

Q2



Half-Year Financial Report 2022

Strong growth, outlook raised

- // Group sales of €12.8 billion (Fx & p adj. +9.6%)
- // EBITDA before special items rises to €3.3 billion (+30.0%)
- // Crop Science and Consumer Health achieve strong sales and earnings growth
- // Pharmaceuticals reports slight increase in sales and earnings
- // Core earnings per share €1.93 (+19.9%)
- // Net income at minus €0.3 billion
- // Free cash flow of €1.1 billion
- // Improved ESG rating from MSCI
- // Full-year Group outlook raised

Contents

Bayer Group Key Data	3
Interim Group Management Report as of June 30, 2022	4
Key Events	4
1. Overview of Sales, Earnings and Financial Position	5
1.1 Earnings Performance of the Bayer Group	5
1.2 Business Development by Division	9
1.3 Asset and Financial Position of the Bayer Group	16
2. Research, Development, Innovation	19
Crop Science	19
Pharmaceuticals	19
Consumer Health	22
Leaps by Bayer	22
3. Report on Future Perspectives and on Opportunities and Risks	23
3.1 Future Perspectives	23
3.2 Opportunities and Risks	25
Condensed Consolidated Interim Financial Statements as of June 30, 2022	26
Bayer Group Consolidated Income Statements	26
Bayer Group Consolidated Statements of Comprehensive Income	27
Bayer Group Consolidated Statements of Financial Position	28
Bayer Group Consolidated Statements of Cash Flows	29
Bayer Group Consolidated Statements of Changes in Equity	30
Notes to the Condensed Consolidated Interim Financial Statements of the Bayer Group	31
Events After the End of the Reporting Period	45
Responsibility Statement	46
Review Report	47
Financial Calendar	48
Reporting Principles	48
Masthead	48

Bayer Group Key Data

€ million	Q2 2021	Q2 2022	Change (%)		H1 2021	H1 2022	Change (%)	
			Reported	Fx. & p adj.			Reported	Fx. & p adj.
Sales	10,854	12,819	+ 18.1	+ 9.6	23,182	27,458	+ 18.4	+ 12.1
Change in sales¹								
Volume	+ 11.3%	+ 0.1%			+ 6.7%	+ 3.0%		
Price	+ 1.6%	+ 9.5%			+ 0.5%	+ 9.1%		
Currency	- 5.2%	+ 8.4%			- 6.4%	+ 6.2%		
Portfolio	+ 0.3%	+ 0.1%			+ 0.4%	+ 0.1%		
Sales by region								
Europe/Middle East/Africa	3,245	3,639	+ 12.1	+ 10.6	7,318	8,153	+ 11.4	+ 12.1
North America	4,066	4,817	+ 18.5	+ 5.7	8,964	10,779	+ 20.2	+ 9.7
Asia/Pacific	2,302	2,492	+ 8.3	+ 3.1	4,481	4,903	+ 9.4	+ 4.5
Latin America	1,241	1,871	+ 50.8	+ 31.8	2,419	3,623	+ 49.8	+ 34.7
EBITDA¹	(891)	2,651	.		3,278	7,943	+ 142.3	
Special items ¹	(3,468)	(698)			(3,417)	(657)		
EBITDA before special items¹	2,577	3,349	+ 30.0		6,695	8,600	+ 28.5	
EBITDA margin before special items ¹	23.7%	26.1%			28.9%	31.3%		
EBIT¹	(2,281)	169	.		802	4,381	.	
Special items ¹	(3,901)	(2,111)			(3,886)	(2,071)		
EBIT before special items¹	1,620	2,280	+ 40.7		4,688	6,452	+ 37.6	
Financial result	(99)	(692)	.		(447)	(1,182)	+ 164.4	
Net income (from continuing and discontinued operations)	(2,335)	(298)	- 87.2		(246)	2,993	.	
Earnings per share from continuing and discontinued operations (€)	(2.38)	(0.30)	- 87.4		(0.25)	3.05	.	
Core earnings per share¹ from continuing operations (€)	1.61	1.93	+ 19.9		4.20	5.46	+ 30.0	
Net cash provided by (used in) operating activities (from continuing and discontinued operations)	1,997	2,104	+ 5.4		(768)	1,378	.	
Free cash flow¹	1,152	1,140	- 1.0		(2,074)	(47)	- 97.7	
Net financial debt (at end of period)	34,365	36,575	+ 6.4		34,365	36,575	+ 6.4	
Cash flow-relevant capital expenditures (from continuing and discontinued operations)	493	550	+ 11.6		822	899	+ 9.4	
Research and development expenses	1,638	1,928	+ 17.7		2,836	3,382	+ 19.3	
Depreciation, amortization and impairment losses/loss reversals	1,390	2,482	+ 78.6		2,476	3,562	+ 43.9	
Number of employees (at end of period)²	99,439	101,914	+ 2.5		99,439	101,914	+ 2.5	
Personnel expenses (including pension expenses)	2,931	3,391	+ 15.7		5,751	6,562	+ 14.1	

Fx & p adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

² Employees calculated as full-time equivalents (FTEs)

Interim Group Management Report as of June 30, 2022

Key Events

Russia's invasion of Ukraine

The safety of our 700 colleagues in Ukraine and their families is our top priority. In addition to establishing a disaster relief fund, we are also donating products such as antibiotics and seed for growing food. Together, Russia and Ukraine accounted for about 3% of our sales in 2021.

Energy provision and global supply chains may also be disrupted as a result of the war. At Bayer, energy costs only accounted for about 3% of the total cost of goods sold in 2021. We are well prepared to contain the impact of any potential gas shortages to the greatest degree possible. We have realigned our processes to significantly reduce our reliance on natural gas, which involved switching to alternative sources of energy and launching programs to save energy. At the same time, we are expanding our network of suppliers and building up additional inventories where possible.

Group sales and earnings were only marginally impacted by the war and its direct consequences in the second quarter. We also do not currently see any material financial impact in full-year 2022.

Portfolio changes

In July, we entered into an agreement with Grünenthal regarding the sale of Nebido™ (testosterone undecanoate) for a purchase price of up to €500 million, subject to customary closing adjustments. Grünenthal will acquire the global product rights to Nebido™, including the contract business in the United States, where Endo Pharmaceuticals has licensed the compound under the name Aved. The transaction is expected to close by the end of 2022.

ESG rating

We have made important progress in a major ESG rating: MSCI ESG Research recently updated their ESG Controversies Report and lifted the red flag related to “environmental concerns over GMO crops” as well as their related allegation of a breach of the UN Global Compact Principles. Following the removal of the Institutional Shareholder Services (ISS) red flag related to neonicotinoid insecticides last year, this is another important improvement in our ESG rating profile.

1. Overview of Sales, Earnings and Financial Position¹

1.1 Earnings Performance of the Bayer Group Second quarter of 2022

Group sales

Group sales in the second quarter of 2022 increased by 9.6% (Fx & portfolio adj.) to €12,819 million (Q2 2021: €10,854 million; reported: +18.1%). There was a positive currency effect of €915 million (Q2 2021: negative currency effect of €524 million). Sales in Germany amounted to €610 million (Q2 2021: €554 million).

Crop Science saw sales rise significantly due to a substantial improvement in the market environment. Business at Pharmaceuticals was up slightly in the second quarter. Growth was driven by sales gains for Eylea™ in particular, but was held back by price- and volume-related declines for Xarelto™ that were largely due to tender procedures in China and the expiration of our patent in Brazil. Consumer Health posted a strong increase in sales, with growth in all regions.

EBITDA before special items

Group EBITDA before special items advanced by 30.0% to €3,349 million. This figure included a positive currency effect of €300 million (Q2 2021: negative currency effect of €153 million). At Crop Science, EBITDA before special items rose significantly, mainly due to the division's very strong performance. Pharmaceuticals posted an increase in EBITDA before special items, primarily as a result of the growth in sales. EBITDA before special items at Consumer Health was up significantly, mainly driven by the strong growth in sales. The Group EBITDA margin before special items was 26.1%.

Depreciation, amortization and impairments

Depreciation, amortization, impairment losses and impairment loss reversals led to net expenses of €2,482 million (Q2 2021: €1,390 million), with intangible assets accounting for €2,082 million (Q2 2021: €1,025 million) and property, plant and equipment for €400 million (Q2 2021: €365 million). Impairment losses, net of impairment loss reversals, totaled €1,460 million (Q2 2021: €458 million) and included €1,453 million in net impairment losses on intangible assets (Q2 2021: €466 million). A strong rise in capital market interest rates necessitated impairment testing, resulting in the recognition of impairment losses on intangible assets, especially at the Crop Science Division (€1,322 million).

A total of €1,413 million in impairment losses, net of impairment loss reversals, were included in special items (Q2 2021: €427 million).

EBIT and special items

EBIT of the Bayer Group came in at €169 million (Q2 2021: minus €2,281 million) after net special charges of €2,111 million (Q2 2021: €3,901 million) that were mainly related to the impairment losses in the Crop Science Division mentioned above, as well as ongoing litigations and restructuring measures. By contrast, special gains from divestments, especially at the Pharmaceuticals Division, had a positive impact. EBIT before special items rose by 40.7% to €2,280 million (Q2 2021: €1,620 million).

¹ For definition of alternative performance measures see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

The following special items were taken into account in calculating EBIT and EBITDA:

A 1

Special Items by Category¹

€ million	EBIT Q2 2021	EBIT Q2 2022	EBIT H1 2021	EBIT H1 2022	EBITDA Q2 2021	EBITDA Q2 2022	EBITDA H1 2021	EBITDA H1 2022
Total special items	(3,901)	(2,111)	(3,886)	(2,071)	(3,468)	(698)	(3,417)	(657)
Restructuring	(212)	(184)	(301)	(261)	(210)	(183)	(292)	(260)
of which in the Reconciliation	(144)	(25)	(210)	(55)	(144)	(24)	(210)	(54)
Acquisition/integration	(7)	(3)	(4)	(3)	(7)	(3)	(4)	(3)
of which in the Reconciliation	(1)	–	(1)	–	(1)	–	(1)	–
Divestments	78	169	68	154	78	169	68	154
of which in the Reconciliation	–	(10)	–	(10)	–	(10)	–	(10)
Litigations/legal risks	(3,334)	(690)	(3,193)	(603)	(3,334)	(690)	(3,193)	(603)
of which in the Reconciliation	45	(694)	59	(699)	45	(694)	59	(699)
Impairment losses/loss reversals ²	(433)	(1,416)	(463)	(1,417)	(2)	(3)	(3)	(3)
Other	7	13	7	59	7	12	7	58

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

² Where not already included in the other special items categories

A 2

Special Items¹ by Functional Cost

€ million	EBIT Q2 2021	EBIT Q2 2022	EBIT H1 2021	EBIT H1 2022	EBITDA Q2 2021	EBITDA Q2 2022	EBITDA H1 2021	EBITDA H1 2022
Total special items	(3,901)	(2,111)	(3,886)	(2,071)	(3,468)	(698)	(3,417)	(657)
Cost of goods sold	(288)	(842)	(324)	(854)	(28)	(25)	(29)	(36)
Selling expenses	77	(282)	65	(300)	(32)	(125)	(44)	(143)
Research and development expenses	(279)	(452)	(271)	(462)	5	(14)	13	(24)
General administration expenses	(173)	(59)	(255)	(120)	(173)	(59)	(255)	(120)
Other operating income/(expenses)	(3,238)	(476)	(3,101)	(335)	(3,240)	(475)	(3,102)	(334)

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

Net income

After a financial result of minus €692 million (Q2 2021: minus €99 million), income before income taxes amounted to minus €523 million (Q2 2021: minus €2,380 million). The financial result mainly comprised a loss of €96 million from investments in affiliated companies (Q2 2021: income of €209 million), net interest expense of €307 million (Q2 2021: €253 million) and interest cost of €136 million (Q2 2021: €18 million) for pension and other provisions, as well as net miscellaneous financial expenses of €113 million (Q2 2021: net miscellaneous financial income of €107 million). The financial result included net special charges of €127 million (Q2 2021: net special gains of €16 million). After income from income taxes of €234 million (Q2 2021: €52 million) and accounting for noncontrolling interest, net income amounted to minus €298 million (Q2 2021: minus €2,335 million).

Core earnings per share

Core earnings per share rose by 19.9% to €1.93 (Q2 2021: €1.61), mainly due to the very good business performance at the Crop Science Division, while the negative development of the financial result before special items had an opposing effect.

Earnings per share (total) came in at minus €0.30 (Q2 2021: minus €2.38) and, in comparison with core earnings per share, were primarily diminished by the impairment losses described above.

A 3

Core Earnings per Share¹

€ million	Q2 2021	Q2 2022	H1 2021	H1 2022
EBIT¹ (as per income statements)	(2,281)	169	802	4,381
Amortization and impairment losses/loss reversals on goodwill and other intangible assets	1,025	2,082	1,697	2,781
Impairment losses/loss reversals on property, plant and equipment, and accelerated depreciation included in special items	3	8	46	15
Special items (other than accelerated depreciation, amortization and impairment losses/loss reversals)	3,468	698	3,417	657
Core EBIT¹	2,215	2,957	5,962	7,834
Financial result (as per income statements)	(99)	(692)	(447)	(1,182)
Special items in the financial result ²	(16)	127	(53)	198
Income taxes (as per income statements)	52	234	(593)	(194)
Special items in income taxes	-	-	-	-
Tax effects related to amortization, impairment losses/loss reversals and special items	(563)	(724)	(734)	(1,282)
Income after income taxes attributable to noncontrolling interest (as per income statements)	(7)	(9)	(8)	(12)
Above-mentioned adjustments attributable to noncontrolling interest	-	-	-	-
Core net income from continuing operations	1,582	1,893	4,127	5,362
Shares (million)				
Weighted average number of shares	982.42	982.42	982.42	982.42
€				
Core earnings per share from continuing operations¹	1.61	1.93	4.20	5.46

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

² Includes in particular the changes in the fair value of the interests in Century Therapeutics and Pyxis Oncology, as well as interest cost for the provisions for litigations/legal risks. The prior-year figure mainly comprises changes in the fair value of our interests in Elanco and Covestro.

Personnel expenses and employee numbers

The number of employees in the Bayer Group as of the closing date rose by 2.5% year on year to 101,914 (June 30, 2021: 99,439). Personnel expenses increased by 15.7% to €3,391 million in the second quarter (Q2 2021: €2,931 million). This was partly attributable to currency effects and higher compensation.

