Notes

Section (A): Principles of the Consolidated Financial Statements

1 General Information

Vonovia SE is incorporated and domiciled in Germany. The company has been registered in the commercial register in Bochum under HRB 16879 since 2017. Its registered office is at Universitätsstrasse 133, 44803 Bochum, Germany.

The interim consolidated financial statements as of June 30, 2023, were prepared in line with the International Financial Reporting Standards (IFRS) as they are to be applied in the

European Union for interim financial statements in accordance with IAS 34. They include the company and its subsidiaries.

In accordance with IAS 34, the scope of Vonovia's interim consolidated financial statements as of June 30, 2023, is condensed compared with the consolidated financial statements as of December 31, 2022.

2 Currency Translation

The exchange rates of the currencies relevant to the Vonovia Group have developed as follows:

Basis: € 1	Closing	Closing rate		
	Dec. 31, 2022	Jun. 30, 2023	Jan. 1- Jun. 30, 2022	Jan. 1- Jun. 30, 2023
SEK — Swedish krona	11.12	11.81	10.48	11.33
USD — US dollar	1.07	1.09	1.09	1.08

3 Accounting Policies

Recognition and measurement, as well as the explanatory information and notes, are generally based on the same recognition and measurement methods that were used to prepare the consolidated financial statements for the 2022 fiscal year. There were no seasonal or economic influences that had an impact on Vonovia's business activities in the reporting period.

The operating business was stable as expected. The changes in overall financial market conditions are prompting market players to revise their return criteria due to the higher interest rates, impacting investment decisions both at Vonovia itself and at potential transaction partners. This means that the higher interest rates also have a potential impact on the assessment of business models and the valuation of assets, i.e., holdings measured at fair value and goodwill. The new standards and interpretations to be applied as of January 1, 2023, do not have any material effects on Vonovia's consolidated financial statements.

For detailed information on the effects in the 2022 fiscal year, please refer to note (A) Principles of the Consolidated Financial Statements in Vonovia's published 2022 Annual Report.

4 Adjustment to Prior-Year Figures

The conclusion of the purchase price allocation in connection with the acquisition of the Deutsche Wohnen Group resulted in adjustments, for June 30, 2022, in the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of cash flows and consolidated statement of changes in equity, which are explained in the relevant sections of the condensed interim consolidated financial statements.

Segment Report

In the 2022 fiscal year, Vonovia continued with the 2021 management system for the time being. Details can be found in the chapter Management System of the 2022 Annual Report. Vonovia's business was managed via the five segments: Rental, Value-add, Recurring Sales, Development and Deutsche Wohnen.

In the course of the fourth quarter of 2022, the Deutsche Wohnen segment was dissolved and transferred to the Rental, Value-add, Recurring Sales, Development and Care segments. Details on the allocation of Deutsche Wohnen's segment figures for the first half of 2022 to the five segments that are relevant from a corporate management perspective are presented below:

H1 2022 In € million Deutsche Wohnen	H1 2022	H1 2022 Adjustments		H1 2022 (adjusted)	Allocation to the segments				
		Removal of at-equity- investment from Adjusted EBITDA*	Line- shifts**	Segments total	Rental	Value-add	Recurring Sales	Develop- ment	Care
Jan. 1-June 30, 2022	[
Segment revenue	578.2		-8.8	569.4	381.8	18.8	26.7	5.2	136.9
thereof external revenue	566.0		_	566.0	381.8	15.4	26.7	5.2	136.9
thereof internal revenue	12.2		-8.8	3.4		3.4		_	
Carrying amount of assets sold***	-3.6		-2.4	-6.0			-6.0		
Revaluation from disposal of assets held for sale			-10.9	-10.9			-10.9		
Expenses for maintenance	-51.3		0.1	-51.2	-48.3				-2.9
Cost of development to sell	-18.2		13.3	-4.9				-4.9	
Cost of development to hold			_	_					
Operating expenses	-163.7	3.8	9.0	-150.9	-44.0	-13.4	-1.7	-0.8	-91.0
Adjusted EBITDA Total	341.4	3.8	0.3	345.5	289.5	5.4	8.1	-0.5	43.0

Adjusted to new adjusted EBITDA definition (excluding results from at-equity investments), due to Vonovia's minor control influence on the operating results of companies consolidated using the equity method.

