

Consolidated Financial Statements

Consolidated Income Statement

in € millions	Notes	2022	2021
Revenues	1	20,245	18,696
Other operating income	2	341	849
Cost of materials	13	(6,553)	(5,943)
Royalty and license fees		(1,496)	(1,458)
Personnel costs	3	(6,485)	(6,011)
Amortization/depreciation, impairment and reversals on intangible assets, property, plant and equipment and right-of-use assets	4	(1,099)	(909)
Other operating expenses	5	(3,535)	(2,789)
Results from investments accounted for using the equity method	11	6	101
Impairment and reversals on investments accounted for using the equity method	11	(7)	2
Results from disposals of investments		136	786
EBIT (earnings before interest and taxes)		1,553	3,324
Interest income	6	30	11
Interest expenses	6	(140)	(139)
Other financial income	7	73	13
Other financial expenses	7	(221)	(237)
Financial result		(258)	(352)
Earnings before taxes from continuing operations		1,295	2,972
Income tax expense	8	(246)	(662)
Earnings after taxes from continuing operations		1,049	2,310
Earnings after taxes from discontinued operations		3	–
Group profit or loss		1,052	2,310
attributable to:			
Bertelsmann shareholders			
Earnings from continuing operations		668	1,800
Earnings from discontinued operations		3	–
Earnings attributable to Bertelsmann shareholders		671	1,800
Non-controlling interests			
Earnings from continuing operations		381	510
Earnings from discontinued operations		–	–
Earnings attributable to non-controlling interests		381	510

Consolidated Statement of Comprehensive Income

in € millions	Notes	2022	2021
Group profit or loss		1,052	2,310
Items that will not be reclassified subsequently to profit or loss			
Remeasurement component of defined benefit plans		503	253
Changes in fair value of equity instruments		(1)	8
Share of other comprehensive income of investments accounted for using the equity method		23	–
Items that will be reclassified subsequently to profit or loss when specific conditions are met			
Exchange differences			
– changes recognized in other comprehensive income		13	358
– reclassification adjustments to profit or loss		5	20
Cash flow hedges			
– changes in fair value recognized in other comprehensive income		(11)	(52)
– reclassification adjustments to profit or loss		32	62
Share of other comprehensive income of investments accounted for using the equity method		33	(17)
Other comprehensive income net of tax	17	597	632
Group total comprehensive income		1,649	2,942
attributable to:			
Bertelsmann shareholders		1,275	2,406
Non-controlling interests		374	536

Consolidated Balance Sheet

in € millions	Notes	12/31/2022	12/31/2021
Assets			
Non-current assets			
Goodwill	9	8,872	8,146
Other intangible assets	9	3,947	2,793
Property, plant and equipment and right-of-use assets	10	3,185	2,774
Investments accounted for using the equity method	11	621	1,340
Minority stakes and other financial assets	12	1,716	1,584
Trade and other receivables	14	101	71
Other non-financial assets	15	1,124	1,047
Deferred tax assets	8	814	989
		20,380	18,744
Current assets			
Inventories	13	2,264	1,902
Trade and other receivables	14	5,044	4,594
Other financial assets	12	256	386
Other non-financial assets	15	1,321	1,068
Current income tax receivables		184	176
Cash and cash equivalents	16	3,228	4,645
		12,297	12,771
Assets held for sale		141	254
		12,438	13,025
		32,818	31,769
Equity and liabilities			
Equity			
	17		
Subscribed capital		1,000	1,000
Capital reserve		2,345	2,345
Retained earnings		9,193	8,266
Bertelsmann shareholders' equity		12,538	11,611
Non-controlling interests		2,498	1,995
		15,036	13,606
Non-current liabilities			
Provisions for pensions and similar obligations	18	710	1,474
Other provisions	19	156	198
Deferred tax liabilities	8	171	127
Profit participation capital	20	413	413
Financial debt	21	5,199	4,857
Lease liabilities	22	1,227	1,082
Trade and other payables	23	674	505
Other non-financial liabilities	23	385	397
		8,935	9,053
Current liabilities			
Other provisions	19	261	288
Financial debt	21	278	747
Lease liabilities	22	311	274
Trade and other payables	23	5,391	5,282
Other non-financial liabilities	23	2,495	2,294
Current income tax payables		111	110
		8,847	8,995
Liabilities related to assets held for sale		–	115
		8,847	9,110
		32,818	31,769

The prior-year comparatives have been adjusted. Further details are presented in the section "Prior-Year Information."

Consolidated Cash Flow Statement

in € millions	2022	2021
Group earnings before interest and taxes	1,558	3,324
Taxes paid	(339)	(807)
Depreciation and write-ups of non-current assets	1,135	914
Results from disposals of investments	(141)	(786)
Gains/losses from disposals of non-current assets	(24)	(10)
Change in provisions for pensions and similar obligations	(97)	(276)
Change in other provisions	(140)	(2)
Change in net working capital	(988)	(68)
Fair value measurement of investments	232	(483)
Interest received	66	28
Other effects	120	(14)
Cash flow from operating activities	1,382	1,820
Investments in:		
– intangible assets	(586)	(482)
– property, plant and equipment	(450)	(327)
– financial assets	(372)	(890)
– purchase prices for consolidated investments (net of acquired cash)	(264)	(255)
Disposals of subsidiaries and other business units	197	851
Disposals of other fixed assets	357	836
Cash flow from investing activities	(1,118)	(267)
Issues of bonds and promissory notes	835	–
Redemption of bonds and promissory notes	(1,188)	(1,026)
Redemption of other financial debt	(218)	(171)
Proceeds from other financial debt	193	183
Redemption of lease liabilities	(311)	(279)
Interest paid	(279)	(249)
Dividends to Bertelsmann shareholders	(220)	(180)
Dividends to non-controlling interests and payments to partners in partnerships (IAS 32.18(b))	(293)	(230)
Change in equity	(187)	304
Other effects	(66)	(47)
Cash flow from financing activities	(1,734)	(1,695)
Change in cash and cash equivalents	(1,470)	(142)
Exchange rate effects and other changes in cash and cash equivalents	29	168
Cash and cash equivalents as of 1/1	4,669	4,643
Cash and cash equivalents as of 12/31	3,228	4,669
Less cash and cash equivalents included within assets held for sale	–	(24)
Cash and cash equivalents as of 12/31 (according to the consolidated balance sheet)	3,228	4,645

The prior-year comparatives have been adjusted. Further details are presented in the section “Prior-Year Information.”

Consolidated Statement of Changes in Equity

	Subscribed capital	Capital reserve ¹⁾	Retained earnings					Bertelsmann shareholders' equity	Non-controlling interests	Total
			Other retained earnings	Exchange differences	Fair value reserve	Cash flow hedges	Accumulated other comprehensive income ²⁾ Share of other comprehensive income of investments accounted for using the equity method			
in € millions										
Balance as of 1/1/2021	1,000	2,345	6,086	(331)	9	(11)	(2)	9,096	1,629	10,725
Group profit or loss	–	–	1,800	–	–	–	–	1,800	510	2,310
Other comprehensive income	–	–	243	365	7	8	(17)	606	26	632
Group total comprehensive income	–	–	2,043	365	7	8	(17)	2,406	536	2,942
Dividend distributions	–	–	(180)	–	–	–	–	(180)	(218)	(398)
Transactions with subsidiaries that do not result in a loss of control ³⁾	–	–	283	2	–	–	–	285	(5)	280
Equity transactions with shareholders	–	–	103	2	–	–	–	105	(223)	(118)
Other changes ⁴⁾	–	–	(2)	–	–	6	–	4	53	57
Balance as of 12/31/2021	1,000	2,345	8,230	36	16	3	(19)	11,611	1,995	13,606
Balance as of 1/1/2022	1,000	2,345	8,230	36	16	3	(19)	11,611	1,995	13,606
Group profit or loss	–	–	671	–	–	–	–	671	381	1,052
Other comprehensive income	–	–	471	65	–	18	50	604	(7)	597
Group total comprehensive income	–	–	1,142	65	–	18	50	1,275	374	1,649
Dividend distributions	–	–	(220)	–	–	–	–	(220)	(284)	(504)
Transactions with subsidiaries that do not result in a loss of control ³⁾	–	–	(129)	–	–	–	–	(129)	(123)	(252)
Equity transactions with shareholders	–	–	(349)	–	–	–	–	(349)	(407)	(756)
Other changes ⁴⁾	–	–	20	–	(8)	(11)	–	1	536	537
Balance as of 12/31/2022	1,000	2,345	9,043	101	8	10	31	12,538	2,498	15,036

1) The capital reserve mainly includes share premiums received from the issue of ordinary shares in excess of their par values.

2) As of December 31, 2022, €0 million relates to assets classified as held for sale in accordance with IFRS 5 (December 31, 2021: €-8 million).

3) In the financial year 2022, transactions with subsidiaries that do not result in a loss of control mainly result from the change in non-controlling interests with put options. In the previous year, the amount mainly resulted from the decrease of shareholdings in Majorel.

4) Other changes in non-controlling interests in the financial year 2022 mainly result from the acquisition of the education company Afya. The prior-year comparatives of the other changes in non-controlling interests have been adjusted. Further details are presented in the section "Prior-Year Information."

Notes

Segment Information (Continuing Operations)

in € millions	RTL Group		Penguin Random House		BMG		Arvato	
	2022	2021	2022	2021	2022	2021	2022	2021
Revenues from external customers	7,199	6,995	4,222	4,029	863	661	5,495	4,960
Intersegment revenues	25	21	1	1	3	2	69	75
Divisional revenues	7,224	7,016	4,223	4,030	866	663	5,564	5,035
Operating EBITDA	1,323	1,416	666	755	195	144	877	825
EBITDA margin ¹⁾	18.3%	20.2%	15.8%	18.7%	22.5%	21.7%	15.8%	16.4%
Impairment (-)/reversals (+) on intangible assets, property, plant and equipment and right-of-use assets	(1)	(1)	–	(5)	–	–	(39)	(19)
Results from investments accounted for using the equity method	14	29	4	7	–	–	8	9
Impairment (-)/reversals (+) on investments accounted for using the equity method	(5)	2	–	–	–	–	(2)	–
Invested capital	7,504	7,009	2,844	2,605	2,211	1,969	2,421	1,910

The prior-year comparatives for RTL Group, Bertelsmann Investments and Consolidation have been adjusted.

Further details on segment reporting are presented in note 27 "Segment Reporting."

1) Operating EBITDA as a percentage of revenues.

2) The business development of the venture capital business of Bertelsmann Investments is determined primarily on the basis of EBIT. EBIT of Bertelsmann Investments amounted to €-70 million (previous year: €430 million).

Reconciliation to Operating EBITDA (Continuing Operations)

in € millions	2022	2021
EBIT from continuing operations	1,553	3,324
Less special items		
Impairment on goodwill and other intangible assets with indefinite useful life as well as gains from business combinations	(7)	–
Adjustment to carrying amounts on assets held for sale	–	(6)
Impairment (-)/reversals (+) on other financial assets at amortized cost	(32)	(1)
Impairment (-)/reversals (+) on investments accounted for using the equity method	(7)	2
Results from disposals of investments	136	786
Fair value measurement of investments	(232)	483
Restructuring and other special items	(420)	(301)
Less amortization/depreciation, impairment and reversals on intangible assets, property, plant and equipment and right-of-use assets	(1,099)	(909)
Less adjustments on amortization/depreciation, impairment and reversals on intangible assets, property, plant and equipment and right-of-use assets included in special items	22	29
Operating EBITDA from continuing operations	3,192	3,241

	Bertelsmann Printing Group		Bertelsmann Education Group		Bertelsmann Investments ²⁾		Total divisions		Corporate		Consolidation		Continuing operations	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
	1,303	1,179	622	283	523	578	20,227	18,685	18	11	–	–	20,245	18,696
	145	140	–	–	12	11	255	250	34	35	(289)	(285)	–	–
	1,448	1,319	622	283	535	589	20,482	18,935	52	46	(289)	(285)	20,245	18,696
	26	60	192	86	22	68	3,301	3,354	(110)	(113)	1	–	3,192	3,241
	1.8%	4.5%	30.8%	30.6%	4.1%	11.6%	16.1%	17.7%	n/a	n/a	n/a	n/a	15.8%	17.3%
	–	(16)	–	–	(1)	(3)	(41)	(44)	–	–	1	–	(40)	(44)
	–	–	(30)	41	11	15	7	101	–	–	(1)	–	6	101
	–	–	–	–	–	–	(7)	2	–	–	–	–	(7)	2
	25	19	2,550	1,246	1,493	1,827	19,048	16,585	221	152	(9)	11	19,260	16,748

Information by Geographical Area (Continuing Operations)

in € millions	Germany		France		United Kingdom		Other European countries		United States		Other countries		Continuing operations	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Revenues from external customers	6,020	5,720	1,979	2,063	1,437	1,307	4,073	3,842	4,875	4,359	1,861	1,405	20,245	18,696
Non-current assets ¹⁾	3,592	3,436	1,347	1,318	1,479	1,294	3,615	3,529	4,130	3,787	1,841	349	16,004	13,713

1) Non-current assets comprise intangible assets (including goodwill), property, plant and equipment, and right-of-use assets. Details on segment reporting are presented in note 27 "Segment Reporting."

Information on Revenue Sources (Continuing Operations)

in € millions	Own products and merchandise		Services		Advertising		Rights and licenses		Continuing operations	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
Revenues from external customers	4,456	4,399	8,237	7,132	3,779	4,041	3,773	3,124	20,245	18,696

General Principles

The Bertelsmann SE & Co. KGaA Consolidated Financial Statements as of December 31, 2022, were prepared in accordance with International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) and the related interpretations (IFRIC) of the IFRS Interpretations Committee (IFRS IC) that are applicable in the European Union (EU-IFRS). The supplementary requirements set out in section 315e of the German Commercial Code (HGB) were also met. The Consolidated Financial Statements are prepared in euros. Unless otherwise stated, all amounts are given in millions of euros (€ million). For the sake of clarity, certain items in the consolidated income statement, the consolidated statement of comprehensive income, the consolidated balance sheet and the consolidated cash flow statement are combined. These items are disclosed and explained in greater detail in the notes.

Bertelsmann SE & Co. KGaA is a partnership limited by shares with its registered office in Gütersloh, Germany. It is entered in the commercial register of the Gütersloh Local Court (Amtsgericht) under HRB 9194. The address of the company's registered headquarters is: Carl-Bertelsmann-Strasse 270, 33311 Gütersloh.

Bertelsmann operates in the core business fields of media, services and education in around 50 countries worldwide. The geographic core markets are Western Europe – in particular, Germany, France and the United Kingdom – and the United States. In addition, Bertelsmann is strengthening its involvement in growth markets such as Brazil, India and China. As of December 31, 2022, the Bertelsmann divisions are RTL Group (entertainment), Penguin Random House (books), BMG (music), Arvato (services), Bertelsmann Printing Group (printing), Bertelsmann Education Group (education) and Bertelsmann Investments (international network of funds). As of January 1, 2022, Gruner + Jahr is no longer reported as an independent division. The German magazine businesses and brands have been part of the RTL Group division since the beginning of the year. The remaining Gruner + Jahr activities (particularly Territory, the AppLike Group, DDV Mediengruppe and the investment in the Spiegel Group) were allocated to the Bertelsmann Investments division. Further explanations are presented in note 27 "Segment Reporting." Further information on the main activities of Bertelsmann SE & Co. KGaA and its subsidiaries is presented in detail in the Combined Management Report.

Impact of New Financial Reporting Standards

The initial application of new financial reporting standards and interpretations had no material impact on the Bertelsmann Group.

Impact of Issued Financial Reporting Standards That Are Not Yet Effective

The Bertelsmann Group has not opted for early adoption of any additional standards, interpretations or amendments that have been issued by the IASB or the IFRS IC but are not yet mandatory. The expected impact from the issued financial reporting requirements that are not yet effective is not material to the Bertelsmann Group.

The reform of interest rate benchmarks (so-called IBOR reform) is not expected to have any material impact on the financial position and financial performance. Bertelsmann is particularly affected with regard to the hedging of interest rate and currency risks insofar as derivative financial instruments reference certain interest reference rates (for example EURIBOR, USD-LIBOR). Bertelsmann will continuously monitor further developments in the context of the IBOR reform and initiate any necessary measures at an early stage.

Impact of External Events on the Consolidated Financial Statements

Despite external events such as geopolitical tensions, the Bertelsmann Group's core businesses performed robustly in the financial year 2022, which was reflected in an overall increase in revenues. The economic challenges and associated uncertainties have been and will continue to be regularly monitored by management from the outset in order to intervene at an early stage if necessary. The balance sheet effects were therefore continuously analyzed for the particularly relevant issues, which are impairment of goodwill and individual assets, leasing, royalties to authors, program rights, inventories, trade receivables, deferred tax assets, contingent losses and revenues. As a result of the current business development, in view of the economic uncertainties, an impairment loss was recognized on the goodwill of a cash-generating unit within the Bertelsmann Printing Group division. In addition, in light of the geopolitical and economic situation in Russia, impairment losses were recognized on assets located in Russia in the Arvato division, although these are of minor significance to the Bertelsmann Group. Furthermore, no significant negative effects on the financial position or financial performance of the Bertelsmann Group are currently expected for the accounting areas classified as vulnerable.

The assessments are based on judgments, estimates and assumptions that contain additional uncertainties in the current situation characterized by geopolitical and economic challenges. Management is of the opinion that these uncertainties have been taken into account to an adequate degree.

Consolidation

Principles of Consolidation

The Bertelsmann Consolidated Financial Statements include the financial statements of the parent company and its subsidiaries, joint ventures and associates. In addition, a special fund is included in the consolidated financial statements as a structured entity.

Subsidiaries are companies controlled by Bertelsmann SE & Co. KGaA in accordance with IFRS 10. Consolidation begins on the date on which the ability to exercise control exists, and ends when Bertelsmann loses the ability to exercise control. Profit or loss and each component of total comprehensive income are attributed to the shareholders of the parent company and the non-controlling interests, even if this results in the non-controlling interests having a deficit balance. In accordance with IFRS 3, business combinations are accounted for using the acquisition method. Non-controlling interests are measured at the proportionate fair value of the assets and liabilities. If the consideration transferred for the business combination or the fair values attributable to the identifiable assets and liabilities of the company acquired can only be identified preliminarily on the date of initial accounting, the business combination is accounted for using these preliminary values. Initial accounting is completed in accordance with IFRS 3.45, taking into account the maximum one-year measurement period. Comparative information for reporting periods prior to the completion of initial accounting is presented as if it had already been completed on the acquisition date. Changes in the parent's ownership interest in a subsidiary that do not lead to a loss of control are accounted for as equity transactions. After the loss of control of a subsidiary, it is deconsolidated in accordance with the requirements of IFRS 10.25 in conjunction with IFRS 10.B98 f. Any investment retained in the former subsidiary, as well as any amounts owed by or to the former subsidiary, are accounted for in accordance with the applicable IFRSs from the date when control is lost.

Joint ventures in accordance with IFRS 11 and associates are included in the Consolidated Financial Statements using the equity method in accordance with IAS 28. Associates are companies over which Bertelsmann exercises a significant influence. This is generally the case for voting rights between 20 percent and 50 percent. Smaller shareholdings are accounted for using the equity method if there is a significant influence in accordance with IAS 28.6. When changing the accounting treatment of investments to the equity method, IFRS 3 is applied correspondingly so that the fair value of the previously held interest is used in determining the cost of the investment accounted for using the equity method on the transition date. The difference between the fair value and the carrying amount of the previously held interest is recognized in profit or loss. The portfolio of investments held by the venture capital business of the Bertelsmann Investments division includes, among others, investments in associates recognized at fair value through profit or loss in accordance with IAS 28.18 in conjunction with IFRS 9. When applying the equity method to an associate or a joint venture that is an investment entity, Bertelsmann, which is a non-investment entity, generally retains as investor the fair value measurement applied by the associate or joint venture to its interests in subsidiaries.

Bertelsmann SE & Co. KGaA invests in a special fund in order to diversify the capital investment strategy. This fund is a structured entity in accordance with IFRS 10. The fund's activity is governed by the agreed investment requirements. The results generated by the fund are in general attributable to Bertelsmann SE & Co. KGaA as the sole investor.

The Bertelsmann Group recognizes immaterial investments in accordance with IFRS 9.

Scope of Consolidation

As of December 31, 2022, Bertelsmann is the majority shareholder of RTL Group, with an interest of 76.3 percent. Penguin Random House, BMG, Arvato, the Bertelsmann Printing Group, the Bertelsmann Education Group and Bertelsmann Investments are each wholly owned by Bertelsmann. As of January 1, 2022, Gruner + Jahr is no longer reported as an independent division. Further details are presented in note 27 "Segment Reporting."

Composition of Scope of Consolidation

	Subsidiaries		Joint ventures ²⁾		Associates ²⁾		Total	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022	12/31/2021
RTL Group	336	264	11	9	24	22	371	295
Penguin Random House	116	118	–	–	1	1	117	119
Gruner + Jahr	n/a	62	n/a	–	n/a	3	n/a	65
BMG	63	67	–	–	–	–	63	67
Arvato	212	189	4	4	2	2	218	195
Bertelsmann Printing Group	34	35	1	1	–	–	35	36
Bertelsmann Education Group	57	20	–	–	4	4	61	24
Bertelsmann Investments	60	18	–	–	1	1	61	19
Corporate ¹⁾	40	39	–	–	–	–	40	39
Total	918	812	16	14	32	33	966	859

1) Including Bertelsmann SE & Co. KGaA and the special fund.

2) The joint ventures and associates included in the table are investments accounted for using the equity method.

Changes in Scope of Consolidation

	Germany	France	United Kingdom	Other European countries	United States	Other countries	Total
Consolidated as of 12/31/2021	250	96	124	199	67	123	859
Additions	6	6	42	23	26	70	173
Disposals	14	5	–	26	3	18	66
Consolidated as of 12/31/2022	242	97	166	196	90	175	966

A total of 162 (previous year: 174) companies were excluded from the scope of consolidation. These consist of the associates in the venture capital business of the Bertelsmann Investments division and entities without significant business operations and of negligible importance for the financial position and financial performance of the Bertelsmann Group. The complete list of the Bertelsmann Group's shareholdings will be published in the "Bundesanzeiger" ("Federal Gazette") as an annex to these Consolidated Financial Statements in accordance with section 313 (2) of the German Commercial Code (HGB) and will be available at the General Meeting.

Acquisitions and Disposals

In the financial year 2022, the cash flow from acquisition activities totaled €-264 million (previous year: €-255 million), of which €-215 million (previous year: €-188 million) related to new acquisitions during the reporting period less cash and cash equivalents acquired and €-49 million related to payments in connection with acquisitions made in previous years.

The consideration transferred in accordance with IFRS 3 amounted to a total of €600 million (previous year: €253 million), taking into account contingent consideration of €47 million (previous year: €2 million). Furthermore, put options were recognized in the amount of €149 million (previous year: €40 million) in connection with the acquisitions made by the RTL Group division and a forward in the amount of €1 million (previous year: €0 million) was recognized in connection with an acquisition made by the Penguin Random House division.

In February 2022, Majorel signed an agreement to acquire 12 of Booking.com's 14 internal customer experience (CX) service centers in Europe, Asia Pacific and North America. In accordance with IFRS 3, the acquisition date was June 1, 2022. The expanded strategic partnership with Booking.com enables Majorel to expand its geographic footprint into new countries and also to further consolidate its existing presence in the other markets. The consideration transferred amounted to €65 million and was fully paid in cash. The negative difference between the consideration transferred and the fair value attributable to the identifiable assets and liabilities, resulting from the preliminary purchase price allocation, amounting to €3 million, was recognized in profit or loss. In the financial year 2022, transaction-related costs amounted to €1 million and have been recognized in profit or loss as other operating expenses. Since initial consolidation, the CX service centers have contributed €63 million to revenue and €4 million to Group profit or loss.

In March 2022, Fremantle, which belongs to RTL Group, acquired 70 percent of the shares in Lux Vide, Italy's leading independent television production company. The acquisition of Lux Vide forms part of Fremantle's growth strategy to invest in premium production companies, content creators and talents from around the world developing and securing original formats and exclusive intellectual property. The consideration transferred amounted to €43 million and was fully paid in cash. The purchase price allocation resulted in goodwill of €8 million, mainly reflecting the expertise of the management and synergy potential with Fremantle. Goodwill is not tax deductible and was allocated to the cash-generating unit Fremantle. Further, in connection with the acquisition, put options on the remaining 30 percent of the shares were recognized for an amount of €32 million through equity for the present value of the redemption amount. In the financial year 2022, transaction-related costs amounted to €1 million and have been recognized in profit or loss as other operating expenses. Since initial consolidation, Lux Vide has contributed €56 million to Group revenue and €6 million to Group profit or loss. If consolidated as of January 1, 2022, Lux Vide would have contributed €67 million to Group revenue and €7 million to Group profit or loss.

In May 2022, Fremantle also acquired 51 percent of the shares in Element Pictures, the production company behind the Academy Award, Golden Globe and BAFTA-winning films "The Favourite" and "Room", the global drama "Normal People", and the mini-series "Conversations With Friends." The acquisition of Element Pictures also forms part of Fremantle's growth strategy to invest in premium production companies, content and talents around the world to source the best creative ideas, and to develop and create strong and exclusive intellectual property. The consideration transferred amounted to €56 million and comprises a purchase price payment already made in the amount of €46 million and a contingent consideration in the amount of €10 million. The purchase price allocation resulted in goodwill of €51 million, mainly reflecting synergies with Fremantle and international distribution growth opportunities. Goodwill is not tax deductible and was allocated to the Fremantle cash-generating unit. Further, in connection with the acquisition, put

options on the remaining 49 percent of the shares were recognized for an amount of €54 million through equity for the present value of the redemption amount. In the financial year 2022, transaction-related costs amounted to €1 million and have been recognized in profit or loss as other operating expenses. Since initial consolidation, Element Pictures has contributed €51 million to Group revenue and €5 million to Group profit or loss. If consolidated as of January 1, 2022, Element Pictures would have contributed €66 million to Group revenue and €-2 million to Group profit or loss.