First half of 2022**Group sales**

Group sales in the first half of 2022 rose by 12.1% (Fx & portfolio adj.) to €27,458 million (H1 2021: €23,182 million; reported: +18.4%). There was a positive currency effect of €1,444 million. Sales in Germany amounted to €1,345 million (H1 2021: €1,215 million).

The Crop Science Division saw sales increase substantially, with double-digit-percentage growth in all regions. Business at Pharmaceuticals was up slightly in the first six months. Growth was mainly driven by higher sales for Eylea™ across all regions, but was held back by price- and volume-related declines for Xarelto™ that were largely due to tender procedures in China. Sales at Consumer Health increased significantly, with growth in all regions and categories.

EBITDA before special items

EBITDA before special items at the Bayer Group advanced by 28.5% to €8,600 million (H1 2021: €6,695 million). This figure included a positive currency effect of €367 million. The EBITDA margin before special items increased to 31.3%, with currency effects having a dilutive effect of 0.3 percentage points.

At Crop Science, EBITDA before special items rose year on year, mainly due to the division's very strong performance. We also benefited from higher volumes, as well as from contributions from ongoing efficiency programs. Pharmaceuticals posted a slight decline in EBITDA before special items as a result of high marketing investments in new products. EBITDA before special items at Consumer Health increased, mainly due to the considerable growth in sales.

Depreciation, amortization and impairments

Depreciation, amortization and impairment losses – net of impairment loss reversals – amounted to €3,562 million in the first six months of 2022 (H1 2021: €2,476 million). They comprised €2,781 million (H1 2021: €1,697 million) in amortization and impairments on intangible assets and €781 million (H1 2021: €779 million) in depreciation and impairments on property, plant and equipment. Impairment losses, net of impairment loss reversals, totaled €1,515 million (H1 2021: €524 million) and included €1,501 million in net impairment losses on intangible assets (H1 2021: €487 million) that were primarily attributable to the impairment losses in the Crop Science Division mentioned above.

A total of €1,414 million (H1 2021: €463 million) in impairment losses, net of impairment loss reversals, and accelerated depreciation of €0 million (H1 2021: €6 million) were included in special items.

EBIT and special items

EBIT at the Bayer Group in the first half of 2022 came in at €4,381 million (H1 2021: €802 million) after net special charges of €2,071 million (H1 2021: €3,886 million). The special charges were mainly related to the impairment losses in the Crop Science Division mentioned above, as well as ongoing litigations and restructuring measures. By contrast, special gains from divestments, especially at the Pharmaceuticals Division, had a positive impact. EBIT before special items rose by 37.6% to €6,452 million (H1 2021: €4,688 million).

Net income

After a financial result of minus €1,182 million (H1 2021: minus €447 million), income before income taxes in the first half of the year came in at €3,199 million (H1 2021: €355 million). The financial result largely comprised a loss of €163 million from investments in affiliated companies (H1 2021: income of €217 million), net interest expense of €583 million (H1 2021: €521 million) and interest cost of €210 million (H1 2021: €37 million) for pension and other provisions, as well as net miscellaneous financial expenses of €162 million (H1 2021: net miscellaneous financial income of €65 million). The financial result included net special charges of €198 million (H1 2021: net special gains of €53 million). After income tax expense of €194 million (H1 2021: €593 million), income after income taxes was €3,005 million (H1 2021: minus €238 million). After adjusting for income from discontinued operations after income taxes and income attributable to noncontrolling interest, net income came to €2,993 million (H1 2021: minus €246 million).

Core earnings per share

Core earnings per share rose by 30.0% to €5.46 (H1 2021: €4.20), mainly due to the very strong performance of the Crop Science Division, while the negative development of the financial result before special items had an opposing effect.

Earnings per share (total) came in at €3.05 (H1 2021: minus €0.25) and, in comparison with core earnings per share, were mainly diminished by the impairment losses described above.

1.2 Business Development by Division

Crop Science

A 4

Key Data – Crop Science

€ million	Q2 2021	Q2 2022	Change (%) ¹		H1 2021	H1 2022	Change (%) ¹	
			Reported	Fx & p adj.			Reported	Fx & p adj.
Sales	5,021	6,461	+ 28.7	+ 17.2	11,667	14,908	+ 27.8	+ 19.7
Change in sales¹								
Volume	+ 7.4%	- 2.4%			+ 5.8%	+ 2.2%		
Price	+ 3.2%	+ 19.6%			+ 2.3%	+ 17.5%		
Currency	- 6.0%	+ 11.5%			- 7.8%	+ 8.1%		
Portfolio	0.0%	0.0%			0.0%	0.0%		
Sales by region								
Europe/Middle East/Africa	1,003	1,255	+ 25.1	+ 24.8	2,884	3,388	+ 17.5	+ 19.7
North America	2,532	3,056	+ 20.7	+ 7.8	5,963	7,417	+ 24.4	+ 13.8
Asia/Pacific	627	704	+ 12.3	+ 5.7	1,142	1,328	+ 16.3	+ 11.2
Latin America	859	1,446	+ 68.3	+ 44.8	1,678	2,775	+ 65.4	+ 46.5
EBITDA¹	(2,496)	1,701			(69)	5,416		
Special items ¹	(3,514)	(48)	-		(3,535)	(2)	-	
EBITDA before special items¹	1,018	1,749	+ 71.8		3,466	5,418	+ 56.3	
EBITDA margin before special items ¹	20.3%	27.1%			29.7%	36.3%		
EBIT¹	(3,483)	(258)	- 92.6		(1,730)	2,770		
Special items ¹	(3,945)	(1,369)	-		(3,997)	(1,324)	-	
EBIT before special items¹	462	1,111	+ 140.5		2,267	4,094	+ 80.6	
Net cash provided by (used in) operating activities	1,734	2,551	+ 47.1		(2,403)	164		
Cash flow-relevant capital expenditures	187	239	+ 27.8		303	389	+ 28.4	
Research and development expenses	819	997	+ 21.7		1,282	1,575	+ 22.9	

Fx & p adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

Second quarter of 2022

Sales

Crop Science posted a significant 17.2% rise in sales (Fx & portfolio adj.) to €6,461 million in the second quarter of 2022, driven by a substantial improvement in the market environment. We recorded double-digit percentage growth in Latin America and Europe/Middle East/Africa, and also registered a strong expansion of business in North America and Asia/Pacific.

- // Sales at **Corn Seed & Traits** were up year on year, mainly due to price increases in North America, Europe/Middle East/Africa and Latin America. We also benefited from expanded volumes in all regions except North America, where a decrease in planted acres led to a decline in volumes.
- // **Herbicides** posted considerable gains, especially in Latin and North America and in Europe/Middle East/Africa, as a result of prices for our glyphosate-based products remaining high.
- // Sales at **Fungicides** advanced in all regions except North America, where volumes declined as a result of unfavorable weather conditions.
- // **Soybean Seed & Traits** saw a decline in sales, largely due to the significant reduction in sales from overproduction in North America as well as our withdrawal from the Argentinian market.
- // Sales at **Insecticides** rose year on year, mainly due to the launch of our new product Movento™ in Europe/Middle East/Africa and expanded volumes in Latin America. Our business in North America was negatively impacted by shifts in demand into the previous year.
- // Sales at **Environmental Science** came in at the prior-year level. We further increased sales in Latin America due to price increases but recorded a decline in volumes in North America.

- // **Vegetable Seeds** registered double-digit growth in all regions, with significant gains in Europe/Middle East/Africa in particular thanks to advance demand.
- // We recorded an increase in sales in the reporting unit **"Other"**, driven by the growth of our cotton seed business in North and Latin America.

A 5

Sales by Strategic Business Entity

€ million	Q2 2021	Q2 2022	Change (%) ¹		H1 2021	H1 2022	Change (%) ¹	
			Reported	Fx & p adj.			Reported	Fx & p adj.
Crop Science	5,021	6,461	+ 28.7	+ 17.2	11,667	14,908	+ 27.8	+ 19.7
Corn Seed & Traits	962	1,165	+ 21.1	+ 9.5	3,356	3,920	+ 16.8	+ 9.8
Herbicides	1,468	2,455	+ 67.2	+ 51.3	2,956	4,939	+ 67.1	+ 55.6
Fungicides	774	858	+ 10.9	+ 4.3	1,654	1,921	+ 16.1	+ 11.9
Soybean Seed & Traits	530	503	- 5.1	- 16.1	1,059	1,077	+ 1.7	- 7.6
Insecticides	364	413	+ 13.5	+ 6.4	724	826	+ 14.1	+ 9.0
Environmental Science	316	353	+ 11.7	+ 1.1	601	730	+ 21.5	+ 12.1
Vegetable Seeds	168	210	+ 25.0	+ 18.8	325	372	+ 14.5	+ 10.1
Other	439	504	+ 14.8	+ 3.5	992	1,123	+ 13.2	+ 4.4

Fx & p adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."**Earnings**

EBITDA before special items at Crop Science increased to €1,749 million in the second quarter (Q2 2021: €1,018 million), mainly driven by the substantial improvement in business performance. We also benefited from contributions from ongoing efficiency programs. By contrast, earnings were diminished by an increase in costs, particularly in the cost of goods sold, which was mainly due to high inflation. We recorded a positive currency effect of €215 million (Q2 2021: minus €111 million). The EBITDA margin before special items increased by 6.8 percentage points to 27.1%.

EBIT came in at minus €258 million (Q2 2021: minus €3,483 million) after special charges of €1,369 million (Q2 2021: €3,945 million). These special charges mainly comprised impairments arising from an increase in the cost of capital in the cash-generating units Vegetable Seeds (€269 million) and Corn Seed & Traits (€202 million), as well as in the cash-generating unit cotton seed (€851 million), where updated business expectations were also a factor.

A 6

Special Items¹ Crop Science

€ million	EBIT Q2 2021	EBIT Q2 2022	EBIT H1 2021	EBIT H1 2022	EBITDA Q2 2021	EBITDA Q2 2022	EBITDA H1 2021	EBITDA H1 2022
Restructuring	(44)	(11)	(40)	(34)	(44)	(11)	(38)	(34)
Acquisition/integration	(4)	(2)	(1)	(1)	(4)	(2)	(1)	(1)
Divestments	(8)	(29)	(18)	(48)	(8)	(29)	(18)	(48)
Litigations/legal risks	(3,458)	-	(3,477)	91	(3,458)	-	(3,477)	91
Impairment losses/loss reversals	(431)	(1,324)	(461)	(1,325)	-	(3)	(1)	(3)
Other	-	(3)	-	(7)	-	(3)	-	(7)
Total special items	(3,945)	(1,369)	(3,997)	(1,324)	(3,514)	(48)	(3,535)	(2)

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

First half of 2022

Sales

Sales at Crop Science increased by 19.7% (Fx & portfolio adj.) to €14,908 million in the first six months of 2022, with double-digit growth recorded across all regions. **Corn Seed & Traits** reported an increase in sales, largely as a result of higher prices. We also benefited from expanded volumes in all regions except North America, where a decrease in planted acres led to a decline in volumes. Sales at **Herbicides** rose significantly in all regions, mainly due to prices for our glyphosate-based products remaining high. **Fungicides** achieved a further expansion of business in Latin America, Europe/Middle East/Africa and Asia/Pacific thanks to an increase in volumes, but posted a decline in North America due to lower volumes. Sales at **Soybean Seed & Traits** were down due to lower volumes in North and Latin America. Sales at **Insecticides** rose in Latin America and Europe/Middle East/Africa, largely due to an increase in volumes, but declined in North America as a result of lower volumes. Sales at **Environmental Science** and **Vegetable Seeds** increased in all regions. Within the reporting unit “**Other**,” our cotton seed business performed particularly well, especially in North and Latin America.

Earnings

EBITDA before special items at Crop Science rose by 56.3% to €5,418 million in the first half of 2022 (H1 2021: €3,466 million), mainly due to the substantial improvement in business performance. We also benefited from higher volumes, as well as contributions from ongoing efficiency programs. As in the second quarter, earnings were diminished by a mainly inflation-related increase in the cost of goods sold. In addition, there was a positive currency effect of €313 million (H1 2021: minus €363 million). The EBITDA margin before special items advanced to 36.3%, with currency effects having a dilutive effect of 0.2 percentage points.

EBIT amounted to €2,770 million (H1 2021: minus €1,730 million) after special charges of €1,324 million (H1 2021: €3,997 million) that primarily comprised the impairments mentioned above.

Pharmaceuticals

A 7

Key Data – Pharmaceuticals

€ million	Q2 2021	Q2 2022	Change (%) ¹		H1 2021	H1 2022	Change (%) ¹	
			Reported	Fx & p adj.			Reported	Fx & p adj.
Sales	4,494	4,818	+ 7.2	+ 2.1	8,859	9,442	+ 6.6	+ 2.4
Change in sales¹								
Volume	+ 16.5%	+ 2.4%			+ 9.8%	+ 3.1%		
Price	- 0.3%	- 0.3%			- 2.4%	- 0.7%		
Currency	- 4.0%	+ 5.1%			- 4.3%	+ 4.0%		
Portfolio	+ 0.4%	0.0%			+ 0.7%	+ 0.2%		
Sales by region								
Europe/Middle East/Africa	1,774	1,878	+ 5.9	+ 4.3	3,469	3,713	+ 7.0	+ 6.8
North America	1,032	1,149	+ 11.3	- 0.6	2,028	2,169	+ 7.0	- 3.2
Asia/Pacific	1,460	1,550	+ 6.2	+ 2.1	2,915	3,085	+ 5.8	+ 1.4
Latin America	228	241	+ 5.7	- 2.9	447	475	+ 6.3	- 0.6
EBITDA¹	1,564	1,559	- 0.3		3,192	2,996	- 6.1	
Special items ¹	155	81			285	129		
EBITDA before special items¹	1,409	1,478	+ 4.9		2,907	2,867	- 1.4	
EBITDA margin before special items ¹	31.4%	30.7%			32.8%	30.4%		
EBIT¹	1,312	1,206	- 8.1		2,681	2,408	- 10.2	
Special items ¹	152	(10)			277	38		
EBIT before special items¹	1,160	1,216	+ 4.8		2,404	2,370	- 1.4	
Net cash provided by operating activities	570	35	- 93.9		1,381	1,059	- 23.3	
Cash flow-relevant capital expenditures	236	229	- 3.0		392	360	- 8.2	
Research and development expenses	762	864	+ 13.4		1,443	1,656	+ 14.8	

Fx & portfolio adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

Second quarter of 2022

Sales

Sales at Pharmaceuticals rose by 2.1% (Fx & portfolio adj.) to €4,818 million in the second quarter of 2022. Our new products, especially Nubeqa™ and Kerendia™, continued their successful market launch, with sales of our cancer treatment Nubeqa™ doubling compared with the prior-year quarter. However, overall sales growth was held back by additional tender procedures in China, particularly for Xarelto™ and Nexavar™.