The amounts shown in this column are transactions that took place in the old segment structure within the Deutsche Wohnen segment and now represent transactions between the segments of the new segment structure. *** Incl. cost of sold real estate inventories in the Recurring Sales segment.

5 Subsequent Events

As part of its ongoing efforts to be proactive in managing its financial liabilities, Vonovia successfully completed a cash offer for a number of bonds.

Out of the total nominal value offered by the bond investors amounting to approximately € 1.25 billion, Vonovia accepted the buyback of a nominal value of \in 1.0 billion for a total value of \in 892.0 million. This corresponds to a discount of around 11%.

Vonovia also reached an agreement on secured financing of € 125.0 million with NordLB on June 29, 2023, disbursement of which is scheduled for August 2023.

On June 30, 2023, Vonovia concluded a secured financing agreement with a volume of \in 130.0 million with UniCredit. This is scheduled for disbursement in the third quarter of 2023.

Another agreement on secured financing of \in 175.0 million was reached with Berliner Sparkasse on July 5, 2023, and will be disbursed in July 2023.

In order to manage its interest rate risk, Vonovia also concluded five interest rate swaps in the period between June 30, 2023 and July 6, 2023. These were supplemented by a forward interest rate swap concluded on July 5, 2023.

The interest rate swaps will run for between 3.5 years and 6.25 years and hedge a total nominal amount of \in 775.0 million.

The forward interest rate swap, with a nominal value of \in 500 million and a term of ten years, will take effect in 2024.

The interest rate hedges exchange a 3M or 6M Euribor for a fixed interest rate of between 2.989% and 3.513%.

Section (B): Profit for the Period

<u>6 Revenue from Property Management</u>

in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023
	-	
Rental income	1,573.0	1,609.3
Ancillary costs	598.7	919.7
Revenue from property letting	2,171.7	2,529.0
Other revenue from property management	207.5	227.6
	2,379.2	2,756.6

Other revenue from property management includes income of ϵ 143.8 million (H1 2022: ϵ 136.8 million) from the nursing and assisted living business area.

7 Profit on the Disposal of Properties

in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023
Income from the disposal of properties	103.3	146.4
Carrying amount of properties sold	-66.5	-113.4
Profit from the disposal of investment properties	36.8	33.0
Income from the sale of assets held for sale	2,801.8	91.7
Retirement carrying amount of assets held for sale	-2,796.7	-90.7
Change in value from properties sold	38.3	20.4
Profit from the disposal of assets held for sale	43.4	21.4
	80.2	54.4

The fair value adjustment of residential properties held for sale, for which a purchase contract had been signed but transfer of title had not yet taken place, led to a gain of ϵ 20.4 million as of June 30, 2023 (H1 2022: ϵ 38.3 million).

The year-on-year drop in the profit on, and retirement carrying amount from, the disposal of assets held for sale is due primarily to the disposal of properties as part of the Berlin Deal in the first quarter of 2022 (see further information in the 2022 Annual Report in note [D28] Investment Properties).

8 Profit on Disposal of Real Estate Inventories

Revenue from the disposal of real estate inventories amounting to ϵ 222.5 million (H1 2022: ϵ 380.5 million) comprises ϵ 120.5 million (H1 2022: ϵ 234.8 million) in period-related revenue together with ϵ 102.0 million (H1 2022: ϵ 145.7 million) in time-related revenue from the disposal of real estate inventories. As of the reporting date, contract assets of ϵ 185.7 million (December 31, 2022: ϵ 169.2 million) are recognized within trade receivables in connection with the period-related revenue recognition. As of the reporting date, this amount includes advance payments received of ϵ 145.5 million (December 31, 2022: ϵ 172.6 million). The drop in revenue as against the previous year is due primarily to the transfer of benefits and encumbrances for a project in Berlin in connection with the sale to an individual investor (global exit).