In May 2022, Bertelsmann, acting through Bertelsmann Education Group, increased its interest in Nasdaq-listed education company Afya, the leading provider of medical education and training and digital solutions for medical practitioners in Brazil. The acquisition strengthens Bertelsmann Education Group's focus on healthcare education and gives Bertelsmann access to the high-growth and high-margin Brazilian healthcare market through Afya, the market leader in this area of a consolidating Brazilian higher education market. Following the acquisition of six million Class B shares for an amount of €147 million from the founding family (the Esteves family), Bertelsmann increased its voting rights in Afya initially from 46 percent to 58 percent. After obtaining control, Bertelsmann was able to purchase additional Class A shares (approximately 7.2 million) on the stock exchange and from employees of the company, thus further increasing its shareholding. As of the reporting date, the interest amounts to 40 percent of the shares under company law and 59 percent of the voting rights. As a result of obtaining control, the investment, which was previously accounted for using the equity method, has been consolidated from the date of acquisition. The consideration transferred amounted to €147 million. Obtaining control led to the derecognition of the investment previously accounted for using the equity method, the fair value of which amounted to €501 million immediately before the acquisition date. The overall effect from the remeasurement of the investment already held and the reclassification of all currency translation differences previously recognized in the Group's other comprehensive income is immaterial. The preliminary purchase price allocation resulted in goodwill of €418 million, mainly reflecting the future growth potential from the further expansion of the company's market position in Brazil. Goodwill is not tax-deductible and represents a separate cash-generating unit within the Bertelsmann Education Group division. In the financial year 2022, transaction-related costs were immaterial and have been recognized in profit or loss as other operating expenses. Since initial consolidation, Afya has contributed €288 million to revenue and €21 million to Group profit or loss. If consolidated as of January 1, 2022, Afya would have contributed €428 million to revenue and €47 million to Group profit or loss.

In November 2022, Fremantle acquired 55 percent of the shares in 72 Films, an independent TV production company focusing on documentaries and factual entertainment. The acquisition further underlines Fremantle's strategic plan to invest in and help develop premium production companies with exceptional creative talents. The consideration transferred amounted to €51 million, of which €44 million was paid in cash. The earn-out consideration amounted to €7 million. The preliminary purchase price allocation, which is at a very early stage, resulted in provisional goodwill of €50 million, mainly reflecting the expertise of the management and synergy potential with Fremantle. Goodwill is not tax deductible and was allocated to the cash-generating unit Fremantle. Further, in connection with the acquisition, put options on the remaining 45 percent of the shares were recognized for an amount of €39 million through equity for the present value of the redemption amount. In the financial year 2022, transaction-related costs amounted to €1 million and have been recognized in profit or loss as other operating expenses. Since initial consolidation, 72 Films has contributed €3 million to Group revenue and an immaterial amount to Group profit or loss. If consolidated as of January 1, 2022, 72 Films would have contributed €25 million to Group revenue and €2 million to Group profit or loss.

In addition, the Bertelsmann Group made several acquisitions in the financial year 2022, none of which was material on a stand-alone basis. In total, the impact of these acquisitions on the Group's financial

position and financial performance was also minor. Payments net of acquired cash and cash equivalents amounted to €-98 million; the consideration transferred in accordance with IFRS 3 for these acquisitions amounted to €238 million taking into account contingent consideration of €30 million. The other acquisitions resulted in goodwill totaling €173 million, which reflects synergy potential and is not tax-deductible. Transaction-related costs amounted to €3 million in the financial year 2022 and have been recognized in profit or loss as other operating expenses.

The preliminary purchase price allocations consider all the facts and circumstances prevailing as of the respective dates of acquisition that were known prior to preparation of the Consolidated Financial Statements. In particular, the valuations have not yet been finalized. Therefore, the fair values of identifiable assets – especially intangible assets – and liabilities acquired have only been determined provisionally. The accounting for the acquisitions will be finalized within the 12-month measurement period in accordance with IFRS 3, based on facts and circumstances that existed at the date of gain of control, and the purchase price allocations will be adjusted accordingly.

In accordance with IFRS 3, the fair values of the identifiable assets, liabilities and contingent liabilities acquired are measured primarily using the market price-oriented method. According to this method, assets and liabilities are measured at the prices observed in active markets. If measurement using the market price-oriented method is not feasible, as a rule the capital value-oriented method is to be applied. According to that method, the fair value of an asset or a liability corresponds to the present value of the future cash inflows or outflows (cash flows).

The following table shows the fair values of the assets and liabilities of the acquisitions on their dates of initial consolidation based on the purchase price allocations, some of which are currently preliminary:

Effects of Acquisitions

in € millions	CX service centers	Lux Vide	Element Pictures	Afya	72 Films	Other	Total
Non-current assets							
Other intangible assets	4	10	13	940	–	68	1,035
Property, plant and equipment and right-of-use assets	12	17	2	217	1	13	262
Trade and other receivables	–	–	–	35	–	–	35
Other non-current assets	2	–	1	32	2	1	38
Current assets							
Inventories	–	42	72	3	12	39	168
Trade and other receivables	32	37	4	78	4	37	192
Other current assets	4	28	–	14	1	12	59
Cash and cash equivalents	80	3	20	118	7	48	276
Liabilities							
Provisions for pensions and similar obligations	(1)	–	–	–	–	(4)	(5)
Financial debt	–	(32)	(7)	(262)	–	(8)	(309)
Lease liabilities	(13)	(5)	(1)	(142)	–	(9)	(170)
Other financial and non-financial liabilities	(52)	(50)	(93)	(310)	(25)	(117)	(647)
Net assets acquired	68	50	11	723	2	80	934
Goodwill (+)/gains from business combinations (-)	(3)	8	51	418	50	173	697
Non-controlling interests	–	(15)	(6)	(493)	(1)	(11)	(526)
Fair value of pre-existing interests	–	–	–	(501)	–	(4)	(505)
Consideration transferred according to IFRS 3	65	43	56	147	51	238	600
Less advance payments of the previous year	–	–	–	–	–	(58)	(58)
Less deferred payments	–	–	–	–	–	(7)	(7)
Less contingent consideration	–	–	(10)	–	(7)	(30)	(47)
Consideration paid in cash	65	43	46	147	44	143	488
Cash and cash equivalents acquired	(80)	(3)	(20)	(118)	(7)	(48)	(276)
Repaid financial debt	–	–	–	–	–	3	3
Cash outflow from acquisitions in accordance with IFRS 3	(15)	40	26	29	37	98	215
Payments on prior year's acquisitions							49
Total cash flow from acquisition activities							264

On the acquisition date, the fair value of the acquired receivables was €228 million. Of that amount, €163 million is attributable to trade receivables and €65 million to other receivables. Trade receivables were impaired in the amount of €13 million, so that the gross amount is €176 million. The other receivables are impaired only to an insignificant extent, so that the fair value corresponds to the gross amount.

Since initial consolidation, all new acquisitions made in the financial year 2022 in accordance with IFRS 3 have contributed €559 million to revenue and €31 million to Group profit or loss. If consolidated as of January 1, 2022, these would have contributed €926 million to revenue and €57 million to Group profit or loss.

In March 2022, RTL Group sold its interests held in RTL Belgium. The disposal resulted in net cash inflows of €154 million. Net of transaction-related costs, the transaction resulted in an overall gain of €58 million recognized in the item “Results from disposals of investments.”

In June 2022, RTL Group sold its interests held in RTL Croatia for €41 million net of cash disposed of. Net of transaction-related costs, the transaction resulted in an overall gain of €16 million recognized in the item “Results from disposals of investments.” In addition, RTL Group has agreed to a long-term trademark licensing agreement with the buyer.

After considering cash and cash equivalents disposed of, the Bertelsmann Group recorded cash flows in the amount of €197 million (previous year: €851 million) from all disposals. The disposals resulted in a gain from deconsolidation of €54 million (previous year: €821 million), which is recognized in the item “Results from disposals of investments.” The following table shows their impact on the Bertelsmann Group’s assets and liabilities at the time of deconsolidation:

Effects of Disposals

in € millions	RTL Belgium	RTL Croatia	Other	Total
Non-current assets				
Goodwill	76	–	2	78
Other intangible assets	3	4	1	8
Property, plant and equipment and right-of-use assets	40	9	3	52
Other non-current assets	5	2	1	8
Current assets				
Inventories	28	16	5	49
Other current assets	54	15	16	85
Cash and cash equivalents	51	2	7	60
Liabilities				
Provisions for pensions and similar obligations	15	–	–	15
Lease liabilities	26	5	1	32
Other financial and non-financial liabilities	67	18	15	100

Discontinued Operations

Earnings after taxes from discontinued operations of €3 million comprise follow-on effects related to the disposal of companies of the former Direct Group division.

Assets Held for Sale and Liabilities Related to Assets Held for Sale

The carrying amounts of the assets classified as held for sale and related liabilities are presented in the following table:

Assets Held for Sale and Related Liabilities

in € millions	Total as of 12/31/2022	Total as of 12/31/2021
Assets		
Non-current assets		
Goodwill	–	77
Other intangible assets	–	7
Property, plant and equipment and right-of-use assets	18	46
Investments accounted for using the equity method	123	–
Deferred tax assets	–	4
Current assets		
Inventories	–	27
Trade and other receivables	–	64
Other current assets	–	7
Cash and cash equivalents	–	24
Impairment on assets held for sale	–	(2)
Assets held for sale	141	254
Equity and liabilities		
Non-current liabilities		
Provisions for pensions and similar obligations	–	15
Lease liabilities	–	23
Current liabilities		
Lease liabilities	–	5
Trade and other payables	–	51
Other current liabilities	–	21
Liabilities related to assets held for sale	–	115

As of December 31, 2022, the carrying amounts of the assets classified as held for sale and related liabilities are mainly attributable to the Arvato division. They relate to the shares in informa Solutions GmbH, which is accounted for using the equity method and is reported as an asset classified as held for sale in accordance with IFRS 5. The transaction with a consideration of €123 million was completed in January 2023. Prior to the classification of the investment as an asset held for sale, an impairment loss of €2 million was recognized on the investment.

Further assets classified as held for sale relate to properties within the Bertelsmann Printing Group division as of December 31, 2022.

As of December 31, 2021, the carrying amounts of the assets classified as held for sale and related liabilities were mainly attributable to the RTL Group division.

Other Disclosures on Portfolio Initiatives

In the reporting period and subsequent months, the following decisions were made regarding planned transactions. The announced mergers of Groupe M6 and Groupe TF1 in France, and of RTL Nederland and Talpa Network in the Netherlands, will no longer be pursued after the competent antitrust authorities in the relevant countries have objected to or prohibited, respectively, the said transactions. Majorel and Sitel also ended talks regarding a possible merger after failing to reach a final agreement. Furthermore, Bertelsmann announced that the Group no longer intends to pursue the previously planned merger of Penguin Random House and Simon & Schuster after the US District Court in Washington, D.C., enjoined the transaction. The contractually agreed “regulatory termination fee” in the amount of US\$200 million was paid to Paramount Global in the reporting period.

Foreign Currency Translation

Transactions denominated in a currency other than a subsidiary’s functional currency are recognized in the functional currency at the exchange rate applicable on the day of their initial accounting. At the end of the reporting period, monetary assets and liabilities denominated in foreign currency are revalued into the functional currency using the closing rate applicable at that time. As a rule, gains and losses from these foreign currency translations are recognized in profit or loss. Non-monetary balance sheet items in foreign currency are carried at the historical exchange rate.

The financial statements of subsidiaries, joint ventures and associates that were prepared in foreign currencies are translated into euros using the functional currency concept set out in IAS 21 before they are included in the Consolidated Financial Statements. Assets and liabilities are translated into the reporting currency at the closing rate at the end of the reporting period, while income statement items are translated at the average rate for the financial year. Foreign currency translation differences are recognized in other comprehensive income. Such differences arise from translating items in the balance sheet at a closing rate that differs from the previous closing rate, and from using the average rate for the period and the closing rate at the end of the reporting period to translate the Group profit or loss. At the time of deconsolidation of Group companies, the respective accumulated exchange differences recognized in other comprehensive income and accumulated in a separate component of equity are reclassified from equity to profit or loss. The following euro exchange rates were used for currency translation purposes for the most significant foreign currencies for the Bertelsmann Group:

Euro Exchange Rates for Significant Foreign Currencies

Foreign currency unit per €1		Average rates		Closing rates	
		2022	2021	12/31/2022	12/31/2021
Australian dollar	AUD	1.5162	1.5745	1.5693	1.5615
Canadian dollar	CAD	1.3709	1.4828	1.4440	1.4393
Chinese renminbi	CNY	7.0920	7.6272	7.3582	7.1947
British pound	GBP	0.8520	0.8596	0.8869	0.8403
US dollar	USD	1.0530	1.1827	1.0666	1.1326
Brazilian real	BRL	5.4411	6.3807	5.6386	6.3101

In the financial year 2022, Argentina and Turkey are classified as hyperinflationary in the sense of IAS 29. The financial statements of the significant investment by Majorel in Turkey, which was initially consolidated as of January 1, 2022, were prepared in accordance with IAS 29. The effects amounted to €28 million, resulting mainly from the recognition of step-ups and goodwill. The translation effect amounts to €-13 million and is shown as a currency effect in other comprehensive income. The application of IAS 29 resulted in a loss from the net position of monetary items in the amount of €2 million recognized under other financial expenses for the reporting year. The consumer price index of the Turkish Statistical Institute was used to adjust the purchasing power effects. The effects from the possible application of IAS 29 to the other consolidated subsidiaries in Argentina and Turkey are immaterial overall for the Bertelsmann Consolidated Financial Statements 2022.

Accounting and Measurement Policies

Recognition of Income and Expense

Revenues from contracts with customers are recognized in accordance with IFRS 15. Under this standard, a contract-based five-step model is used to first identify and distinguish the relevant contracts with customers. In a next step, the separate performance obligations explicitly or implicitly stipulated in the contract are identified, and the contract is examined for fixed and variable consideration in order to use this as a basis for determining the respective transaction price. In doing so, constraining estimates of variable consideration are adequately taken into account. If more than one separate performance obligation is identified in a contract, the transaction price is then allocated to the identified performance obligations using the method of relative stand-alone selling prices, which are generally determined as prices on the markets relevant for the respective customers. Revenue recognition occurs upon satisfaction of the performance obligation either at a point in time or over time, depending on the underlying business model. If necessary, the extensive principal-agent considerations presented in IFRS 15 are also adequately taken into account in analyzing the contracts.

The prioritization of the five steps depends on the design of the underlying business model. Based on the underlying revenue sources in the Bertelsmann Group, the following key aspects are taken into consideration for revenue recognition:

- **Own products and merchandise:** As a rule, the revenues resulting from these contracts are recognized at a point in time when control is transferred. Depending on the underlying respective terms of sale, this is generally upon delivery to the customer. Expected returns from sales of products, mainly from physical books and magazines, are shown as liabilities in the balance sheet position "Trade and other payables." Return assets are presented in the balance sheet position "Other non-financial assets." In individual business models at RTL Group, giveaways to customers meet the criteria of a separate performance obligation. Any giveaways to an agent are capitalized as costs to obtain a contract and are amortized over the expected term of the subscription.
- **Services:** Services are generally rendered over a period of time, and the revenue is recognized based on an appropriate output method or input method for measuring progress. If permissible, revenues are recognized in the amount of the invoice if this amount corresponds to the value of the performance provided. Revenue from financial services is presented separately as revenue if it results primarily from interest rate effects.

- Advertising: Advertising services are generally rendered over a period of time, and the revenue is recognized based on an appropriate output method for measuring progress. If several performance obligations are identified in an advertising contract, the transaction price is allocated on the basis of the relative stand-alone selling prices.
- Rights and licenses: The timing of revenue recognition for business models generating revenue from licenses depends on whether the license represents a right to access the intellectual property through the entire licensing period or a right to use when the license is granted. In particular, the underlying contracts are analyzed to determine whether the customer is exposed to significant changes to the intellectual property or whether the intellectual property remains in the condition defined upon entering into the contract throughout the term of the contract with regard to its content and scope. While revenues from licenses granted for a right to use are realized at the date of the transfer of control, revenues from licenses for rights to access are realized over a period of time throughout the term of the contract. The majority of licenses granted in the TV business represent a right to use the intellectual property at the date the license is granted. As a result, revenue is recognized at the point in time the license is granted to the licensee. In contrast, rights to access are used extensively in the music business, and these revenues recognized are throughout the term of the contract.

IFRS 15 stipulates some practical expedients of which the following are applied in the Bertelsmann Group:

- Costs of obtaining contracts are not capitalized if the underlying asset is amortized in no more than 12 months.
- The value of consideration is not adjusted for the effects of a material financing component if the financing component pertains to a period of no more than 12 months.
- For contracts with an original duration of not more than 12 months and for contracts for which revenue can be recognized according to the amount invoiced for simplification purposes, no disclosure of the aggregated transaction price is provided.

Payments received before satisfaction of the corresponding performance obligation are recognized as a contract liability. If contractual provisions make the invoicing of services completed to date causally dependent on the need to provide further goods or services, a contract asset is recognized. Receivables from contracts with customers are generally due in less than 12 months.

Interest income and expenses relating to financial assets measured at amortized cost are recognized on an accrual basis using the effective interest method in accordance with IFRS 9. Dividends are only recognized in profit or loss when the right to receive payment of the dividend is established. Other income is recognized when the economic benefits are probable and the amount can be measured reliably. Expenses are deferred on the basis of underlying facts or the period of time to which they relate.

Goodwill

In accordance with IFRS 3, goodwill resulting from a business combination is initially recognized at cost, with subsequent recognition at cost less accumulated impairment losses. Goodwill is subject to impairment testing at least annually in accordance with IAS 36. In the Bertelsmann Group, goodwill is tested for impairment as outlined in the section "Impairment."

Other Intangible Assets

Non-current, internally generated intangible assets are capitalized at cost in accordance with IAS 38 if the corresponding requirements have been met. Intangible assets acquired separately are carried at cost less accumulated amortization and accumulated impairment losses, also in accordance with IAS 38. Intangible assets acquired as part of a business combination are initially recognized at fair value on the acquisition date in accordance with IFRS 3. Intangible assets with finite useful life are amortized on a straight-line basis over their estimated useful life. Impairment and reversals are determined by applying the requirements for impairment testing in accordance with IAS 36. As a rule, capitalized software has a useful life of between three and five years. Acquired customer relationships are amortized over a period of two to 15 years, while the amortization period for trademarks and music and publishing rights is three to 25 years. Licenses are amortized on a straight-line basis over the term of the license agreement, assumed useful life or depending on performance (based on the ratios of income from use generated in the reporting period to the estimated total income from use over the entire useful life). Intangible assets with indefinite useful life are not amortized. Instead, they are subject to at least annual impairment testing in accordance with IAS 36 and, if applicable, written down to their recoverable amount.

Property, Plant and Equipment

Items of property, plant and equipment are accounted for in accordance with IAS 16 and carried at cost less accumulated depreciation and accumulated impairment losses. Depreciation is determined on a straight-line basis over the estimated useful life of the asset. In the financial year 2022, depreciation was generally based on the following useful lives:

- buildings: 10 to 50 years
- technical equipment and machinery: four to 15 years
- other equipment, fixtures, furniture and office equipment: three to 15 years

Land is not subject to depreciation.

Impairment

Goodwill and intangible assets with indefinite useful life are tested for impairment in accordance with IAS 36 annually as of December 31 and if a triggering event occurs. Intangible assets with a finite useful life as well as property, plant and equipment and right-of-use assets are tested for impairment at the end of each reporting period in accordance with IAS 36 only if there are any indications of impairment. An impairment loss in accordance with IAS 36 has occurred when the carrying amount of an asset or cash-generating unit exceeds its recoverable amount. The recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal and value in use are generally determined using the discounted cash flow method, which is based on future cash flow forecasts, which are part of company forecasts. Corresponding to the consideration of the right-of-use assets recognized in the balance sheet for determining the carrying amount, the lease payments are not deducted when determining the recoverable amount. For assets held for sale, only the fair value less costs to sell is used as a basis for comparison.

For determining the value in use, estimated future cash inflows or outflows from future restructurings or from improvement or enhancement of the cash-generating units' performance are excluded unless, as of the end of the reporting period, the cash-generating unit is committed to the restructuring and related provisions have been made. If an active market exists, the market price or, if applicable, the price in the most recent comparable transaction, is used for fair value measurement. If there is no active market, the fair value less costs of disposal is generally calculated using the discounted cash flow method. If it is not possible to allocate cash flows to assets, the relevant impairment losses are determined on the basis of cash flows attributable to the cash-generating unit to which the assets belong. Projected cash flows are based on internal estimates for three detailed planning periods. Generally, two further detailed planning periods are applied in addition. For periods beyond this detailed horizon, a perpetual annuity is recognized, taking into account individual business-specific growth rates. Discounting is generally based on the weighted average cost of capital (WACC) after tax. Specific WACCs are derived for cash-generating units with different risk profiles. The Bertelsmann Group performs sensitivity analyses on the cash-generating units, especially on those where the headroom between the recoverable amount and the carrying amount is low.

If the reasons for an impairment loss recognized in prior periods no longer exist, the impairment loss is reversed up to a maximum of the carrying amount of the respective asset if the impairment loss had not been recognized. The latter does not apply to goodwill. The impairment loss and reversals of impairment losses are both recognized immediately in profit or loss.

Leases

Generally, for all leases with the Bertelsmann Group as a lessee the related contractual rights and obligations are recognized on the balance sheet as a right-of-use asset and a lease liability. On the date of initial accounting, lease liabilities are recognized at the present value of the outstanding lease payments. The lease payments include fixed payments less any lease incentives due from the lessor, variable lease payments linked to an index or a rate, amounts expected to be payable under residual value guarantees, the exercise price of a purchase option if the exercise is reasonably certain and penalty payments for terminating the lease, if the lease term reflects the exercise of the termination option. Variable lease payments linked to sales are recognized in profit or loss in the period when the conditions for the payments have been met. The present value is determined using maturity-, currency- and risk-specific incremental borrowing rates. Subsequent measurement of a lease liability includes the increase of the carrying amount to reflect interest on the lease liability and reducing the carrying amount to reflect the lease payments made. Right-of-use assets are measured at cost less any accumulated depreciation and accumulated impairment losses. Cost comprises the amount of lease liabilities recognized, the initial direct costs and the lease payments made at or before the commencement date of the lease, less any lease incentives received. The right-of-use asset is depreciated on a straight-line basis over the shorter of the useful life or lease term. Short-term leases with a lease term of up to one year, and leases for low-value assets for which the Bertelsmann Group does not recognize right-of-use assets or lease liabilities, constitute an exception. For such leases, the payments are recognized on a straight-line basis as expenses in the income statement under "Other operating expenses." If, in the context of sale-and-leaseback transactions, control of an underlying asset is transferred as defined in IFRS 15, the Bertelsmann Group as the seller and lessee recognizes the asset

in the amount of the proportional right of use retained. The gain or loss from the sales transaction as the proportional amount of the rights transferred to the lessor is recognized through profit or loss in the item "Other operating income" or "Other operating expenses."

Financial Assets

In accordance with the IFRS 9 classification and measurement approach for financial assets, there are three classification categories for financial assets in the Bertelsmann Group:

- at amortized cost,
- at fair value with changes in fair value through other comprehensive income (FVOCI) and
- at fair value with changes in fair value through profit or loss (FVTPL).

The allocation to the respective classification categories is based on the following criteria:

- the entity's business model for managing the financial assets and
- contractual cash flow characteristics of the financial asset.

Financial assets (with the exception of trade receivables without a significant financing component) are recognized initially at fair value, taking into account transaction costs that are directly attributable to the acquisition of the financial asset. Financial assets are recognized on the settlement date of the transaction. Transaction costs of financial assets recognized at fair value through profit or loss are immediately expensed in profit or loss. Trade receivables without a significant financing component are initially recognized at their transaction price.

Subsequent measurement of financial instruments depends on the classification categories:

- At amortized cost: Financial assets that are held for collection of contractual cash flows where those cash flows represent solely payments of principal and interest on the principal amount outstanding are measured at amortized cost. This category mainly comprises trade receivables and other financial receivables. Any gain or loss arising on derecognition and impairment losses are recognized directly in profit or loss.
- FVOCI: Financial assets that are held for collection of contractual cash flows and for selling, where the assets' cash flows represent solely payments of principal and interest on the principal amount outstanding, are measured at fair value with changes in fair value through other comprehensive income. The Bertelsmann Group held no debt instruments measured at fair value through other comprehensive income. Bertelsmann exercises the option for measurement of equity instruments at fair value through other comprehensive income mainly for individual immaterial investments. With deferred taxes taken into consideration, the gains and losses resulting from fluctuations in the fair value of these equity instruments are recognized through other comprehensive income. Gains and losses from the fair value are not reclassified to profit or loss after derecognition of the equity instruments. Dividends from such equity instruments continue to be recognized in profit or loss.
- FVTPL: Financial assets that do not meet the criteria for amortized cost or FVOCI are measured at fair value through profit or loss. Gains and losses resulting from fluctuations in fair value are recognized in profit or loss.

Impairment and measurement of expected credit losses:

Bertelsmann applies the expected credit loss (ECL) model in accordance with IFRS 9 for debt instruments at amortized cost and for contract assets. Accordingly, the amount of expected credit losses recognized as a loss allowance depends on the extent to which the default risk has increased since initial recognition. According to the so-called general approach, a distinction is made between the following two measurement bases:

- 12-month ECL: At initial recognition and if the default risk has not increased significantly from the initial recognition of the debt instrument, a loss allowance is recognized for expected credit losses within the next 12 months.
- Lifetime ECL: If the default risk has increased significantly, a loss allowance for expected credit losses is recognized for the entire life of the debt instrument.

Appropriate quantitative and qualitative information and analyses based on the Group's historical experience and reasonable assessments, including forward-looking information such as customer-specific information and forecasts of future economic conditions, are taken into consideration when determining the credit risk. When a financial asset is more than 30 days past due, its credit risk is assumed to have increased significantly. A default of a financial asset is assumed at the latest when the counterparty fails to make contractual payments within 90 days of when they fall due, unless reasonable and supportable information is available that justifies a different time of overdue payment. The Group assesses whether a financial asset is credit-impaired at the end of each reporting period. This is the case when one or more events that have a detrimental impact on the expected future cash flows of that financial asset have occurred. A financial asset is written off when it is no longer reasonably expected to be fully or partially recoverable.