- // Sales of our oral anticoagulant **Xarelto™** decreased, largely due to lower prices and volumes in China as a result of tender procedures, as well as the expiration of our patent in Brazil. License revenues – recognized as sales – in the United States, where Xarelto™ is marketed by a subsidiary of Johnson & Johnson, were up against the prior-year quarter on a currency-adjusted basis.
- // Business with our ophthalmology drug **Eylea™** expanded by a double-digit percentage, with gains in all regions. We were able to capture market share, particularly in Europe, thanks in part to the ongoing launch of Eylea™ prefilled syringes.
- // The decline in sales of our long-term contraceptives in the **Mirena™** product family was largely attributable to a temporary change in usage patterns brought on by the pandemic.
- // We registered strong volume growth in China for **Adalat™**, our heart disease treatment, and **Aspirin™ Cardio**, our product for secondary prevention of heart attacks.
- // Sales of our pulmonary hypertension treatment **Adempas™** continued to increase, particularly in the United States. As in the past, sales reflected the proportionate recognition of the upfront and milestone payments resulting from the sGC collaboration with Merck & Co., United States.

- // The increase in sales of our cancer drug **Stivarga™** was mainly attributable to expanded volumes in China and the United States.
- // Our radiology business, comprising the **Gadovist™** and **Ultravist™** product lines, posted a considerable increase in sales, largely driven by higher volumes in Europe, North and Latin America, and Asia/Pacific.

A 8

Best-Selling Pharmaceuticals Products

€ million	Q2 2021	Q2 2022	Change (%) ¹		H1 2021	H1 2022	Change (%) ¹	
			Reported	Fx & p adj.			Reported	Fx & p adj.
Xarelto™	1,164	1,113	-4.4	-6.4	2,302	2,200	-4.4	-5.7
Eylea™	711	807	+13.5	+11.7	1,382	1,581	+14.4	+12.8
Mirena™/Kyleena™/Jaydess™	293	306	+4.4	-5.4	612	601	-1.8	-9.2
Adalat™	174	212	+21.8	+11.2	349	451	+29.2	+18.6
Kogenate™/Kovaltry™/Jivi™	211	212	+0.5	-5.6	396	420	+6.1	+0.4
YAZ™/Yasmin™/Yasminelle™	191	212	+11.0	+4.4	376	410	+9.0	+5.0
Aspirin™ Cardio	159	201	+26.4	+18.9	343	388	+13.1	+6.9
Adempas™	140	162	+15.7	+7.8	268	315	+17.5	+11.2
Stivarga™	112	155	+38.4	+27.6	233	299	+28.3	+20.0
Gadovist™ product family	104	128	+23.1	+17.5	204	236	+15.7	+12.9
CT Fluid Delivery	111	118	+6.3	-2.4	214	235	+9.8	+2.6
Ultravist™	90	112	+24.4	+18.4	170	217	+27.6	+22.2
Nubeqa™	49	105	+114.3	+101.5	93	181	+94.6	+82.3
Nexavar™	110	83	-24.5	-29.5	231	165	-28.6	-32.2
Betaferon™/Betaseron™	80	75	-6.3	-14.2	169	158	-6.5	-11.7
Total best-selling products	3,699	4,001	+8.2	+3.2	7,342	7,857	+7.0	+3.1
Proportion of Pharmaceuticals sales	82%	83%			83%	83%		

Fx & p adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."**Earnings**

EBITDA before special items at Pharmaceuticals rose by 4.9% to €1,478 million in the second quarter of 2022 (Q2 2021: €1,409 million). Increased raw material costs and higher marketing investments in our new products were largely offset by the growth in sales. We also generated income from the sale of noncore businesses. There were positive currency effects of €41 million (Q2 2021: minus €26 million). The EBITDA margin before special items amounted to 30.7%.

EBIT came in at €1,206 million (Q2 2021: €1,312 million) after net special charges of €10 million (Q2 2021: net special gains of €152 million), comprising special gains from the sale of our lormetazepam-based products and special charges from impairments on intangible assets due to changes in interest rates.

A 9

Special Items¹ Pharmaceuticals

€ million	EBIT Q2 2021	EBIT Q2 2022	EBIT H1 2021	EBIT H1 2022	EBITDA Q2 2021	EBITDA Q2 2022	EBITDA H1 2021	EBITDA H1 2022
Restructuring	(16)	(145)	(37)	(151)	(13)	(145)	(29)	(151)
Acquisition/integration	(2)	(1)	(2)	(2)	(2)	(1)	(2)	(2)
Divestments	86	208	86	212	86	208	86	212
Litigations/legal risks	79	4	225	5	79	4	225	5
Impairment losses/loss reversals	(2)	(92)	(2)	(92)	(2)	-	(2)	-
Other	7	16	7	66	7	15	7	65
Total special items	152	(10)	277	38	155	81	285	129

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

First half of 2022

Sales

Sales at Pharmaceuticals rose by 2.4% (Fx & portfolio adj.) to €9,442 million in the first six months of 2022. This was mainly attributable to the expansion of business with our ophthalmology drug Eylea™ in all regions, and especially in Europe due to the ongoing launch of Eylea™ prefilled syringes. Sales of Xarelto™ declined, mainly due to tender procedures in China and the expiration of our patent in Brazil. We posted significant gains for Nubeqa™, largely thanks to expanded volumes in the United States.

Earnings

EBITDA before special items at Pharmaceuticals declined slightly in the first half of 2022, falling 1.4% to €2,867 million (H1 2021: €2,907 million), largely due to increased raw material costs and higher marketing investments in our new products. We also incurred higher research and development expenses compared to the prior-year period, which benefited from the proportionate recognition of €52 million in proceeds from the sale of a priority review voucher in the United States. By contrast, earnings benefited from the growth in sales, as well as income from the sale of noncore businesses. We also recorded a positive currency effect of €7 million (H1 2021: minus €83 million). The EBITDA margin before special items came in at 30.4%, with currency effects having a dilutive effect of 1.1 percentage points.

EBIT amounted to €2,408 million (H1 2021: €2,681 million) after net special gains of €38 million (H1 2021: €277 million). Special gains from the sale of our lormetazepam-based products and from the measurement of contingent considerations at fair value were partly offset by special charges arising from impairments on intangible assets due to changes in interest rates.

Consumer Health

A 10

Key Data – Consumer Health

€ million	Q2 2021	Q2 2022	Change (%) ¹		H1 2021	H1 2022	Change (%) ¹	
			Reported	Fx & p adj.			Reported	Fx & p adj.
Sales	1,290	1,496	+ 16.0	+ 6.8	2,542	3,008	+ 18.3	+ 11.9
Changes in sales¹								
Volume	+ 10.8%	+ 2.5%			+ 0.9%	+ 6.9%		
Price	+ 2.0%	+ 4.3%			+ 2.6%	+ 5.0%		
Currency	- 6.4%	+ 8.7%			- 6.7%	+ 5.9%		
Portfolio	+ 1.0%	+ 0.5%			+ 1.0%	+ 0.5%		
Sales by region								
Europe/Middle East/Africa	419	462	+ 10.3	+ 6.4	852	953	+ 11.9	+ 11.6
North America	503	611	+ 21.5	+ 7.7	973	1,192	+ 22.5	+ 11.3
Asia/Pacific	214	238	+ 11.2	+ 3.0	423	490	+ 15.8	+ 8.5
Latin America	154	185	+ 20.1	+ 10.3	294	373	+ 26.9	+ 20.1
EBITDA¹	269	327	+ 21.6		555	697	+ 25.6	
Special items ¹	(9)	(3)			(15)	(21)		
EBITDA before special items¹	278	330	+ 18.7		570	718	+ 26.0	
EBITDA margin before special items ¹	21.6%	22.1%			22.4%	23.9%		
EBIT¹	187	239	+ 27.8		388	523	+ 34.8	
Special items ¹	(8)	(3)			(14)	(21)		
EBIT before special items¹	195	242	+ 24.1		402	544	+ 35.3	
Net cash provided by operating activities	165	116	- 29.7		406	429	+ 5.7	
Cash flow-relevant capital expenditures	43	35	- 18.6		67	58	- 13.4	
Research and development expenses	47	51	+ 8.5		92	104	+ 13.0	

Fx & p adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

Second quarter of 2022

Sales

Consumer Health posted strong growth in the second quarter of 2022. Sales advanced by 6.8% (Fx & portfolio adj.) year on year to €1,496 million, with business up in all regions. Sales of our cough and cold products grew significantly, especially in Europe and North America, due to continuously elevated cold incidence rates. In June, we also started selling Astepro™, a product that we switched from Rx to OTC status. It is the first and only steroid-free antihistamine nasal spray available over the counter on the U.S. market. After posting substantial gains since 2020, our Nutritionals category saw a slight decline but remained at a high level overall.

- // Sales in **Europe/Middle East/Africa** advanced markedly year on year, with our cough and cold products performing particularly well, especially Aspirin™. The Digestive Health and Dermatology categories also grew on the back of strong sales of Rennie™ and Bepanthen™. The Nutritionals business declined against a very strong prior-year quarter.
- // Our business in **North America** performed very well, largely driven by our cough and cold products, especially our Alka Seltzer™ product range. We also benefited from sales gains in the Digestive Health category, primarily due to continued strong demand for MiraLAX™. Sales in our Nutritionals business declined against a strong prior-year quarter.
- // We recorded moderate sales growth in **Asia/Pacific**, in a business environment that was adversely impacted by steps taken in China to contain the pandemic. While this particularly impacted the Digestive Health category with a strong decline in sales, we were able to more than offset this with increased sales in the Dermatology and Nutritionals categories, especially with Redoxon™.
- // We recorded strong sales growth in **Latin America**, with high demand for our cough and cold products. Sales were also up in the Pain & Cardio and Digestive Health categories. Following a very strong first quarter, the Nutritionals business saw a decline in sales.

A 11

Sales by Category

€ million	Q2 2021	Q2 2022	Change (%) ¹		H1 2021	H1 2022	Change (%) ¹	
			Reported	Fx & p adj.			Reported	Fx & p adj.
Consumer Health	1,290	1,496	+ 16.0	+ 6.8	2,542	3,008	+ 18.3	+ 11.9
Nutritionals	357	378	+ 5.9	- 3.7	710	797	+ 12.3	+ 5.8
Allergy & Cold	244	315	+ 29.1	+ 16.9	479	659	+ 37.6	+ 27.6
Dermatology	288	329	+ 14.2	+ 8.0	568	642	+ 13.0	+ 9.7
Pain & Cardio	198	233	+ 17.7	+ 7.3	389	443	+ 13.9	+ 7.3
Digestive Health	185	226	+ 22.2	+ 13.1	363	439	+ 20.9	+ 14.3
Other	18	15	- 16.7	- 10.8	33	28	- 15.2	- 15.9

Fx & p adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

Earnings

EBITDA before special items advanced by 18.7% to €330 million (Q2 2021: €278 million) in the second quarter of 2022. The growth in earnings was largely due to the strong rise in sales, as well as our continuous cost and price management efforts, which more than offset inflation-related increases in costs. Furthermore, we recorded one-time gains from the sale of a minor, nonstrategic brand. There were also positive currency effects of €49 million (Q2 2021: minus €20 million). The EBITDA margin before special items rose by 0.5 percentage points to 22.1%.

EBIT came in at €239 million (Q2 2021: €187 million) after special charges of €3 million (Q2 2021: €8 million) relating to restructuring measures.

A 12

Special Items¹ Consumer Health

€ million	EBIT Q2 2021	EBIT Q2 2022	EBIT H1 2021	EBIT H1 2022	EBITDA Q2 2021	EBITDA Q2 2022	EBITDA H1 2021	EBITDA H1 2022
Restructuring	(8)	(3)	(14)	(21)	(9)	(3)	(15)	(21)
Total special items	(8)	(3)	(14)	(21)	(9)	(3)	(15)	(21)

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

First half of 2022**Sales**

Sales at Consumer Health advanced by a substantial 11.9% (Fx & portfolio adj.) to €3,008 million in the first half of 2022. Our business grew in all regions and categories, with market-based demand shifts also contributing to this development. The major tailwinds came from the recovery of our business with cough and cold products following the lifting of heightened protection and hygiene measures, and the gains from continuously elevated cold incidence rates in the second quarter. The Dermatology and Digestive Health categories also performed well on the back of strong sales of Bepanthen™ and MiraLAX™. The Nutritionals category likewise contributed to the positive development of business.

Earnings

EBITDA before special items increased to €718 million (H1 2021: €570 million) in the first half of 2022. The growth in earnings was largely due to the strong rise in sales, as well as our continuous cost and price management efforts, which more than offset the impact of additional investment in marketing our innovative products and inflation-related increases in costs. Furthermore, we recorded one-time gains from the sale of minor, nonstrategic brands. There were also positive currency effects of €55 million (H1 2021: minus €46 million). The EBITDA margin before special items improved significantly, rising by 1.5 percentage points to 23.9%. Currency effects had a positive effect of 0.7 percentage points.

EBIT came in at €523 million (H1 2021: €388 million) after special charges of €21 million (H1 2021: €14 million) relating to restructuring measures.

1.3 Asset and Financial Position of the Bayer Group

Statement of Cash Flows

A 13

Bayer Group Summary Statements of Cash Flows

€ million	Q2 2021	Q2 2022	H1 2021	H1 2022
Net cash provided by (used in) operating activities (total)	1,997	2,104	(768)	1,378
Net cash provided by (used in) investing activities (total)	447	(2,771)	4,392	(2,029)
Net cash provided by (used in) financing activities (total)	(4,603)	(1,814)	(4,490)	(739)
Change in cash and cash equivalents due to business activities	(2,159)	(2,481)	(866)	(1,390)
Cash and cash equivalents at beginning of period	5,550	5,790	4,191	4,564
Change due to exchange rate movements and to changes in scope of consolidation	(2)	106	64	241
Cash and cash equivalents at end of period	3,389	3,415	3,389	3,415

Net cash provided by operating activities

// Net operating cash flow in the second quarter of 2022 amounted to €2,104 million (Q2 2021: €1,997 million). This figure included settlement payments of €326 million (Q2 2021: €877 million) in connection with the glyphosate, PCB and Essure™ litigations.