<u>9 Net Income from Fair Value Adjustment of Investment</u> <u>Properties</u>

The measurement of the investment properties led to a valuation result as of June 30, 2023, of ϵ -6,382.9 million (H1 2022: ϵ 3,115.9 million; see explanatory information in chapter note [D17] Investment Properties). This includes ϵ -52.1 million (H1 2022: ϵ -5.7 million) for the measurement of right-of-use assets (IFRS 16).

The figure also includes the valuation result from buildings under construction (new construction/development to hold) that were completed during the reporting period and were moved to the Rental portfolio. A fair value measurement is performed for the first time when the properties are completed. This resulted in a valuation effect of ϵ 13.7 million as of June 30, 2023 (H1 2022: ϵ 28.9 million).

The recognition and valuation of investment properties are explained in detail in the consolidated financial statements for 2022.

10 Cost of Materials

in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023		
Expenses for ancillary costs	618.7	909.1		
Expenses for maintenance and modernization	337.9	255.6		
Other cost of purchased goods and services	77.2	98.2		
	1,033.8	1,262.9		

11 Other Operating Expenses

The increase in other operating expenses can be traced back first of all to higher consultancy and expert appraisal costs of \in 85.4 million (H1 2022: \in 24.2 million). These mainly include expenses in connection with the Südewo transaction.

Impairment losses were also recognized on real estate inventories in the amount of \in 21.6 million (H1 2022: \in - million) in the reporting period.

12 Interest Income

in € million	Jan. 1- June 30, 2022	-Jan. 1 June 30, 2023		
Income from non-current securities	Г			
and non-current loans	24.8	23.6		
Other interest and similar income	11.0	26.3		
	35.8	49.9		

Other interest and similar income in the reporting period includes income of ε 15.3 million (H1 2022: ε 0.0 million) from a partial buyback of bonds.

13 Interest Expenses

in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023
Interest expense from non-derivative financial liabilities	253.7	363.4
Swaps (current interest expense for the period)	12.1	-20.3
Effects from the valuation of non-derivative financial	-32.2	-4.7
Effects from the valuation of swaps	-94.3	21.2
·		
Prepayment penalties and commitment interest	7.8	4.5
Interest accretion to provisions	8.1	9.8
Interest from leases	8.5	9.9
Other financial expenses	-11.2	-0.6
	152.5	383.2

The interest expenses for non-derivative financial liabilities reflect the comparatively higher interest conditions for refinancing over the last twelve months.

The change in the valuation of swaps was influenced by the marked increase in interest rates in the previous year. The reporting year, on the other hand, is characterized by slight adjustments to the future swap interest rates observed on the market, as well as by the interest expenses associated with the drop in the fair value of swaptions settled in the reporting period.

14 Other Financial Result

in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023
	Г	
Income from other investments	16.7	19.7
Transaction costs	-0.8	-0.5
Purchase price liabilities from put options/rights to reimbursement	-20.2	18.7
Miscellaneous other financial result	-0.1	-2.4
	-4.4	35.5

The income from investments includes financial income resulting from the collection of profits from the investment in AVW GmbH & Co. KG, Hamburg, in the amount of ϵ 14.5 million (H1 2022: ϵ 11.7 million) for the previous fiscal year in each case.

Section (C): Other Disclosures on the Results of Operations

15 Segment Reporting

The following table shows the segment information for the reporting period:

in € million	Rental	Value-add	Recurring Sales	Develop- ment	Care	Segments total	Other*	Consolida- tion*	Group
Jan. 1-June 30, 2023									
Segment revenue	1,606.4	619.8	141.4	414.2	143.9	2,925.7	1,020.7	-729.2	3,217.2
thereof external revenue	1,606.4	66.4	141.4	220.6	143.9	2,178.7	1,020.7	17.8	3,217.2
thereof internal revenue		553.4		193.6		747.0		-747.0	
Carrying amount of assets sold**			-108.2			-108.2	-99.3		
Revaluation from disposal of assets held for sale			11.1			11.1	6.9		
Expenses for maintenance	-207.0				-2.6	-209.6			
Cost of development to sell				-195.7		-195.7			
Cost of development to hold***				-179.4		-179.4		179.4	
Operating expenses	-201.2	-575.7	-7.3	-15.3	-106.1	-905.6	-21.3	540.6	
Ancillary costs							-909.1		
Adjusted EBITDA Total	1,198.2	44.1	37.0	23.8	35.2	1,338.3	-2.1	-9.2	1,327.0
Non-recurring items									-119.2
Period adjustments from assets held for sale									2.4
Income from investments/ amortization in other real estate companies									5.2
Net income from fair value adjustments of investment properties									-6,382.9
Depreciation and amortization (incl. depreciation on financial assets)									-371.4
Net income from investments accounted for using the equity method									-12.3
Income from other investments									-19.7
Interest income									49.9
Interest expenses									-383.2
Other financial result									35.5
ЕВТ									-5,868.7
Income taxes									1,738.3
Profit for the period									-4,130.4

* The revenue for the Rental, Value-add, Recurring Sales, Development and Care segments constitutes income that is regularly reported to the Management Board as the chief operating decision-maker and that reflects Vonovia's sustainable business. The revenue/costs in the "Other" and "Consolidation" columns are not part of the Management Board's segment management.

** Incl. cost of sold real estate inventories in the Recurring Sales segment.

*** Excluding capitalized interest on borrowed capital of € 0.5 million.

			Recurring	Develop-		Segments		Consolida-	
in € million	Rental	Value-add	Sales	ment	Care	total	Other*	tion*	Group
Jan. 1-June 30, 2022									
Segment revenue	1,570.5	637.4	295.2	462.0	136.9	3,102.0	3,225.9	-663.1	5,664.8
thereof external revenue	1,570.5	57.6	295.2	365.0	136.9	2,425.2	3,225.9	13.7	5,664.8
thereof internal revenue		579.8		97.0		676.8		-676.8	
Carrying amount of assets sold**			-239.0			-239.0	-2,637.5		
Revaluation from disposal of assets held for sale			35.3			35.3	40.9		
Expenses for maintenance	-215.1				-2.9	-218.0			
Cost of development to sell				-292.0		-292.0			
Cost of development to hold***				-68.2		-68.2		68.2	
Operating expenses****	-243.7	-553.5	-9.2	-16.9	-91.0	-914.3	19.2	548.3	
Ancillary costs							-618.7		
Adjusted EBITDA Total****	1,111.7	83.9	82.3	84.9	43.0	1,405.8	29.8	-46.6	1,389.0
Non-recurring items									-7.5
Period adjustments from assets held for sale									-37.9
Income from investments in other real estate companies									5.0
Net income from fair value adjustments of investment properties									3,115.9
Depreciation and amortization (incl. depreciation on financial assets)									-1,104.9
Net income from investments accounted for using the equity method									-334.6
Income from other investments									-16.7
Interest income									35.8
Interest expenses									-152.5
Other financial result									-4.4
EBT									2,887.2
Income taxes									-1,016.8
Profit for the period									1,870.4

The revenue for the Rental, Value-add, Recurring Sales, Development and Care segments constitutes income that is regularly reported to the Management Board as the chief operating decision-maker and that reflects Vonovia's sustainable business. The revenue/costs in the "Other" and "Consolidation" columns are not part of the Management Board's segment management.
 ** Incl. cost of sold real estate inventories in the Recurring Sales segment.
 *** Excluding capitalized interest on borrowed capital of € 0.0 million.
 ****Prior-year figures adjusted to new adjusted EBITDA definition (excluding results from at-equity investments), adjustments to Adjusted EBITDA Rental: € 4.3 million, Adjusted EBITDA Other: € -0.6 million.