For trade receivables and contract assets, Bertelsmann uses a simplified approach to measure expected credit losses. According to this, the loss allowance is measured using lifetime expected credit losses. For this purpose, impairment matrices based on historic bad debt losses, maturity bands and expected credit losses are prepared. The impairment matrices are created for division-specific or business unit-specific groups of receivables, each with similar default patterns. In addition, separate risk assessments are performed. Contract assets have substantially the same risk characteristics as trade receivables for the same types of contracts, so that the expected loss rates for trade receivables are also a reasonable approximation of the loss rates for contract assets.

Measurement at Fair Value

In the case of financial assets and financial liabilities measured at fair value, the valuation technique applied depends on the respective inputs present in each case. If listed prices can be identified for identical assets on active markets, they are used for measurement (level 1). If this is not possible, the fair values of comparable market transactions are applied, and financial methods that are based on observable market data are used (level 2). If the fair values are not based on observable market data, they are identified using established financial methods or on the basis of observable prices obtained as part of the most recently implemented qualified financing rounds, taking into account the life and developmental cycle of the respective entity (level 3).

Inventories

Inventories – including raw materials and supplies, finished goods, work in progress and merchandise – are accounted for in accordance with IAS 2 and recognized at the lower of historical cost or net realizable value at the end of the reporting period. Similar inventories are measured at average cost or using the FIFO (first-in, first-out) method. In addition, inventories include all short-term film, television and similar rights that are intended for broadcast or sale within the Group's normal operating cycle. In particular, this includes films and TV shows currently in production, co-productions and acquired broadcasting rights. The carrying amount of such items at the end of the reporting period is the lower of historical cost or net realizable value. The consumption of film and television rights starts from the date of initial broadcast and depends on the number of planned broadcasts. The broadcast-based consumption of film and television rights is as follows:

- Free television thematic channels: Program rights are consumed on a straight-line basis over a maximum of six runs.
- Free television other channels:
 - Blockbusters, mini-series, other films, series, TV movies and (co-)productions are consumed, run by run, over a maximum of four transmissions mainly following a degressive approach for amortization depending on the agreed total number of transmissions.
 - Soaps, in-house productions, quiz and game shows, sports and other events, documentaries and music shows are fully consumed upon the first transmission.
 - Children's programs and cartoons are consumed over the license period on a linear basis as there is a very slow saturation and a very high number of repetitions for the target group kids (three to 13 years of age).
- Pay television channels: Program rights are consumed on a straight-line basis over the license period.

The consumption of inventories and current film and television rights, changes in inventories of work in progress and finished goods as well as own costs capitalized, are recognized in the income statement in the position "Cost of materials."

Income Taxes

In accordance with IAS 12, income taxes include both current taxes on income and deferred taxes. Current income taxes are calculated on the taxable income of the financial year and on all adjustments to taxable income of previous financial years, taking into account the tax rates applicable in each case. For the calculation of current and deferred taxes, the applicable tax laws and tax jurisdictions of the respective country in which the consolidated Group companies are registered are considered.

In accordance with IAS 12, deferred tax assets and liabilities are recognized for temporary differences between the tax base and the carrying amounts shown on the IFRS consolidated balance sheet, and for as yet unused tax loss carryforwards and tax credits. Deferred tax assets are reviewed at each balance sheet date and recognized to the extent it is probable that taxable income will be available against which the deductible temporary differences, tax loss carryforwards and tax credits can be utilized. Deferred tax assets that are unlikely to be realized within a clearly predictable period are reduced by valuation allowances. Deferred tax liabilities are generally recognized for all taxable temporary differences.

Deferred taxes are not recognized for:

- temporary differences arising on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither earnings before taxes nor taxable income
- temporary differences associated with investments in subsidiaries, associates and interests in joint arrangements, where the parent entity is able to control the timing of the reversal of the temporary differences and it is probable that they will not be reversed in the foreseeable future
- taxable temporary differences on initial recognition of goodwill

The tax rates applied for computation are those expected as of the date of reversal of temporary differences and use of tax loss carryforwards or tax credits, respectively. As a rule, current and deferred taxes are recognized in profit or loss unless they relate to items recognized in other comprehensive income. In this case, current and deferred taxes are recognized in other comprehensive income.

Current and deferred income tax items are offset if there is a legally enforceable right to set off current tax assets against current tax liabilities and the tax assets and tax liabilities relate to income taxes levied by the same taxation authority.

In October 2021, more than 130 countries agreed to implement a minimum tax regime for multinational groups, known as Pillar Two, to reform the international corporate taxation. Pillar Two aims to ensure that multinational groups in scope are liable to a minimum effective corporate tax rate of 15 percent per country. In December 2021, the OECD released the Pillar Two model rules – accompanied by commentary and guidelines – which are due to be transposed into national legislation but adapted to take into account local conditions. In Europe, the individual countries enact the related law based on the latest EU directive before December 31, 2023. Management closely monitors the progress of the legislative process in each country in which the Group operates. As of December 31, 2022, the Group did not have sufficient information to determine the potential quantitative impact.

Accumulated Other Comprehensive Income

Accumulated other comprehensive income includes net exchange differences and gains and losses from the fair value measurement of equity instruments with changes through other comprehensive income (IFRS 9 classification category FVOCI) and of derivatives used to hedge future cash flows (cash flow hedges) in accordance with IFRS 9.

In addition, in accordance with IAS 28.10, changes in other comprehensive income for entities accounted for using the equity method are recognized. Remeasurement effects of defined benefit pension plans (actuarial gains and losses on the defined benefit obligation, differences between actual investment returns and the returns implied by the net interest cost on the plan assets, and effects of the asset ceiling) are recognized in the other retained earnings in the year in which these gains and losses are incurred as part of the reconciliation of total comprehensive income for the period in the statement of changes in equity. Deferred taxes on the aforementioned items are also recognized directly in equity.

Provisions

Provisions for pensions and similar obligations are calculated using the projected unit credit method in accordance with IAS 19. The net interest expense included in pension expense is recognized in the financial result. Remeasurement effects of defined benefit pension plans (actuarial gains and losses on the defined benefit obligation, differences between actual investment returns and the returns implied by the net interest cost on the plan assets, and effects of the asset ceiling) are recognized immediately in equity under other comprehensive income and are not reclassified to profit or loss in a subsequent period (recycled). With the exception of the other personnel-related provisions calculated in accordance with IAS 19, all other provisions are recognized in accordance with IAS 37. Provisions are measured in the amount of the most likely outcome. Non-current provisions are discounted. The discount rates take into account current market expectations and, if necessary in individual cases, specific risks for the liability. As a rule, income from the reversal of provisions is generally included in the income statement line item to which the provision was previously charged.

Financial Liabilities

Trade payables and other primary financial liabilities, including profit participation certificates, are initially measured at their fair value less transaction costs. Subsequent measurement is based on amortized cost using the effective interest method, unless the financial liability is classified as initially recognized at fair value through profit or loss. Future payments related to put options issued by the Bertelsmann Group on the equity interests of subsidiaries are accounted for as a financial liability. The liability is initially recognized at the present value of the redemption amount, with a corresponding charge directly to equity. In the case of a business combination with the transfer of the risks and rewards of the non-controlling interests underlying the put option to the Bertelsmann Group, the goodwill increases by a corresponding amount upon initial recognition. Subsequent measurement of liabilities from put options is recognized in profit or loss.

Derivative Financial Instruments

As set out in IFRS 9, all derivative financial instruments are recognized at fair value on the balance sheet. Derivative financial instruments are recognized as of the trade date of the transaction. When a contract involving a derivative is entered into, it is initially determined whether it serves to hedge a balance sheet item (fair value hedge) or to hedge future cash flows (cash flow hedge). Some derivatives do not meet the requirements set out in IFRS 9 for recognition as hedges, despite this being their economic purpose (stand-alone hedge).

Changes in the fair values of derivatives are recognized as follows:

- Fair value hedge: Changes in the fair value of these derivatives used to hedge assets or liabilities are recognized in profit or loss; the corresponding gain or loss on the change in fair value of the underlying balance sheet item is also directly included in the income statement.
- Cash flow hedge: The effective portion of the changes in the fair value of derivatives used to hedge future cash flows is recognized in other comprehensive income. Upon receiving an underlying non-financial asset or a non-financial liability, the amount is reclassified from accumulated other comprehensive income to the respective item. In other cases, the reclassification of the previously recognized gains and losses from equity to the income statement is performed when the hedged underlying transaction affects profit or loss. The ineffective portion of the changes in the fair value of the hedging instrument is recognized in profit or loss.
- Stand-alone hedge: Changes in the fair value of derivatives that do not meet the criteria for recognition as hedges are recognized in profit or loss.

No hedge of net investment in foreign operations was made in the financial year 2022.

Share-Based Payments

Share-based payments for employees of the Bertelsmann Group include equity-settled share-based payment transactions and cash-settled share-based payment transactions. Equity-settled share-based payment transactions are granted to certain directors and senior employees in the form of share options. The options are granted at the market price on the grant date and are exercisable at that price. For share options, the fair value of the options granted is recognized as personnel costs with a corresponding increase in equity. The fair value is measured at the grant date and allocated over the vesting period during which the employees become unconditionally entitled to the options. The fair value of the options granted is measured using a binomial option pricing model, taking into account the terms and conditions at which the options were granted. The amount recognized as an expense is adjusted to reflect the actual number of share options vesting. Share options forfeited solely due to share prices not achieving the vesting threshold are excluded. The financial liability arising under cash-settled share-based payment transactions is measured initially at fair value at grant date using an option pricing model. Until the liability is settled, its fair value shall be remeasured at the end of each reporting period and at the date of settlement, with any value changes recognized in profit or loss as personnel costs of the period.

Non-Current Assets Held for Sale and Related Liabilities

Non-current assets or disposal groups are classified as held for sale if the associated carrying amount will be recovered principally through a sale transaction and not from continued use. These non-current assets and the associated liabilities are presented in separate balance sheet positions in accordance with IFRS 5. They are measured at the lower of the carrying amount or fair value less costs to sell. Depreciation/amortization is not recognized if a non-current asset is classified as held for sale or forms part of a disposal group that is classified as held for sale. Components of entities that fulfill the requirements of IFRS 5.32 are classified as discontinued operations and thus are carried separately in the income statement and cash flow statement. All the changes in amounts made during the reporting period that are directly connected with the sale of a discontinued operation in any preceding period are also stated in this separate category. If a component of an entity is no longer classified as held for sale, the results of this entity component that were previously carried under discontinued operations are reclassified to continuing operations for all the reporting periods shown.

Significant Judgments, Estimates and Assumptions

The preparation of the Consolidated Financial Statements requires the use of accounting judgments, estimates and assumptions that may impact the carrying amounts of assets, liabilities, income and expenses recognized. Estimates and the underlying assumptions are reviewed on an ongoing basis. As a rule, adjustments to estimates are taken into account in the period in which the change is made and in future periods. Amounts actually realized may differ from estimated amounts. The following section presents accounting judgments, estimates and assumptions that are material in the Bertelsmann Consolidated Financial Statements for understanding the uncertainties associated with financial reporting:

Judgments

- Control of entities in which the Bertelsmann Group holds less than half of the voting rights: Management considers that the Bertelsmann Group has control of Groupe M6, which belongs to RTL Group, even though it holds less than 50 percent of the voting rights. RTL Group is the controlling shareholder of Groupe M6, while the balance of other holdings remains highly dispersed, and the other shareholders have not organized their interest in such a way that they intend to vote differently from the Bertelsmann Group. Furthermore, management believes that the Bertelsmann Group also controls the customer experience company Majorel, which belongs to the Arvato division, even though it holds less than 50 percent of the share voting rights. The control is founded on the Group's contractually secured majority in the Supervisory Board of Majorel, allowing the Bertelsmann Group to direct Majorel's relevant activities even after the initial public offering (IPO).
- Significant influence although the Bertelsmann Group holds less than 20 percent of the equity shares in another entity: Although the Bertelsmann Group holds less than 20 percent of the equity shares of Atresmedia, management considers that the Group exercises a significant influence on Atresmedia in view of the representation of RTL Group on the Board of Directors and other governing bodies of Atresmedia.

- Leases: Some real estate lease contracts include extension or termination options. Payments from these optional periods are included in the lease liability, provided it is reasonably certain that the lease will be extended beyond the non-cancellable lease period or that a termination option will not be exercised. In assessing whether an option to extend or terminate will be exercised, management considers all facts and circumstances that are associated with an economic incentive to exercise the option or not to exercise it. These include, in particular, the amount of lease payments compared to market prices in the optional period, completed or expected leasehold improvements, and the importance of the underlying asset to the Bertelsmann Group's operations.

Estimates and Assumptions

- Recognition of income and expense: In the event of return rights, mostly for print products, estimates must be made with regard to the anticipated return volume, as revenues are recognized taking the anticipated returns into account. Return ratios determined using statistical methods are used to identify the anticipated returns. The transaction prices to be determined using the contract-based five-step model defined in IFRS 15 often include both fixed and variable consideration. The variable components are determined on the basis of estimates, which are made and updated in accordance with constraint conditions. For various business models, qualitative estimates must be made as part of principal-agent considerations as to who is to be regarded as a customer of a Bertelsmann company and whether a Bertelsmann company is to be regarded as principal or agent in a transaction. Disclosures on anticipated returns are presented in note 23 "Liabilities."
- Investments in equity instruments: The measurement of various investments in equity instruments recognized at fair value (December 31, 2022: €1,219 million; December 31, 2021: €1,145 million) that are not based on prices quoted on active markets is based on observable prices obtained as part of the most recently implemented qualified financing rounds, taking into account the life and developmental cycle of the respective entity, or on valuations obtained on the basis of established financial methods using risk-adjusted discount rates. Further adjustments are made for financial instruments with contractual lockups. Further explanations are presented in note 25 "Additional Disclosures on Financial Instruments."
- Assumptions are also made for fair value measurement of other financial assets and financial liabilities. In this regard, Bertelsmann uses various financial methods that take into account the market conditions and risks in effect at the end of the respective reporting periods. The inputs to these models are taken from observable market data where possible, but where these are not available, fair value measurement is based on assumptions by management. These assumptions relate to inputs such as cash flows, discount rate, liquidity risk and default risks. If a right to early termination or repayment exists for financial debt, the determination of the remaining term takes into account whether there is actually an intention to exercise such right. Further explanations are presented in note 25 "Additional Disclosures on Financial Instruments."
- In the case of purchase price allocations, assumptions are also made regarding the measurement of assets and liabilities assumed as part of business combinations. This applies in particular with regard to the acquired intangible assets, as measurements are based on fair value. As a rule, this is the present value of the future cash flows after taking into account the present value of the tax amortization benefit. In addition, the definition of uniform useful lives within the Group is based on management's assumptions. General information on useful lives is presented in the sections "Other Intangible Assets" and "Property, Plant and Equipment."
- In connection with non-current assets held for sale and related liabilities as well as the impairment tests for intangible assets, property, plant and equipment, and right-of-use assets, the determination of the fair value less costs to sell requires management judgments as it relates to estimates of proceeds of the disposal, residual obligations and direct disposal costs. The classification as assets held for sale and discontinued operations also requires management judgment.

- Trade and other receivables: Calculation of loss allowance for accounts receivable is based on historical credit loss rates for groups of financial assets with similar credit risk characteristics and on forward-looking information, including customer-specific information and forecasts of future economic conditions. Further explanations are presented in note 25 "Additional Disclosures on Financial Instruments."
- Advance payments: Sales estimates and assumptions on future sales success are made in connection with advances paid to authors to secure exploitation rights for their publications. Disclosures on advance payments are presented in note 13 "Inventories."
- Impairment: The management's estimates of cash flow, on which impairment tests are based, are based on factors including assumptions of economic trends and the associated risks, the regulatory environment, the competitive environment, market share, investments, EBITDA margins and growth rates. A combination of long-term trends, industry forecasts and in-house knowledge, with special emphasis on recent experience, is used in forming the assumptions about the development of the various relevant markets in which the Bertelsmann Group operates. The relevant markets are an area highly exposed to the general economic conditions. The development of the relevant markets is just one of the key operational drivers used by the Bertelsmann Group to assess individual business models. The most important assumptions include estimated growth rates, the weighted average cost of capital and tax rates. All these different elements are variable, interrelated and difficult to isolate as the main drivers of the various business models and respective valuations. Changes to these estimates as a result of more recent information could have a material impact on the amount of the possible impairment. The growth rates applied are based on long-term real growth rates for the relevant economies, growth expectations for the relevant sectors and long-term inflation forecasts for the countries in which the cash-generating units operate. The values allocated to the key assumptions are in line with external sources of information. The figures obtained using the respective discount rates reflect the recoverable amount of the cash-generating units. Material changes in the market or competitive environment may impair the value of cash-generating units. Details on impairment testing for intangible assets (including goodwill) in the Bertelsmann Group are presented in note 9 "Intangible Assets." In addition, in the case of sports and film rights, estimates are made with regard to anticipated revenues.
- Pension obligations: Pension obligations are measured using the projected unit credit method. Using this approach, biometric calculations, the prevailing long-term capital market interest rates and, in particular, assumptions about future salary and pension increases are taken into account. As a result of the increase in the discount rate and the increase in the future pension trend for measuring provisions for pensions, actuarial gains amounting to €1,345 million before related tax effects were recognized in the item "Remeasurement component of defined benefit plans." Details on the assumptions made in pension accounting are presented in note 18 "Provisions for Pensions and Similar Obligations."
- Provisions for onerous contracts and warranties are also based to a significant extent on management estimates with regard to their amount and probability of occurrence. Assessments of whether there is a present obligation, whether an outflow of resources is probable and whether it is possible to reliably determine the amount of the obligation are generally based on the expertise of in-house or third-party specialists. More recent information could change the estimates and thus impact the Group's financial position and financial performance. The legal and regulatory environment in which Bertelsmann operates does not bear significant litigation risks. With regard to risk provisioning, a provision for potential losses from litigation is recognized when the risks of a loss are considered probable and when a reliable estimate of the anticipated financial impact is possible. For significant contingent liabilities for which the possibility of a future loss is more than remote but less than probable, the Bertelsmann Group estimates the possible loss where the Group believes that an estimate can be made. Contingent liabilities from litigation that were of subordinate significance from a Group perspective existed at the end of the reporting period. Management regularly reviews the recognition, measurement and use of provisions along with the disclosure requirements for contingent liabilities.

- Lease liabilities are recognized at the present value of the outstanding lease payments using maturity-, currency- and risk-specific incremental borrowing rates. The starting point for determining the incremental borrowing rates is risk-free, country- and maturity-specific interest rates for government bonds. These interest rates are adjusted by a specific risk premium for Bertelsmann SE & Co. KGaA as well as a lease-specific risk premium and a security discount. The lease-specific risk premium takes into account in particular that the lease contracts are not concluded by Bertelsmann SE & Co. KGaA itself, but by its subsidiaries, as well as the different payment profile of a lease contract in contrast to a bullet government bond. Further explanations on lease liabilities are presented in note 22 "Lease Liabilities."
- The activities of the Group companies are subject to the respective applicable tax laws and pronouncements. Assumptions and estimates also form the basis for judgments regarding the ability to realize uncertain tax positions and future tax benefits that may arise from the interpretation of tax regulations. Recognition of an asset or liability from an uncertain tax position is performed in accordance with IAS 12 if payment or refund in respect of the legal uncertainty is probable. Measurement of the uncertain tax assets and tax liabilities is at its most likely amount in accordance with IFRIC 23. Deferred tax assets are only carried to the extent that it is probable that they can be utilized against future taxable profits. When assessing the probability of the ability to use deferred tax assets in the future, various factors are taken into account, including past earnings, company forecasts, tax planning strategies and loss carryforward periods. Information relating to the ability to realize tax benefits is presented in note 8 "Income Taxes."
- Estimates and assumptions also relate to the share-based payments. The conditions of the cash-settled share-based payment transactions and the stock option plans are presented in greater detail in the section "Share-Based Payments" in note 17 "Equity."

Prior-Year Information

In December 2021, Groupe M6, part of RTL Group, acquired a two-percent interest in Stéphane Plaza Immobilier, a company in which it already held a 49 percent interest. This acquisition was reported in the 2021 Consolidated Financial Statements under other acquisitions, which were not material on a stand-alone basis. As a result of obtaining control, the investment, which was previously accounted for using the equity method, is fully consolidated from the date of acquisition. Initial accounting of the acquisition had not yet been completed in the last financial year. During the measurement period in 2022, the provisional amounts recognized at the acquisition date were retrospectively adjusted to reflect new information obtained about facts and circumstances that existed as of the acquisition date. In accordance with IFRS 3.49, goodwill from the acquisition of Stéphane Plaza Immobilier decreased from €56 million to €23 million. The decrease results mainly from the valuation of intangible assets acquired for a total of €88 million (€51 for brands and €37 million for customer relationships) and respective adjustments in the deferred tax liability of €23 million as well as non-controlling interests for €32 million. Due to the finalization of the purchase price allocation in 2022, the consolidated balance sheet figures from the previous year have been adjusted accordingly.

The structure of the Consolidated Cash Flow Statement was adjusted for better comparability. The item "Interest received" was reclassified from "Cash flow from financing activities" to "Cash flow from operating activities." The prior-year comparatives were also adjusted to the current presentation.

Notes to the Income Statement and the Balance Sheet

1 Revenues

In the financial year 2022, Group revenues of €19,896 million were generated from contracts with customers in accordance with IFRS 15 (previous year: €18,381 million). The other revenues amounting to €349 million (previous year: €315 million) not in the scope of IFRS 15 resulted almost entirely from financial services in the Arvato division. The following table only shows the revenues from contracts with customers in accordance with IFRS 15 by division and broken down by revenue source, geographical area and timing of revenue recognition. The categorization of revenue sources and geographical areas shown corresponds to that used in segment reporting.

As of January 1, 2022, Gruner + Jahr is no longer reported as an independent division. The German magazine businesses and brands have been part of the RTL Group division since the beginning of the year. The remaining Gruner + Jahr activities (particularly Territory, the AppLike Group, DDV Mediengruppe and the investment in the Spiegel Group) were allocated to the Bertelsmann Investments division. For this reason, revenues in accordance with IFRS 15 are also presented for the Bertelsmann Investments division for the first time. The prior-year comparatives have been adjusted accordingly. Further details are presented in note 27 "Segment Reporting."

Revenue from Contracts with Customers

2022								
in € millions	RTL Group	Penguin Random House	BMG	Arvato	Bertelsmann Printing Group	Bertelsmann Education Group	Bertelsmann Investments	Total Divisions ¹⁾
Revenue Sources								
Own products and merchandise	231	3,986	64	62	22	3	87	4,455
Services	347	168	3	5,084	1,264	619	386	7,871
Advertising	3,714	–	–	–	17	–	48	3,779
Rights and licenses	2,907	68	796	–	–	–	2	3,773
	7,199	4,222	863	5,146	1,303	622	523	19,878
Geographical Areas								
Germany	2,589	298	69	1,671	807	4	348	5,786
France	1,367	14	59	467	64	–	8	1,979
United Kingdom	317	450	105	464	97	1	3	1,437
Other European countries	1,696	371	104	1,567	152	–	51	3,941
United States	999	2,406	465	487	168	322	27	4,874
Other countries	231	683	61	490	15	295	86	1,861
	7,199	4,222	863	5,146	1,303	622	523	19,878
Timing								
Point in time	2,542	4,053	216	66	36	5	109	7,027
Over time	4,657	169	647	5,080	1,267	617	414	12,851
	7,199	4,222	863	5,146	1,303	622	523	19,878

2021								
in € millions	RTL Group	Penguin Random House	BMG	Arvato	Bertelsmann Printing Group	Bertelsmann Education Group	Bertelsmann Investments	Total Divisions ¹⁾
Revenue Sources								
Own products and merchandise	259	3,841	63	59	25	–	151	4,398
Services	334	130	2	4,586	1,133	283	339	6,807
Advertising	3,935	–	–	–	21	–	85	4,041
Rights and licenses	2,467	58	596	–	–	–	3	3,124
	6,995	4,029	661	4,645	1,179	283	578	18,370
Geographical Areas								
Germany	2,558	280	40	1,606	728	3	320	5,535
France	1,393	12	63	437	58	–	100	2,063
United Kingdom	253	476	78	394	96	1	9	1,307
Other European countries	1,672	368	79	1,394	135	–	53	3,701
United States	898	2,275	349	393	149	272	23	4,359
Other countries	221	618	52	421	13	7	73	1,405
	6,995	4,029	661	4,645	1,179	283	578	18,370
Timing								
Point in time	2,255	3,896	175	60	39	–	211	6,636
Over time	4,740	133	486	4,585	1,140	283	367	11,734
	6,995	4,029	661	4,645	1,179	283	578	18,370

1) Excluding Corporate activities.

During the reporting period, the revenues from contracts with customers comprise performance obligations fulfilled at a certain point in time of €7,027 million (previous year: €6,636 million) and performance obligations fulfilled over a certain period of time of €12,851 million (previous year: €11,734 million). If revenue is recognized at a point in time, the respective timing of revenue recognition is determined by the contractually agreed terms of sale. For performance obligations satisfied over time, a sufficient measure of progress is determined generally based on output methods to recognize revenue accordingly. Input methods are used to determine revenue recognition in business models for which they more accurately measure progress. Revenues amounting to €5 million (previous year: €1 million) result from performance obligations already satisfied in previous periods. Bertelsmann makes use of practical expedients set out in IFRS 15 and does not disclose any unsatisfied performance obligations for contracts with an original duration of no more than 12 months, or for contracts for which revenue can be recognized according to the amount invoiced for simplification purposes. As of December 31, 2022, Bertelsmann expects future revenues from existing long-term service level agreements of €1,513 million (previous year: €974 million), which will be attributable to unsatisfied (or partially unsatisfied) performance obligations as of the end of the reporting period and is expected to be recognized in the amount of €523 million (previous year: €400 million) in the next financial year and in the amount of €990 million (previous year: €574 million) in the following years.

2 Other Operating Income

in € millions	2022	2021
Income from reimbursements	52	94
Income from sideline operations	44	43
Gains from disposals of non-current assets	28	19
Foreign exchange gains	16	–
Fair value measurement of investments	–	483
Sundry operating income	201	210
	341	849

In the prior year, the item “Fair value measurement of investments” mainly related to effects from the valuation of financial instruments held in the portfolio of the Bertelsmann Investments division and from the valuation of RTL Group’s minority stakes. The item “Sundry operating income” consists of a number of individually immaterial matters in the subsidiaries.