Net cash used in investing activities

// Net investing cash flow in the second quarter of 2022 amounted to minus €2,771 million (Q2 2021: €447 million).
 // Net cash outflows for current financial assets totaled €2,261 million (Q2 2021: inflows of €930 million). The high outflows in the second quarter of this year were mainly attributable to investments in money market funds.

Net cash used in financing activities

// There was a net cash outflow of €1,814 million for financing activities in the second quarter of 2022 (Q2 2021: €4,603 million).

// Net borrowings led to a cash inflow of €588 million (Q2 2021: net loan repayments of €2,255 million).

// Net interest payments amounted to €436 million (Q2 2021: €383 million).

// The Bayer Group paid out €1,966 million (2021: €1,965 million) in dividends.

Free cash flow

// Free cash flow (total) came in at €1,140 million in the second quarter of 2022 (Q2 2021: €1,152 million).

Net financial debt

A 14

Net Financial Debt¹

€ million	Dec. 31, 2021	March 31, 2022	June 30, 2022	Change vs March 31 (%)
Bonds and notes	37,593	39,225	38,088	-2.9
of which hybrid bonds ²	4,537	5,824	4,526	-22.3
Liabilities to banks ³	773	890	3,928	.
Lease liabilities	1,165	1,146	1,194	+4.2
Liabilities from derivatives ⁴	69	142	106	-25.4
Other financial liabilities	1,272	1,144	1,318	+15.2
Receivables from derivatives ⁴	(114)	(129)	(207)	+60.5
Financial debt	40,758	42,418	44,427	+4.7
Cash and cash equivalents	(4,564)	(5,785)	(3,412)	-41.0
Current financial assets ⁵	(3,057)	(2,106)	(4,440)	+110.8
Net financial debt¹	33,137	34,527	36,575	+5.9

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

² Classified as debt according to IFRS

³ Including both financial and nonfinancial liabilities

⁴ Including the market values of interest-rate and currency hedges of recorded transactions

⁵ Including short-term receivables with maturities between 3 and 12 months outstanding from banks and other companies, financial investments in debt, and equity instruments that were recorded as current on first-time recognition

// Net financial debt of the Bayer Group increased by €2.1 billion in the second quarter of 2022 to €36.6 billion (March 31, 2022: €34.5 billion). Cash inflows from operating activities did not fully offset the outflows for the dividend payment and negative currency effects.

// Bayer AG placed new hybrid bonds with a total volume of €1.3 billion in March 2022. The proceeds were used for general corporate purposes, including financing the early repayment of the €1.3 billion hybrid bond that was callable on October 2, 2022. The repayment took place in April and May 2022. In addition, two bonds with a total volume of US\$250 million (€229 million) were redeemed before maturity, while one bond with a nominal volume of €750 million and one with a nominal volume of JPY10 billion (€73 million) were redeemed at maturity in the second quarter of 2022.

// In May 2022, Bayer AG agreed and drew on a credit line of €3 billion. The liquidity is invested in money market funds and is intended to help the company manage risks in the event that the current geopolitical situation deteriorates.

// The rating agencies currently assess Bayer as follows:

A 15			
Rating			
Rating agency	Long-term rating	Short-term rating	Outlook
S&P Global Ratings	BBB	A2	stable
Moody's	Baa2	P2	negative
Fitch Ratings	BBB+	F2	stable

Asset and capital structure

A 16				
Bayer Group Summary Statements of Financial Position				
€ million	Dec. 31, 2021	March 31, 2022	June 30, 2022	Change vs. March 31 %
Noncurrent assets	87,663	87,536	89,244	+ 2.0
Assets held for sale	76	1,359	1,600	+ 17.7
Other current assets	32,502	36,887	37,950	+ 2.9
Current assets	32,578	38,246	39,550	+ 3.4
Total assets	120,241	125,782	128,794	+ 2.4
Equity	33,168	37,607	38,204	+ 1.6
Noncurrent liabilities	57,670	57,156	56,947	- 0.4
Current liabilities	29,403	31,019	33,643	+ 8.5
Liabilities	87,073	88,175	90,590	+ 2.7
Total equity and liabilities	120,241	125,782	128,794	+ 2.4

Prior-period figures restated

- // Between the first quarter and June 30, 2022, total assets increased by €3.0 billion to €128.8 billion.
- // Noncurrent assets rose by €1.7 billion to €89.2 billion in the second quarter. This effect was mainly attributable to the foreign currency measurement as of the closing date, particularly for goodwill (€1.9 billion) and other intangible assets (€1.3 billion). At the same time, impairment losses at the Crop Science and Pharmaceuticals divisions caused noncurrent assets to drop by €1.5 billion.
- // Total current assets rose by €1.3 billion to €39.6 billion. Here as well, the foreign currency measurement as of June 30, 2022, was a factor, particularly for inventories and trade accounts receivable. While financial assets increased by €2.2 billion driven by investments in money market funds, cash and cash equivalents decreased due to the dividend payment.
- // Equity rose by €0.6 billion compared with March 31, 2022, to €38.2 billion. This effect resulted from the currency translation of equity items recognized outside profit or loss (+€2.2 billion) and changes – recognized outside profit or loss – in the pension discount rate and in the fair value measurement of plan assets (+€0.7 billion, taking deferred taxes into account). By contrast, the dividend payment had a negative effect (€2.0 billion) as did the net loss for the quarter after income taxes (€0.3 billion). The equity ratio fell to 29.7% as of June 30, 2022 (March 31, 2022: 29.9%).
- // Liabilities rose by €2.4 billion in the second quarter to €90.6 billion. Of particular note were the €2.1 billion increase in financial liabilities (+€1.3 billion from currency translation of USD bonds as of June 30, 2022, –€1.3 billion from repayment of the previous hybrid bond in April and May, –€1.1 billion from repayment of JPY, USD, and EUR bonds, as well as +€3.0 billion for the utilization of an additional credit facility), the €0.8 billion rise in provisions for litigations, and additional effects from foreign currency measurement (€1.8 billion). A drop in advance payments received led to a €0.9 billion rise in refund liabilities for expected rebates at our Crop Science business. This was primarily offset by the reduction in provisions for pensions due to an increase in the discount rate (€1.3 billion) and the utilization of pension provisions in connection with variable, performance-related one-time payments to employees (€1.4 billion).

2. Research, Development, Innovation

Crop Science

Collaborations

In April, we announced the expansion of our strategic partnership with Ginkgo Bioworks. Under the agreement, the U.S. biotech company will acquire our West Sacramento Biologics Research & Development (R&D) site and internal discovery and lead optimization platform. The transaction will also bring the nitrogen-fixing technologies of the joint venture Joyn Bio to our company. Ginkgo Bioworks will become a multi-year strategic partner in our work to develop biological solutions in fields like nitrogen optimization, carbon sequestration and next-generation crop protection. The transaction will enable us to expand our leading biologics position, strengthen our access to key enabling technology in synthetic biology, and maintain our role as the preferred research, development and commercial partner in the biologics segment.

Pharmaceuticals

We regularly review our research and development pipeline so that we can give priority to advancing the most promising pharmaceutical projects.

Phase II and III clinical projects

The following table shows our most important drug candidates currently in Phase II of clinical testing:

A 17

Research and Development Projects (Phase II)

Project	Indication
Adrenomedullin Pegol (PEG-ADM inhale)	Acute respiratory syndrome
Asundexian (FXIa inhibitor)	Prevention of stroke in atrial fibrillation patients
Asundexian (FXIa inhibitor)	Secondary prevention of stroke
Asundexian (FXIa inhibitor)	Prevention of major adverse cardiac events (MACE)
Gadoquatrane (BAY 1747846, high relaxivity contrast agent)	Magnetic resonance imaging
BAY 2395840 (BDKRB1 antagonist)	Neuropathic pain
Fesomersen (BAY 2976217, FXI LICA, IONIS-FXI-L _{RX}) ¹	Prevention of thrombosis in end-stage renal disease (ESRD)
Osocimab (anti-FXIa antibody)	Prevention of thrombosis in end-stage renal disease (ESRD)
Regorafenib + nivolumab combination ²	Recurrent or metastatic solid tumors
Regorafenib + pembrolizumab combination	Second-line therapy of unresectable hepatocellular carcinoma
Runcaciguat (sGC activator)	Chronic kidney disease
Runcaciguat (sGC activator)	Non-proliferative diabetic retinopathy

As of June 17, 2022

¹ In collaboration with Ionis Pharmaceuticals, Inc., United States

² In collaboration with Bristol-Myers Squibb Company Co., United States, and Ono Pharmaceutical Co., Ltd., Japan

The following table shows our most important drug candidates currently in Phase III of clinical testing:

A 18

Research and Development Projects (Phase III)

Project	Indication
High-dose aflibercept (VEGF inhibitor) ¹	Diabetic macular edema (DME)
High-dose aflibercept (VEGF inhibitor) ¹	Neovascular age-related macular degeneration (nAMD)
Copanlisib (PI3K inhibitor) + chemotherapy combination	Second-line therapy of indolent non-Hodgkin lymphoma (iNHL)
Darolutamide (ODM-201, AR antagonist)	Hormone-sensitive metastatic prostate cancer
Darolutamide (ODM-201, AR antagonist)/ADT without chemotherapy	Adjuvant treatment for localized prostate cancer with very high risk of recurrence
Elinzanetant (neurokinin 1,3 receptor antagonist)	Vasomotor symptoms
Finerenone (MR antagonist)	Heart failure with mid-range or preserved ejection fraction
Finerenone (MR antagonist)	Non-diabetic chronic kidney disease
Regorafenib (multikinase inhibitor)	Newly diagnosed or recurrent glioblastoma
Vericiguat (sGC activator) ²	Stable heart failure with reduced ejection fraction (HFrEF)

As of June 17, 2022

¹ In collaboration with Regeneron Pharmaceuticals, Inc., United States

² In collaboration with Merck & Co., Inc., United States

The nature of drug discovery and development is such that not all compounds can be expected to meet the predefined project goals. It is possible that any or all of the projects listed above may have to be discontinued due to scientific and/or commercial reasons and will not result in commercialized products. It is also possible that the requisite U.S. Food and Drug Administration (FDA), European Medicines Agency (EMA) or other regulatory approvals will not be granted for these compounds. Moreover, we regularly review our research and development pipeline so that we can give priority to advancing the most promising pharmaceutical projects.

The following material developments occurred in the first half of 2022:

Asundexian

// In April, we presented positive results from the first Phase IIb trial, PACIFIC-AF, on the safety of asundexian in patients with atrial fibrillation. By selectively modulating coagulation, once-daily FXIa inhibitor asundexian is being investigated to become a new treatment option in thrombosis prevention.

TASK channel blocker

// In April, based on the results of the Spray Smart study, we decided to not pursue further development activities for the TASK (TWIK-related Acid-Sensitive K+) channel blocker in the indication of obstructive sleep apnea.

Pecavaptan

// In March, we decided to not pursue further development activities for pecavaptan, a dual vasopressin receptor antagonist, in the indication of heart failure due to scientific reasons.

Filings and approvals

The most important drug candidates in the approval process are:

A 19

Main Products Submitted for Approval

Project	Region	Indication
Aflibercept (VEGF inhibitor) ¹	EU, Japan	Retinopathy of prematurity
Darolutamide (ODM-201, AR antagonist)/ADT with chemotherapy	U.S.A., EU, Japan, China	Hormone-sensitive metastatic prostate cancer
Rivaroxaban (FXa inhibitor)	China	Peripheral artery disease (PAD)

As of June 21, 2022

¹ In collaboration with Regeneron Pharmaceuticals, Inc., United States

Finerenone

- // In February, based on the positive results of the Phase III FIDELIO-DKD study, we received marketing authorization in the European Union for Kerendia™ (finerenone) for the treatment of chronic kidney disease (stage 3 and 4 with albuminuria) associated with type 2 diabetes in adults. In March, this product was approved in Japan for the treatment of chronic kidney disease and type 2 diabetes in adults, excluding patients with end-stage renal disease or on dialysis. The approval was based on the results of the Phase III FIDELIO-DKD and FIGARO-DKD studies. In June, we received marketing authorization for finerenone in China under the brand name Kerendia™ for the treatment of chronic kidney disease (eGFR of ≥ 25 to 75 mL/min/1.73 m² with albuminuria) associated with type 2 diabetes in adults, to reduce the risk of sustained eGFR decline and end-stage kidney disease. The approval of finerenone in China is based on the results of the Phase III FIDELIO-DKD study.
- // In March, based on positive data from the Phase III FIGARO-DKD study, we submitted a type II variation application in the European Union to seek an extension of the finerenone marketing authorization to include early stages of chronic kidney disease associated with type 2 diabetes.

Rivaroxaban (FXa inhibitor)

- // In June, the oral Factor Xa inhibitor rivaroxaban (Xarelto™) was approved in Japan for the treatment of patients with peripheral artery disease (PAD) after revascularization (twice daily, used in combination with aspirin). The approval is based on data from the Phase III VOYAGER PAD trial.

Vericiguat

- // In May, vericiguat was approved in China under the brand name Verquvo™ for the treatment of adults with symptomatic chronic heart failure and reduced ejection fraction (less than 45%) who are stabilized after a recent decompensation event with intravenous therapy. In clinical studies, the drug lowered the risk of heart failure hospitalization or the need for intravenous diuretics in emergency care.

Darolutamide

- // In March, based on positive data from the Phase III ARASENS trial, we submitted a supplemental new drug application in the United States for the oral androgen receptor inhibitor Nubeqa™ for the treatment of metastatic hormone-sensitive prostate cancer (mHSPC), and were granted priority review status for this product. We also submitted applications in the European Union and Japan to expand the product's approval in this indication.
- // The ARASENS trial demonstrated a statistically significant improvement in overall survival for darolutamide plus androgen deprivation therapy (ADT) and docetaxel in patients with mHSPC compared with patients who had only received ADT plus docetaxel.