In the 2023 reporting period, the non-recurring items eliminated in the Adjusted EBITDA Total came to ϵ 119.2 million (H1 2022: ϵ 7.5 million). The change is mainly attributable to positive non-recurring items in the previous year, as well as higher expenses for pre-retirement part-time work arrangements and one-off effects linked to the Südewo transaction in the 2023 reporting period.

The following table gives a detailed list of the non-recurring items:

in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023		
Transactions*	-3.9	82.9		
Personnel matters	2.1	26.6		
Business model optimization	7.0	6.2		
Research & development	1.5	3.4		
Refinancing and equity measures	0.8	0.1		
Total non-recurring items	7.5	119.2		

 Including one-time expenses in connection with acquisitions, such as HR measures relating to the integration process and other follow-up costs. The breakdown of non-Group revenue from contracts with customers (pursuant to IFRS 15.114 et seq./information as in annual financial statements for 2022) and its allocation to the segments referred to above is as follows:

in € million	Rental	Value-add	Recurring Sales	Development	Care	Other	Tota
Jan. 1-June 30, 2023							
Revenue from ancillary costs (IFRS 15)						850.7	850.7
Income from the disposal of real estate inventories			4.2	218.3			222.5
Other revenue from contracts with customers	17.5	65.8		0.4	143.8		227.5
Revenue from contracts with customers	17.5	65.8	4.2	218.7	143.8	850.7	1,300.7
thereof period-related				97.8			97.8
thereof time-related	17.5	65.8	4.2	120.9	143.8	850.7	1,202.9
Revenue from rental income (IFRS 16)	1,606.4	0.5		2.3	0.1		1,609.3
Revenue from ancillary costs (IFRS 16)*						69.0	69.0
Other revenue	1,606.4	0.5	-	2.3	0.1	69.0	1,678.3
Revenue	1,623.9	66.3	4.2	221.0	143.9	919.7	2,979.0
Jan. 1-June 30, 2022*							
Revenue from ancillary costs (IFRS 15)						464.2	464.2
Income from the disposal of real estate inventories			17.3	363.2			380.5
Other revenue from contracts with customers	13.3	57.0		0.4	136.8		207.5
Revenue from contracts with customers	13.3	57.0	17.3	363.6	136.8	464.2	1,052.2
thereof period-related				234.8			234.8
thereof time-related	13.3	57.0	17.3	128.8	136.8	464.2	817.4
Revenue from rental income (IFRS 16)	1,570.5	0.6		1.8	0.1		1,573.0
Revenue from ancillary costs (IFRS 16)**						134.5	134.5
Other revenue	1,570.5	0.6	-	1.8	0.1	134.5	1,707.5
Revenue	1,583.8	57.6	17.3	365.4	136.9	598.7	2,759.7

** Includes land tax and buildings insurance.

includes land tax and buildings insuran

External income and non-current assets, excluding financial instruments, deferred taxes, post-employment benefits and rights under insurance contracts, are distributed among Vonovia's country of origin and other countries as follows. The revenue and the assets are allocated based on the registered office of the unit providing the service.

	Reve	nue	Asse	ts
in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023	Dec. 31, 2022	June 30, 2023
Germany	2,306.8	2,683.4	84,885.3	79,495.3
Austria	269.8	118.4	3,581.6	3,404.5
Sweden	181.4	174.9	7,098.5	6,368.2
France	0.0	0.0	95.7	0.0
Other countries	1.6	2.4	97.2	111.3
Total	2,759.6	2,979.1	95,758.3	89,379.3

Section (D): Assets

16 Intangible Assets

Goodwill and Trademark Rights

Groups of Cash-Generating Units

The main parameters for calculating the value in use are the sustainable rate of increase, the weighted average cost of capital (WACC) and the expected cash flows.

in € million	Value-add segment	Development segment	Group
Goodwill as of Dec. 31, 2022	1,391.7	138.2	1,529.9
Impairment	-	-138.2	-138.2
Goodwill as of Jun3 30, 2023	1,391.7		1,391.7
Trademark rights as of Dec. 31, 2022	-	66.6	66.6
Impairment	_	-66.6	-66.6
Trademark rights as of June 30, 2023	-	_	_