3 Personnel Costs

in € millions	2022	2021
Wages and salaries	5,202	4,832
Statutory social security contributions	805	736
Expenses for pensions and similar obligations	160	158
Profit sharing	63	89
Other employee benefits	255	196
	6,485	6,011

The contributions paid by the employer to state pension plans amounted to €420 million in the financial year 2022 (previous year: €367 million).

4 Amortization/Depreciation, Impairment and Reversals on Intangible Assets, Property, Plant and Equipment and Right-of-Use Assets

in € millions	2022	2021
Amortization/depreciation, impairment and reversals on		
– intangible assets	490	365
– property, plant and equipment and right-of-use assets	609	544
	1,099	909

Further details on amortization/depreciation, impairment and reversals shown are presented in note 9 “Intangible Assets” and note 10 “Property, Plant and Equipment and Right-of-Use Assets.”

5 Other Operating Expenses

in € millions	2022	2021
Administrative expenses	1,338	1,107
Selling and transmission expenses	622	592
Advertising costs	382	351
Loss allowances on receivables, loans and non-financial assets	306	259
Consulting and audit fees	274	219
Fair value measurement of investments	232	-
Operating taxes	91	97
Losses on disposals of non-current assets	4	9
Adjustment to carrying amounts on assets held for sale	-	6
Foreign exchange losses	-	3
Sundry operating expenses	286	146
	3,535	2,789

The item "Administrative expenses" includes repair and maintenance costs of €225 million (previous year: €214 million) and costs for IT services of €339 million (previous year: €285 million). In the financial year 2022, expenses from short-term leases in the amount of €41 million (previous year: €30 million) and expenses from leases for low-value assets in the amount of €17 million are also included in this item (previous year: €13 million). The item "Loss allowances on receivables, loans and non-financial assets" comprises mainly loss allowances on advance payments for royalties and licenses of the Penguin Random House division amounting to €242 million (previous year: €205 million). The item "Fair value measurement of investments" mainly comprises effects from the valuation of financial instruments held in the portfolio of the Bertelsmann Investments division and from the valuation of RTL Group's minority stakes. Bertelsmann Investments assigns its minority stakes in start-ups and fund-of-fund investments to the fair value through profit or loss category in accordance with IFRS 9. Further details are presented in note 12 "Minority Stakes and Other Financial Assets." The item "Sundry operating expenses" includes, among others, the "Regulatory Termination Fee" of US\$200 million paid to Paramount Global.

6 Interest Income and Interest Expenses

in € millions	2022	2021
Interest income		
Interest income on cash and cash equivalents	18	3
Other interest income	12	8
	30	11
Interest expenses		
Interest expenses on financial debt	(129)	(125)
Interest expenses on interest rate derivatives	(1)	(2)
Other interest expenses	(10)	(12)
	(140)	(139)

Interest expenses on financial debt include interest expenses calculated using the effective interest method, adjusted for the effects of derivative financial instruments entered into as hedging instruments in accordance with IFRS 9 against changes in interest rates under hedge accounting.

7 Other Financial Income and Expenses

in € millions	2022	2021
Other financial income		
Financial income from put/call options	25	–
Sundry financial income	48	13
	73	13
Other financial expenses		
Net interest on defined benefit plans	(17)	(20)
Interest expenses on lease liabilities	(47)	(36)
Dividend entitlement on profit participation certificates	(43)	(45)
Financial expenses from put/call options	–	(40)
Minority interests in partnerships	(3)	(9)
Non-operating foreign exchange losses	(48)	(8)
Other non-operating expenses from derivatives	(4)	(30)
Sundry financial expenses	(59)	(49)
	(221)	(237)

To better reflect the economic content, income and expenses from non-operating foreign currency hedging transactions are offset against the results from the measurement of the economically hedged items in foreign currency, and are recognized as non-operating foreign exchange gains or losses. In the financial year 2022, the net results from these non-operating foreign currency transactions of €131 million (previous year: €175 million) were offset against the net results from hedged foreign currency transactions amounting to €-179 million (previous year: €-183 million).

8 Income Taxes

Income taxes, broken down into current and deferred income taxes, are as follows:

Income Taxes

in € millions	2022	2021
Earnings before income taxes (total)	1,300	2,972
Current income taxes from continuing operations	(332)	(583)
Deferred income taxes from continuing operations	86	(79)
Income taxes from continuing operations	(246)	(662)
Current income taxes from discontinued operations	–	–
Deferred income taxes from discontinued operations	(2)	–
Income taxes from discontinued operations	(2)	–
Total income taxes	(248)	(662)
Net income after income taxes (total)	1,052	2,310

Tax loss carryforwards of €150 million (previous year: €200 million) were utilized in the financial year 2022, reducing current tax expenses by €32 million (previous year: €45 million). Of the tax loss carryforwards utilized, €1 million (previous year: €7 million) was due to German corporate income tax, €1 million (previous year: €6 million) was due to German trade tax and €148 million (previous year: €187 million) was due to foreign income taxes. These amounts include €25 million (previous year: €61 million) for tax loss carryforwards

for which no deferred tax assets were recognized in the past. These relate to German corporate tax of an immaterial amount (previous year: €1 million), to German trade tax of an immaterial amount (previous year: €1 million) and to foreign income taxes in the amount of €25 million (previous year: €59 million). As a result of this utilization, current tax expense decreased by €5 million (previous year: €14 million).

The recognition of previously unrecognized tax loss carryforwards, deductible temporary differences and tax credits resulted in a reduction in deferred tax expense of €149 million (previous year: €13 million). As a result of the write-down or reversal of historically written down deferred tax assets, a net deferred tax expense of €17 million (previous year: €9 million) arises.

Deferred tax assets and liabilities resulted from the following items and factors:

Deferred Taxes

in € millions	12/31/2022			12/31/2021		
	Assets	Equity and liabilities	Recognized in profit or loss in the financial year	Assets	Equity and liabilities	Recognized in profit or loss in the financial year
Goodwill	46	155	11	30	143	(52)
Other intangible assets	108	402	24	118	363	(2)
Property, plant and equipment and right-of-use assets	72	396	11	63	389	(6)
Investments accounted for using the equity method	1	2	-	1	-	(1)
Minority stakes and other financial assets	11	75	(36)	34	60	(67)
Inventories	205	4	(20)	225	4	(27)
Trade and other receivables	152	33	(10)	159	53	(119)
Other non-financial assets	55	112	(14)	81	122	(16)
Cash and cash equivalents	-	8	(4)	-	4	(1)
Provisions for pensions and similar obligations	865	620	(24)	1,003	479	(29)
Other provisions	132	68	(35)	147	53	26
Financial debt	1	25	(9)	1	15	121
Lease liabilities	402	9	(16)	404	5	(2)
Trade and other payables	187	57	44	146	46	17
Other non-financial liabilities	21	11	(13)	32	10	6
Loss carryforwards/tax credits	362		177	164		73
Total	2,620	1,977	86	2,608	1,746	(79)
Offset	(1,806)	(1,806)		(1,619)	(1,619)	
Carrying amount	814	171		989	127	

The item "Property, plant and equipment and right-of-use assets" includes deferred tax assets of €23 million (previous year: €12 million) and deferred tax liabilities of €336 million (previous year: €336 million) in connection with right-of-use assets in accordance with IFRS 16.

No deferred tax liabilities were recognized for temporary differences in connection with investments in subsidiaries in the amount of €656 million (previous year: €640 million) as Bertelsmann can control their reversal, and it is probable that these temporary differences will not be reversed in the foreseeable future. Current and deferred tax assets and liabilities are offset against each other if they relate to the same tax authority and meet the criteria for offsetting. The term of the deferred taxes on temporary differences is mostly long-term.

Deferred tax assets in other comprehensive income amount to €266 million (previous year: €529 million).

Valuation allowances for deferred tax assets are recognized on temporary differences, tax loss carryforwards and tax credits when it is unlikely that they can be utilized in the foreseeable future. The need to recognize valuation allowances is assessed primarily based on existing deferred tax liabilities from temporary differences and projected taxable income within a planning period.

Temporary differences, tax loss carryforwards and tax credits for which no deferred taxes have been recognized can be carried forward as follows:

Expiration

in € millions	12/31/2022	12/31/2021
Temporary differences (unlimited carryforward period)	106	54
Tax loss carryforwards		
Unlimited carryforward period	5,176	5,665
To be carried forward for more than 5 years	33	75
To be carried forward for up to 5 years	106	104
Tax credits		
Unlimited carryforward period	1	–
To be carried forward for more than 5 years	1	2
To be carried forward for up to 5 years	2	–

A reconciliation of expected tax result to actual tax result is shown in the following table:

Reconciliation to Actual Tax Expense

in € millions	2022	2021
Earnings before income taxes from continuing operations	1,295	2,972
Income tax rate applicable to Bertelsmann SE & Co. KGaA	31.10%	31.10%
Expected tax expense from continuing operations	(403)	(924)
The tax effects of the following items led to differences between the expected and actual tax expense:		
Adjustment to different national tax rates	104	176
Effect of changes in tax rate and tax law	1	(14)
Non-tax-deductible impairment on goodwill	(2)	–
Tax effects in respect of results from disposals of investments	17	15
Current income taxes for previous years	34	26
Deferred income taxes for previous years	(3)	8
Effects of measurements of deferred tax assets	109	14
Permanent differences	(73)	101
Other adjustments	(30)	(64)
Total of adjustments	157	262
Actual tax expense from continuing operations	(246)	(662)

Effects from measurement of deferred tax assets take into account the effects from the recognition of deferred tax assets based on estimates of future taxable income derived from internal forecasts. Permanent differences mainly include effects from tax-free income and fair value measurement effects.

Effective Income Tax Rate

	2022	2021
Corporate income tax including solidarity surcharge	15.83%	15.83%
Trade tax	15.27%	15.27%
Effective income tax rate	31.10%	31.10%

The effective tax rate is based on the tax rate of the German Group parent entity Bertelsmann SE & Co. KGaA and includes corporate income tax, the solidarity surcharge and trade tax. In addition, the Group operates mainly in the United States with a tax rate from 21.00 percent to 24.60 percent and in France with a tax rate of 25.00 percent to 25.83 percent.

9 Intangible Assets

in € millions	Other intangible assets					Total	Total
	Goodwill	Music and film rights	Other rights and licenses	Internally generated intangible assets	Advance payments		
Cost							
Balance as of 1/1/2021	8,323	2,913	2,282	1,077	13	6,285	14,608
Exchange differences	162	123	83	31	1	238	400
Acquisitions through business combinations	235	7	253	–	1	261	496
Other additions	–	326	140	31	35	532	532
Reductions through disposal of investments	(35)	–	(85)	–	–	(85)	(120)
Other disposals	–	(31)	(71)	(2)	–	(104)	(104)
Reclassifications in accordance with IFRS 5	(77)	–	(19)	(8)	(3)	(30)	(107)
Reclassifications and other changes	–	17	(39)	37	(19)	(4)	(4)
Balance as of 12/31/2021	8,608	3,355	2,544	1,166	28	7,093	15,701
Exchange differences	26	44	(46)	25	–	23	49
Acquisitions through business combinations	697	12	994	28	1	1,035	1,732
Other additions	–	386	166	35	36	623	623
Reductions through disposal of investments	(53)	–	(4)	(3)	–	(7)	(60)
Other disposals	–	(38)	(46)	(20)	–	(104)	(104)
Reclassifications in accordance with IFRS 5	44	–	2	–	–	2	46
Reclassifications and other changes	18	34	(104)	95	(34)	(9)	9
Balance as of 12/31/2022	9,340	3,793	3,506	1,326	31	8,656	17,996
Accumulated amortization							
Balance as of 1/1/2021	455	1,631	1,355	991	–	3,977	4,432
Exchange differences	7	33	47	30	–	110	117
Amortization	–	154	151	42	–	347	347
Impairment losses	–	–	13	5	–	18	18
Reversals of impairment losses	–	–	–	–	–	–	–
Reductions through disposal of investments	–	–	(50)	–	–	(50)	(50)
Other disposals	–	(20)	(67)	(1)	–	(88)	(88)
Reclassifications in accordance with IFRS 5	–	–	(13)	(1)	–	(14)	(14)
Reclassifications and other changes	–	–	–	–	–	–	–
Balance as of 12/31/2021	462	1,798	1,436	1,066	–	4,300	4,762
Exchange differences	4	11	15	28	–	54	58
Amortization	–	186	222	64	–	472	472
Impairment losses	10	1	7	3	–	11	21
Reversals of impairment losses	–	(3)	–	–	–	(3)	(3)
Reductions through disposal of investments	(8)	–	(4)	(3)	–	(7)	(15)
Other disposals	–	(39)	(40)	(19)	–	(98)	(98)
Reclassifications in accordance with IFRS 5	–	–	2	–	–	2	2
Reclassifications and other changes	–	2	(24)	–	–	(22)	(22)
Balance as of 12/31/2022	468	1,956	1,614	1,139	–	4,709	5,177
Carrying amount as of 12/31/2022	8,872	1,837	1,892	187	31	3,947	12,819
Carrying amount as of 12/31/2021	8,146	1,557	1,108	100	28	2,793	10,939

Other rights and licenses include brands and publishing rights, acquired customer relationships along with acquired software, and other licenses. In the financial year, BMG acquired music catalogs in the amount of €380 million (previous year: €281 million), €188 million of which related to various music catalogs in the United States, €113 million to various music catalogs in the United Kingdom, €27 million to various music catalogs in Germany, and €52 million to various music catalogs in other countries. Internally generated intangible assets mostly include own film and TV productions and internally generated software. As in the previous year, no intangible assets were subject to restrictions on disposal as of the end of the reporting period.

Goodwill and other intangible assets are attributable to the following cash-generating units:

Goodwill and Other Intangible Assets with Indefinite Useful Life by Cash-Generating Units

in € millions	Goodwill		Other intangible assets with indefinite useful life	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021
RTL Group	5,406	5,249	164	164
RTL Group, Group level	2,079	2,079	–	–
Fremantle	1,252	1,122	–	–
RTL Deutschland	1,269	1,239	–	–
Groupe M6	613	614	164	164
RTL Nederland	159	159	–	–
Other	34	36	–	–
Penguin Random House	1,082	1,045	–	–
BMG	387	368	–	–
Arvato	602	494	–	–
Riverty (previously Financial Solutions)	363	368	–	–
Other	239	126	–	–
Bertelsmann Printing Group	9	18	–	–
Print US	9	8	–	–
Other	–	10	–	–
Bertelsmann Education Group	1,321	888	–	–
Afya	379	–	–	–
Relias Learning	936	882	–	–
Alliant University	6	6	–	–
Bertelsmann Investments	65	84	–	–
Other	65	84	–	–
	8,872	8,146	164	164

Intangible assets with indefinite useful life primarily concern Groupe M6 trademark rights in France (€120 million; previous year: €120 million) and brands related to Gulli (€38 million; previous year: €38 million), which also belong to Groupe M6. In determining that the M6 brand has an indefinite useful life, management has considered various factors such as the historical and expected longevity of the brand, the impact of possible changes in broadcasting technologies, the impact of possible evolutions of the regulatory environment in the French television industry, the current and expected audience share of the M6 channel, and management's strategy to maintain and strengthen the trademark "M6." As of December 31, 2022, based on the analysis of these factors, there is no foreseeable limit to the period of time over which the M6 brand is expected to generate cash inflows. Given their positioning, the market's awareness of the brands and their history, Gulli-related brands are considered to also have an indefinite useful life.

For the purpose of impairment testing in accordance with IAS 36, goodwill from a business combination is allocated to the cash-generating units that are expected to benefit from the synergies of the business combination. As of December 31, 2022, the market price of RTL Group S.A. shares on the Frankfurt Stock Exchange was €39.44 (previous year: €46.62). At that date, the recoverable amount for the goodwill impairment test of RTL Group recognized at Group level was based on the value in use using a discounted cash flow method (level 3), as management considered the share price of RTL Group did not fully reflect its earnings potential due to the expected growth from RTL Group's cross-media platform offerings. The value in use significantly exceeded the carrying amount.

As of December 31, 2022, the market price of Métropole Télévision shares on the Paris Stock Exchange was €15.35 (previous year: €17.16). The recoverable amount of Groupe M6 at that date was based on the value in use using a discounted cash flow method (level 3), as management considered the share price of Groupe M6 did not fully reflect its earnings potential due to the expected growth in AVOD (advertising-funded Video On Demand) offers and diversification business of Groupe M6. The value in use significantly exceeded the carrying amount. The fair value of the cash-generating unit Majorel was determined on the basis of the market price, which is based on level 1 of the fair value hierarchy. As of December 31, 2022, the market price of Majorel shares on the Amsterdam Stock Exchange was €20.50 (previous year: €27.88). The fair value significantly exceeded the carrying amount. As of December 31, 2022, the market price of Afya shares, which represent a class of shares other than Bertelsmann shares, on the Nasdaq was €15.62 (previous year: €15.71). The recoverable amount of Afya at that date was based on the value in use using a discounted cash flow method (level 3), as management considered the share price of Afya did not fully reflect its earnings potential in a growth market characterized by high market entry barriers due to the shareholder structure and the associated lower trading activity. The value in use exceeded the carrying amount.

For the other cash-generating units, the recoverable amount equals the fair value, which is derived from discounted cash flows less costs of disposal and which is based on level 3 of the fair value hierarchy. Projected cash flows were based on internal estimates for three detailed planning periods and, as a rule, two further detailed planning periods were applied. For periods after this detailed horizon, a perpetual annuity was applied, taking into account individual business-specific growth rates.

The cash flow forecasts underlying the impairment testing of the individual cash-generating units bearing material goodwill are based on the following assumptions relating to the market development for the beginning of the detailed planning period:

- In 2023, the TV advertising markets in Germany are expected to decline slightly, while moderate decrease is expected in France, a significant decline in the Netherlands and a stable development in Hungary. The streaming markets in Germany and the Netherlands are expected to continue growing strongly.
- The book markets are expected to remain stable overall.
- In the relevant music market, the publishing market segment is expected to grow significantly, whereas strong growth is projected for the recordings market segment.
- The services markets are predicted to show moderate (customer experience solutions, IT solutions) to significant (logistics and financial services) growth in 2023.
- The European printing markets are expected to record a moderate (offset) to strong (gravure) decline, while the book printing market in North America is expected to show a slight decline.
- Overall, sustained moderate to strong growth is anticipated for the relevant US education markets and the Brazilian market for medical university education.

In addition, recoverable amounts based on discounted cash flows were measured using the following individual business-specific growth rates and discount rates for periods after the detailed planning period:

Overview of Growth and Discount Rates

	Growth rate in % for the year		Discount rate in % for the year	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021
RTL Group				
RTL Group, Group level	0.8	0.5	7.6	6.6
Fremantle	1.8	1.8	8.0	8.2
RTL Deutschland	0.5	0.5	7.4	6.3
Groupe M6	0.0	0.0	8.2	6.8
RTL Nederland	0.5	0.0	7.4	6.1
Other	2.0	2.0	12.4	10.0
Penguin Random House	0.5	0.5	8.6	7.5
BMG	2.0	2.0	8.0	6.4
Arvato				
Riverty (previously Financial Solutions)	1.5	1.5	7.7	7.0
Other	1.0–1.5	1.0–1.5	8.8–10.3	7.3–9.9
Bertelsmann Printing Group				
Print US	0.0	0.0	8.1	7.1
Other	0.0	0.0	8.5	6.1
Bertelsmann Education Group				
Afya	4.5	n/a	14.2	n/a
Relias Learning	2.5	2.5	8.2	8.0
Alliant University	2.0	2.0	7.7	8.4
Bertelsmann Investments				
Other	0.0–1.5	n/a	7.7–13.0	n/a

In the financial year 2022, an impairment loss in the amount of €10 million was recognized on goodwill. In the previous year, no impairment loss on goodwill was recognized. The impairment loss of €10 million is fully attributable to the cash-generating unit Mohn Media Group, which belongs to the Bertelsmann Printing Group division. Thus, the goodwill of the Mohn Media Group has been fully impaired. The difficult market environment for printing services with rising factor costs for energy and personnel as well as reduced circulation volumes led to a recoverable amount of €67 million, which was below the carrying amount. The measurement of the impairment loss was based on the following assumptions: the discount rate was 8.5 percent (previous year: 6.1 percent) and the long-term growth rate was 0.0 percent (previous year: 0.0 percent). Impairment losses on goodwill and other intangible assets with indefinite useful lives are recognized in the income statement under "Amortization/depreciation, impairment and reversals on intangible assets, property, plant and equipment and right-of-use assets."

For the cash-generating unit Print USA, which belongs to the Bertelsmann Printing Group division, in the event of an increase in the discount rate by 0.2 percentage points, a decrease in the long-term growth rate by 0.2 percentage points or a decrease in the EBITDA margin by 0.1 percentage points, the recoverable amount would fall below the carrying amount.

For the cash-generating unit Arvato Systems, which belongs to the Arvato division and is recognized in the item "Other," in the event of an increase in the discount rate by 0.1 percentage points, a decrease in the long-term growth rate by 0.4 percentage points or a decrease in the EBITDA margin by 0.1 percentage points, the recoverable amount would fall below the carrying amount.

For the cash-generating unit Afya, which belongs to the Bertelsmann Education Group division, in the event of an increase in the discount rate by 0.6 percentage points, the recoverable amount would fall below the carrying amount.

Other material goodwill was not subject to impairment, even given a change by one of the three most important factors: discount rate (increase of 1.0 percentage point), long-term growth rate (decrease of 1.0 percentage point) or EBITDA margin (decrease of 1.0 percentage point).

10 Property, Plant and Equipment and Right-of-Use Assets

Right-of-use assets from leased property, plant and equipment are capitalized in accordance with IFRS 16. The balance sheet position "Property, plant and equipment and right-of-use assets" comprises property, plant and equipment owned by the Bertelsmann Group and right-of-use assets from leased property, plant and equipment.

Property, Plant and Equipment and Right-of-Use Assets

in € millions	12/31/2022	12/31/2021
Owned property, plant and equipment	1,879	1,641
Right-of-use assets from leased property, plant and equipment	1,306	1,133
	3,185	2,774

Property, Plant and Equipment

in € millions	Land, rights equivalent to land and buildings	Technical equipment and machinery	Other equipment, fixtures, furniture and office equipment	Advance payments and construction in progress	Total
Cost					
Balance as of 1/1/2021	1,669	2,424	1,370	114	5,577
Exchange differences	18	35	25	3	81
Acquisitions through business combinations	–	1	4	–	5
Other additions	22	54	151	110	337
Reductions through disposal of investments	(3)	–	(11)	–	(14)
Other disposals	(74)	(355)	(108)	(4)	(541)
Reclassifications in accordance with IFRS 5	(11)	(56)	(25)	(4)	(96)
Reclassifications and other changes	46	30	33	(101)	8
Balance as of 12/31/2021	1,667	2,133	1,439	118	5,357
Exchange differences	–	5	(3)	(2)	–
Acquisitions through business combinations	25	15	62	4	106
Other additions	39	81	179	173	472
Reductions through disposal of investments	–	(1)	(4)	–	(5)
Other disposals	(76)	(110)	(99)	(3)	(288)
Reclassifications in accordance with IFRS 5	(46)	(23)	(1)	–	(70)
Reclassifications and other changes	13	64	48	(142)	(17)
Balance as of 12/31/2022	1,622	2,164	1,621	148	5,555
Accumulated depreciation					
Balance as of 1/1/2021	925	2,100	958	–	3,983
Exchange differences	11	29	17	–	57
Depreciation	52	77	134	–	263
Impairment losses	8	6	7	–	21
Reversals of impairment losses	–	–	–	–	–
Reductions through disposal of investments	(1)	–	(9)	–	(10)
Other disposals	(72)	(352)	(105)	–	(529)
Reclassifications in accordance with IFRS 5	(5)	(50)	(21)	–	(76)
Reclassifications and other changes	8	1	(2)	–	7
Balance as of 12/31/2021	926	1,811	979	–	3,716
Exchange differences	–	3	3	–	6
Depreciation	50	84	158	–	292
Impairment losses	8	6	9	–	23
Reversals of impairment losses	(12)	(1)	–	–	(13)
Reductions through disposal of investments	–	(1)	(4)	–	(5)
Other disposals	(68)	(112)	(92)	–	(272)
Reclassifications in accordance with IFRS 5	(34)	(19)	(1)	–	(54)
Reclassifications and other changes	(2)	(15)	–	–	(17)
Balance as of 12/31/2022	868	1,756	1,052	–	3,676
Carrying amount as of 12/31/2022	754	408	569	148	1,879
Carrying amount as of 12/31/2021	741	322	460	118	1,641

As of the end of the reporting period, property, plant and equipment totaling €6 million (previous year: €6 million) were subject to restrictions on disposal. Impairment testing of cash-generating units in the “Other” item of the Bertelsmann Printing Group division identified imputed shortfalls. Subsequent impairment testing of property, plant and equipment amounting to €54 million (previous year: €49 million) at the individual asset level resulted in an impairment of €2 million (previous year: €14 million), which was mainly attributable to technical equipment and machinery. A reversal of an impairment loss of €12 million resulted from the conclusion of a purchase agreement for a Prinovis business property.

Impairment losses totaling €23 million were recognized for property, plant and equipment (previous year: €21 million).

Right-of-Use Assets

The vast majority of leases concern rental properties in the RTL Group, Penguin Random House and Arvato divisions. In addition, leases also exist for technical equipment and machinery, vehicles and other fixtures, furniture and office equipment. The existing lease contracts have different terms and a number of property leases include extension or termination options in order to maximize operational flexibility in terms of managing the assets used in the Group’s operations. Details on the corresponding lease liabilities are presented in note 22 “Lease Liabilities.”