Calantic radiology platform

- // In June, we announced the launch of Calantic™ Digital Solutions, a new platform delivering access to digital applications, including artificial intelligence enabled programs for medical imaging. The vendor-neutral, cloud-hosted platform expands the company's radiology portfolio beyond contrast media, injection systems, software and services. It includes a growing number of medical imaging applications designed to aid in prioritization, lesion detection and quantification, as well as apps that automate routine tasks and measurements, improve the radiology suites' workflow, and free up time for radiologists and their teams. First launch markets will include the United States and several European countries including Germany, with more regions to follow upon local regulatory approvals.

Cell and gene therapy

We have invested more than €2.5 billion in recent years to assemble a cell and gene therapy platform. This includes the acquisitions of BlueRock and AskBio, as well as strategic collaborations (such as the partnership with Mammoth Biosciences), enabling us to establish a future-oriented innovation base and pipeline.

Our development portfolio already comprises seven projects in various stages of clinical development that cover several therapeutic areas with a high unmet medical need – with leading programs in Parkinson's disease, Pompe disease, hemophilia A and congestive heart failure.

The following material developments occurred in the first half of 2022:

- // In May, BlueRock completed enrollment of its Phase I trial of BRT-DA01, a novel cell therapy for the treatment of Parkinson's disease.
- // Also in May, we ended our collaboration with Atara Biotherapeutics (Atara), which had been based on a license agreement for mesothelin-targeted CAR-T cell therapies to treat solid tumors.
- // In June, we announced the establishment of the BlueRock site for cell therapy innovation on our campus in Berlin to enable the expansion and acceleration of the company's clinical trials in Europe.

Consumer Health

In the first half of the year, we launched One-A-Day™ Multi+, a line of complete gummy multivitamins, on the North American market. These four additions to our portfolio make it easy to get daily nutritional support plus a choice of boost for immunity defense (Adults or Teens versions), brain support, and healthy hair, skin and nails.

We also switched Astepro™ from Rx to OTC status. Astepro™ relieves nasal congestion, sneezing and a runny or itchy nose due to hay fever or other upper respiratory allergies. The OTC switch for Astepro™ means that we are marketing the first and only steroid-free antihistamine nasal spray on the U.S. market that is available over the counter for adults and children aged six and above that works in 30 minutes and lasts 24 hours.

Leaps by Bayer

Leaps by Bayer, our impact investment unit, invested in six healthcare ventures in the first half of 2022. In January 2022, Leaps announced its investment in a financing round of Cellino Biotech. Cellino's next-generation manufacturing platform combines artificial intelligence (AI) and laser technology to automate cell therapy manufacturing with the aim of reducing expenditures, overcoming scaling limitations and thereby expanding patient access. Affini-T Therapeutics, Leaps' largest investment in the first half of the year, is leveraging the characteristics of T cells and targeting core oncogenic driver mutations to develop potentially curative medicines for patients with difficult-to-treat solid tumor cancers. With the addition of Woebot Health to its portfolio, Leaps expanded its investment areas and made its first investment in the mental health space. Woebot is developing scalable, engaging therapeutic solutions by combining AI, decades of clinically proven therapeutic research and an engaging relational agent.

3. Report on Future Perspectives and on Opportunities and Risks

3.1 Future Perspectives

3.1.1 Economic Outlook

A 20

Economic Outlook¹

	Growth 2021	Growth forecast 2022
World	+ 5.8%	+ 2.7%
European Union ²	+ 5.3%	+ 2.6%
of which Germany	+ 2.9%	+ 1.7%
United States	+ 5.7%	+ 1.4%
Emerging Markets ³	+ 6.9%	+ 3.4%

¹ Real GDP growth, source: IHS Markit (as of July 2022)

² EU excluding United Kingdom

³ Including about 50 countries defined by IHS Markit as Emerging Markets in line with the World Bank

The global economic climate has worsened considerably since the beginning of the year. The war in Ukraine has shaken industry and consumer confidence and driven up energy prices, particularly in Europe. Further lockdowns in China as a result of the country's zero-COVID policy have additionally hampered the already strained global supply chains and intensified the cost pressure. In view of high inflation rates, the central banks are compelled to end their expansionary monetary policy and hike interest rates. These developments are leading to much lower growth expectations worldwide. Some regions, including Europe and the United States, may even see a recession over the further course of the year. The economic outlook continues to involve a considerable degree of uncertainty, especially with respect to factors relating to the war in Ukraine.

A 21

Economic Outlook for Division-Specific Markets

	Growth 2021	Growth forecast 2022
Seed and crop protection market ¹	+ 9%	+ 10%
Pharmaceuticals market ²	+ 8%	+ 6%
Consumer health market ³	+ 6%	+ 5%

¹ Bayer's estimate (as of July 2022)

² Source: IQVIA Market Prognosis (as of May 2022), all rights reserved; currency-adjusted

³ Source for outlook: Bayer's estimate (as of May 2022), taking into account external sources; currency-adjusted

We now expect increased growth of 10% (previously: +5%) in the **seed and crop protection market** for 2022, driven by continuously high commodity prices encouraging investment in high-quality seeds as well as inflation-related price increases for both seeds and crop protection products.

We expect the **pharmaceuticals market** to expand by about 6% (previously: +5%) in 2022. Innovative products will continue to drive growth and more than offset losses due to the expiration of patents.

We now expect growth of 5% (previously: +4%) in the **consumer health market** for 2022, mainly due to economic conditions resulting in price increases and consumers' continued focus on health and wellness.

3.1.2 Corporate Outlook

Following the positive development of our business in the first half of 2022, we remain optimistic for the remainder of the year. We are therefore raising our guidance for the Crop Science and Consumer Health divisions, and thus also for the Group as a whole. To enhance the comparability of operational performance, we are presenting this guidance based on the average monthly exchange rates from 2021. We do not currently see any material financial impact on the development of our business in 2022 as a result of the uncertain geopolitical situation and gas supplies.

For fiscal 2022, we now expect to generate currency-adjusted sales of €47 billion to €48 billion (previously: approximately €46 billion). This now corresponds to an increase of about 8% on a currency- and portfolio-adjusted basis (previously: about 5%). We are now targeting an EBITDA margin before special items of around 26% to 27% (previously: around 26%) on a currency-adjusted basis. Based on the aforementioned sales figure, this would now correspond to EBITDA before special items of around €12.5 billion (previously: around €12.0 billion) on a currency-adjusted basis. We now expect core earnings per share to come in at approximately €7.30 (previously: approximately €7.00) on a currency-adjusted basis.

Based on the closing exchange rates as of June 30, 2022, we now expect to generate sales of €50 billion to €51 billion (previously: approximately €47 billion). This now corresponds to an increase of about 8% on a currency- and portfolio-adjusted basis (previously: about 5%). We are now targeting an EBITDA margin before special items of approximately 26% to 27% (previously: approximately 26%). Based on the aforementioned sales figure, this would now correspond to EBITDA before special items of around €13.0 billion (previously: around €12.0 billion). We now expect core earnings per share to come in at approximately €7.70 (previously: approximately €7.10).

A 22

Forecast for 2022

	Initial currency-adjusted forecast for 2022		Revised currency-adjusted forecast for 2022		Initial forecast for 2022 at closing rates on Dec. 31, 2021		Revised forecast for 2022 at closing rates on June 30, 2022	
	€ billion	Fx & p adj. change (%)	€ billion	Fx & p adj. change (%)	€ billion	Fx & p adj. change (%)	€ billion	Fx & p adj. change (%)
Sales	~46	~+5	47 to 48	~+8	~47	~+5	50 to 51	~+8
Crop Science		~+7		~+13		~+7		~+13
Pharmaceuticals		~+3 to 4		~+3 to 4		~+3 to 4		~+3 to 4
Consumer Health		~+4 to 5		~+6 to 7		~+4 to 5		~+6 to 7
		Margin (%)		Margin (%)		Margin (%)		Margin (%)
EBITDA before special items¹		~26		~26 to 27		~26		~26 to 27
Crop Science		~25 to 26		~27		~25 to 26		~27
Pharmaceuticals		~32		~32		~32		~31
Consumer Health		~22 to 23		~22 to 23		~22 to 23		~22 to 23
Financial result (core)²	~-1.5		~-1.8		~-1.5		~-1.8	
Tax rate (core)³	23%		23%		23%		23%	
Free cash flow¹	~2.0 to 2.5		~2.5		~2.0 to 2.5		~2.5	
Net financial debt¹	~33 to 34		~33 to 34		~33 to 34		~34 to 35	
Special items in EBIT	~-1.0		~-2.5		~-1.0		~-2.5	
	€		€		€		€	
Core earnings per share¹	~7.00		~7.30		~7.10		~7.70	

Fx & p adj. = currency- and portfolio-adjusted

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

² Financial result before special items

³ (Income taxes + special items in income taxes + tax effects on adjustments) / (core EBIT + financial result + special items in financial result)

We now plan to take total special charges (currency-adjusted) in EBIT of around €2.5 billion (previously: around €1 billion). As before, we expect to take special charges in EBITDA of around €1.0 billion.

Potential estimation risks regarding litigations are referenced in the 2021 Annual Report, Note [30] "Legal Risks" and Chapter A 3.2 "Opportunity and Risk Report."

3.2 Opportunities and Risks

As a global enterprise with a diversified portfolio, the Bayer Group is exposed to a wide range of internal and external developments and events that could significantly impact the achievement of our financial and nonfinancial objectives. Opportunity and risk management at Bayer forms an integral part of the Group-wide corporate governance system. Our opportunity and risk management process and the fundamental opportunity and risk status are outlined in detail in the Annual Report 2021, A 3.2 "Opportunity and Risk Report."

In comparison to our Annual Report 2021, further geopolitical risks are arising in connection with Russia's war in Ukraine. Both the direct influence of the war as well as the influence due to applicable sanctions may negatively impact our business, for example, our (energy) costs, availability of energy – especially in case of a gas embargo/gas supply suspension – supply chain (disruptions), sales, earnings and cash flows. Generally, the implications of the war are unpredictable and have the potential to significantly impact financial markets and economies, leading, for example, to high volatility of foreign exchange rates and an economic slowdown. Thus, our market environment and, consequently, our business performance may be negatively impacted. We are preparing for these challenges with global and local operational crisis management, energy-related task forces and other interdisciplinary teams setting up mitigation measures such as building additional financial buffers and diversification of energy sources.

Overall assessment by the Board of Management

We currently have identified an increase in our risk situation compared with the assessment given in the 2021 Annual Report, as a result of Russia's war in Ukraine. In the opinion of the Board of Management, the Bayer Group's continued existence remains unendangered.

Significant developments that have occurred in respect of the legal risks since publication of the Bayer Annual Report 2021 (Note [30] to the Consolidated Financial Statements) are described in the Notes to the Condensed Consolidated Interim Financial Statements under "Legal Risks."

Condensed Consolidated Interim Financial Statements as of June 30, 2022

Bayer Group Consolidated Income Statements

B 1

€ million	Q2 2021	Q2 2022	H1 2021	H1 2022
Net sales	10,854	12,819	23,182	27,458
Cost of goods sold	(4,546)	(5,680)	(9,244)	(10,856)
Gross profit	6,308	7,139	13,938	16,602
Selling expenses	(2,964)	(3,736)	(5,843)	(7,020)
Research and development expenses	(1,638)	(1,928)	(2,836)	(3,382)
General administration expenses	(783)	(736)	(1,425)	(1,397)
Other operating income	537	780	887	1,289
Other operating expenses	(3,741)	(1,350)	(3,919)	(1,711)
EBIT¹	(2,281)	169	802	4,381
Equity-method income (loss)	105	(39)	79	(59)
Financial income	271	50	369	117
Financial expenses	(475)	(703)	(895)	(1,240)
Financial result	(99)	(692)	(447)	(1,182)
Income before income taxes	(2,380)	(523)	355	3,199
Income taxes	52	234	(593)	(194)
Income after income taxes	(2,328)	(289)	(238)	3,005
of which attributable to noncontrolling interest	7	9	8	12
of which attributable to Bayer AG stockholders (net income)	(2,335)	(298)	(246)	2,993
€				
Earnings per share				
Basic	(2.38)	(0.30)	(0.25)	3.05
Diluted	(2.38)	(0.30)	(0.25)	3.05

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

Bayer Group Consolidated Statements of Comprehensive Income

B 2

€ million	Q2 2021	Q2 2022	H1 2021	H1 2022
Income after income taxes	(2,328)	(289)	(238)	3,005
of which attributable to noncontrolling interest	7	9	8	12
of which attributable to Bayer AG stockholders	(2,335)	(298)	(246)	2,993
Remeasurements of the net defined benefit liability for post-employment benefit plans	50	1,100	1,128	1,286
Income taxes	(4)	(406)	(312)	(511)
Other comprehensive income from remeasurements of the net defined benefit liability for post-employment benefit plans	46	694	816	775
Changes in the fair value of equity instruments measured at fair value	135	(47)	212	(104)
Income taxes	(4)	14	(4)	15
Other comprehensive income from equity instruments measured at fair value	131	(33)	208	(89)
Other comprehensive income relating to associates accounted for using the equity method	25	-	25	-
Other comprehensive income that will not be reclassified subsequently to profit or loss	202	661	1,049	686
Changes in the fair value of cash flow hedges	(62)	(185)	(13)	(182)
Reclassified to profit or loss	5	139	(50)	147
Income taxes	20	6	20	13
Other comprehensive income from cash flow hedges	(37)	(40)	(43)	(22)
Changes in time value of options used as hedging instrument	-	(1)	(2)	(8)
Income taxes	-	3	1	3
Other comprehensive income from time value of options	-	2	(1)	(5)
Other comprehensive income from available-for-sale financial assets	-	-	-	1
Other comprehensive income from exchange differences	(70)	2,226	1,077	3,333
Other comprehensive income relating to associates accounted for using the equity method	(4)	1	(2)	2
Other comprehensive income that may be reclassified subsequently to profit or loss	(111)	2,189	1,031	3,309
Total other comprehensive income¹	91	2,850	2,080	3,995
of which attributable to noncontrolling interest	(6)	6	3	7
of which attributable to Bayer AG stockholders	97	2,844	2,077	3,988
Total comprehensive income	(2,237)	2,561	1,842	7,000
of which attributable to noncontrolling interest	1	15	11	19
of which attributable to Bayer AG stockholders	(2,238)	2,546	1,831	6,981

2021 figures restated resulting from the completion of the purchase price allocation for AskBio in the fourth quarter of 2021

¹ Other comprehensive income is recognized outside profit or loss in equity.