Parameters for WACC Calculation for the Development Segment

	Dec. 31, 2022	June 30, 2023
Risk-free interest rate in %	2.00	2.50
Market risk premium in %	7.00	7.00
Levered beta	0.92	0.90
Country-specific premium in %	0.12	0.19
WACC (before tax) in %	8.13	9.92

The carrying amount of goodwill came to ϵ 1,391.7 million as of June 30, 2023. This means that goodwill has dropped by ϵ 138.2 million compared with December 31, 2022.

The change is due to the impairment identified in the second quarter of 2023 as part of the (ad hoc) impairment test performed. The increased cost of capital in the Development business area and adjusted cash flow planning in the Development business area to reflect the current market situation were classified as triggering events within the meaning of IAS 36. The impairment test conducted as of June 30, 2023, resulted in the goodwill for the Development business area of ϵ 138.2 million being written off in full.

In addition, trademark rights in the Development business area classified as having an indefinite useful life in the amount of ϵ 66.6 million were also written off in full. This led to an impairment of ϵ 204.8 million in the second quarter of 2023 for goodwill and trademark rights.

In accordance with IAS 36.19, first the value in use was calculated based on the Management Board-approved detailed plan with a planning period of five years. This was derived from the five-year plan at Group level approved by the Management Board and the Supervisory Board. The assumptions used to calculate the value in use match the assumptions used for the purposes of the impairment test at the end of 2022.

Parameters for WACC Calculation for the Value-Add Segment

	Dec. 31, 2022	June 30, 2023
Risk-free interest rate in %	2.00	2.50
Market risk premium in %	7.00	7.00
Levered beta	0.76	0.77
WACC (before tax) in %	6.10	7.35

The impairment loss was recognized in the consolidated income statement under depreciation and amortization.

The value in use for the Development business area amounts to ε 3.0 billion.

An increase in the cost of capital would result in the following need for impairment:

	Value-Add	Development
Goodwill and trading rights as of June 30, 2023 in € million	1,391.7	
Headroom in € million	241.1	
Impairment starts with an increase of the WACC in percentage points	0.44	
Full write-off in the event of an in- crease in the WACC in %	10.24	
Goodwill and trading rights as of Dec. 31, 2022 in € million	1,391.7	204.8
Headroom in € million	830.6	62.0
Impairment starts with an increase of the WACC in percentage points	1.19	0.14
Full write-off in the event of an in- crease in the WACC in %	10.18	0.67

A 0.25 percentage point drop in the sustainable rate of increase in the Value-add segment does not result in any goodwill impairment.

Only a 0.75 percentage point drop in the sustainable rate of increase would result in a need for impairment of \notin 79.7 million in the Value-add segment.