The following table shows depreciation and impairment, additions and other changes to the right-of-use assets in the financial year 2022 as well as the carrying amounts of the right-of-use assets from leased property, plant and equipment as of December 31, 2022:

Change in Right-of-Use Assets

in € millions	Land, rights equivalent to land and buildings	Technical equipment and machinery	Other equipment, fixtures, furniture and office equipment	Total
Carrying amount of leased property, plant and equipment as of 1/1/2022	1,101	6	26	1,133
Additions	209	2	14	225
Depreciation and impairment	(288)	(4)	(15)	(307)
Other changes	257	0	(2)	255
Carrying amount of leased property, plant and equipment as of 12/31/2022	1,279	4	23	1,306

in € millions	Land, rights equivalent to land and buildings	Technical equipment and machinery	Other equipment, fixtures, furniture and office equipment	Total
Carrying amount of leased property, plant and equipment as of 1/1/2021	1,083	6	34	1,123
Additions	185	3	13	201
Depreciation and impairment	(239)	(3)	(18)	(260)
Other changes	72	0	(3)	69
Carrying amount of leased property, plant and equipment as of 12/31/2021	1,101	6	26	1,133

The other changes mainly relate to lease contracts from acquisitions and extensions of existing lease contracts.

11 Interests in Other Entities

Subsidiaries with Material Non-Controlling Interests

In the Group's view, material non-controlling interests relate to RTL Group, to the customer experience company Majorel and since the financial year 2022, also to the education company Afya. The proportion of ownership interests held by non-controlling interests in RTL Group, based in Luxembourg, is 23.7 percent (previous year: 23.7 percent). At RTL Group itself, material non-controlling interests relate to the subsidiary Groupe M6, based in Paris, France. RTL Group has a 48.4 percent interest (previous year: 48.2 percent) in Groupe M6 (after considering treasury shares held by Groupe M6). Deviating from the interests, RTL Group holds 48.3 percent of the voting rights. Of the non-controlling interests of RTL Group, €748 million (previous year: €733 million) is attributable to Groupe M6. As of December 31, 2022, the proportion of ownership interests held by non-controlling interests in the customer experience company Majorel belonging to the Arvato division, is 60.5 percent (previous year: 60.5 percent). In addition, material non-controlling interests are attributable to the education company Afya, which has been fully consolidated since May 2022 and was previously accounted for as an associate. As of December 31, 2022, the non-controlling interests in the company, which belongs to the Bertelsmann Education Group division, amounted to 59.7 percent.

The following table shows summarized financial information on RTL Group, Majorel and Afya, including the interests in their subsidiaries, joint ventures and associates. The information disclosed shows the amounts before intercompany eliminations.

Financial Information for Subsidiaries with Material Non-Controlling Interests

in € millions	RTL Group		Majorel		Afya
	12/31/2022	12/31/2021	12/31/2022	12/31/2021	12/31/2022
Non-current assets	7,427	7,033	533	356	1,497
Current assets	4,740	5,626	853	802	290
Non-current liabilities	1,246	1,636	308	202	544
Current liabilities	3,675	3,603	563	600	179
Bertelsmann shareholders' equity	5,499	5,663	200	140	653
Non-controlling interests	1,747	1,757	315	216	411
in € millions	2022	2021	2022	2021	2022
Revenues	7,224	6,637	2,100	1,811	288
Profit or loss	728	1,454	172	81	21
– thereof of non-controlling interests	256	461	104	44	13
Total comprehensive income	862	1,513	160	102	(76)
– thereof of non-controlling interests	293	476	97	55	(24)
Dividends to non-controlling interests	269	215	20	–	2
Cash flow from operating activities	465	939	237	185	96
Cash flow from investing activities	104	100	(96)	(174)	45
Cash flow from financing activities	(539)	(980)	(123)	26	66
Increase/(decrease) in cash and cash equivalents	30	59	18	37	207

Investments Accounted for Using the Equity Method

The investments accounted for using the equity method relate to joint ventures in the amount of €19 million (previous year: €19 million) and to associates in the amount of €602 million (previous year: €1,321 million).

Investments in Joint Ventures

As of December 31, 2022, investments in 16 (previous year: 14) individually immaterial joint ventures were accounted for in the Consolidated Financial Statements. The following table shows summarized financial information on these joint ventures. The information given represents in each case the Bertelsmann Group's interest.

Financial Information on Individually Immaterial Joint Ventures

in € millions	12/31/2022	12/31/2021
Non-current assets	26	38
Current assets	82	34
Non-current liabilities	8	46
Current liabilities	93	42

in € millions	2022	2021
Earnings after taxes from continuing operations	(11)	(15)
Earnings after taxes from discontinued operations	–	–
Other comprehensive income	1	1
Total comprehensive income	(10)	(14)

Investments in Associates

As of December 31, 2022, investments in 32 (previous year: 33) associates were accounted for in the Consolidated Financial Statements. As in the previous year, the investment of RTL Group in Atresmedia, based in San Sebastián de los Reyes, Spain, is individually material for the Group. As of December 31, 2022, the ownership interest of RTL Group in Atresmedia was 18.7 percent (previous year: 18.7 percent). As of December 31, 2022, the stock market value of Atresmedia, which is listed on the Madrid Stock Exchange, amounted to €721 million (previous year: €753 million) with a share price of €3.19 (December 31, 2021: €3.34). As of December 31, 2022, the fair value less costs of disposal amounted to €132 million (previous year: €138 million), which is assigned to level 1 fair value measurement.

As of December 31, 2022, the investment in Atresmedia was tested for impairment in accordance with IAS 36. The recoverable amount of Atresmedia on December 31, 2022 was based on the value in use determined using a discounted cash flow model, as management considered the share price of Atresmedia did not fully reflect its earning potential, which includes the new diversification strategy through expansion of its investment portfolio, strengthening its digital streaming offers and building its leading position in locally relevant content production. The ongoing challenging economic environment in Spain combined with strong competition and changing viewing preferences and continued dependence on linear television still leads to high uncertainty in terms of forecasts. As of December 31, 2022, neither an additional impairment loss nor a reversal of an impairment loss had to be recognized on the at-equity investment in Atresmedia. The value in use was measured on the basis of the following assumptions: a discount rate of 10.0 percent (December 31, 2021: 8.1 percent) and a long-term growth rate of 0.0 percent

(December 31, 2021: 0.0 percent). In the event of an increase in the discount rate by 0.7 percentage points, a decrease in the long-term growth rate of 0.7 percentage points or a decrease in the EBITDA margin of 0.6 percentage points, the recoverable amount would fall below the carrying amount.

The following table shows summarized financial information for Atresmedia. The information presented represents the amounts included in the financial statements of Atresmedia plus adjustments for using the equity method, and not the Bertelsmann Group's share of these amounts.

Financial Information on Individually Material Associates

in € millions	Atresmedia	
	12/31/2022	12/31/2021
Non-current assets	686	549
Current assets	825	853
Non-current liabilities	295	381
Current liabilities	529	478
Equity	687	543
in € millions	2022	2021
Revenues	951	963
Earnings after taxes from continuing operations	112	118
Earnings after taxes from discontinued operations	–	–
Other comprehensive income	127	(2)
Total comprehensive income	239	116
Dividends received from the associate	18	8

The reconciliation of the summarized financial information shown to the carrying amount of the interest in Atresmedia in the Consolidated Financial Statements is shown in the following table:

Reconciliation to Carrying Amount

in € millions	12/31/2022	12/31/2021
Equity	687	543
Proportionate equity	128	101
Goodwill	166	166
Impairment on investments accounted for using the equity method	(110)	(110)
Carrying amount	184	157

The following table shows summarized financial information on associates that management considers individually immaterial. The information given represents in each case the Bertelsmann Group's interest.

Financial Information on Individually Immaterial Associates

in € millions	12/31/2022	12/31/2021
Non-current assets	450	1,267
Current assets	199	297
Non-current liabilities	88	196
Current liabilities	155	219
<hr/>		
in € millions	2022	2021
Earnings after taxes from continuing operations	(4)	94
Earnings after taxes from discontinued operations	-	-
Other comprehensive income	30	(17)
Total comprehensive income	26	77

The total carrying amount of the investments in all individually immaterial associates amounts to €418 million (previous year: €1,164 million) as of December 31, 2022. Of that amount, €162 million (previous year: €205 million) is attributable to the three University Venture Funds, which invest in high-growth companies in the education sector. Bertelsmann holds between 47.3 percent and 100.0 percent of the shares in these funds. As operational management and investment decisions in particular are the responsibilities of the respective fund managers, there is significant influence, but control as defined by IFRS 10 does not exist despite an ownership interest of over 50 percent in some cases.

In the financial year 2021, €90 million of the total carrying amount of the investments in individually immaterial associates was attributable to the investment in the online learning platform Udacity, which belongs to the Bertelsmann Education Group. Since the beginning of the financial year 2022, the investment previously accounted for as an associate has been measured at fair value (level 3) due to a change in governance structure and the resulting loss of significant influence. In the previous year, an additional €479 million was attributable to the investment in the Nasdaq-listed education company Afya. In May 2022, Bertelsmann acquired the majority of voting rights in Afya via the Bertelsmann Education Group and further increased its interest during the rest of the financial year. As of December 31, 2022, Bertelsmann holds 40 percent of the shares under company law and 59 percent of the voting rights. As a result of obtaining control, the investment previously accounted for using the equity method has been consolidated from the acquisition date. Further details are presented in the section "Acquisitions and Disposals."

Results from Investments Accounted for Using the Equity Method

in € millions	2022	2021
Income from investments accounted for using the equity method	75	149
– joint ventures	10	14
– associates	65	135
Expenses from investments accounted for using the equity method	(69)	(48)
– joint ventures	(21)	(29)
– associates	(48)	(19)
Results from investments accounted for using the equity method	6	101
– joint ventures	(11)	(15)
– associates	17	116

In the financial year 2022, dividends received from investments accounted for using the equity method amounted to €78 million (previous year: €79 million).

12 Minority Stakes and Other Financial Assets

in € millions	Current		Non-current	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021
Loans	50	60	25	56
Fund-of-fund investments	–	–	203	183
Minority stakes in start-ups	16	16	1,163	1,018
Financial instruments of the consolidated special fund	–	–	125	102
Other financial assets	134	285	180	213
Derivative financial instruments	56	25	20	12
	256	386	1,716	1,584

The item “Minority stakes in start-ups” includes minority stakes purchased by the Bertelsmann Investments division. The fair value of its listed investments is measured on the basis of their market values and of its unlisted investments, if possible, on the basis of observable prices obtained as part of the most recently implemented qualified financing rounds which meet the minimum requirements for volume and participants, taking into account life and development cycles of the entity. Fund-of-fund investments, which are mainly held by the Bertelsmann Investments division, are measured at fair value through profit or loss. The measurement of their fair values is based on the valuations of the external management as presented in regular reporting and taking into account a fungibility discount. The gains and losses resulting from changes in the fair value are recognized as other operating expenses (previous year: other operating income) in the item “Fair value measurement of investments” for both minority stakes in start-ups and fund-of-fund investments. The changes in carrying amounts recognized in profit or loss of the financial instruments held by the Bertelsmann Investments division in the venture capital business amounted to €-16 million during the reporting period (previous year: €400 million).

A substantial share of the portfolio shown in the item “Financial instruments of the consolidated special fund” is invested in instruments with a very high credit rating. The current trading volume of the existing investments of the special fund enables the liquidation of the entire special fund within a few days.

Bertelsmann exercises the option granted by IFRS 9 to measure equity instruments at fair value through other comprehensive income mainly for individually immaterial investments and investments in affiliates and recognizes these investments in “Other financial assets.” RTL Group’s minority stake in Magnite in the amount of €123 million (previous year: €190 million) measured at fair value through profit or loss is also included in this item.

As in the previous year, no other financial assets were subject to restrictions on disposal as of the end of the reporting period.

13 Inventories

in € millions	12/31/2022	12/31/2021
Program rights	1,409	1,115
Raw materials and supplies	153	126
Work in progress	116	119
Finished goods and merchandise	416	355
Advance payments	170	187
	2,264	1,902

In the financial year 2022, write-downs on inventories were recognized in the amount of €-103 million (previous year: €-118 million). In addition, reversals of write-downs on inventories were recognized in the amount of €73 million (previous year: €103 million). As of the end of the reporting period, no inventories were subject to restrictions on disposal (previous year: €1 million).

In the financial year 2022, the broadcast-based consumption of program rights recognized in profit or loss amounted to €2,904 million (previous year: €2,507 million). Expenses for raw materials and supplies amounting to €927 million (previous year: €706 million) were recognized, and the cost for merchandise amounted to €91 million (previous year: €104 million). Changes in inventories of work in progress and finished goods amounted to €37 million (previous year: €16 million). In addition, other own costs capitalized of €104 million (previous year: €66 million) were recognized.

14 Trade and Other Receivables

in € millions	12/31/2022	12/31/2021
Non-current		
Trade receivables	38	35
Contract assets	1	2
Other receivables	62	34
Current		
Trade receivables	3,966	3,577
Contract assets	23	27
Receivables from participations	20	30
Other receivables	1,035	960

Trade receivables are due for payment generally within 12 months. The item "Contract assets" covers the conditional right to consideration for completely satisfied performance obligations in accordance with IFRS 15. As of January 1, 2021, this item amounted to €23 million. The item "Other receivables" includes, among other things, receivables of €493 million (previous year: €487 million) from the Riverty (previously Arvato Financial Solutions) business unit, which were recognized in relation to the receivables management service provided. In addition, the item comprises receivables in the amount of €282 million (previous year: €191 million), relating to accounts receivables sold, which are acquired by Riverty from third parties in the course of conducting its financial services and then resold. As of the end of the reporting period, trade and other receivables totaling €16 million (previous year: €14 million) were subject to restrictions on disposal.

15 Other Non-Financial Assets

in € millions	12/31/2022	12/31/2021
Non-current		
Other non-financial assets	1,124	1,047
Current		
Other non-financial assets	1,321	1,068
– advance payments	619	559
– deferred items	233	195
– other tax receivables	155	131
– sundry non-financial assets	314	183

The non-current other non-financial assets relate to advance payments for royalties and licenses in the amount of €950 million (previous year: €951 million). Loss allowances are generally recognized for advance payments for royalties and licenses if no recoupment is expected. The amount of these allowances is based on management estimates of future sales volumes and price changes using historical data. Costs for obtaining and fulfilling contracts with customers are recognized and are immaterial, both individually and in total. The same applies to the amount of amortization and impairment losses recognized for these costs in the reporting period.

16 Cash and Cash Equivalents

in € millions	12/31/2022	12/31/2021
Bank balances and cash on hand	1,583	1,446
Cash equivalents	1,645	3,199
	3,228	4,645

Cash equivalents include short-term, highly liquid securities with a term to maturity on acquisition of not more than three months. Furthermore, this item includes short-term investments in diversified money market funds with very good ratings, which are measured at fair value through profit or loss and are subject to only insignificant fluctuations in value. As of the end of the reporting period, cash and cash equivalents in the amount of €145 million were subject to restrictions on disposal. Thereof, €121 million mainly relate to payments received as part of Riverty's receivables management service provided. As of December 31, 2021, cash and cash equivalents in the amount of €74 million were subject to restrictions on disposal, also mainly relating to payments received as part of Riverty's receivables management service provided. A further €24 million (previous year: €4 million) with restrictions on disposal relates to numerous immaterial items.

17 Equity

Subscribed capital

Number of shares	12/31/2022	12/31/2021
Ordinary shares	83,760	83,760
Total shares	83,760	83,760

Compared with the previous year, the subscribed capital of Bertelsmann SE & Co. KGaA remained unchanged at €1,000 million and comprises 83,760 registered shares (ordinary shares). As of December 31, 2022, foundations (Bertelsmann Stiftung, Reinhard Mohn Stiftung and BVG-Stiftung) indirectly held 80.9 percent of Bertelsmann SE & Co. KGaA shares, with the other 19.1 percent held indirectly by the Mohn family. Bertelsmann Verwaltungsgesellschaft mbH (BVG) controls the voting rights at the General Meeting of Bertelsmann SE & Co. KGaA and of the general partner Bertelsmann Management SE.

In the financial year 2022, a dividend amounting to €220 million was distributed to the shareholders (previous year: €180 million). The dividend per ordinary share amounted to €2,627 (previous year: €2,149) in the reporting period.

The change in other comprehensive income after taxes is derived as follows:

Changes to Components of Other Comprehensive Income after Taxes

in € millions	2022				
	Before-tax amount	Taxes	Net-of-tax amount	Attributable to Bertelsmann shareholders	Attributable to non-controlling interests
Items that will not be reclassified subsequently to profit or loss					
Remeasurement component of defined benefit plans	764	(261)	503	471	32
Changes in fair value of equity instruments	(3)	2	(1)	–	(1)
Share of other comprehensive income of investments accounted for using the equity method	23	–	23	18	5
Items that will be reclassified subsequently to profit or loss when specific conditions are met					
Exchange differences	18	–	18	65	(47)
Cash flow hedges	23	(2)	21	18	3
Share of other comprehensive income of investments accounted for using the equity method	33	–	33	32	1
Other comprehensive income net of tax	858	(261)	597	604	(7)

in € millions	2021				
	Before-tax amount	Taxes	Net-of-tax amount	Attributable to Bertelsmann shareholders	Attributable to non-controlling interests
Items that will not be reclassified subsequently to profit or loss					
Remeasurement component of defined benefit plans	313	(60)	253	243	10
Changes in fair value of equity instruments	8	–	8	7	1
Share of other comprehensive income of investments accounted for using the equity method	–	–	–	–	–
Items that will be reclassified subsequently to profit or loss when specific conditions are met					
Exchange differences	378	–	378	365	13
Cash flow hedges	16	(6)	10	8	2
Share of other comprehensive income of investments accounted for using the equity method	(17)	–	(17)	(17)	–
Other comprehensive income net of tax	698	(66)	632	606	26

Share-Based Payments

The Bertelsmann Group has granted cash-settled or equity-settled share-based payment awards.

There are various free share plans at Groupe M6, which belongs to RTL Group, open to directors and certain employees. The number of free shares granted to participants is approved by the Supervisory Board of Métropole Télévision SA in accordance with the authorization given by the General Meeting of Shareholders.

Plans awarded in October 2022:

- one plan concerns a group of 160 beneficiaries and involves 291,050 shares, subject to the condition of presence in Groupe M6 on March 31, 2025 and the achievement of consolidated EBITA objectives in 2022;
- another plan concerns a group of 25 beneficiaries and involves 224,700 shares subject to a minimum of two years' service. It is awarded annually on the basis of multi-year performance conditions.

The maximum number of free shares granted is as follows, whereby all plans are settled by the physical delivery of shares:

Maximum Number of Free Shares and Remaining Free Shares (Groupe M6)

Free share plans	Maximum number of free shares granted ¹⁾	Remaining free shares
July 2019	246,500	–
April 2021	407,200	393,600
April 2021	93,000	93,000
October 2022	291,050	291,050
October 2022	224,700	224,700
Total	1,262,450	1,002,350

1) Maximum number of free shares granted if the performance conditions are significantly exceeded. Such number could be reduced to zero if objectives are not met.

During the financial year, the balance of shares granted changed as follows:

	Number of shares
Balance as of 12/31/2021	733,700
Change based on performance	–
Granted	515,750
Delivered	(237,000)
Forfeited	(10,100)
Balance as of 12/31/2022	1,002,350

Free share plans outstanding at the end of the year have the following terms:

Conditions for Free Share Plans (Groupe M6)

Expiry date	Number of shares 2022	Number of shares 2021
Free share plans		
2022	–	237,000
2023	486,600	496,700
2024	224,700	–
2025	291,050	–
	1,002,350	733,700

As of December 31, 2022, the market price of Métropole Télévision shares on the Paris Stock Exchange was €15.35 (previous year: €17.16).

The fair value of performance shares granted is based on the value of the share at date of grant less the current value of future dividends estimated for the period of unavailability. For all performance share plans, the maturity corresponds to the vesting period (i.e. two years, two years and six months, or two years and eight months).

Fair Values of Free Share Plans (Groupe M6)

Grant date	Share price	Risk-free interest rate	Expected return	Fair value	Personnel costs in € millions	
					2022	2021
Free share plans						
7/25/2018 (2 plans)	16.92	(0.10)%	5.66%	14.97	–	0.9
7/30/2019 (2 plans)	15.35	(0.30)%	6.97%	13.23	0.8	2.6
4/20/2021 (2 plans)	18.38	(0.64)%	n/a	14.34	4.1	2.3
10/10/2022 (2 plans)	10.34	2.07%	6.15%	8.38	0.4	–
Total					5.3	5.8

There are additional share-based payments within the Bertelsmann Group that are immaterial on a stand-alone basis and in total.

18 Provisions for Pensions and Similar Obligations

in € millions	12/31/2022	12/31/2021
Defined benefit obligation	649	1,410
Similar obligations	61	64
	710	1,474
in € millions	12/31/2022	12/31/2021
Balance as of 1/1	1,474	2,009
Income and expenses recognized in profit or loss		
– Additions	154	167
– Reversal	(8)	(4)
Usage	(184)	(188)
Actuarial gains (-)/losses (+) recognized in other comprehensive income	(716)	(277)
Net contributions to plan assets	(18)	(221)
Other effects	8	(12)
Balance as of 12/31	710	1,474

The Bertelsmann Group operates various pension plans for current and former employees and their surviving dependents. The model of such plans varies according to the legal, fiscal and economic environment of the country concerned. These company pension plans include both defined contribution and defined benefit plans.

In the case of defined contribution plans, the company makes payments into an external pension fund or another welfare fund through a statutory, contractual or voluntary model. The company has no obligation to provide further benefits once it has made these payments, so no provisions are recognized. Expenses for defined contribution plans in the amount of €66 million were recognized in the financial year 2022 (previous year: €60 million).

All other pension plans are defined benefit plans. The US companies' obligations for healthcare costs for employees after they retire (medical care plans) are also defined benefit obligations and are included in the provisions on the balance sheet. For all the retirement benefit plans, a distinction must be made as to whether or not these are financed through an external investment fund.

Net Defined Benefit Liability Recognized in the Balance Sheet

in € millions	12/31/2022	12/31/2021
Present value of defined benefit obligation of unfunded plans	549	960
Present value of defined benefit obligation of funded plans	2,649	3,592
Total present value of defined benefit obligation	3,198	4,552
Fair value of plan assets	(2,687)	(3,212)
Impact from asset ceiling	1	2
Net defined benefit liability recognized in the balance sheet	512	1,342
– thereof provisions for pensions	649	1,410
– thereof other assets	137	68

Provisions are recognized for these defined benefit plans. The following tables show the breakdown of the benefit by plan beneficiary and by type of benefit plan:

Plan Beneficiaries

	Number of employees		in € millions	
	2022	2021	2022	2021
Active members	34,114	31,579	800	1,373
Deferred member	11,140	11,081	604	966
Pensioners	17,487	17,395	1,794	2,213
Total	62,741	60,055	3,198	4,552
– thereof vested			3,144	4,485

Benefit Plans

in € millions	12/31/2022	12/31/2021
Flat salary plans	1,691	2,281
Final salary plans	974	1,502
Career average plans	330	510
Other commitments given	155	197
Medical care plans	48	62
Present value of defined benefit obligation	3,198	4,552
– thereof capital commitments	168	215

The obligations and plan assets available for the existing pension plans are, in some cases, exposed to demographic, economic and legal risks. The demographic risks are primarily the longevity risk for pensioners. Economic risks include, in this respect, mostly unforeseeable developments on the capital markets and the associated impacts on plan assets and pension obligations. Legal risks can result from restrictions to investments and minimum funding requirements. A Group-wide pension guideline was introduced in 2004 to substantially minimize these risks. This stipulates that all new pension plans are, as a rule, only to be designed as defined contribution plans so that the charges from benefit commitments are always acceptable, calculable and transparent, and so that no risks can arise that the company cannot influence. In addition, the Bertelsmann Group aims, in particular, to transfer existing final salary-related pension agreements to plans with fixed amounts and capital commitments that are independent from trends. As a result of these measures, the obligations are almost entirely due to the plans that have been closed.

The Bertelsmann Group has minimum funding obligations for the plans in the United States and the United Kingdom. The pension plan in the United States is subject to the minimum funding agreements according to the “Employee Retirement Income Security Act of 1974” (ERISA). In general, the aim under this agreement is to have a fully funded pension plan so that the annual contributions to the plan assets are limited to the pension entitlements the insured employee has earned during the year, as is the case for a defined contribution plan. If the pension obligations are not fully covered by the plan assets, an additional amount sufficient to ensure full financing over a seven-year period must be applied in excess of this contribution. The plans in the United Kingdom are subject to the “Pensions Act 2004,” which includes reviewing the full financing of the pension plan from an actuarial perspective every three years with annual monitoring and, if necessary, eliminating any deficits that may have arisen by means of further additions to plan assets. There are no other material regulatory conditions over and above the minimum funding regulations in the United States and the United Kingdom.

Furthermore, one Group company participated in a multi-employer plan with other non-affiliated companies until December 31, 2014. As the relevant information required to account for this as a defined benefit plan was neither available on time nor available to a sufficient extent, this benefit plan was carried in the Consolidated Financial Statements in line with the requirements for defined contribution benefit plans. In the financial year 2015, the withdrawal from the plan with retrospective effect from January 1, 2015, was declared. As of December 31, 2022, the related provision in the balance sheet position "Other provisions" under other employee benefits amounts to 11 million. According to the notification of April 2017, the company has been making monthly contribution payments, which are expected to amount to €1 million in the financial year 2023.

The provisions are determined using actuarial reports in accordance with IAS 19. The amount of provisions depends on the employees' length of service with the company and their pensionable salary. Provisions are computed using the projected unit credit method, in which the benefit entitlement earned is allocated to each year of service, thus assuming an increasing cost of service in comparison to the entry age normal method. When identifying the present value of the pension obligation, the underlying interest rate is of material importance. In the Bertelsmann Group, this is based on the "Mercer Yield Curve Approach." With this approach, separate spot rate yield curves are created for the eurozone, the United Kingdom and the United States on the basis of high-quality corporate bonds. In order to appropriately present the time value of money in accordance with IAS 19.84, the basis does not consider either spikes for which the risk estimate may be substantially higher or lower, or bonds with embedded options that distort interest rates. Biometric calculations of domestic plans are based on the 2018 G mortality tables of Heubeck-Richttafel-GmbH. Comparable country-specific calculation methods are used for foreign plans.