Bayer Group Consolidated Statements of Financial Position

B 3

€ million	June 30, 2021	Dec. 31, 2021	June 30, 2022
Noncurrent assets			
Goodwill	37,316	40,106	41,583
Other intangible assets	24,684	26,258	25,367
Property, plant and equipment	11,843	12,688	13,275
Investments accounted for using the equity method	576	629	762
Other financial assets	1,625	2,026	2,030
Other receivables	1,199	1,376	1,155
Deferred taxes	4,470	4,580	5,072
	81,713	87,663	89,244
Current assets			
Inventories	10,125	11,314	11,371
Trade accounts receivable	13,071	10,047	14,785
Other financial assets	3,109	3,342	4,782
Other receivables	1,559	1,709	1,815
Claims for income tax refunds	1,182	1,526	1,785
Cash and cash equivalents	3,389	4,564	3,412
Assets held for sale	32	76	1,600
	32,467	32,578	39,550
Total assets	114,180	120,241	128,794
Equity			
Capital stock	2,515	2,515	2,515
Capital reserves	18,261	18,261	18,261
Other reserves	9,613	12,244	17,243
Equity attributable to Bayer AG stockholders	30,389	33,020	38,019
Equity attributable to noncontrolling interest	166	148	185
	30,555	33,168	38,204
Noncurrent liabilities			
Provisions for pensions and other post-employment benefits	7,512	7,175	5,665
Other provisions	7,182	8,776	8,294
Refund liabilities	142	283	166
Contract liabilities	650	770	635
Financial liabilities	36,669	36,481	38,061
Income tax liabilities	1,638	1,601	1,672
Other liabilities	1,184	1,653	1,618
Deferred taxes	679	931	836
	55,656	57,670	56,947
Current liabilities			
Other provisions	7,947	6,823	7,152
Refund liabilities	6,877	4,564	7,985
Contract liabilities	1,305	4,052	2,174
Financial liabilities	3,707	4,391	6,573
Trade accounts payable	5,113	6,792	6,097
Income tax liabilities	926	686	1,036
Other liabilities	2,094	2,095	2,513
Liabilities directly related to assets held for sale	-	-	113
	27,969	29,403	33,643
Total equity and liabilities	114,180	120,241	128,794

2021 figures restated resulting from the completion of the purchase price allocation for AskBio in the fourth quarter of 2021

Bayer Group Consolidated Statements of Cash Flows

B 4

€ million	Q2 2021	Q2 2022	H1 2021	H1 2022
Income after income taxes	(2,328)	(289)	(238)	3,005
Income taxes	(52)	(234)	593	194
Financial result	99	692	447	1,182
Income taxes paid	(687)	(526)	(1,140)	(968)
Depreciation, amortization and impairment losses (loss reversals)	1,390	2,482	2,476	3,562
Change in pension provisions	(70)	(76)	(185)	(147)
(Gains) losses on retirements of noncurrent assets	(104)	(296)	(119)	(339)
Decrease (increase) in inventories	308	(225)	841	219
Decrease (increase) in trade accounts receivable	(64)	353	(3,335)	(3,833)
(Decrease) increase in trade accounts payable	(63)	68	(680)	(990)
Changes in other working capital, other noncash items	3,568	155	572	(507)
Net cash provided by (used in) operating activities	1,997	2,104	(768)	1,378
Cash outflows for additions to property, plant, equipment and intangible assets	(493)	(550)	(822)	(899)
Cash inflows from the sale of property, plant, equipment and other assets	115	261	272	457
Cash outflows for divestments less divested cash	–	–	(57)	–
Cash inflows from noncurrent financial assets	4	3	357	3
Cash outflows for noncurrent financial assets	(121)	(231)	(267)	(314)
Cash outflows for acquisitions less acquired cash	(19)	(15)	(23)	(15)
Interest and dividends received	31	22	41	47
Cash inflows from (outflows for) current financial assets	930	(2,261)	4,891	(1,308)
Net cash provided by (used in) investing activities	447	(2,771)	4,392	(2,029)
Capital contributions	–	–	–	15
Dividend payments	(1,965)	(1,966)	(1,965)	(1,966)
Issuances of debt	282	4,192	4,495	6,471
Retirements of debt	(2,537)	(3,604)	(6,495)	(4,686)
Interest paid including interest-rate swaps	(391)	(441)	(547)	(614)
Interest received from interest-rate swaps	8	5	22	41
Net cash provided by (used in) financing activities	(4,603)	(1,814)	(4,490)	(739)
Change in cash and cash equivalents due to business activities	(2,159)	(2,481)	(866)	(1,390)
Cash and cash equivalents at beginning of period	5,550	5,790	4,191	4,564
Change in cash and cash equivalents due to changes in scope of consolidation	–	–	–	3
Change in cash and cash equivalents due to exchange rate movements	(2)	106	64	238
Cash and cash equivalents at end of period	3,389	3,415	3,389	3,415

Bayer Group Consolidated Statements of Changes in Equity

B 5

€ million	Capital stock	Capital reserves	Other reserves	Equity attributable to Bayer AG stockholders	Equity attributable to non-controlling interest	Equity
Jan. 1, 2021	2,515	18,261	9,747	30,523	152	30,675
Total comprehensive income						
Income after income taxes			(246)	(246)	8	(238)
Other comprehensive income			2,077	2,077	3	2,080
Miscellaneous other changes						
Equity transactions with owners						
Dividend payments			(1,965)	(1,965)		(1,965)
Other changes					3	3
June 30, 2021	2,515	18,261	9,613	30,389	166	30,555
Jan. 1, 2022	2,515	18,261	12,244	33,020	148	33,168
Total comprehensive income						
Income after income taxes			2,993	2,993	12	3,005
Other comprehensive income			3,988	3,988	7	3,995
Miscellaneous other changes						
Equity transactions with owners						
Dividend payments			(1,965)	(1,965)	(1)	(1,966)
Other changes			(17)	(17)	19	2
June 30, 2022	2,515	18,261	17,243	38,019	185	38,204

2021 figures restated resulting from the completion of the purchase price allocation for AskBio in the fourth quarter of 2021

Notes to the Condensed Consolidated Interim Financial Statements of the Bayer Group

Explanatory Notes

Accounting policies

The consolidated interim financial statements as of June 30, 2022, were prepared in condensed form in compliance with IAS 34 according to the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB), London, which are endorsed by the European Union, and the Interpretations of the IFRS Interpretations Committee in effect at the closing date.

Reference should be made as appropriate to the Notes to the Consolidated Financial Statements for the 2021 fiscal year, particularly with regard to the main recognition and valuation principles. As regards those Notes' listed standards, amendments and interpretations to be applied for the first time in fiscal 2022, none had any material impact on the Bayer Group this fiscal year.

Impact of COVID-19

Protective measures and contact restrictions have largely been lifted. Uncertainties remain, however, with the prospect of further COVID outbreaks as a result of new variants, for instance. We do not currently see any material negative impact on our business operations and thus the Group's financial position or results of operations.

We will continue to closely monitor the effects of the pandemic, including in particular the impact on inventories, customer receivables and significant estimates regarding goodwill and other intangible assets.

Impact of Russia's invasion of Ukraine

Group sales and earnings as well as its financial position and results of operations were only marginally impacted by the war and its direct consequences in the second quarter. We did not register any major increase in past-due receivables in Russia or Ukraine. Based on a risk analysis conducted at the level of individual customers, we wrote down the value of receivables by €35 million.

Gas and energy provision as well as global supply chains may also be disrupted as a result of the war. At Bayer, energy costs accounted for about 3% of the total cost of goods sold in fiscal 2021. We are in the process of analyzing the specific effects of various scenarios on our business and potential solutions and cannot yet conclusively quantify these. We have meanwhile developed a series of measures to reduce our natural gas needs and have already implemented some of these. We are also expanding our network of suppliers and building up additional inventories to continue to ensure supply security.

The stability of payment transactions both within Russia and at an international level is subject to considerable uncertainties, and we are evaluating suitable risk mitigation measures.

We are continually analyzing the future direct and indirect effects of economic developments and sanctions on the valuation of individual assets and liabilities.

Changes in underlying parameters

Changes in the underlying parameters relate primarily to currency exchange rates and the interest rates used to calculate pension obligations. The exchange rates for major currencies against the euro varied as follows:

B 6

Exchange Rates for Major Currencies

€1		Closing rate			Average rate	
		Dec. 31, 2021	June 30, 2021	June 30, 2022	H1 2021	H1 2022
BRL	Brazil	6.31	5.90	5.42	6.49	5.53
CAD	Canada	1.44	1.47	1.34	1.50	1.39
CNY	China	7.20	7.69	6.97	7.80	7.09
GBP	United Kingdom	0.84	0.86	0.86	0.87	0.84
JPY	Japan	130.41	131.47	141.63	129.76	134.08
RUB	Russia	85.35	86.75	56.38	89.58	81.00
USD	United States	1.13	1.19	1.04	1.21	1.09

B 7

Application of IAS 29 (Financial Reporting in Hyperinflation Economies)

Company name	Place of business	Applied since
Bayer S. A.	Buenos Aires, Argentina	July 1, 2018
Bayer Türk Kimya Sanayii Limited Sirketi	Istanbul, Turkey	April 1, 2022
Monsanto Gida Ve Tarim Ticaret Ltd Sirketi	Istanbul, Turkey	April 1, 2022

The effects in initial and ongoing accounting have so far been immaterial for the Group.

The most important interest rates used to calculate the present value of pension obligations are given below:

B 8

Discount Rate for Pension Obligations

%	Dec. 31, 2021	June 30, 2021	June 30, 2022
Germany	1.20	1.10	3.30
United Kingdom	1.80	1.80	3.60
United States	2.80	2.70	4.60

The long-term trend for pensions in Germany was adjusted due to higher inflation expectations and had an impact of €1,400 million in the first half of 2022. Changes in discount rates had an opposing effect of €6,111 million.

Segment reporting

As of June 30, 2022, the Bayer Group comprised the three reportable segments Crop Science, Pharmaceuticals and Consumer Health.

B 9**Key Data by Segment**

€ million	Crop Science		Pharmaceuticals		Consumer Health	
	Q2 2021	Q2 2022	Q2 2021	Q2 2022	Q2 2021	Q2 2022
Net sales (external)	5,021	6,461	4,494	4,818	1,290	1,496
Currency- and portfolio-adjusted change ¹	+ 10.6%	+ 17.2%	+ 16.2%	+ 2.1%	+ 12.8%	+ 6.8%
Intersegment sales	3	2	3	(2)	–	–
Net sales (total)	5,024	6,463	4,497	4,816	1,290	1,496
EBIT ¹	(3,483)	(258)	1,312	1,206	187	239
EBITDA before special items ¹	1,018	1,749	1,409	1,478	278	330
Net cash provided by operating activities	1,734	2,551	570	35	165	116
Depreciation, amortization, impairment losses/loss reversals	987	1,959	252	353	82	88

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

B 9 (continued)

€ million	Reconciliation					
	All other segments		Enabling functions and consolidation		Group	
	Q2 2021	Q2 2022	Q2 2021	Q2 2022	Q2 2021	Q2 2022
Net sales (external)	40	42	9	2	10,854	12,819
Currency- and portfolio-adjusted change ¹	– 16.0%	– 10.8%	–	–	+ 12.9%	+ 9.6%
Intersegment sales	–	1	(6)	(2)	–	–
Net sales (total)	40	43	3	0	10,854	12,819
EBIT ¹	7	(30)	(304)	(988)	(2,281)	169
EBITDA before special items ¹	25	(11)	(153)	(197)	2,577	3,349
Net cash provided by (used in) operating activities	35	(8)	(507)	(590)	1,997	2,104
Depreciation, amortization, impairment losses/loss reversals	18	19	51	63	1,390	2,482

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

B 10**Key Data by Segment**

€ million	Crop Science		Pharmaceuticals		Consumer Health	
	H1 2021	H1 2022	H1 2021	H1 2022	H1 2021	H1 2022
Net sales (external)	11,667	14,908	8,859	9,442	2,542	3,008
Currency- and portfolio-adjusted change ¹	+ 8.1%	+ 19.7%	+ 7.4%	+ 2.4%	+ 3.5%	+ 11.9%
Intersegment sales	5	4	5	3	–	–
Net sales (total)	11,672	14,912	8,864	9,445	2,542	3,008
EBIT ¹	(1,730)	2,770	2,681	2,408	388	523
EBITDA before special items ¹	3,466	5,418	2,907	2,867	570	718
Net cash provided by (used by) operating activities	(2,403)	164	1,381	1,059	406	429
Depreciation, amortization, impairment losses/loss reversals	1,661	2,646	511	588	167	174

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

B 10 (continued)

€ million	Reconciliation					
	All other segments		Enabling functions and consolidation		Group	
	H1 2021	H1 2022	H1 2021	H1 2022	H1 2021	H1 2022
Net sales (external)	96	88	18	12	23,182	27,458
Currency- and portfolio-adjusted change ¹	-9.3%	-13.0%	-	-	+7.2%	+12.1%
Intersegment sales	-	1	(10)	(8)	-	-
Net sales (total)	96	89	8	4	23,182	27,458
EBIT ¹	(9)	(29)	(528)	(1,291)	802	4,381
EBITDA before special items ¹	26	7	(274)	(410)	6,695	8,600
Net cash provided by (used in) operating activities	84	-	(236)	(274)	(768)	1,378
Depreciation, amortization, impairment losses/loss reversals	35	36	102	118	2,476	3,562

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

To simplify the consolidation process, leases between fully consolidated companies continue to be recognized as operating leases under IAS 17 within the segment data in the consolidated financial statements of the Bayer Group even after the first-time application of IFRS 16 as of January 1, 2019. This does not have any relevant impact on the respective key data used in the steering of the company and internal reporting to the Board of Management as the chief operating decision maker.

