase in exchange for the issuance of a new share. The share received in Zweite K-W-A Beteiligungsgesellschaft mbH, Leverkusen, was measured at the fair value of contributed shares by exercising the accounting option based on barter principles. The contribution of shares at fair value gave rise to gains on disposal of the equity investments in the amount of EUR 1,135 million. In a second restructuring step, Bayer Aktiengesellschaft then contributed its 100.00% equity interest in Zweite K-W-A Beteiligungsgesellschaft mbH, Leverkusen, to Neunte Bayer VV GmbH, Leverkusen, whose sole shareholder is Bayer Aktiengesellschaft, also in the form of an in-kind capital contribution. The acquisition costs of the newly received share were likewise determined by the fair value of the contributed shares. This gave rise to a further gain on disposal of equity investments in the amount of EUR 2,374 million. The fair values of the contributed shares were calculated by an external expert in each case. Given the economic relationship, we considered the combined transactions to represent a key audit matter. Both transactions exhibit comparable features with respect to the selection of an appropriate valuation method, the significant assumptions made regarding the value-forming factors applied in both contribution transactions are subject to estimates and discretionary decisions of the Executive Directors, and a balancing of interests that meeting the arm's-length standard does not take place a priori in the present constellation of related parties.

The statements of the Executive Directors on this subject are presented in Note 7 and Note 14 of the notes to the financial statements.

b) On the basis of the underlying notarized resolution and contractual documents, as well as the legally valid Commercial Register entries, we assessed whether the capital increases were conducted on or before the reporting date for the annual financial statements. In the course of our audit, we also assessed the fulfillment of the barter criteria as the prerequisites for a calculation of the acquisition costs of the shares received on the basis of the fair value of contributed shares in each case, in accordance with Section 255 (1) HGB. We verified the competence, capabilities and objectivity of the external expert engaged by the Executive Directors of Bayer Aktiengesellschaft. We assessed the appropriateness of the valuation methods applied by the expert to perform the valuations of the contributed shares, particularly including the question of whether the valuations were performed in observance of the relevant valuation standards. To verify the correct calculation of fair values, we evaluated the assumptions of the expert and reconstructed and reperformed the calculation. We also verified the central assets on which the valuation of individual equity interests was based by examining the respective balance sheets of the companies involved. In performing individual audit areas, we also consulted internal specialists from the Valuation Services Department.

Other information

The Executive Directors and the Supervisory Board are responsible for the Other information. The Other information comprises:

- // The unaudited content of those parts of the combined management report specified in the Appendix to the Independent Auditor's Report,
- // The responsibility statement of the Executive Directors regarding the annual financial statements and combined management report pursuant to Section 264 (2) sentence 3 HGB and Section 289 (1) sentence 5 HGB.

The Executive Directors and the Supervisory Board are responsible for the declaration according to Section 161 German Stock Corporation Act (AktG), which is part of the Corporate Governance Statement included in the section “Corporate governance report” of the combined management report. Apart from that, the Executive Directors are responsible for the Other information.

Our audit opinions on the annual financial statements and combined management report do not extend to the Other information and we therefore provide neither an audit opinion nor any other kind of audit assurance on this subject.

In connection with our audit, our responsibility is to read the above-mentioned Other information and determine whether the Other information.

- // is materially inconsistent with the annual financial statements, combined management report, or our knowledge obtained in the audit, or
- // otherwise appears to be materially misstated.

If we conclude on the basis of the work we have performed that there is a material misstatement of this Other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Executive Directors and the Supervisory Board for the annual financial statements and combined management report

The Executive Directors are responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law applicable to corporations and that the annual financial statements, in compliance with German Generally Accepted Accounting Standards, give a true and fair view of the assets, liabilities, financial position and financial performance of the Company. In addition, the Executive Directors are responsible for such internal controls as they have determined necessary in accordance with German Generally Accepted Accounting Standards to enable the preparation of annual financial statements that are free from material misstatements, whether due to fraud or error.

In preparing the annual financial statements, the Executive Directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to the going-concern status. In addition, they are responsible for financial reporting based on the going-concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the Executive Directors are responsible for the preparation of the combined management report that as a whole provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the Executive Directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the combined management report.

The Supervisory Board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and combined management report.

Responsibilities of the independent auditor for the audit of the annual financial statements and combined management report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatements, whether due to fraud or error, and whether the combined management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements, and appropriately presents the opportunities and risks of future development, as well as to issue an Independent Auditor's Report that includes our audit opinions on the annual financial statements and combined management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and in supplementary compliance with the ISA will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this combined management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- identify and assess the risks of material misstatements in the annual financial statements and combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the overriding of internal controls.