Further significant actuarial assumptions were made based on a weighted average as follows:

Actuarial Assumptions

	12/31/2022				12/31/2021			
	Germany	United Kingdom	United States	Other countries	Germany	United Kingdom	United States	Other countries
Discount rate	4.20%	4.88%	5.11%	3.97%	1.36%	1.80%	2.66%	1.53%
Salary trend	2.25%	4.33%	3.50%	2.63%	2.25%	2.64%	3.50%	3.28%
Pension trend	2.04%	3.11%	n/a	2.28%	1.61%	3.05%	n/a	1.88%

An increase or decrease in the assumptions set out above compared to the assumptions actually applied would have had the following effects on the present value of the defined benefit obligation as of December 31, 2022:

Effect of Actuarial Assumptions

in € millions	Increase	Decrease
Effect of 0.5 percentage point change in discount rate	(183)	203
Effect of 0.5 percentage point change in salary trend	17	(15)
Effect of 0.5 percentage point change in pension trend	133	(101)
Effect of change in average life expectancy by 1 year	108	(109)

In order to determine the sensitivity of the longevity, the mortality rates for all beneficiaries were reduced or increased evenly, so that the life expectancy of a person of a country-specific retirement age increases or decreases by one year.

Changes in the present value of defined benefit obligations and plan assets in the reporting period were as follows:

Development of the Defined Benefit Plans

in € millions	Defined benefit obligation (I)		Fair value of plan assets (II)		Net defined benefit balance (I)-(II) ¹⁾	
	2022	2021	2022	2021	2022	2021
Balance as of 1/1	4,552	4,771	3,212	2,843	1,342	1,928
Current service cost	56	66	–	–	56	66
Interest expenses	66	56	–	–	66	56
Interest income	–	–	49	36	(49)	(36)
Past service cost	–	1	–	–	–	1
Income and expenses for defined benefit plans recognized in the consolidated income statement	122	123	49	36	73	87
Income/expense on plan assets excluding amounts included in net interest income and net interest expenses	–	–	(549)	119	549	(119)
Actuarial gains (-) and losses (+)						
– changes in financial assumptions	(1,345)	(175)	–	–	(1,345)	(175)
– changes in demographic assumptions	5	(5)	–	–	5	(5)
– experience adjustments	27	(15)	–	–	27	(15)
Remeasurements for defined benefit plans recognized in the consolidated statement of comprehensive income	(1,313)	(195)	(549)	119	(764)	(314)
Contributions to plan assets by employer	–	–	18	221	(18)	(221)
Contributions to plan assets by employees	3	3	3	3	–	–
Pension payments	(160)	(159)	(30)	(31)	(130)	(128)
Cash effects from settlements	–	(1)	–	(1)	–	–
Change of consolidation scope	–	(16)	–	1	–	(17)
Changes associated with assets held for sale	1	(39)	1	(39)	–	–
Changes in foreign exchange rates	(12)	64	(21)	60	9	4
Other changes	5	1	4	–	–	3
Other reconciling items	(163)	(147)	(25)	214	(139)	(359)
Balance as of 12/31	3,198	4,552	2,687	3,212	512	1,342
thereof						
Germany	2,486	3,501	1,971	2,287	515	1,214
United Kingdom	430	678	552	728	(122)	(50)
United States	149	189	119	153	30	36
Other European countries	111	155	33	29	79	128
Other countries	22	29	12	15	10	14

1) In the financial year 2022, for calculating the "Net defined benefit balance," the effects of the asset ceiling in accordance with IAS 19 amounting to €1 million were taken into account in the item "Other changes." Effects from the asset ceiling amounting to €2 million were recognized in the previous year.

Of the contributions to plan assets, €2 million (previous year: €202 million) pertains to Germany. Employer contributions to plan assets are expected to amount to €14 million in the next financial year. Reimbursement rights for defined benefit obligations in Germany amount to €24 million (previous year: €29 million) and are recognized in the balance sheet position "Trade and other receivables."

The expenses for defined benefit plans are broken down as follows:

Expenses for Defined Benefit Plans

in € millions	2022	2021
Current service cost	56	66
Past service cost and impact from settlement	–	1
Net interest expenses	17	20
Net pension expenses	73	87

The portfolio structure of plan assets is composed as follows:

Portfolio Structure of Plan Assets

in € millions	12/31/2022	12/31/2021
Debt instruments ¹⁾	1,905	2,182
Equity instruments ¹⁾	502	681
Cash and cash equivalents	115	55
Qualifying insurance policies	115	144
Other funds	99	139
Derivatives	(56)	3
Property	7	8
Fair value of plan assets	2,687	3,212

1) For almost all equity and debt instruments, market prices are listed on an active market.

The plan assets in the Bertelsmann Group are used exclusively for the fulfillment of benefit obligations. To avoid a concentration of risk, plan assets are invested in various classes of investments. The majority of plan assets are managed by Bertelsmann Pension Trust e.V. under a contractual trust arrangement (CTA) for pension commitments of Bertelsmann SE & Co. KGaA and some of the German subsidiaries. There is no funding requirement for the CTA. No net contribution was made to plan assets during the reporting period. The trust assets were invested in accordance with the investment guideline of the beneficiary, using a long-term total return approach. This approach is based on the aim of using strategic asset allocation to generate a suitable return in the long term regardless of short-term market fluctuations and/or crises. The management board of the pension trust is responsible for the investment and regularly informs the beneficiary of the status and performance of the pension assets.

The weighted-average duration of the pension obligations as of December 31, 2022, is as follows:

Weighted Average Duration

in years	2022	2021
Germany	13	16
United Kingdom	16	21
United States	10	14
Other countries	13	15

The maturity profile of the anticipated undiscounted pension payments is presented in the following table:

Maturity Profile of Pension Payments

in € millions	Expected pension payments
2023	166
2024	171
2025	179
2026	185
2027	194
2028–2032	984

Similar obligations relate to provisions for bonuses for employee service anniversaries, amounts due but not yet paid to defined contribution plans, partial retirement and severance payments at retirement. Severance payments at retirement are made when employees leave the company and are based on statutory obligations. Provisions for employee service anniversary bonuses and severance payments at retirement are recognized in the same way as defined benefit plans, but with actuarial gains and losses recognized in profit or loss. Employees in Germany who are at least 55 years old and have a permanent employment contract with the company qualify for the partial retirement schemes. The partial retirement phase lasts two to six years.

The following table shows the breakdown in similar obligations:

Breakdown of Similar Obligations

in € millions	12/31/2022	12/31/2021
Provisions for employee service anniversaries	26	31
Provisions for old-age part-time schemes	12	15
Other	23	18
Similar obligations	61	64

19 Other Provisions

in € millions	12/31/2021		Additions	Reversal	Usage	Other effects	Change of consolidation scope	Accrued interest	12/31/2022	
		of which > 1 year								of which > 1 year
Onerous contracts	121	22	57	(17)	(59)	6	–	–	108	24
Litigation	93	69	74	(48)	(65)	–	4	–	58	32
Restructuring	118	53	29	(18)	(65)	(2)	20	–	82	21
Other employee benefits	45	14	9	(10)	(19)	1	–	1	27	11
Other	109	40	27	(32)	(12)	13	38	(1)	142	68
	486	198	196	(125)	(220)	18	62	–	417	156

The provisions for onerous contracts concern RTL Group in the amount of €72 million (previous year: €85 million) and were recognized mainly for program rights. Of that amount, €68 million (previous year: €82 million) relates to RTL Deutschland. Provisions for litigation pertain in the amount of €29 million (previous year: €67 million), as well as their significant reversal due to the reassessment of the legal proceedings in the reporting period, to RTL Group companies. They cover expected losses from partly multiannual court proceedings and extrajudicial disputes. Please refer to the risk report in the Combined Management Report for the risk assessment of litigation. In accordance with IAS 37, restructuring provisions include termination benefits and other costs relating to market-related restructuring measures. Provisions in the amount of €82 million (previous year: €118 million) are recognized for various restructuring programs within the Bertelsmann Group. The additions relate mainly to the Bertelsmann Printing Group (€15 million), Arvato (€6 million) and RTL Group (€5 million) divisions.

The provisions for other employee benefits in the amount of €11 million (previous year: €15 million) relate to an obligation in connection with the withdrawal from a multi-employer plan. Further details are presented in note 18 “Provisions for Pensions and Similar Obligations.” The item “Other” is mainly attributable to the divisions RTL Group (€25 million, previous year: €12 million), Arvato (€47 million, previous year: €48 million), Bertelsmann Printing Group (€23 million, previous year: €28 million) and Bertelsmann Education Group (€31 million, previous year: €0 million), the increase in which is mainly due to the initial consolidation of Afya. In the Bertelsmann Printing Group division, a provision in the amount of €14 million (previous year: €18 million) refers to compensation obligations from pension entitlements for employees at the Prinovis location in Ahrensburg toward Axel Springer SE.

20 Profit Participation Capital

in € millions	12/31/2022	12/31/2021
Profit participation capital 1992	23	23
Profit participation capital 2001	390	390
	413	413

The market value of the 2001 profit participation certificates was €739 million with a closing rate of 260.00 percent on the last day of trading in the past financial year on the Frankfurt Stock Exchange (previous year: €1,021 million with a rate of 359.20 percent) and, correspondingly, €29 million for the 1992 profit participation certificates with a rate of 173.00 percent (previous year: €33 million with a rate of 195.12 percent). The market values are based on level 1 of the fair value hierarchy. Further information on profit participation capital is presented in detail in the Combined Management Report.

21 Financial Debt

Financial debt includes all interest-bearing liabilities to banks and capital markets as of the end of the reporting period. Carrying amounts are calculated as follows:

Current and Non-Current Financial Debt

in € millions	Current		Non-current	
	12/31/2022	12/31/2021	12/31/2022	12/31/2021
Bonds	146	597	4,510	4,450
Promissory notes	–	–	325	325
Liabilities to banks	76	97	215	77
Other financial debt	56	53	149	5
	278	747	5,199	4,857

The Bertelsmann Group has access to floating-rate and fixed-rate funds through various contractual arrangements. Financial debt is generally unsecured.

In January 2022, early repayments of parts of the bonds maturing in August 2022, October 2024, September 2025 and April 2026 in the total nominal amount of €146 million were made as part of a public repurchase offer. The €750 million bond maturing in August 2022 was repaid on schedule, of which €211 million had already been repaid early. In addition, Bertelsmann placed a €750 million fixed-rate publicly listed bond with a six-and-a-half-year term in November 2022. Furthermore, an early repayment of €504 million of the hybrid bond with a nominal value of €650 million, callable for the first time in April 2023, was made in November 2022 as part of a public repurchase offer. In addition, the Brazilian education company Afya, which belongs to the Bertelsmann Group, placed a publicly listed bond for BRL 500 million in December 2022. The nominal volume of the bond is due in two equal tranches in 2027 and 2028. At the end of the reporting period, the Group had bonds, private placements and promissory notes outstanding with a nominal volume of €5,047 million (previous year: €5,397 million).

The differences in carrying amount versus nominal amount in the table below result from transaction costs, discounts and fair value effects from hedge accounting in connection with the conclusion of derivatives. In addition, early repayments of €74 million were taken into account in calculating the carrying amount of the €500 million bond maturing in October 2024. Furthermore, early repayments in the nominal amount of €233 million were taken into account for the calculation of the carrying amount of the bond maturing in September 2025. For the calculation of the carrying amount of the bond maturing in April 2026, an early repayment with a nominal value of €57 million was taken into account. In addition, an early repayment with a nominal value of €504 million was taken into account for the calculation of the carrying amount of the hybrid bond with an initial nominal value of €650 million.

Bonds and Promissory Notes

Interest rate; emission; maturity; fixed interest	in millions Nominal amount	in € millions			
		Carrying amount		Fair value	
		12/31/2022	12/31/2021	12/31/2022	12/31/2021
2.625%; 2012; 2022; fixed-interest bond ¹⁾	750 €	–	597	–	608
1.500%; 2017; 2024; fixed-interest bond	50 €	50	50	48	52
1.750%; 2014; 2024; fixed-interest bond ¹⁾	500 €	406	439	415	460
1.250%; 2018; 2025; fixed-interest bond ¹⁾	750 €	495	532	489	557
1.787%; 2015; 2025; fixed-interest promissory note	150 €	150	150	142	160
1.125%; 2016; 2026; fixed-interest bond ¹⁾	500 €	442	497	412	520
1.000%; 2019; 2026; floating- and fixed-interest promissory note ²⁾	75 €	75	75	68	78
1.600%; 2020; 2027; fixed-interest promissory note	100 €	100	100	92	107
1.000%; 2020; 2027; fixed-interest bond	100 €	100	100	89	104
CDI (Certificado de Depósito Interbancário) + 180 bp; 2022; 2028; floating-rate bond ^{1),3)}	500 BRL	88	–	89	–
2.000%; 2020; 2028; fixed-interest bond ¹⁾	750 €	745	744	688	821
3.500%; 2022; 2029; fixed-interest bond ¹⁾	750 €	743	–	728	–
1.500%; 2020; 2030; fixed-interest bond ¹⁾	750 €	744	743	641	799
3.700%; 2012; 2032; fixed-interest bond	100 €	99	99	98	129
3.000%; 2015; 2075; fixed-interest hybrid bond ¹⁾	650 €	146	649	146	667
3.500%; 2015; 2075; fixed-interest hybrid bond ¹⁾	600 €	598	597	549	641
		4,981	5,372	4,694	5,703

1) Listed.

2) €10 million floating rate (6-month EURIBOR + 100 bp).

3) Of which BRL 250 million maturing in the financial year 2027.

The documentation of the bonds from Bertelsmann SE & Co. KGaA in 2012, 2014, 2016, 2018 and 2020 is within the framework of a base documentation for debt issuance programs. The hybrid bonds and promissory notes as well as the bonds of 2017 and 2022 were issued on the basis of separate documentation. The bonds mainly have a rating of “Baa2” (Moody’s) and “BBB” (Standard & Poor’s). The debt issuance program was last renewed in March 2020. Transaction costs and agreed discounts or premiums are taken into account in the interest result over the term, impacting the carrying amount of the bonds and promissory notes. This led to a difference to the nominal volume of €27 million (previous year: €25 million) at the end of the year.

As a rule, the quoted prices at the end of the reporting period are used to determine the fair value of the bonds issued. On December 31, 2022, the cumulative fair value of the listed bonds totaled €4,157 million (previous year: €5,073 million), with a nominal volume of €4,472 million (previous year: €4,822 million) and a carrying amount of €4,407 million (previous year: €4,798 million). The stock market prices are based on level 1 of the fair value hierarchy.

The fair values of private placements and promissory notes are determined using actuarial methods based on yield curves adjusted for the Group's credit margin. The interest premium results from the market price for credit-default swaps at the end of the respective reporting periods. Fair value is measured on the basis of discount rates ranging from 2.73 percent to 3.41 percent. The fair values of the private placements and promissory notes are based on level 2 of the fair value hierarchy.

Credit Facilities

The Bertelsmann Group has access to a syndicated loan agreement entered into with major international banks in the amount of €1,200 million (previous year: €1,200 million), which was extended by one more year to 2026 most recently in June 2021. Bertelsmann SE & Co. KGaA can draw down this credit facility using floating-rate loans in euros and US dollars on a revolving basis.

In addition, Bertelsmann has access to further bilateral credit facilities in the amount of €320 million (previous year: €330 million), which can also be drawn down primarily using floating-rate loans on a revolving basis. As of December 31, 2022, the credit facilities were drawn down in the amount of €130 million (previous year: €70 million).

22 Lease Liabilities

The maturities of lease liabilities are presented in the table below.

Maturity Analysis for Lease Liabilities

in € millions	Carrying amount	Undiscounted cash flows			Total
		Up to 1 year	1 to 5 years	Over 5 years	
Balance as of 12/31/2022	1,537	355	851	494	1,700
Balance as of 12/31/2021	1,356	311	763	452	1,526

As of December 31, 2022, potential future cash outflows of €353 million (previous year: €436 million) were not included in the lease liabilities, as it could not be assumed with reasonable certainty that the leases would be extended (or would not be terminated). Future payments arising from short-term leases and leases for low-value assets are not recognized as right-of-use assets and lease liabilities. For such leases, the payments are recognized on a straight-line basis as expenses (further explanations are presented in note 5 "Other Operating Expenses"). Expenses from variable lease payments not included in the lease liability were immaterial as in the previous year. The same applies for income from subleasing right-of-use assets and the resulting lease payments expected in the future. Details on the corresponding right-of-use assets are presented in note 10 "Property, Plant and Equipment and Right-of-Use Assets."

23 Liabilities

in € millions	12/31/2022	12/31/2021
Non-current		
Trade payables	145	160
Derivative financial instruments	149	89
Sundry financial payables	380	256
Contract liabilities	28	34
Sundry non-financial payables	357	363
Current		
Trade payables	3,843	3,902
Refund liabilities	445	483
Derivative financial instruments	135	64
Sundry financial payables	968	833
Contract liabilities	1,037	861
Sundry non-financial payables	1,458	1,433
– personnel-related liabilities	792	792
– tax liabilities	213	203
– social security liabilities	136	136
– deferred items	19	34
– other	298	268

The item “Contract liabilities” includes payments received by Bertelsmann in advance; that is, prior to satisfaction of the contractual obligations in accordance with IFRS 15. They are recognized as revenue as soon as the contractual obligation has been rendered. Accordingly, revenues amounting to €911 million were recognized in the financial year 2022 (previous year: €657 million) which were included in the balance of contract liabilities at the beginning of the financial year. The reported revenues also comprise the amounts included in the balance of contract liabilities at the beginning of the financial year for companies newly included in the scope of consolidation. As in the previous year, the contract liabilities as of December 31, 2022, mainly relate to deferred revenue from productions at RTL Group, deferred licensing revenue at BMG and services to be provided by the Arvato and Bertelsmann Education Group divisions, as a rule in the following period. As of January 1, 2021, contract liabilities amounted to €694 million.

In accordance with IFRS 15, the item “Refund liabilities” mainly comprises liabilities for expected returns of the Penguin Random House and RTL Group divisions of €270 million (previous year: €305 million). Correspondingly, in the balance sheet position “Other non-financial assets,” an asset for an immaterial amount is recognized for the customers’ right to recover products from customers upon settling the refund liability. The item “Sundry financial payables” includes, among other things, payables of €151 million (previous year: €97 million) from the Riverty business unit, which were recognized in relation to the receivables management service provided. In addition, the item comprises payables in the amount of €228 million (previous year: €177 million) relating to accounts receivables sold, which are acquired by Riverty from third parties in the course of conducting its financial services and then resold. Non-current sundry financial payables also include liabilities from put options relating to shareholders with non-controlling interests of €211 million (previous year: €131 million), minority interests in partnerships of €31 million (previous year: €34 million) and liabilities from the acquisition of assets in the amount of €145 million (previous year: €85 million). Current sundry financial payables also comprise liabilities from the acquisition of assets in the amount of €251 million (previous year: €147 million) and liabilities to participations in the amount of €23 million (previous year: €29 million).

24 Off-Balance-Sheet Liabilities

Off-balance-sheet liabilities break down as follows at the end of the financial year:

Contingent Liabilities and Other Commitments

in € millions	12/31/2022	12/31/2021
Commitments from productions and co-productions, TV licenses and broadcasting rights, as well as other rights and licenses	1,857	1,544
Commitments from royalty agreements	1,212	1,197
Commitments from assets under construction and lease contracts not recognized on the balance sheet	22	73
Purchase commitments for inventories	67	51
Commitments for the acquisition of intangible assets and property, plant and equipment	22	5
Guarantees	28	53
Other	412	439
	3,620	3,362

Of the commitments from productions and co-productions, TV licenses and broadcasting rights, as well as other rights and licenses, €1,857 million (previous year: €1,544 million) pertains to RTL Group. Commitments from royalty agreements relate to Penguin Random House in the amount of €1,113 million (previous year: €1,094 million) and to BMG in the amount of €99 million (previous year: €103 million). Commitments from assets under construction and not recognized lease contracts comprise leases not yet commenced, but to which the lessee is committed.

25 Additional Disclosures on Financial Instruments

Both of the following tables show the carrying amounts and measurement categories of financial assets and financial liabilities in accordance with IFRS 9 as of December 31, 2022:

Carrying Amounts and Measurement Categories of Financial Assets

in € millions	Balance sheet position	12/31/2022	12/31/2021
Financial assets measured at amortized cost			
– loans	Minority stakes and other financial assets	44	91
– trade receivables	Trade and other receivables	4,004	3,612
– receivables from participations	Trade and other receivables	20	30
– sundry financial receivables	Trade and other receivables	900	861
– bank balances and cash on hand	Cash and cash equivalents	1,583	1,446
– cash equivalents	Cash and cash equivalents	283	135
Financial assets measured at fair value through other comprehensive income			
– other financial assets	Minority stakes and other financial assets	28	78
Primary financial assets measured at fair value through profit or loss			
– loans	Minority stakes and other financial assets	31	25
– fund-of-fund investments	Minority stakes and other financial assets	203	183
– minority stakes in start-ups	Minority stakes and other financial assets	1,179	1,034
– sundry financial receivables	Trade and other receivables	14	7
– financial instruments of the consolidated special fund	Minority stakes and other financial assets	125	102
– other financial assets	Minority stakes and other financial assets	286	420
– cash equivalents	Cash and cash equivalents	1,362	3,064
Derivative financial instruments	Minority stakes and other financial assets	76	37
Continuing involvement	Trade and other receivables	183	126
		10,321	11,251

Carrying Amounts and Measurement Categories of Financial Liabilities

in € millions	Balance sheet position	12/31/2022	12/31/2021
Financial liabilities measured at amortized cost			
– profit participation capital	Profit participation capital	413	413
– bonds and promissory notes	Financial debt	4,981	5,372
– liabilities to banks	Financial debt	291	174
– other financial debt	Financial debt	205	58
– trade payables	Trade and other payables	3,988	4,062
– liabilities to participations	Trade and other payables	23	29
– other	Trade and other payables	1,528	1,398
Primary financial liabilities measured at fair value through profit or loss	Trade and other payables	59	19
Derivative financial instruments	Trade and other payables	284	153
Continuing involvement	Trade and other payables	183	126
		11,955	11,804

The fair values of the bonds and promissory notes are presented in note 21 “Financial Debt.” The carrying amounts of the other financial assets and liabilities measured at amortized cost represent a reasonable approximation of fair value.

Financial Assets Measured at Fair Value Categorized Using the Fair Value Measurement Hierarchy

in € millions	Level 1: Quoted prices in active markets	Level 2: Observable market data	Level 3: Unobservable market data	Total as of 12/31/2022
Equity instruments measured at fair value	213	–	1,219	1,432
Debt instruments measured at fair value	65	1,479	252	1,796
Primary and derivative financial assets held for trading	–	63	–	63
Derivatives with hedge relation	–	13	–	13
	278	1,555	1,471	3,304

in € millions	Level 1: Quoted prices in active markets	Level 2: Observable market data	Level 3: Unobservable market data	Total as of 12/31/2021
Equity instruments measured at fair value	319	1	1,144	1,464
Debt instruments measured at fair value	63	3,168	218	3,449
Primary and derivative financial assets held for trading	–	27	–	27
Derivatives with hedge relation	–	10	–	10
	382	3,206	1,362	4,950

It is possible to allocate the financial instruments measured at fair value in the balance sheet to the three levels of the fair value hierarchy by category, based on the tables showing carrying amounts and measurement categories for the respective financial year. The financial assets of levels 1 and 3 mainly pertain to investments held by the Bertelsmann Investments division, which were recognized at fair value.

Level 2 financial assets primarily comprise investments in diversified money market funds reported as cash equivalents, which are measured at fair value through profit or loss and are subject to only insignificant fluctuations in value.

Financial Assets Measured at Fair Value Based on Level 3

in € millions	Financial assets measured at fair value	Primary and derivative financial assets held for trading	Total
Balance as of 1/1/2022	1,362	–	1,362
Total gain (+) or loss (-)	(4)	–	(4)
– in profit or loss	(3)	–	(3)
– in other comprehensive income	(1)	–	(1)
Purchases	213	–	213
Transfers into level 3 (including first-time classification as level 3)	168	–	168
Transfers out of level 3	(65)	–	(65)
Sales/settlements	(203)	–	(203)
Balance as of 12/31/2022	1,471	–	1,471
Gain (+) or loss (-) for assets still held at the end of the reporting period	(28)	–	(28)

in € millions	Financial assets measured at fair value	Primary and derivative financial assets held for trading	Total
Balance as of 1/1/2021	1,067	–	1,067
Total gain (+) or loss (-)	433	–	433
– in profit or loss	424	–	424
– in other comprehensive income	9	–	9
Purchases	656	–	656
Transfers out of level 3	(363)	–	(363)
Sales/settlements	(431)	–	(431)
Balance as of 12/31/2021	1,362	–	1,362
Gain (+) or loss (-) for assets still held at the end of the reporting period	445	–	445

The purchases relate mainly to various new and follow-up investments by the Bertelsmann Investments division, in particular new investments of the Bertelsmann India Investments fund, none of which were material on a standalone basis. A major portion of the sales in the financial year 2022 is attributable to the sale of RTL Group's investment in VideoAmp, a US software and data company for media measurement. Further sales relate to the investment in Synergis and, within the Bertelsmann Investments division, mainly to the investments of the Bertelsmann Digital Media Investments fund. The transfers into level 3 mainly relate to the investment in the online education platform Udacity, which was previously accounted for as an associate and belongs to the Bertelsmann Education Group, as a result of the change in the governance structure and the resulting loss of significant influence. There were no transfers into level 3 in the previous year. Transfers out of level 3 were made in the financial year 2022 mainly at Bertelsmann Investments as a result of expiring lock-up periods.