17 Investment Properties

in	€.	mil	lion
	C		non

As of Jan. 1, 2023	92,300.1
Additions	123.0
Capitalized modernization costs	293.4
Grants received	-9.1
Transfer to property, plant and equipment	-1.2
Transfer from property, plant and equipment	0.4
Transfer to down payments made	-1.6
Transfer from down payments made	78.3
Transfer from real estate inventories	75.4
Transfer to assets held for sale	-279.1
Other transfers	-0.5
Disposals	-117.4
Net income from fair value adjustments of investment properties	-6,382.9
Impairment of investment properties measured at cost	-81.3
Revaluation of assets held for sale	20.4
Revaluation from currency effects	-400.0
	-400.0 85,617.9
Revaluation from currency effects	
Revaluation from currency effects As of June 30, 2023	85,617.9
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022	85,617.9 94,100.1
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions	85,617.9 94,100.1 961.8
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs	85,617.9 94,100.1 961.8 1,248.9
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received	85,617.9 94,100.1 961.8 1,248.9 -12.1
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer to down payments made	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer to down payments made Transfer from down payments made	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2 105.0
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer from property, plant and equipment Transfer from property made Transfer from down payments made Transfer from real estate inventories	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2 105.0 143.3
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer to down payments made Transfer from down payments made Transfer from real estate inventories Transfer to real estate inventories	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2 105.0 143.3 -1,450.1
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer from down payments made Transfer from down payments made Transfer from real estate inventories Transfer to real estate inventories Transfer to assets held for sale	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2 105.0 143.3 -1,450.1 -416.5
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer to down payments made Transfer from down payments made Transfer from real estate inventories Transfer to real estate inventories Transfer to assets held for sale Other transfers	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2 105.0 143.3 -1,450.1 -416.5 -8.4
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer from down payments made Transfer from real estate inventories Transfer to real estate inventories Transfer to assets held for sale Other transfers Disposals Net income from fair value adjustments of investment	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2 105.0 143.3 -1,450.1 -416.5 -8.4 -153.7
Revaluation from currency effects As of June 30, 2023 As of Jan. 1, 2022 Additions Capitalized modernization costs Grants received Transfer to property, plant and equipment Transfer from property, plant and equipment Transfer from property, plant and equipment Transfer from down payments made Transfer from real estate inventories Transfer to real estate inventories Transfer to assets held for sale Other transfers Disposals Net income from fair value adjustments of investment properties	85,617.9 94,100.1 961.8 1,248.9 -12.1 -31.5 29.4 -417.2 105.0 143.3 -1,450.1 -416.5 -8.4 -153.7 -1,269.8

The values as of June 30, 2023, include assets of ϵ 421.8 million (December 31, 2022: ϵ 663.7 million) that are measured at cost, as their fair value cannot be reliably calculated on a continuing basis. Impairment losses of ϵ 81.3 million were recognized on these project developments in the reporting period based on the need for impairment identified as part of the ad hoc goodwill impairment test. These were reported under depreciation, amortization and impairment losses.

Fair Values

Vonovia determines fair value in accordance with the requirements of IAS 40 in conjunction with IFRS 13. We refer to the detailed information set out in the consolidated financial statements for 2022.

Vonovia measures its portfolio in Germany, Sweden and Austria internally on the basis of the discounted cash flow (DCF) method. Under the DCF methodology, the expected future income and costs of a property are forecast over a period of ten years and discounted to the date of valuation as the net present value. Furthermore, the terminal value of the property at the end of the ten-year period is determined using the expected stabilized net operating income and again discounted to the date of valuation as the net present value. In addition, the valuation of the portfolio in Austria is based on the assumption of sales strategies for the recurring sales of apartments for a subportfolio. Attainable revenues are calculated based on sales prices for comparable apartments (market approach) and are reported in the appropriate period in the DCF model. In order to take the sales potential into account, the DCF detailed period is extended to 100 years for the Austrian portfolios and no terminal value is used.

In order to reflect changes in value during the year, Vonovia performs a new valuation on the existing residential real estate portfolio* for the purposes of the half-year financial statements.

The value developments and values for the real estate assets in Germany and Austria were also subjected to a plausibility check performed by the experts CBRE GmbH and Jones Lang LaSalle SE. They confirmed that the portfolio value as of June 30, 2023, is plausible and consistent with the market. The plausibility of the internal valuation of the Swedish portfolio was assessed by an external valuation conducted by Savills Sweden SE. The market value resulting from the external report is consistent with the internal valuation result. The real estate portfolio of Vonovia is to be found in the items investment properties, property, plant and equipment (owner-occupied properties), real estate inventories, contractual assets and assets held for sale. The fair value of the portfolio comprising residential buildings, commercial properties, garages and parking spaces, project developments and undeveloped land and inheritable building rights granted was € 88,242.8 million as of June 30, 2023 (December 31, 2022: \in 94,694.5 million). This corresponds to a net initial yield for the real estate portfolio of 2.7% (December 31, 2022: 2.5%). For Germany, this results in an in-place rent multiplier of 26.9 for the portfolio (December 31, 2022: 29.2) and a fair value per m² of \in 2,415 (December 31, 2022: \in 2,590 per m²). The in-place rent multiplier for the Austrian portfolio comes to 24.2 (December 31, 2022: 25.8) and a fair value per m² of \in 1,684 (December 31, 2022: \in 1,742 per m²), for Sweden to 18.5 (December 31, 2022: 20.1) and a fair value per m^2 of $\in 2,017$ (December 31, 2022: $\in 2,248$ per m^2).