- // obtain an understanding of the internal control systems relevant to the audit of the annual financial statements and the arrangements and measures relevant to the audit of the combined management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems of the Company.
- // evaluate the appropriateness of accounting policies applied by the Executive Directors and the reasonableness of the estimates and related disclosures made by the Executive Directors.
- // conclude on the appropriateness of the Executive Directors' use of the going-concern basis of accounting and, based on the audit evidence obtained, determine whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the Independent Auditor's Report to the related disclosures in the annual financial statements and combined management report or, if such disclosures are inadequate, to modify our respective audit opinion. Our conclusions are based on the audit evidence obtained up to the date of our Independent Auditor's Report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.
- // evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and determine whether the annual financial statements present the underlying transactions and events in a manner such that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German Generally Accepted Accounting Standards.
- // evaluate the consistency of the combined management report with the annual financial statements, its conformity with German law, and the view of the Company's position it provides.
- // perform audit procedures on the prospective information presented by the Executive Directors in the combined management report. On the basis of sufficient appropriate audit evidence, we particularly evaluate the significant assumptions applied by the Executive Directors as the basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions applied as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in the internal control system that we identify during our audit.

We provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual financial statements of the current period and are therefore key audit matters. We describe these matters in our Independent Auditor's Report unless laws or regulations preclude public disclosure of the matter in question.

OTHER STATUTORY AND LEGAL REQUIREMENTS

Report on the Audit of the Electronic Files of the Annual Financial Statements and Combined Management Report prepared for Publication pursuant to Section 317 (3a) HGB

Audit opinion

In accordance with Section 317 (3a) HGB, we have assessed with reasonable assurance whether the electronic files of the annual financial statements and combined management report (hereafter referred to as "ESEF files") prepared for publication, contained in the provided file, which has the SHA-256 value EFFE7317109CF8B5EEF56EAD5A36260AFF44A827934A9D05624B11 5FD5DB527B, meet, in all material respects, the requirements concerning the electronic reporting format ("ESEF format") pursuant to Section 328 (1) HGB. In accordance with the German legal requirements, this audit only covers the transfer of the information of annual financial statements and combined management report into the ESEF format, and therefore covers neither the information contained in these electronic files nor any other information contained in the file stated above.

In our opinion, the electronic files of the annual financial statements and combined management report prepared for publication contained in the provided file stated above meet, in all material respects, the requirements concerning the electronic reporting format pursuant to Section 328 (1) HGB. Beyond this audit opinion and our audit opinions on the accompanying annual financial statements and accompanying combined management report for the financial year from January 1 to December 31, 2021 contained in the foregoing "Report on the audit of the annual financial statements and combined management report", we do not express any audit opinion on the information contained in these electronic files and on any other information contained in the file stated above.

Basis for the audit opinion

We conducted our audit of the electronic files of the annual financial statements and combined management report contained in the accompanying file stated above in accordance with Section 317 (3a) HGB and on the basis of the IDW Auditing Standard: Audit of the Electronic Files of the Annual Financial Statements and Management Report prepared for Publication pursuant to Section 317 (3a) HGB (IDW AuS 410 (10/2021)) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibilities in this context are further described in the section "Responsibilities of the independent auditor for the audit of the ESEF files". Our audit firm has applied the Quality Assurance Standard: Quality Assurance Requirements in Audit Practices (IDW QS 1) promulgated by the Institut der Wirtschaftsprüfer (IDW).

Responsibilities of the Executive Directors and Supervisory Board for the ESEF files

The Executive Directors of the Company are responsible for the preparation of the ESEF files based on the electronic files of the annual financial statements and combined management report according to Section 328 (1) sentence 4 no. 1 HGB.

In addition, the Executive Directors of the Company are responsible for such internal controls as they have determined necessary to enable the preparation of ESEF files that are free from material violations of the requirements concerning the electronic reporting format pursuant to Section 328 (1) HGB, whether due to fraud or error.

The Supervisory Board is responsible for overseeing the process for the preparation of the ESEF files as part of the financial reporting process.

Responsibilities of the independent auditor for the audit of the ESEF files

Our objectives are to obtain reasonable assurance about whether the ESEF files are free from material violations, whether due to fraud or error, of the requirements pursuant to Section 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- identify and assess the risks of material violations of the requirements pursuant to Section 328 (1) HGB, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion.
- obtain an understanding of internal controls relevant to the audit of the ESEF files in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these controls.
- assess the technical validity of the ESEF files, i.e. whether the provided file containing the ESEF files meets the requirements of the Delegated Regulation (EU) 2019/815 in the version applicable as of the reporting date as to the technical specification of this file.
- evaluate whether the ESEF files enable a XHTML copy of the audited annual financial statements and audited combined management report with the same content as these documents.