Financial Liabilities Measured at Fair Value Categorized Using the Fair Value Measurement Hierarchy

	Level 1: Quoted prices in active markets	Level 2: Observable market data	Level 3: Unobservable market data	Total as of 12/31/2022
in € millions				
Financial liabilities measured at fair value through profit or loss	-	-	59	59
Primary and derivative financial liabilities held for trading	-	200	-	200
Derivatives with hedge relation	-	84	-	84
	-	284	59	343
	Level 1: Quoted prices in active markets	Level 2: Observable market data	Level 3: Unobservable market data	Total as of 12/31/2021
in € millions				
Financial liabilities measured at fair value through profit or loss	-	-	19	19
Primary and derivative financial liabilities held for trading	-	77	-	77
Derivatives with hedge relation	-	76	-	76
	-	153	19	172

Financial Liabilities Measured at Fair Value Based on Level 3

in € millions	Financial liabilities measured at fair value through profit or loss	Total
Balance as of 1/1/2022	19	19
Total gain (-) or loss (+)	(1)	(1)
– in profit or loss	–	–
– in other comprehensive income	(1)	(1)
Purchases	56	56
Settlements	(15)	(15)
Transfers out of/into level 3	–	–
Balance as of 12/31/2022	59	59
Gain (-) or loss (+) for liabilities still held at the end of the reporting period	–	–

in € millions	Financial liabilities measured at fair value through profit or loss	Total
Balance as of 1/1/2021	17	17
Total gain (-) or loss (+)	6	6
– in profit or loss	5	5
– in other comprehensive income	1	1
Purchases	3	3
Settlements	(7)	(7)
Transfers out of/into level 3	–	–
Balance as of 12/31/2021	19	19
Gain (-) or loss (+) for liabilities still held at the end of the reporting period	6	6

Level 1:

The fair value of the listed financial instruments is determined on the basis of stock exchange listings at the end of the reporting period.

Level 2:

For measuring the fair value of unlisted derivatives, Bertelsmann uses various financial methods reflecting the prevailing market conditions and risks at the respective balance sheet dates. Irrespective of the type of financial instrument, future cash flows are discounted at the end of the reporting period based on the respective market interest rates and yield curves at the end of the reporting period. The fair value of forward exchange transactions is calculated using the middle spot prices at the end of the reporting period and taking into account forward markdowns and markups for the remaining term of the transactions. The fair value of interest rate derivatives is calculated on the basis of the respective market rates and yield curves at the end of the reporting period. The fair value of forward commodity transactions is derived from the stock exchange listings published at the end of the reporting period. Any mismatches to the standardized stock exchange contracts are reflected through interpolation or additions. The fair values of the money market funds correspond to the price quotations funds not directly listed on the stock exchange.

Level 3:

If no observable market data is available, fair value measurement is based primarily on cash flow-based valuation techniques. As a rule, so-called qualified financing rounds are used for minority stakes in the

Bertelsmann Investments division. Listed financial instruments with contractual lockups are also based on level 3.

The measurement of financial assets and financial liabilities according to level 2 and level 3 requires management to make certain assumptions about the model inputs, including cash flows, discount rate and credit risk, as well as the life and development cycle of start-up investments. Transfers between levels of the fair value hierarchy are recognized at the date of the event or change in circumstances that caused the transfer. There were no transfers between level 1 and 2 during the financial year 2022.

Financial assets and liabilities are offset on the balance sheet if master netting agreements or similar agreements allow the Bertelsmann Group and the counterparty to reach settlement on a net basis. Settlement on a net basis is thus legally valid both as part of ordinary business activities and in the event of payment default by one of the parties. In addition, Bertelsmann enters into transactions in financial derivatives that do not meet the criteria for offsetting on the balance sheet, as future events determine the right to offset. As of December 31, 2022, as in the previous year, no on-balance-sheet offsetting was performed, whereas there was a non-recognized offsetting potential of €66 million (previous year: €22 million) in connection with derivative financial instruments.

Credit Risk

In accordance with IFRS 9, Bertelsmann uses a simplified approach to measure expected credit losses on trade receivables and contract assets. According to this, the loss allowance is measured using lifetime expected credit losses. For this purpose, impairment matrices based on historic bad debt losses, maturity bands and expected credit losses are prepared. The impairment matrices are created for division-specific or business unit-specific groups of receivables, each with similar default patterns. In addition, separate risk assessments are performed. Bertelsmann also considers other quantitative and qualitative information and analyses based on the Group's historical experience and reasonable assessments, including forward-looking information such as customer-specific information and forecasts of future economic conditions. Contract assets have substantially the same risk characteristics as trade receivables for the same types of contracts, so that the expected loss rates for trade receivables are also a reasonable approximation of the loss rates for contract assets.

Based on this, the loss allowance as of December 31, 2022, was determined as follows for both trade receivables and contract assets:

Credit Risk for Trade Receivables and Contract Assets

in € millions	Not credit-impaired				Credit-impaired
	Not overdue	Overdue 1 to 30 days	Overdue 31 to 90 days	Overdue more than 90 days	
Expected loss rate	0.78%	1.10%	3.08%	8.09%	n/a
Trade receivables and contract assets	2,548	453	130	136	926
Loss allowance for expected credit losses	(20)	(5)	(4)	(11)	(105)
Balance as of 12/31/2022	2,528	448	126	125	821

in € millions	Not credit-impaired				Credit-impaired
	Not overdue	Overdue 1 to 30 days	Overdue 31 to 90 days	Overdue more than 90 days	
Expected loss rate	0.72%	1.01%	3.00%	8.65%	n/a
Trade receivables and contract assets	2,346	396	100	104	867
Loss allowance for expected credit losses	(17)	(4)	(3)	(9)	(109)
Balance as of 12/31/2021	2,329	392	97	95	758

The expected loss rates correspond to the average rates for the respective division-specific or business unit-specific groups of receivables. In the financial year 2022, impairment losses and reversals amounting to €-5 million (previous year: €-4 million) were recognized on trade receivables and contract assets. The following table shows a reconciliation from the opening balance to the closing balance of loss allowances for trade receivables and contract assets in the financial year 2022:

Reconciliation of Loss Allowance for Trade Receivables and Contract Assets

in € millions	2022	2021
Balance as of 1/1	(142)	(164)
Additions	(47)	(44)
Usage	14	31
Reversal	42	40
Change of consolidation scope	(12)	-
Exchange rate effect	-	(5)
Balance as of 12/31	(145)	(142)

Bertelsmann applies the general approach for all other financial assets that are subject to the expected credit loss model. The following table shows a reconciliation from the opening balances to the closing balances of loss allowances for the corresponding financial instruments:

Reconciliation of Loss Allowance for Other Financial Assets

in € millions	Loans	Sundry financial receivables	Purchased or originated financial assets which are credit-impaired	Total
Balance as of 1/1/2022	(10)	(117)	(26)	(153)
Additions	(30)	(28)	(12)	(70)
Usage	5	7	–	12
Reversal	3	8	10	21
Change of consolidation scope	–	–	–	–
Exchange rate effect	(1)	1	–	–
Balance as of 12/31/2022	(33)	(129)	(28)	(190)
– thereof 12-month expected credit loss	(32)	(13)	n/a	(45)
– thereof lifetime expected credit loss but not credit-impaired	–	(99)	n/a	(99)
– thereof lifetime expected credit loss and credit-impaired	(1)	(17)	n/a	(18)

in € millions	Loans	Sundry financial receivables	Purchased or originated financial assets which are credit-impaired	Total
Balance as of 1/1/2021	(11)	(95)	(20)	(126)
Additions	(1)	(35)	(15)	(51)
Usage	2	4	–	6
Reversal	1	9	9	19
Change of consolidation scope	–	1	–	1
Exchange rate effect	(1)	(1)	–	(2)
Balance as of 12/31/2021	(10)	(117)	(26)	(153)
– thereof 12-month expected credit loss	(2)	(49)	n/a	(51)
– thereof lifetime expected credit loss but not credit-impaired	–	(57)	n/a	(57)
– thereof lifetime expected credit loss and credit-impaired	(8)	(11)	n/a	(19)

The impairment loss identified for cash and cash equivalents was immaterial in both the financial year 2022 and the previous year.

As in the previous year, the carrying amount of all receivables, loans and securities constitutes the Bertelsmann Group's maximum default risk as of the end of the reporting period.

The following table presents the contractually fixed undiscounted cash flows of the financial liabilities for settlement. The figures are based on undiscounted cash flows at the earliest date at which the Bertelsmann Group can be held liable for payment.

Maturity Analysis for Non-Derivative Financial Liabilities

in € millions	Carrying amount	Undiscounted cash flows			Total
		Up to 1 year	1 to 5 years	Over 5 years	
Profit participation capital	413	–	–	413	413
Fixed-interest bonds and promissory notes	4,883	146	1,852	2,949	4,947
Floating-rate bonds and promissory notes	98	–	54	45	99
Liabilities to banks	291	76	236	–	312
Other financial debt	205	56	227	4	287
Trade payables	3,988	3,843	140	5	3,988
Liabilities to participations	23	23	–	–	23
Other	1,770	1,390	323	88	1,801
Balance as of 12/31/2022	11,671	5,534	2,832	3,504	11,870
Profit participation capital	413	–	–	413	413
Fixed-interest bonds and promissory notes	5,362	597	1,740	3,050	5,387
Floating-rate bonds and promissory notes	10	–	10	–	10
Liabilities to banks	174	97	8	70	175
Other financial debt	58	52	1	5	58
Trade payables	4,062	3,902	160	2	4,064
Liabilities to participations	29	29	–	–	29
Other	1,543	1,303	251	1	1,555
Balance as of 12/31/2021	11,651	5,980	2,170	3,541	11,691

Current cash outflows from financial liabilities are offset by planned cash inflows from receivables and other financial assets. To cover current cash flows, Bertelsmann SE & Co. KGaA also has adequate financial reserves in the amount of cash and cash equivalents and unutilized credit facilities existing at the end of the reporting period.

The maturity analysis for lease liabilities as of December 31, 2022, is presented in note 22 “Lease Liabilities.”

Based on the remaining contractual terms of its financial liabilities at the end of the reporting period, the Bertelsmann Group will have to make the following future interest payments:

Future Interest Payments

in € millions	Undiscounted interest payments			Total
	Up to 1 year	1 to 5 years	Over 5 years	
Profit participation capital	45	181	45	271
Bonds and promissory notes	102	413	123	638
Liabilities to banks	22	33	–	55
Other financial debt	11	23	–	34
Balance as of 12/31/2022	180	650	168	998
Profit participation capital	45	181	45	271
Bonds and promissory notes	113	304	121	538
Liabilities to banks	4	2	–	6
Other financial debt	–	–	–	–
Balance as of 12/31/2021	162	487	166	815

Financial Services Related to Receivables Acquired and Sold

In certain individual cases, Bertelsmann sells receivables purchased from third parties to financial intermediaries. The receivables sold relate primarily to short-term receivables, some covered by credit insurance, that Riverty acquires from third parties in the course of conducting its financial services, and some of which it resells to financial intermediaries on an ongoing basis. This business can be changed at any time during the year. As part of the contractual agreements on the sale of receivables, substantially neither all the rewards nor all risks that are associated with the receivables were transferred or retained. This relates in particular to possible defaults and late payments of receivables sold, so that a receivable was accounted for in the amount of the continuing involvement of €183 million (previous year: €126 million). The carrying amount of the associated liability is €197 million (previous year: €137 million). The underlying volume of receivables sold amounts to €794 million as of the end of the reporting period (previous year: €673 million).

Risk Management of Financial Instruments

Financial Risk Management

The Bertelsmann Group is exposed to various forms of financial risk through its international business operations. Above all, this includes the effects of changes in foreign exchange rates and interest rates. Bertelsmann's risk management activities are designed to effectively mitigate these risks. The Executive Board establishes basic risk management policy, outlining general procedures for hedging currency and interest rate risks and the utilization of derivative financial instruments. The Central Financial Department advises subsidiaries on operating risks and hedges risks using derivative financial instruments as necessary. However, subsidiaries are not obliged to use the services provided by this department for their operating risks. Some subsidiaries, such as RTL Group in particular, have their own finance department. They report their hedge transactions to the Central Finance Department each quarter. Further information on financial market risks and financial risk management is presented in the Combined Management Report.

Currency Risk

The Bertelsmann Group is exposed to exchange rate risk in various foreign currencies. Its subsidiaries are advised, but not obliged, to hedge themselves against foreign currency risks in the local reporting currency by signing forward agreements with banks that have a high credit rating. Loans within the Bertelsmann Group that are subject to currency risk are hedged using derivative financial instruments. If foreign currency transactions designated as hedging instrument adequately meet effectiveness requirements, hedge accounting as defined by IFRS 9 is applied under the cash flow hedge model. A number of subsidiaries are based outside the eurozone. The resulting translation risks to the leverage factor (ratio of economic debt to operating EBITDA) is managed over the long term by aligning the debt in the main foreign currencies with the current leverage factor and the maximum permitted leverage for the entire Group.

Interest Rate Risk

There are interest rate risks for interest-bearing assets and financial debt. Interest rate risk in the Bertelsmann Group is analyzed centrally and managed on the basis of the Group's planned net financial debt. A key factor in this management is the Group's interest result over time and its sensitivity to interest rate changes. The Group aims for a balanced relationship between floating rates and long-term fixed-interest rates, under consideration of the absolute amount, forecast performance of the interest-bearing liability and interest level. This is implemented using underlying and derivative financial instruments for control.

Liquidity Risk

Liquidity risks may arise through a lack of rollover financing (liquidity risk in a narrow sense), delayed receipt of expected payment and unforeseen expenditure (budgeting risk). Budgeting risk is determined by comparing deviations in actual spending with budget and reserve amounts. In a narrow sense,

liquidity risk depends on the volume of debt due within a given period. Liquidity risk is monitored on an ongoing basis with reference to the budget for current and future years. New and unplanned transactions (e.g., acquisitions) are continuously tracked. The maturity profile of financial assets and liabilities is also reconciled on a regular basis. Budget risks are managed through effective cash management and constant monitoring of projected versus actual cash flows. Debt maturities are also diversified over the time to ensure that rising financing costs do not have a short-term impact. Credit facilities with banks are also maintained for unplanned expenditures.

Counterparty Risk

The Bertelsmann Group is exposed to default risks in the amount of the invested cash and cash equivalents and the positive fair value of the derivatives in its portfolio. Transactions involving money market securities and other financial instruments are exclusively conducted with a defined group of banks with a high credit rating ("core banks"). The credit ratings of core banks are constantly monitored and classified on the basis of quantitative and qualitative criteria (rating, CDS spreads, stock price, etc.). Counterparty limits determined on the basis of credit ratings refer to cash holdings and positive fair values of the derivatives in its portfolio. The drawdown of limits is monitored on a regular basis. Funds are invested in very short-term portfolios in some cases to preserve flexibility in the event of credit rating changes. Furthermore, cash and cash equivalents are held in money market funds with high credit ratings for the purpose of risk diversification. Default risks arising from trade receivables are partially mitigated through credit insurance coverage. The Bertelsmann Group has obtained credit collateralization in the amount of €662 million for these receivables (previous year: €654 million).

Capital Management

The financing guidelines adopted by the Bertelsmann Group are designed to ensure a balance between financing security, return on equity and growth. The Group's indebtedness is based specifically on the requirements for a credit rating of "Baa1/BBB+." Financial management at Bertelsmann is conducted using quantified financing objectives that are a central factor in ensuring the Group's independence and capacity to act. These objectives, as elements of the planning process and regular monitoring, are broadly defined performance indicators. The key performance indicator for limiting economic debt within the Bertelsmann Group is a maximum leverage factor of 2.5. As of December 31, 2022, the leverage factor was 1.8 (previous year: 1.3). In addition, the coverage ratio is to remain above four. The coverage ratio amounted to 11.1 on December 31, 2022 (previous year: 8.3). The equity ratio is not to fall below 25 percent of total assets. Management of the equity ratio is based on the definition of equity in IFRS. Although minority interests in partnerships represent equity in financial terms, they are classified as debt for accounting purposes. In the financial year 2022, the equity ratio was 45.8 percent (previous year: 42.8 percent), meeting the internal financial target set by the Group.

Interest Rate and Currency Sensitivity

For the analysis of interest rate risk, a distinction is made between cash flow and present value risks. Financial debt, cash and cash equivalents and interest rate derivatives with variable-interest terms are subject to a greater degree of cash flow risk, as changes in market interest rates impact the Group's interest result almost immediately. In contrast, medium- and long-term interest rate agreements are subject to a greater degree of present value risks. The accounting treatment of present value risks depends on the respective financial instrument or a hedging relationship documented in conjunction with a derivative (micro-hedge). Upon initial recognition, originated financial debt is measured at fair value less transaction costs. Subsequent measurement is based on amortized cost. Changes in fair value are generally limited to opportunity effects, as changes in interest rates have no effect on the balance sheet or the income statement. Where primary financial liabilities and derivative hedging transactions are designated as fair value hedges, changes in the fair value of the hedged item and the hedging instrument due to changes in interest rates almost completely offset each other. Furthermore, the effects of derivative financial instruments from interest rate changes are generally recognized in the income statement. In the case of documented hedging relationships (cash flow hedges), however, these effects are recognized in other comprehensive income.

The cash flow or present value risks existing at the end of the reporting periods are analyzed using a sensitivity calculation as an after-tax observation. A parallel shift in the interest rate curve of plus or minus 1 percent is assumed for all significant currencies. The analysis is performed on the basis of financial debt, cash and cash equivalents, and derivatives at the end of the reporting period. The underlying total risk position amounts to €1,822 million (previous year: €3,916 million). The results are shown in the following table:

Sensitivity Analysis of Cash Flow and Present Value Risks

in € millions	12/31/2022		12/31/2021	
	Shift +1%	Shift (1)%	Shift +1%	Shift (1)%
Cash flow risks (income statement)	13	(13)	30	(30)
Present value risks (income statement)	2	(2)	-	-
Present value risks (equity)	1	(1)	-	-

The analysis of foreign currency sensitivity includes the Group's financial debt and operating transactions at the end of the reporting period and the hedging relationships entered into. The calculation is performed for the unsecured net exposure on the basis of an assumed 10 percent appreciation of the euro versus all foreign currencies, and is presented after tax. Based on a total risk position of €306 million (previous year: €184 million), a uniform devaluation of foreign currencies would have resulted in a change in the carrying amount recognized in profit or loss of €-21 million (previous year: €-13 million). Thereof, €-12 million (previous year: €-5 million) relates to fluctuations in the US dollar exchange rate with a net exposure of US\$192 million (previous year: US\$74 million). Shareholders' equity would have changed by €-16 million (previous year: €6 million) as a result of fluctuations in the fair values of documented cash flow hedges. Thereof, €-16 million (previous year: €6 million) relates to fluctuations in the US dollar exchange rate on the basis of a documented cash flow hedge volume of US\$243 million (previous year: US\$-96 million). If there had been a uniform increase in the value of foreign currencies, this would have led to opposite changes in these amounts for the Bertelsmann Group.

Other Price Risks and Sensitivity

The valuation model for the minority stakes in the Bertelsmann Investments division comprises an extensive portfolio of more than 330 investments in companies and other funds, the vast majority of which are classified in level 3 of the fair value hierarchy. Due to the numerous inputs, some of which are only relevant for subsets of the portfolio, developing a meaningfully interpretable sensitivity indication for the model addressing the specifics of the valuation objects in the venture capital environment is only possible to a limited extent – in contrast to traditional discounted cash flow or multiplier-based models. This, together with the fragmented size structure and the fact that no meaningful and feasible alternative assumptions can be derived for a variety of inputs – such as the maturity structure underlying the life-cycle model – necessitates a restriction of sensitivity information in quantitative terms to the fungibility discounts for fund-of-fund investments and to the effects of contractual lockups for listed instruments: As of December 31, 2022, the valuation of fund-of-fund investments would have been €61 million (previous year: €57 million) higher excluding fungibility discounts. There were no contractual lockups for listed instruments as of December 31, 2022. As of December 31, 2021, the valuation of listed instruments would have been €8 million higher excluding fungibility discounts due to contractual lockups.

Financial Derivatives

Bertelsmann uses standard market financial derivatives, primarily unlisted (OTC) instruments. These include, in particular, forward agreements, currency swaps, currency options, interest rate swaps and individual commodities forwards. Transactions are entered into solely with banks with a high credit rating. As a rule, the Central Financial Department's transactions are only performed with a group of banks approved by the Executive Board. The nominal volume is the total of all underlying buying and selling amounts of the respective transactions.

The majority of the financial derivatives at the end of the reporting period with a gross nominal volume of €7,110 million (previous year: €6,291 million) are used to hedge currency rate risks from intercompany financing activities. These financial derivatives account for a total of €3,342 million or 47 percent as of the balance sheet date (previous year: €3,624 million or 58 percent). A total of €2,553 million or 36 percent (previous year: €2,335 million or 37 percent) is due to financial derivatives used to hedge currency risks from operating business as of the end of the reporting period. Financial derivatives are also used to hedge against interest rate risks from interest-bearing receivables and liabilities. By entering into interest rate derivatives designated as fair value hedges, changes in the fair value of the hedged item and the hedging instrument due to changes in interest rates almost completely offset each other. However, changes in interest rates have an impact on the amount of interest payments and therefore also on the interest result (note 6 "Interest Income and Interest Expenses"). In contrast, hedges of interest rate risks that do not qualify for hedge accounting under IFRS 9 have an impact on other financial income and expenses (note 7 "Other Financial Income and Expenses"). Financial derivatives are used exclusively for hedging purposes.

All relationships between hedging instruments and hedged items are documented, in addition to risk management objectives and strategies in connection with the various hedges. This method includes linking all derivatives used for hedging purposes to the underlying assets, liabilities, firm commitments and forecasted transactions. Furthermore, the Bertelsmann Group assesses and documents the degree to which changes in the fair values or cash flows of hedged items are effectively offset by changes in the corresponding derivatives used as hedging instruments, both when the hedges are initiated and on an ongoing basis.

Nominal Volume and Fair Values of Financial Derivatives

in € millions	12/31/2022				Fair value
	Nominal volume				
	< 1 year	1 to 5 years	> 5 years	Total	
Currency derivatives					
Forward contracts and currency swaps	4,493	1,265	237	5,995	(167)
Interest rate derivatives					
Interest rate swaps	375	740	–	1,115	(41)
Other derivative financial instruments	–	–	–	–	–
	4,868	2,005	237	7,110	(208)

in € millions	12/31/2021				Fair value
	Nominal volume				
	< 1 year	1 to 5 years	> 5 years	Total	
Currency derivatives					
Forward contracts and currency swaps	3,879	1,586	596	6,061	(119)
Interest rate derivatives					
Interest rate swaps	–	230	–	230	3
Other derivative financial instruments	–	–	–	–	–
	3,879	1,816	596	6,291	(116)

The Group designates certain derivatives as hedging instruments to hedge the variability in cash flows, particularly in connection with foreign currency risk relating to the purchase and sale of program rights and output deals for the TV business. Bertelsmann hedges between 80 percent and 100 percent of the short-term (within one year) future cash flows, and between 10 percent and 80 percent of the longer-term (two to five years) future cash flows. As a rule, the derivatives used are recognized as cash flow hedges, taking into account the volume of the cash flows to be hedged. In individual cases, the Group also hedges certain foreign currency risks arising from intercompany monetary items.

The effective portion of changes in the fair value of a cash flow hedge is recognized in accumulated other comprehensive income until the effects of the hedged underlying transaction affect profit or loss, or until a basis adjustment occurs. The total nominal volume designated as a cash flow hedge amounts to US\$488 million (previous year: US\$1,131 million). The amount of €39 million relating to cash flow hedges (previous year: €81 million) was reclassified from accumulated other comprehensive income to the income statement. These are amounts before tax. The portion remaining in accumulated other comprehensive income as of December 31, 2022, will thus mainly impact the income statement in the years to come. Bertelsmann exercised the option not to designate the forward elements and foreign currency basis spreads as part of the hedging relationship, but to recognize them separately in equity as hedging costs for individual hedges. As in the previous year, no ineffective portion of the cash flow hedges existed.

The effects from fair value hedges for hedging interest rate risks led to a decrease of the carrying amount of the reported financial debt in the amount of €39 million; the carrying amount of the hedged item (including cumulative fair value adjustments) amounts to €901 million as of the end of the reporting period. The total nominal volume designated as fair value hedge amounts to €700 million (previous year: €0 million). An ineffective portion from fair value hedges existed to a minor extent and was recognized in the consolidated income statement in the item "Other financial income." In the financial year 2021, no hedging transactions were recognized with fair value hedges. Furthermore, interest rate swaps with a nominal volume in the amount of €185 million (previous year: €0 million) are designated as cash flow hedges to hedge interest rate risks.

The following table provides an overview of the carrying amounts of the derivative financial instruments, which correspond to their fair values. A distinction is made between derivatives that are included in an effective hedging relationship in accordance with IFRS 9 and those that are not.

Derivative Financial Instruments

in € millions	Carrying amount as of 12/31/2022	Carrying amount as of 12/31/2021
Assets		
Forward contracts and currency swaps		
– without hedge relation	63	24
– in connection with cash flow hedges	12	10
Interest rate swaps		
– without hedge relation	–	3
– in connection with cash flow hedges	1	–
Other derivative financial instruments without hedge relation	–	–
Equity and liabilities		
Forward contracts and currency swaps		
– without hedge relation	199	77
– in connection with cash flow hedges	43	76
Interest rate swaps		
– without hedge relation	1	–
– in connection with cash flow hedges	–	–
– in connection with fair value hedges	41	–
Other derivative financial instruments without hedge relation	–	–

The following table presents the remaining terms of the contractual amounts to be exchanged in a derivative financial instrument for which gross cash flows are exchanged:

Liabilities from Derivatives with Gross Settlement

in € millions	Remaining term of liabilities		
	Up to 1 year	1 to 5 years	Over 5 years
Cash outflow	(3,702)	(1,055)	(314)
Cash inflow	3,510	927	274
Balance as of 12/31/2022	(192)	(128)	(40)
Cash outflow	(2,080)	(1,415)	(712)
Cash inflow	2,015	1,304	641
Balance as of 12/31/2021	(65)	(111)	(71)

26 Cash Flow Statement

The Bertelsmann consolidated cash flow statement has been prepared in accordance with IAS 7 and is used to evaluate the Group's ability to generate cash and cash equivalents. Cash flows are divided into those relating to operating activities, investing activities and financing activities. Cash flows from operating activities are presented using the indirect method, whereby Group earnings before interest and taxes are adjusted for the effects of a non-cash nature, any deferrals or accruals of past or future operating receipts or payments, and items of income or expenses associated with investing cash flows. In addition, cash flows arising from income taxes are classified as cash flows from operating activities as well as other cash flows that are neither investing nor financing. Since the financial year 2022, interest received has been recognized in the cash flow from operating activities. Further details are presented in the section "Prior-Year Information."