The following table shows the reconciliation of EBITDA before special items of the above-mentioned segments and the reconciliation to income before income taxes of the Group from continuing operations:

B 11

Reconciliation of Segments' EBITDA Before Special Items to Group Income Before Income Taxes

€ million	Q2 2021	Q2 2022	H1 2021	H1 2022
EBITDA before special items of segments	2,730	3,546	6,969	9,010
EBITDA before special items of enabling functions and consolidation	(153)	(197)	(274)	(410)
EBITDA before special items¹	2,577	3,349	6,695	8,600
Depreciation, amortization and impairment losses/loss reversals before special items of segments	(906)	(1,007)	(1,905)	(2,031)
Depreciation, amortization and impairment losses/loss reversals before special items of corporate functions and consolidation	(51)	(62)	(102)	(117)
Depreciation, amortization and impairment losses/loss reversals before special items	(957)	(1,069)	(2,007)	(2,148)
EBIT before special items of segments	1,824	2,539	5,064	6,979
EBIT before special items of enabling functions and consolidation	(204)	(259)	(376)	(527)
EBIT before special items¹	1,620	2,280	4,688	6,452
Special items of segments	(3,801)	(1,382)	(3,734)	(1,307)
Special items of enabling functions and consolidation	(100)	(729)	(152)	(764)
Special items¹	(3,901)	(2,111)	(3,886)	(2,071)
EBIT of segments	(1,977)	1,157	1,330	5,672
EBIT of enabling functions and consolidation	(304)	(988)	(528)	(1,291)
EBIT¹	(2,281)	169	802	4,381
Financial result	(99)	(692)	(447)	(1,182)
Income before income taxes	(2,380)	(523)	355	3,199

¹ For definition see Annual Report 2021, A 2.3 "Alternative Performance Measures Used by the Bayer Group."

The balance of other operating expenses and other operating income of minus €570 million in the second quarter of 2022 (Q2 2021: minus €3,204 million) was due to special charges of €476 million (Q2 2021: €3,238 million), which primarily related to ongoing legal proceedings.

The special items in the second quarter of 2021 were mainly related to the glyphosate litigations.

Scope of consolidation

Changes in the scope of consolidation

The consolidated financial statements as of June 30, 2022, included 369 companies (December 31, 2021: 374 companies). Six joint ventures (December 31, 2021: six) and 36 associates (December 31, 2021: 33) were accounted for in the consolidated financial statements using the equity method according to IAS 28 (Investments in Associates and Joint Ventures).

Acquisitions, divestments and discontinued operations

Acquisitions in 2022

On June 28, 2022, Bayer acquired 30% of the shares in Natsana GmbH, Germany, for a purchase price of around €96 million. The acquired shares are accounted for using the equity method. Natsana is an online-only provider focused on the sale and development of natural supplements such as vitamins, minerals, nutrients and probiotics. Its portfolio comprises over 100 products under its three main brands: Feel Natural, Nature Love and Natural Elements. Bayer will acquire the other 70% of shares in 2025 based on a buy-out mechanism agreed to when closing the transaction. The company will be assigned to the Consumer Health segment.

Acquisitions in 2021

On June 2, 2021, Bayer completed the acquisition of 100% of the shares in two biotech companies: Noria Therapeutics Inc., United States, and PSMA Therapeutics Inc., United States. Through these acquisitions, Bayer obtained exclusive rights to a differentiated alpha radionuclide therapy based on actinium-225 and a small molecule targeting prostate-specific membrane antigen (PSMA), and in doing so broadened its oncology portfolio of targeted alpha therapies (TAT). Bayer paid an upfront consideration of €8 million in total and will make potential milestone payments of up to around €120 million until launch followed by potential additional sales-based milestone payments that will also amount to up to around €120 million. Neither acquisition falls within the scope of IFRS 3 such that both are presented as a capital expenditure for intangible assets relating to R&D projects. The two companies have been assigned to the Pharmaceuticals segment.

Assets held for sale and discontinued operations

There were no discontinued operations to report in 2022 or 2021.

The assets held for sale, net of directly related liabilities, totaled around €1,487 million as of June 30, 2022.

They primarily related to the planned sale of our Environmental Science Professional business to Cinven, United Kingdom, for around €2.4 billion. Environmental Science Professional is a global leader offering solutions to control pests, disease and weeds in nonagricultural areas such as vector control, professional pest management, vegetation management, forestry, and turf and ornamentals. The transaction is expected to be concluded in the second half of 2022 and relates to the Crop Science segment. Initial classification as assets and liabilities held for sale took effect March 31, 2022.

Assets held for sale also included an amount of around €51 million from the sale of office and administrative space in St. Louis, United States. These were attributable entirely to property, plant and equipment. In addition, assets held for sale contained intangible assets amounting to a total of some €38 million. These included around €16 million due to the divestment of our product Nebido™ to Grünenthal GmbH, Germany, as well as around €22 million for the planned divestment of the Marvelon™ and Mercilon™ trademarks in China, Hong Kong, Macau and Vietnam within the Pharmaceuticals segment. The transaction was completed for China, Hong Kong and Macau, and is expected to be completed for Vietnam in the third quarter of 2022.

The assets and liabilities held for sale as of June 30, 2022, were as follows:

€ million	June 30, 2021	June 30, 2022
Assets and Liabilities Held for Sale		
Goodwill	–	1,337
Other intangible assets	–	75
Property, plant and equipment	32	80
Deferred taxes	–	5
Inventories	–	92
Trade accounts receivable	–	4
Other receivables	–	2
Claims for income tax refunds	–	2
Cash and cash equivalents	–	3
Assets held for sale	32	1,600
Provisions for pensions and other post-employment benefits	–	5
Other provisions	–	2
Refund liabilities	–	84
Financial liabilities	–	8
Deferred taxes	–	13
Trade accounts payable	–	1
Liabilities directly related to assets held for sale	–	113

In 2021, recognition primarily related to the planned sale of a production facility in Brazil in the Pharmaceuticals segment. The transaction was completed in the second quarter of 2022.

Other intangible assets

Impairment testing was conducted in the second quarter of 2022 due to current interest-rate developments and their related impact on the weighted average cost of capital.

In the Pharmaceuticals segment, impairment testing resulted in impairment losses on R&D projects totaling around €92 million, particularly due to an increase in the weighted average cost of capital. The impairment losses were allocated to research and development expenses in each case.

The impairment testing did not give rise to any material impairment losses or impairment loss reversals in the Consumer Health segment.

Within the Crop Science segment, it resulted in the recognition of impairment losses of €1,322 million on intangible assets. This included impairment losses in the cash-generating units cotton seed (€851 million, comprising €67 million on research and development projects, €696 million on patents and technologies, €75 million on trademarks and €13 million on marketing and distribution rights), Vegetable Seeds (€269 million, comprising €78 million on research and development projects, €157 million on patents and technologies, €24 million on trademarks and €10 million on marketing and distribution rights) and Corn Seed & Traits (€202 million, comprising €37 million on research and development projects, €130 million on patents and technologies, €30 million on trademarks and €5 million on marketing and distribution rights). Whereas the impairment loss in the cash-generating unit cotton seed was primarily attributable to a change in business prospects as well as an increase in the cost of capital, the impairment losses in the cash-generating units Vegetable Seeds and Corn Seed & Traits were mostly due to a significant increase in the weighted average cost of capital. The impairment losses on the assets of the cash-generating units were allocated to the cost of goods sold, selling expenses, and research and development expenses, with the respective figures determined on the basis of fair value less costs of disposal.

The table below indicates the capital cost factors used in the impairment testing on the cash-generating units in the fourth quarter of 2021 and second quarter of 2022.

B 13

Impairment Testing Parameters

%	After-tax cost of capital	
	Q4 2021	Q2 2022
Corn Seed & Traits	8.5	9.7
Soybean Seed & Traits	8.1	9.1
Glyphosate	9.0	10.3
Dicamba	6.6	7.3
Cotton seed	6.8	7.3
Canola	7.1	8.2
Vegetable Seeds	8.5	10.1

The growth rates and capital cost factors used in the impairment testing of goodwill in the fourth quarter of 2021 and the second quarter of 2022 are shown in the following table:

B 14

Impairment Testing Parameters

%	Growth rate		After-tax cost of capital	
	Q4 2021	Q2 2022	Q4 2021	Q2 2022
Crop Science	2.0	2.0	8.7	9.7
Pharmaceuticals	0.0	0.0	5.1	6.4
Consumer Health	1.0	1.0	6.3	8.6

Testing goodwill for impairment involves calculating the fair value less costs to sell. No impairment losses were recognized on goodwill in the second quarter of 2022 or 2021.

Financial instruments

The following tables show the carrying amounts and fair values of the individual financial assets and liabilities by category of financial instrument under IFRS 9 and a reconciliation to the corresponding line items in the statements of financial position. Since the line items "Trade accounts receivable", "Other receivables", "Financial liabilities" and "Other liabilities" contain both financial instruments and nonfinancial assets or liabilities (such as other tax receivables), the reconciliation is shown in the column headed "Nonfinancial assets/liabilities."

Carrying Amounts and Fair Values of Financial Instruments

June 30, 2022

Measurement category (IFRS 9) ¹	Measured at amortized cost	Measured at fair value [fair value for information ⁴]			Nonfinancial assets/liabilities	Total
		Based on quoted prices in active markets (Level 1)	Based on observable market data (Level 2)	Based on unobservable inputs (Level 3)		
€ million	Carrying amount	Carrying amount	Carrying amount	Carrying amount	Carrying amount	
Trade accounts receivable	14,268	165			352	14,785
AC	14,268					14,268
FVTPL, mandatory ²		165				165
Nonfinancial assets					352	352
Other financial assets	673	4,406	352	1,381		6,812
AC	643		[643]			643
FVTPL, mandatory ²		4,330	46	905		5,281
FVTOCI (no recycling), designated ³		61		461		522
Derivatives		15	306	15		336
Lease receivables	30		[30]			30
Other receivables	420			39	2,511	2,970
AC	420		[420]			420
FVTPL, mandatory ²				39		39
Nonfinancial assets					2,511	2,511
Cash and cash equivalents	3,412					3,412
AC	3,412		[3,412]			3,412
Total financial assets	18,773	4,571	352	1,420		25,116
of which AC	18,743					18,743
of which FVTPL		4,495	46	944		5,485
Financial liabilities	44,434		106		94	44,634
AC	43,240	[29,895]	[10,341]			43,240
Derivatives			106			106
Lease liabilities	1,194					1,194
Nonfinancial liabilities					94	94
Trade accounts payable	6,097					6,097
AC	6,097					6,097
Other liabilities	914	36	393	1,831	957	4,131
AC	914		[914]			914
FVTPL (nonderivative), mandatory ²				1,824		1,824
Derivatives		36	393	7		436
Nonfinancial liabilities					957	957
Total financial liabilities	51,445	36	499	1,831		53,811
of which AC	50,251					50,251
of which derivatives		36	499	7		542

¹ AC: at amortized cost

FVTOCI: at fair value through other comprehensive income

FVTPL: at fair value through profit or loss

² Measured at fair value through profit or loss as required by IFRS 9³ Measured at fair value through other comprehensive income under IFRS 9, paragraph 5.7.5⁴ Fair value of the financial instruments at amortized cost under IFRS 7 paragraph 29(a)

Carrying Amounts and Fair Values of Financial Instruments

Dec.31, 2021

Measurement category (IFRS 9) ¹	Measured at amortized cost	Measured at fair value [fair value for information ⁴]			Nonfinancial assets/liabilities	Total
		Based on quoted prices in active markets (Level 1)	Based on observable market data (Level 2)	Based on unobservable inputs (Level 3)		
€ million	Carrying amount	Carrying amount	Carrying amount	Carrying amount	Carrying amount	
Trade accounts receivable	9,663	188			196	10,047
AC	9,663					9,663
FVTPL, mandatory ²		188				188
Nonfinancial assets					196	196
Other financial assets	760	1,856	1,391	1,361		5,368
AC	731		[731]			731
FVTPL, mandatory ²		1,745	1,236	942		3,923
FVTOCI (no recycling), designated ³		98		406		504
Derivatives		13	155	13		181
Lease receivables	29		[29]			29
Other receivables	303			67	2,715	3,085
AC	303		[303]			303
FVTPL, mandatory ²				67		67
Nonfinancial assets					2,715	2,715
Cash and cash equivalents	4,564					4,564
AC	4,564		[4,564]			4,564
Total financial assets	15,290	2,044	1,391	1,428		20,153
of which AC	15,261					15,261
of which FVTPL		1,933	1,236	1,009		4,178
Financial liabilities	40,708		69		95	40,872
AC	39,543	[32,202]	[9,999]			39,543
Derivatives			69			69
Lease liabilities	1,165					1,165
Nonfinancial liabilities					95	95
Trade accounts payable	6,792					6,792
AC	6,792					6,792
Other liabilities	771	31	260	1,771	915	3,748
AC	771		[771]			771
FVTPL (nonderivative), mandatory ²				1,769		1,769
Derivatives		31	260	2		293
Nonfinancial liabilities					915	915
Total financial liabilities	48,271	31	329	1,771		50,402
of which AC	47,106					47,106
of which derivatives		31	329	2		362

¹ AC: at amortized cost

FVTOCI: at fair value through other comprehensive income

FVTPL: at fair value through profit or loss

² Measured at fair value through profit or loss as required by IFRS 9³ Measured at fair value through other comprehensive income under IFRS 9, paragraph 5.7.5⁴ Fair value of the financial instruments at amortized cost under IFRS 7 paragraph 29(a)

Due to the short maturities of most trade accounts receivable and payable, other receivables and liabilities, and cash and cash equivalents, their carrying amounts at the closing date do not significantly differ from the fair values.

The fair values of financial assets and liabilities measured at amortized cost that are given for information are the present values of the respective future cash flows. The present values are determined by discounting the cash flows at a closing-date interest rate, taking into account the term of the assets or liabilities and also the creditworthiness of the counterparty in certain cases. Where a market price is available, however, this is deemed to be the fair value.

The fair values of financial assets measured at fair value correspond to quoted prices in active markets (Level 1) or are determined using valuation techniques based on observable market data as of the end of the reporting period (Level 2) or are the present values of the respective future cash flows, determined on the basis of unobservable inputs (Level 3).

The fair values of derivatives for which no publicly quoted prices exist in active markets (Level 1) are determined using valuation techniques based on observable market data as of the end of the reporting period (Level 2). In applying valuation techniques, credit or debt value adjustments are determined to account for the credit risk of the contractual party or Bayer.

Currency and commodity forward contracts are measured individually at their forward rates or forward prices on the closing date. These depend on spot rates or prices, including time spreads. The fair values of interest-rate hedging instruments and cross-currency interest-rate swaps were determined by discounting future cash flows over the remaining terms of the instruments at market rates of interest, taking into account any foreign currency translation as of the closing date in certain cases.

Fair values measured using unobservable inputs are categorized within Level 3 of the fair value hierarchy. This essentially applies to certain debt or equity instruments, in some cases to the fair values of embedded derivatives, and to obligations for contingent consideration in business combinations. Credit risk is frequently the principal unobservable input used to determine the fair values of debt instruments classified as "FVTPL – at fair value through profit or loss" by the discounted cash flow method. Here the credit spreads of comparable issuers are applied. A significant increase in credit risk could result in a lower fair value, whereas a significant decrease could result in a higher fair value. However, a relative change of 10% in the credit spread does not materially affect the fair value.