Report on the audit of compliance with the accounting obligations pursuant to Section 6b (3) Energy Industry Act (EnWG)

We assessed whether the Company complied with its obligations to maintain separate accounts for the financial year from January 1 to December 31, 2021 pursuant to Section 6b (3) sentences 1 to 5 EnWG.

In our opinion, the Company complied, in all material respects, with the obligations pursuant to Section 6b (3) sentences 1 to 5 to maintain separate accounts.

We conducted our audit of compliance with the obligations to maintain separate accounts pursuant to Section 6b (5) EnWG in accordance with the Auditing Standard: Audit pursuant to Section 6b (5) EnWG (IDW AuS 610 Rev.) promulgated by the Institut der Wirtschaftsprüfer (IDW). Our responsibilities under those requirements and principles are further described below. We are independent of the Company in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. Our audit firm applies the Quality Assurance Standard: Quality Assurance Requirements in Audit Practices (IDW QS 1) promulgated by the Institut der Wirtschaftsprüfer (IDW). We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on compliance with the accounting obligations pursuant to Section 6b (3) EnWG.

The Executive Directors are responsible for compliance with the obligations to maintain separate accounts pursuant to Section 6b (3) sentences 1 to 5 EnWG.

In addition, the Executive Directors are responsible for such internal controls as they have determined necessary to comply with the obligations to maintain separate accounts.

The Supervisory Board is responsible for overseeing the Company's compliance with the accounting obligations pursuant to Section 6b (3) EnWG.

Our objective is to obtain reasonable assurance about whether the Executive Directors have complied, in all material respects, with their obligations to maintain separate accounts pursuant to Section 6b (3) sentences 1 to 5 EnWG, as well as to include a report in the Independent Auditor's Report that includes our audit opinion on whether the accounting obligations pursuant to Section 6b (3) EnWG have been observed. The audit of compliance with the obligations to maintain separate accounts pursuant to Section 6b (3) sentences 1 to 5 EnWG includes assessing whether the classification of accounts in relation to the activities pursuant to Section 6b (3) sentences 1 to 4 EnWG was appropriate and reasonable, and whether the principle of consistency has been observed.

Further disclosures pursuant to Article 10 EU Audit Regulation

We were elected as the auditor of the annual financial statements by the shareholders' meeting on April 27, 2021. We were engaged by the Supervisory Board on May 25, 2021. We have been the auditor of the annual financial statements of Bayer Aktiengesellschaft, Leverkusen/Germany, without interruption since financial year 2017.

We declare that the audit opinions expressed in this Independent Auditor's Report are consistent with the additional report to the Audit Committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

OTHER MATTER – USE OF THE INDEPENDENT AUDITOR'S REPORT

Our Independent Auditor's Report must always be read in conjunction with the audited financial statements and the audited combined management report, as well as the audited ESEF files. The annual financial statements and combined management report converted to the ESEF format – as well as the versions to be published in the German Federal Gazette (Bundesanzeiger) – are merely electronic reproductions of the audited annual financial statements and the audited combined management report and do not replace them. In particular, the ESEF Report and our audit opinion included therein may only be used in conjunction with the audited ESEF files provided in electronic form.

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Prof. Dr. Frank Beine.

Munich, February 23, 2022

Deloitte GmbH
Wirtschaftsprüfungsgesellschaft

Prof. Dr. Frank Beine	Michael Mehren
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

Appendix to the Independent Auditor's Report: Parts of the combined management report whose content was not audited

We have not audited the content of the following parts of the combined management report:

- Table A.1.2.1/2 "Non-financial corporate goals through 2030", including the statements in the footnotes, and the following explanatory passages on the non-financial corporate goals included in Section 1.2.1 of the combined management report,
- The statements in the subsection "EU Taxonomy" included in Section 1.2.1 of the combined management report,
- The statements on the subject of Scope 3 Emissions in Table A 1.7/1 included in Section 1.7 of the combined management report.
- The Statement on Corporate Governance pursuant to Section 289f and Section 315d HGB included in Section 4.1 of the combined management report,
- All cross-references to the Company's websites in the margins and the information to which these cross-references refer.

Financial Calendar

Annual Stockholders' Meeting 2022	*April 29, 2022*
Planned dividend payment day	*May 4, 2022*
Q1 2022 Quarterly Statement	*May 10, 2022*
2022 Half-Year Report	*August 4, 2022*
Q3 2022 Quarterly Statement	*November 8, 2022*
2022 Annual Report	*February 28, 2023*
Annual Stockholders' Meeting 2023	*April 28, 2023*
Q1 2023 Quarterly Statement	*May 11, 2023*

Masthead

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Forward-Looking Statements
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