The change in provisions for pensions and similar obligations represents the balance of personnel costs for pensions and similar obligations and company payments for these obligations (further explanations are presented in note 18 "Provisions for Pensions and Similar Obligations"). Contributions to pension plans totaling €-18 million (previous year: €-221 million) were also included in this item. "Other effects" of the cash flow from operating activities mainly include the adjustments of results from investments accounted for using the equity method, taking into account dividends received from these investments, and adjustments in connection with non-cash income and expenses.

The consolidated cash flow statement includes the effects of changes in foreign currencies and changes in the scope of consolidation. Items in the consolidated cash flow statement thus cannot be reconciled with changes in items reported on the consolidated balance sheet. Investing activities include payments for investments in non-current assets and purchase price payments for acquisitions as well as proceeds from the disposal of non-current assets and investments. Further explanations concerning acquisitions made during the financial year are presented in the section "Acquisitions and Disposals." Disposals made during the financial year are also presented separately in that section. Financial debt of €309 million (previous year: €7 million) was assumed during the reporting period. In the financial year 2022, as in the previous year, losing control of subsidiaries or other businesses resulted in the disposal of financial debt of an immaterial amount.

Cash flow from financing activities includes changes in equity, financial debt, lease liabilities and dividend distributions affecting cash, and interest paid (including interest paid due to leases). Total cash outflows from leases amounted to €-358 million (previous year: €-317 million) in the financial year 2022. The item "Change in equity" amounts to €-187 million, of which €99 million relates to the acquisition of additional Afya shares and €55 million to the acquisition of the remaining shares in Eureka through the exercise of a call option. In the previous year, the item "Change in equity" amounted to €304 million and mainly related to the sale of the Majorel shares in the course of the IPO.

The following tables show the cash changes and non-cash changes of liabilities arising from financing activities:

Changes in Liabilities Arising from Financing Activities

in € millions	1/1/2022	Cash changes		Non-cash changes			12/31/2022
				Acquisitions through business combinations	Disposals through business combinations	Exchange rate effects	
Bonds	5,047	(353)	-	-	(3)	(35)	4,656
Promissory notes	325	-	-	-	-	-	325
Liabilities to banks	174	(19)	144	-	(8)	-	291
Lease liabilities	1,356	(358)	170	(1)	(1)	372	1,538
Other financial debt	58	(6)	165	-	(13)	2	206
Liabilities arising from financing activities	6,960	(736)	479	(1)	(25)	339	7,016

in € millions	1/1/2021	Cash changes		Non-cash changes			12/31/2021
				Acquisitions through business combinations	Disposals through business combinations	Exchange rate effects	
Bonds	5,968	(927)	-	-	-	6	5,047
Promissory notes	424	(99)	-	-	-	-	325
Liabilities to banks	126	40	7	-	1	-	174
Lease liabilities	1,355	(317)	14	(37)	49	292	1,356
Other financial debt	108	(28)	-	-	-	(22)	58
Liabilities arising from financing activities	7,981	(1,331)	21	(37)	50	276	6,960

In financial years 2022 and 2021, the other non-cash changes mainly relate to newly concluded lease contracts.

The following tables show the changes in net liabilities arising from financing activities:

Changes in Net Liabilities Arising from Financing Activities

in € millions	2022	2021
Net liabilities arising from financing activities as of 1/1	(2,315)	(3,410)
Cash flow from operating activities	1,382	1,820
Cash flow from investing activities	(1,118)	(267)
Interest paid, dividends and changes in equity, additional payments (IAS 32.18(b))	(979)	(355)
Exchange rate effects and other changes in net liabilities arising from financing activities	(757)	(103)
Net liabilities arising from financing activities as of 12/31	(3,787)	(2,315)

Net liabilities arising from financing activities are the balance of the balance sheet positions "Cash and cash equivalents," "Financial debt" and "Lease liabilities."

27 Segment Reporting

IFRS 8 Operating Segments requires that external segment reporting must be based on the internal organizational and management structure, and on management and reporting indicators used internally. Since January 1, 2022, the Bertelsmann Group comprises seven (previous year: eight) operating reportable segments (RTL Group, Penguin Random House, BMG, Arvato, Bertelsmann Printing Group, Bertelsmann Education Group and Bertelsmann Investments), differentiated according to the type of products and services offered and which are reported by segment managers to the Executive Board of Bertelsmann Management SE in its role as the chief operating decision-maker in accordance with IFRS 8.

As of January 1, 2022, Gruner + Jahr is no longer reported as an independent division. The German magazine businesses and brands have been part of the RTL Group division since the beginning of the year and are part of the cash-generating unit RTL Germany due to the full integration into this cash-generating unit. The other Gruner + Jahr activities (particularly Territory, the AppLike Group, DDV Mediengruppe and the investment in the Spiegel Group) were allocated to the Bertelsmann Investments division and are monitored as cash-generating units. The prior-year comparatives for RTL Group, Bertelsmann Investments and Consolidation have been adjusted in the table on segment information.

Corporate is mainly responsible for activities in the areas of taxes, legal, human resources, information technology, internal audit, accounting and reporting, corporate communications and management, internal control and strategic development of the Group, securing the required financing, risk management and optimization of the Group's investment portfolio.

Intersegment eliminations are included in the column "Consolidation."

As in the past, specific segment information is defined according to the definitions on which Group management is based. As a rule, accounting and measurement in the segment reporting uses the same IFRS principles as in the Consolidated Financial Statements. Invested capital is calculated on the basis of the Group's operating assets less non-interest-bearing operating liabilities. Intercompany revenues are recognized using the same arm's-length conditions applied to transactions with third parties.

Operating EBITDA serves as a key performance indicator for a sustainable determination of operating result. Assessment of the operating segments' performance is also based on this performance indicator. Operating EBITDA represents the operating earnings generated by the respective segment management before interest and taxes, as well as amortization/depreciation, impairment and reversals, and it is adjusted for special items. Elimination of these special items allows the determination of a normalized performance indicator, thus simplifying forecasting and comparability. Segment amortization/depreciation, impairment and reversals relate to property, plant and equipment and right-of-use assets, and to intangible assets as set out in notes 9 "Intangible Assets" and 10 "Property, Plant and Equipment and Right-of-Use Assets." For segment reporting, intercompany leases are generally presented as operating leases with income and expenses recognized using the straight-line method in accordance with IFRS 8, in line with internal management. The business development of the venture capital business of Bertelsmann Investments is presented primarily on the basis of EBIT.

Each segment shows the investments accounted for using the equity method and their results, provided these companies can be clearly allocated to the segment concerned. In addition to the segment breakdown, revenues are broken down by customer location and revenue source. Non-current assets are also stated according to the location of the respective company.

Tabular segment information is presented on page 72 f.

The following table shows the reconciliation of segment information to the Consolidated Financial Statements:

Reconciliation of Segment Information to Group Profit or Loss

in € millions	2022	2021
Operating EBITDA from continuing operations	3,192	3,241
Amortization/depreciation, impairment and reversals on intangible assets, property, plant and equipment and right-of-use assets	(1,099)	(909)
Adjustments on amortization/depreciation, impairment and reversals on intangible assets, property, plant and equipment and right-of-use assets included in special items	22	29
Special items	(562)	963
EBIT	1,553	3,324
Financial result	(258)	(352)
Earnings before taxes from continuing operations	1,295	2,972
Income tax expense	(246)	(662)
Earnings after taxes from continuing operations	1,049	2,310
Earnings after taxes from discontinued operations	3	–
Group profit or loss	1,052	2,310

28 Related Party Disclosures

For the Bertelsmann Group, related parties as defined in IAS 24 are those persons and entities that control or exercise a significant influence over the Bertelsmann Group, and those persons and entities controlled or jointly controlled by the Bertelsmann Group, or over which it exercises a significant influence. Accordingly, certain members of the Mohn family, the members of the Executive Board of Bertelsmann Management SE as the general partner, and the Supervisory Board of Bertelsmann SE & Co. KGaA, including close members of their families and including the companies that are controlled or jointly managed by them, and the joint ventures and associates forming part of the Bertelsmann Group and their subsidiaries, are defined as related parties. Furthermore, Bertelsmann Pension Trust e.V. is considered a related party (further details on this are presented in note 18 “Provisions for Pensions and Similar Obligations”).

Bertelsmann Verwaltungsgesellschaft mbH (BVG), Gütersloh, a holding company with no operating activities, has control of the Bertelsmann Group. Johannes Mohn GmbH has informed Bertelsmann SE & Co. KGaA that it directly owns more than 50 percent of the shares in Bertelsmann Management SE and of

Bertelsmann SE & Co. KGaA. Reinhard Mohn Verwaltungsgesellschaft mbH continues to own more than one quarter of the shares in Bertelsmann Management SE and in Bertelsmann SE & Co. KGaA, respectively.

In the legal form of a KGaA, the business is managed by a general partner. In the case of Bertelsmann SE & Co. KGaA, Bertelsmann Management SE, represented by its Executive Board, is responsible for the management of the business. The statutory bodies consist of the Supervisory Board and the General Meeting at the Bertelsmann SE & Co. KGaA level and the Executive Board, Supervisory Board and General Meeting at the Bertelsmann Management SE level. The Supervisory Board of the KGaA is elected by the limited partners at the General Meeting. The members of the Bertelsmann Management SE Supervisory Board are appointed at the General Meeting of Bertelsmann Management SE. BVG controls the voting rights at the Bertelsmann SE & Co. KGaA and Bertelsmann Management SE General Meeting.

Remuneration for key management personnel includes the following:

Remuneration for Key Management Personnel

in € millions	2022	2021
Short-term employee and termination benefits	30	20
Post-employment benefits	2	2
Other long-term benefits	10	8

The remuneration shown also includes remuneration for activities by the members of the Supervisory Board of Bertelsmann SE & Co. KGaA on the Supervisory Board of Bertelsmann Management SE. Transactions with subsidiaries included in the scope of consolidation are eliminated and are not further disclosed. In addition to transactions with consolidated subsidiaries, the following transactions with related parties and entities were conducted in the reporting period:

Transactions with Related Parties

in € millions	Parent and entities with significant influence	Key members of management	Joint ventures	Associates	Other related parties
2022					
Goods delivered and services provided	–	1	34	53	–
Goods and services received	–	(2)	(16)	(35)	(1)
Receivables from	–	–	13	30	–
Amounts owed to	–	60	15	24	34
2021					
Goods delivered and services provided	–	1	52	71	–
Goods and services received	–	(1)	(21)	(50)	(1)
Receivables from	–	–	17	58	–
Amounts owed to	–	56	13	30	27

The amounts owed to key members of management include pension obligations, variable remuneration components and long-term incentives. The item "Other related parties" primarily includes transactions with the general partner Bertelsmann Management SE. The obligations as of the end of the reporting period result from expenses passed on by Bertelsmann Management SE.

In December 2021, Penguin Random House LLC agreed a convertible loan with an acquisition cost of US\$35 million. The loan has a conversion option in the amount of US\$21 million, exercisable from January 1, 2023, into additional shares in the investment Sourcebooks LLC, which is accounted for as an associate until December 31, 2022. As of December 31, 2022, the share is €20 million and is measured as a convertible loan at fair value through profit or loss (level 3). The remaining part of the loan in the amount of €12 million is measured at cost and reported under receivables from associates.

Other Transactions with Joint Ventures and Associates

in € millions	2022	2021
Outstanding contingent liabilities by		
– joint ventures	4	14
– associates	9	10
Contribution obligations to		
– associates	13	4
Capital contributions to		
– joint ventures	44	–
– associates	4	2
Capital distributions from		
– associates	24	4
Loans granted to		
– joint ventures	35	30
– associates	–	33
Loans received from		
– joint ventures	2	1
– associates	–	1
Impairment on loans to		
– joint ventures	28	–

In the financial year 2022, the contribution obligations to associates and the capital distributions from associates are mainly (previous year: fully) attributable to the University Ventures Funds. The impairment on loans to joint ventures relates to the impairment of a loan provided by Groupe M6 to the joint venture Salto (a streaming platform held jointly by Groupe M6, TF1 and France Télévisions).

29 Events after the Reporting Period

In early January 2023, Afya announced the closing of the acquisition of 100 percent of the shares of Sociedade Educacional e Cultural Sergipe DelRey Ltda., which encompasses the operations of Centro Universitario Tiradentes Alagoas ("UNIT Alagoas") and Faculdade Tiradentes Jaboatao dos Guararapes ("FITS Jaboatao dos Guararapes"). The transaction does not enclose the "UNIT" and "FITS" brands, which will be licensed for Afya during the first year of operation. The aggregate purchase price before adjustments and deduction of net debt was BRL825 million. At the time the Consolidated Financial Statements were prepared, the purchase price allocation was at a very preliminary stage. In particular, the valuations have not yet been finalized.

In January 2023, Global Savings Group (GSG), an at-equity investment held by Groupe M6, completed the acquisition of pepper.com. This transaction resulted in a dilution of the Groupe M6's investment in GSG from 41.49 percent at December 31, 2022 to 31.16 percent. The preliminary impact on profit or loss in 2023 is currently under estimation and will be recognized under "Results from disposals of investments" in the Consolidated Income Statement for the financial year 2023.

In January 2023, Prinovis announced plans to cease production at its Ahrensburg location as of January 31, 2024. The reason for this is the negative market development, which has accelerated in recent years. The number of employees affected by this business decision is 545.

In early February 2023, it was announced that RTL Deutschland would restructure its publishing business and focus on the core brands Stern, Geo, Capital, Stern Crime, Brigitte, Gala, Schöner Wohnen, Häuser, Couch, Eltern, Chefkoch, Geolino and Geolino Mini. All other titles are to be sold or discontinued. This will affect around 700 jobs, 200 of those as a result of the planned sale of titles.

In March 2023, Bertelsmann exercised a termination option on the hybrid bond with a nominal value of €650 million. The early repayment of the outstanding nominal value of €146 million will be in April 2023, after a nominal amount of €504 million was already repaid early in December 2022 as part of a public repurchase offer.

30 Exemption for Subsidiaries in accordance with Sections 264 (3) and 264b of the German Commercial Code (HGB)

The following subsidiaries took advantage of the exemption regulations set out in section 264 (3) of the German Commercial Code (HGB) for the financial year ended December 31, 2022. The Bertelsmann Consolidated Financial Statements are the exempting Consolidated Financial Statements for these subsidiaries.

Name of the entity	Place	Name of the entity	Place
99 pro media GmbH	Leipzig	Eat the World GmbH	Berlin
adality GmbH	Gütersloh	EMBRACE GmbH	Gütersloh
Ad Alliance GmbH	Cologne	Erste TD Gütersloh GmbH	Gütersloh
adjoe GmbH	Hamburg	Erste WV Gütersloh GmbH	Gütersloh
AppLike Group GmbH	Hamburg	European SCM Services GmbH	Gütersloh
arvato CRM Healthcare GmbH	Berlin	frechverlag GmbH	Stuttgart
arvato direct services GmbH	Gütersloh	FremantleMedia International Germany GmbH	Potsdam
arvato distribution GmbH	Harsewinkel	GGP Media GmbH	Pößneck
arvato services Dresden GmbH	Dresden	G+J Digital Ventures GmbH	Berlin
arvato services Gera GmbH	Gera	G+J Electronic Media Sales GmbH	Hamburg
arvato services Leipzig GmbH	Leipzig	G+J LIVING Digital GmbH	Hamburg
Arvato Supply Chain Solutions SE	Gütersloh	G+J Medien GmbH	Hamburg
Arvato Systems Digital GmbH	Leipzig	G+J Vermietungsgesellschaft Sächsischer Verlag mbH	Dresden
arvato systems GmbH	Gütersloh	Global Assekuranz Vermittlungsgesellschaft mit beschränkter Haftung	Gütersloh
AVE Gesellschaft für Hörfunkbeteiligungen mbH	Berlin	Gruner + Jahr Deutschland GmbH	Hamburg
AZ Direct Beteiligungs GmbH	Gütersloh	Henri-Nannen-Schule Gruner+Jahr/DIE ZEIT GmbH	Hamburg
AZ Direct GmbH	Gütersloh	Honey GmbH	Hamburg
BAG Business Information Beteiligungs GmbH	Gütersloh	infoscore Business Support GmbH	Baden-Baden
BAI GmbH	Gütersloh	infoscore Finance GmbH	Baden-Baden
BDMI GmbH	Gütersloh	infoscore Portfolio Management International GmbH	Gütersloh
BePeople GmbH	Gütersloh	inmediaONE] GmbH	Gütersloh
Bertelsmann Accounting Services GmbH	Gütersloh	justDice GmbH	Hamburg
Bertelsmann Accounting Services Schwerin GmbH	Schwerin	justtrack GmbH	Hamburg
Bertelsmann Aviation GmbH	Gütersloh	Like to KNOW GmbH	Cologne
Bertelsmann Capital Holding GmbH	Gütersloh	Majorel Chemnitz GmbH	Chemnitz
Bertelsmann China Holding GmbH	Gütersloh	Majorel Neubrandenburg GmbH	Neubrandenburg
Bertelsmann Data Services GmbH	Gütersloh	Majorel Schwerin GmbH	Schwerin
Bertelsmann Investments Digital Health GmbH	Gütersloh	mbs Nürnberg GmbH	Nuremberg
Bertelsmann Transfer GmbH	Gütersloh	Mohn Media Energy GmbH	Gütersloh
Bertelsmann Treuhand- und Anlagegesellschaft mit beschränkter Haftung	Gütersloh	Mohn Media Mohndruck GmbH	Gütersloh
BMG Production Music (Germany) GmbH	Berlin	MSP Medien-Service und Promotion GmbH	Hamburg
BMG RIGHTS MANAGEMENT (Europe) GmbH	Berlin	Penguin Books Deutschland Gesellschaft mit beschränkter Haftung	Munich
BMG RIGHTS MANAGEMENT GmbH	Berlin	Penguin Random House Verlagsgruppe GmbH	Gütersloh
Campaign Services Neckarsulm GmbH	Neckarsulm	Prinovis Ahrensburg Weiterverarbeitung und Logistik GmbH	Hamburg
Campaign Services Offenbach GmbH	Frankfurt am Main	PRINOVIS Service GmbH	Hamburg
Checkout Charlie GmbH	Berlin	Prinovis Verwaltungs GmbH	Gütersloh
Chefkoch GmbH	Bonn	Probind Mohn media Binding GmbH	Gütersloh
COUNTDOWN MEDIA GmbH	Hamburg	PSC Print Service Center GmbH	Oppurg
Der Audio Verlag GmbH	Berlin	Random House Audio GmbH	Cologne
DeutschlandCard GmbH	Munich	Reinhard Mohn GmbH	Gütersloh
Digital Media Hub GmbH	Cologne	Relias Learning GmbH	Berlin
Direct Analytics GmbH	Gütersloh		
direct services Gütersloh GmbH	Gütersloh		
Dorling Kindersley Verlag GmbH	Munich		
DPV Deutscher Pressevertrieb GmbH	Hamburg		

Name of the entity	Place	Name of the entity	Place
rewards arvato services GmbH	Munich	smartclip Europe GmbH	Düsseldorf
Riverty Administration Services GmbH	Münster	Sonopress GmbH	Gütersloh
Riverty Group GmbH	Baden-Baden	SSB Software Service und Beratung GmbH	Gütersloh
Riverty Services GmbH	Verl	SUNDAY GmbH	Hamburg
RM Buch und Medien Vertrieb GmbH	Gütersloh	Telamo Musik & Unterhaltung GmbH	Munich
RM Elfte Beteiligungsverwaltungs GmbH	Gütersloh	TERRITORY EMBRACE GmbH	Bochum
RM Hamburg Holding GmbH	Hamburg	TERRITORY GmbH	Hamburg
Rote Liste Service GmbH	Frankfurt am Main	TERRITORY Influence GmbH	Munich
RTL Audio Center Berlin GmbH	Berlin	TERRITORY MEDIA GmbH	Munich
RTL Audio Vermarktung GmbH	Berlin	trdnxt GmbH	Munich
RTL Deutschland GmbH	Cologne	trndsphere blue GmbH	Munich
RTL Group Financial Services GmbH	Cologne	UFA Distribution GmbH	Potsdam
RTL Group GmbH	Cologne	UFA Documentary GmbH	Potsdam
RTL Group Markenverwaltungs GmbH	Cologne	UFA Fiction GmbH	Potsdam
RTL Group Vermögensverwaltung GmbH	Cologne	UFA Fiction Productions GmbH	Potsdam
RTL Hessen GmbH	Frankfurt am Main	UFA Film und Fernseh GmbH	Cologne
RTL interactive GmbH	Cologne	UFA GmbH	Potsdam
RTL Journalistenschule GmbH	Cologne	Ufa Radio-Programmgesellschaft in Bayern mbH	Ismaning
RTL MUSIC PUBLISHING GmbH	Cologne	UFA Serial Drama GmbH	Potsdam
RTL NEWS GmbH	Cologne	UFA Show & Factual GmbH	Cologne
RTL Nord GmbH	Hamburg	Undercover GmbH	Schwülper
RTL Radio Berlin GmbH	Berlin	Verlag RM GmbH	Gütersloh
RTL Radio Deutschland GmbH	Berlin	Verlegerdienst München GmbH	Gilching
RTL Radio Luxemburg GmbH	Cologne	versorgung.plus GmbH	Dortmund
RTL STUDIOS GmbH	Cologne	VIVENO Group GmbH	Gütersloh
RTL Technology GmbH	Cologne	Vogel Druck und Medienservice GmbH	Höchberg
RTL West GmbH	Cologne	VOX Holding GmbH	Cologne
rtv media group GmbH	Nuremberg	VSG Schwerin - Verlagsservicegesellschaft mbH	Schwerin
smartclip Deutschland GmbH	Cologne	we are era GmbH	Berlin

In addition, the exemption regulations set out in section 264 (3) of the German Commercial Code (HGB) have been applied for UFA GmbH, UFA Fiction GmbH, FremantleMedia International Germany GmbH, UFA Serial Drama GmbH, UFA Show & Factual GmbH, UFA Distribution GmbH, UFA Fiction Productions GmbH and UFA Documentary GmbH also for the financial year ending December 31, 2021.

In addition, the exemption regulations set out in section 264b of the German Commercial Code (HGB) were used by the following companies for the financial year ended December 31, 2022. The Bertelsmann Consolidated Financial Statements are the exempting Consolidated Financial Statements for these subsidiaries.

Name of the entity	Place	Name of the entity	Place
11 Freunde Verlag GmbH & Co KG	Berlin	Deutsche Medien-Manufaktur GmbH & Co. KG	Münster
Antenne Niedersachsen GmbH & Co. KG	Hannover	infoscore Portfolio Management GmbH & Co. KG	Verl
AVE II Vermögensverwaltungsgesellschaft mbH & Co. KG	Cologne	infoscore Portfolio Management II GmbH & Co. KG	Baden-Baden
AZ fundraising services GmbH & Co. KG	Gütersloh	Prinovis GmbH & Co. KG	Gütersloh
DDV Mediengruppe GmbH & Co. KG	Dresden	Sellwell GmbH & Co. KG	Hamburg

In addition, the exemption regulations set out in section 264b of the German Commercial Code (HGB) have been applied for Antenne Niedersachsen GmbH & Co. KG also for the financial year ending December 31, 2021.

The consolidated subsidiary Arvato SCM Ireland Limited in Dublin, Ireland, has used the exemption option offered in section 357 of the “Republic of Ireland Companies Act 2014” for publication requirements for its annual financial statements. The consolidated subsidiary Arvato Benelux B.V. in Heijen, the Netherlands, has elected to make use of the exemption to publish annual accounts in accordance with section 403 (1) of book 2 of the Dutch Civil Code.

31 Additional Information in accordance with Section 315e of the German Commercial Code (HGB)

The compensation of the Supervisory Board of Bertelsmann SE & Co. KGaA for the financial year 2022 amounted to €2 million plus statutory value-added tax. Members of the Executive Board received total remuneration in the reporting period of €28 million, including €19 million from Bertelsmann Management SE. Former members of the Executive Board of Bertelsmann Management SE and Bertelsmann AG and their surviving dependents received compensation of €15 million, including €5 million from Bertelsmann SE & Co. KGaA. The provision for pension obligations to former members of the Executive Board of Bertelsmann AG and Bertelsmann Management SE accrued at Bertelsmann SE & Co. KGaA and Bertelsmann Management SE amounts to €64 million. The members of the Executive Board and Supervisory Board are listed in the chapter “Boards/Mandates” of this Annual Report.

The following fees were incurred in the financial year for the services of the auditor of the consolidated financial statements, KPMG AG Wirtschaftsprüfungsgesellschaft:

in € millions	2022
Audit services	4.6
Other audit-related services	1.1
Other services	0.1
Total	5.8

The audit services include the fees for the audit of the consolidated financial statements, the review of the interim consolidated financial statements and the audit of the statutory financial statements of Bertelsmann SE & Co. KGaA and its subsidiaries. Other audit-related services include audits required by law or contract, such as audits under the German Renewable Energies Act (EEG), voluntarily commissioned assurance services in connection with information technology, compliance management, internal control systems and other contractually agreed assurance services. Other services related to quality assurance support and analysis services.

The following table shows the number of employees as of December 31, 2022, and on an annual average:

Number of Employees

	Number of employees (closing date)	Number of employees (average)
RTL Group	18,308	18,882
Penguin Random House	12,330	12,269
BMG	1,111	1,058
Arvato	108,775	104,847
Bertelsmann Printing Group	6,431	6,599
Bertelsmann Education Group	10,588	8,326
Bertelsmann Investments	5,648	5,513
Corporate	1,500	1,503
Total	164,691	158,997

32 Proposal for the Appropriation of Net Retained Profits

The general partner Bertelsmann Management SE and the Supervisory Board of Bertelsmann SE & Co. KGaA will propose to the General Meeting that the remaining net retained profits of Bertelsmann SE & Co. KGaA of €744 million be appropriated as follows: payment of a dividend to shareholders of €220 million (dividend per ordinary share thus amounts to €2,627) and carry forward to the new financial year in the amount of €524 million).

The general partner Bertelsmann Management SE approved the Consolidated Financial Statements for submission to the Supervisory Board of Bertelsmann SE & Co. KGaA on March 16, 2022. The Supervisory Board's task is to review the Consolidated Financial Statements and declare whether it approves these.

Gütersloh, March 20, 2023

Bertelsmann SE & Co. KGaA

Represented by:

Bertelsmann Management SE, the general partner

Executive Board

Thomas Rabe

Rolf Hellermann

Immanuel Hermreck