When determining the fair values of other liabilities for contingent consideration within the "FVTPL (nonderivative) – at fair value through profit or loss" category, the principal unobservable input is the estimation of the probability that, for example, predefined milestones for research and development projects will be achieved or that sales targets will be attained, as well as the timing of the payments. Changes in these estimates may lead to significant increases or decreases in fair value.

Embedded derivatives are separated from their respective host contracts, provided these are not financial instruments. Such host contracts are generally sale or purchase agreements relating to the operational business. The embedded derivatives cause the cash flows from the contracts to vary with exchange-rate or price fluctuations, for example. The internal measurement of embedded derivatives is mainly performed using the discounted cash flow method, which is based on unobservable inputs. These include planned sales and purchase volumes, and prices derived from market data. Regular monitoring is carried out based on these fair values as part of quarterly reporting.

The changes in the amount of financial assets and liabilities recognized at fair value based on unobservable inputs (Level 3) for each financial instrument category were as follows:

B 17

Development of Financial Assets and Liabilities (Level 3)

€ million	Assets – FVTPL ¹	FVTOCI (no recycling) ¹	Derivatives (net)	Liabilities – FVTPL (nonderivative) ¹	Total
Carrying amounts (net), January 1, 2022	1,009	406	11	(1,769)	(343)
Gains (losses) recognized in profit or loss	(72)	–	(5)	68	(9)
of which related to assets/liabilities recognized in the statements of financial position	(72)	–	(5)	68	(9)
Gains (losses) recognized outside profit or loss	–	(33)	–	–	(33)
Additions of assets (liabilities)	13	74	–	–	87
Settlements of (assets) liabilities	–	(13)	–	29	16
Changes in scope of consolidation	(18)	–	–	–	(18)
Exchange differences	12	27	2	(152)	(111)
Carrying amounts (net), June 30, 2022	944	461	8	(1,824)	(411)

¹ See table B 15 for definitions of measurement categories.

B 18

Development of Financial Assets and Liabilities (Level 3)

€ million	Assets – FVTPL ¹	FVTOCI (no recycling) ¹	Derivatives (net)	Liabilities – FVTPL (nonderivative) ¹	Total
Carrying amounts (net), January 1, 2021	1,008	344	11	(1,261)	102
Gains (losses) recognized in profit or loss	1	–	(1)	40	40
of which related to assets/liabilities recognized in the statements of financial position	1	–	(1)	40	40
Gains (losses) recognized outside profit or loss	–	25	–	–	25
Additions of assets (liabilities)	5	20	–	–	25
Settlements of (assets) liabilities	(1)	(1)	–	23	21
Transfers to Level 1	–	(42)	–	–	(42)
Exchange differences	3	7	1	(39)	(28)
Carrying amounts (net), June 30, 2021	1,016	353	11	(1,237)	143

2021 figures restated resulting from the completion of the purchase price allocation for AskBio in the fourth quarter of 2021

¹ See table B 16 for definitions of measurement categories.

The changes recognized in profit or loss were included in other operating income/expenses, as well as in the financial result in interest income, exchange gains or losses and other financial income and expenses.

Financial liabilities

Bayer AG placed new hybrid bonds with a total volume of €1.3 billion in March 2022. The proceeds were used for general corporate purposes including financing the early repayment of the €1.3 billion hybrid bond that was callable on October 2, 2022. The repayment took place in April and May 2022. In addition, two bonds with a total volume of US\$250 million (US\$229 million) were redeemed before maturity, while one bond with a nominal volume of €750 million and one with a nominal volume of JPY10 billion (€73 million) were redeemed at maturity in the second quarter of 2022.

In May 2022, Bayer AG agreed and drew on a credit line of €3 billion. The liquidity is invested in money market funds and is intended to help the company manage risks in the event the current geopolitical situation deteriorates.

The investments in money market funds are measured at fair value through profit or loss (Level 1 of the fair value hierarchy) and recognized under “Other financial assets”.

Legal Risks

To find out more about the Bayer Group's legal risks, please see Note 30 to the consolidated financial statements in the Bayer Annual Report 2021, which can be downloaded free of charge at www.bayer.com. Since the Bayer Annual Report 2021, the following significant changes have occurred in respect of the legal risks:

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 seek compensatory and punitive damages. Additional lawsuits are anticipated. 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. The three adverse verdicts – Johnson, Hardeman and Pilliod – are not covered by the settlement. The Company petitioned the Supreme Court for review in both the Hardeman and Pilliod cases. In Hardeman, the Supreme Court invited the U.S. Solicitor General to file a brief in the matter; that brief recommended the Supreme Court deny review of the Hardeman appeal. In June 2022, the Supreme Court denied review of both Hardeman and Pilliod. There may be future cases in the Roundup™ litigation (or other unrelated actions) that present the Supreme Court with preemption questions, and the Company will continue to review its legal options regarding further proceedings.

In June 2022, juries in two state court cases – Shelton (Circuit Court for Jackson County, Missouri (Kansas City)) and Larry Johnson (Circuit Court for Jackson County, Oregon) – issued verdicts in Monsanto's favor, determining that Roundup™ did not cause either plaintiff's cancer. These cases are the third and fourth consecutive trial wins for the company.

Dicamba: In 2016, Bader Peach Farms filed a lawsuit against Monsanto and BASF in Missouri state court. Bader claims that off-target movement from the dicamba herbicide and/or the Xtend™ system has damaged Bader's crops. In 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. Monsanto appealed. In July 2022, the 8th Circuit Court of Appeals affirmed all aspects of the trial court judgment except for the finding of joint liability for punitive damages between BASF and Monsanto. Monsanto disagrees with the decision and is considering its legal options.

BASF arbitration: In 2019, Bayer was served with a request for arbitration by BASF SE. BASF maintained 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. We expect the decision by the arbitral tribunal to be issued shortly.

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. In 2020, Bayer reached an agreement for a nationwide 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. In March 2022, the court preliminarily approved the settlement. In July 2022, the Superior Court of Delaware dismissed, in its entirety, the Delaware State Attorney General's individual lawsuit that alleged environmental damages from PCBs. With regard to Oregon, we are considering a settlement with the Attorney General reflecting the unique circumstances in that state.

Monsanto also faces numerous lawsuits claiming personal injury and/or property damage due to use of and exposure to PCB products. In the Sky Valley Education Center ("SVEC") personal injury cases, a third trial concluded in June 2022 with the jury awarding a total of approximately US\$21.3 million (compensatory and punitive damages) in total to four plaintiffs. Bayer disagrees with this verdict based on many of the same errors seen in the first two trials and plans to appeal. A fourth SVEC trial (Soley), which concluded in July 2022, resulted in a mistrial when the jury was unable to reach a verdict. It is unknown whether there will be a retrial. A fifth SVEC trial (Allison) is currently scheduled to begin in August 2022.

Shareholder litigation concerning Monsanto acquisition: In Germany and the United States, investors have filed lawsuits against Bayer claiming damages based on allegedly flawed capital market communication in connection with the acquisition of Monsanto Company. In Germany, as of June 30, 2022, 30 claims by approximately 340 plaintiffs had been filed and served upon Bayer. In July 2022, the Regional Court Cologne initiated a model case proceeding in accordance with the Capital Markets Model Case Act. This does not include a decision on the merits of the matter.

Notes to the Statements of Cash Flows

Net operating cash flow in the first half of 2022 amounted to €1,378 million (H1 2021: minus €768 million). The increase compared with the prior-year period was due in particular to lower net settlement payments of €791 million (H1 2021: €3,103 million) to resolve glyphosate, PCB, Essure™ and dicamba litigations.

The net cash outflow for investing activities in the first half of the year amounted to €2,029 million (H1 2021: net cash inflow of €4,392 million). The net cash outflow for current financial assets came to €1,308 million (H1 2021: inflow of €4,891 million). These cash outflows were largely attributable to investments in money market funds.

There was a net cash outflow of €739 million for financing activities (H1 2021: €4,490 million). This included net borrowings of €1,785 million (H1 2021: net loan repayments of €2,000 million). Net interest payments came to €573 million (H1 2021: €525 million). We paid out €1,966 million in dividends (H1 2021: €1,965 million).

Related Parties

Related parties as defined in IAS 24 (Related Party Disclosures) are those legal entities and natural persons that are able to exert influence on Bayer AG and its subsidiaries or over which Bayer AG or its subsidiaries exercise control or joint control or have a significant influence. They include, in particular, nonconsolidated subsidiaries, joint ventures and associates included in the consolidated financial statements at cost of acquisition or using the equity method, post-employment benefit plans and the corporate officers of Bayer AG.

Business transactions involving related parties were not material from the viewpoint of the Bayer Group.

Other information

On April 29, 2022, the Annual Stockholders' Meeting approved the proposal by the Board of Management and the Supervisory Board that a dividend of €2.00 per share carrying dividend rights be paid for the 2021 fiscal year and that the remaining amount of €90,197,520.07 be allocated to other retained earnings.

The actions of the members of the Board of Management and the Supervisory Board serving in 2021 were ratified in accordance with the proposals by the Board of Management and the Supervisory Board.

Three stockholder representatives were elected to the Supervisory Board in accordance with the nominations submitted by the Supervisory Board.

The proposal by the Board of Management and the Supervisory Board to approve the Compensation Report for the 2021 fiscal year prepared and audited in accordance with Section 162 of the German Stock Corporation Act (AktG) was rejected.

The Annual Stockholders' Meeting accepted the proposal by the Board of Management and the Supervisory Board to approve the revised Control and Profit and Loss Transfer Agreement between the company and Bayer Chemicals GmbH dated February 18, 2022.

In accordance with the proposal by the Supervisory Board, Deloitte GmbH Wirtschaftsprüfungsgesellschaft, Munich, Germany, was elected auditor of the annual and consolidated financial statements for 2022, and also to review, if applicable, the condensed financial statements and interim management report as of June 30, 2022, and if applicable, the condensed financial statements and interim management reports as of September 30, 2022, and March 31, 2023, if these are prepared.

Events After the End of the Reporting Period

Acquisition of CoverCress Inc.

On August 1, 2022, Bayer acquired an additional 59% of the shares in CoverCress Inc., United States, for a purchase price of around US\$118 million. Bayer had already held 6.3% of the shares outstanding. CoverCress Inc. is an innovative startup company developing a new winter oilseed crop under the CoverCress™ brand. CoverCress™ has the potential to decrease nitrogen loss, help store carbon in the soil and improve soil health.

Leverkusen, August 2, 2022
Bayer Aktiengesellschaft

The Board of Management

Werner Baumann

Sarena Lin

Wolfgang Nickl

Stefan Oelrich

Rodrigo Santos

Heiko Schipper

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles for interim financial reporting, the consolidated interim financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group in line with generally accepted accounting principles, and the interim Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group for the remaining months of the financial year.

Leverkusen, August 2, 2022
Bayer Aktiengesellschaft

The Board of Management

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Heiko Schipper

Review Report

To Bayer Aktiengesellschaft, Leverkusen

We have reviewed the condensed interim consolidated financial statements of Bayer Aktiengesellschaft, Leverkusen, which comprise the consolidated income statement and the consolidated statement of comprehensive income, the consolidated statement of financial position, the consolidated statement of cash flows, the consolidated statement of changes in equity as well as selected explanatory notes to the consolidated financial statements, and the interim group management report for the period from 1 January to 30 June 2022, that are part of the semi-annual financial information under Section 115 German Securities Trading Act (WpHG). The preparation of the interim consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) applicable to interim financial reporting as adopted by the EU and of the interim group management report in accordance with the requirements of the WpHG applicable to interim group management reports is the responsibility of the executive directors of the Company. Our responsibility is to issue a review report on the interim consolidated financial statements and on the interim group management report based on our review.

We conducted our review of the interim consolidated financial statements and of the interim group management report in compliance with the German Generally Accepted Standards for Reviews of Financial Statements promulgated by the Institut der Wirtschaftsprüfer (IDW) and in supplementary compliance with the International Standard on Review Engagements 2410 "Review of Interim Financial Information Performed by the Independent Auditor of the Entity". Those standards require that we plan and perform the review to obtain a certain level of assurance to preclude through critical evaluation that the condensed interim consolidated financial statements have not been prepared, in material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU, or that the interim group management report has not been prepared, in material respects, in accordance with the requirements of the WpHG applicable to interim group management reports. A review is limited primarily to inquiries of company personnel and to analytical procedures applied to financial data and thus provides less assurance than an audit. Since, in accordance with our engagement, we have not performed an audit, we do not express an audit opinion.

Based on our review, nothing has come to our attention that causes us to believe that the interim consolidated financial statements of Bayer AG, Leverkusen, have not been prepared, in material respects, in accordance with the IFRS applicable to interim financial reporting as adopted by the EU or that the interim group management report has not been prepared, in material respects, in accordance with the requirements of the WpHG applicable to interim group management reports.

Munich, 2 August 2022

Deloitte GmbH

Wirtschaftsprüfungsgesellschaft

(Andreas Wermelt)

Wirtschaftsprüfer

(German Public Auditor)

(Michael Mehren)

Wirtschaftsprüfer

(German Public Auditor)

Financial Calendar

Q3 2022 Quarterly Statement	<i>November 8, 2022</i>
2022 Annual Report	<i>February 28, 2023</i>
Annual Stockholders' Meeting 2023	<i>April 28, 2023</i>
Q1 2023 Quarterly Statement	<i>May 11, 2023</i>

Reporting Principles

This Bayer AG Interim Report is a half-year financial report that satisfies the requirements of Section 115, Paragraph 2, No. 1 and No. 2, Paragraph 3 and Paragraph 4 of the German Securities Trading Act (WpHG). Bayer has prepared the condensed consolidated interim financial statements according to the International Financial Reporting Standards (IFRS) published by the International Accounting Standards Board (IASB) and endorsed by the European Union (EU). This report should be read in conjunction with the Annual Report for the 2021 fiscal year and the additional information about the company provided therein. The Annual Report 2021 is available on our website at www.bayer.com.

Masthead

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Forward-Looking Statements

This half-year financial report may contain forward-looking statements based on current assumptions and forecasts made by Bayer management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports which are available on the Bayer website at www.bayer.com. The company assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

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