The inflation rate applied to the valuation procedure comes to 2.1%. For the Austrian portfolio, a sales strategy with an average selling price of ϵ 2,406 per m² was assumed for 48.4% of the portfolio.

The result from the valuation of investment properties amounted to ϵ -6,382.9 million in i H1 2023 (H1 2022: ϵ 3,115.9 million).

^{*} Comprising developed land, excluding Care and Development.

The material valuation parameters for the investment properties (Level 3) in the real estate portfolio are as follows as of June 30, 2023, on average, broken down by regional markets:

	v	Valuation results*		
Regional market	Fair value (in € million)	thereof investment properties (in € million)	thereof other asset classes (in € million)	
June 30, 2023				
Berlin	25,501.5	25,115.0	386.5	
Rhine Main Area	6,932.5	6,917.1	15.4	
Dresden	5,364.6	5,355.8	8.8	
Southern Ruhr Area	5,290.0	5,279.7	10.3	
Rhineland	5,244.8	5,237.4	7.4	
Hamburg	3,431.5	3,426.7	4.8	
Hanover	3,021.6	3,019.0	2.6	
Munich	2,999.8	2,888.9	110.8	
Kiel	2,875.9	2,870.7	5.2	
Stuttgart	2,389.0	2,386.7	2.3	
Northern Ruhr Area	2,122.0	2,115.8	6.2	
Leipzig	2,010.9	2,009.0	1.9	
Bremen	1,492.6	1,490.1	2.4	
Westphalia	1,136.8	1,135.7	1.2	
Freiburg	748.3	746.9	1.4	
Other strategic locations	3,538.7	3,533.2	5.5	
Total strategic locations	74,100.5	73,527.7	572.8	
Non-strategic locations	441.8	439.2	2.5	
Vonovia Germany	74,542.3	73,967.0	575.3	
Vonovia Sweden**	6,183.8	6,183.8	0.0	
Vonovia Austria**	2,931.0	2,877.6	53.3	

Fair value of the developed land excl. € 4,585.7 million for development, undeveloped land, inheritable building rights granted and other; € 2,178.4 million of this amount relates to investment properties. The investment properties balance sheet item also includes the present value in connection with payments for right-of-use assets in the amount of € 411.1 million.
 ** The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

		Valuation parameters inv	lestment properties (Level J/		
Management costs residential (€⁄residential unit p.a.)	Maintenance costs total residential (€/m² p.a.)	Market rent residential (€/m² per month)	Market rent increase residential	Stabilized vacancy rate residential	Discount rate total	Capitalized interest rate total
298	16.36	8.35	2.3%	0.9%	4.7%	2.6%
322	16.15	10.07	2.2%	1.2%	5.0%	3.0%
287	15.76	7.11	2.1%	2.3%	4.9%	3.2%
317	14.22	7.59	1.9%	2.6%	4.8%	3.2%
319	15.64	9.07	2.1%	1.7%	5.1%	3.2%
308	15.78	9.15	2.0%	1.2%	4.8%	3.0%
307	15.72	8.05	2.0%	1.9%	5.1%	3.4%
309	16.32	12.66	2.3%	0.6%	5.0%	2.9%
310	16.43	8.26	2.0%	1.6%	5.2%	3.5%
323	16.62	9.86	2.2%	1.3%	5.1%	3.2%
318	14.77	6.84	1.6%	3.3%	5.0%	3.8%
304	16.69	7.17	2.0%	2.7%	4.7%	3.0%
315	14.79	7.55	2.1%	2.0%	4.9%	3.1%
314	14.64	7.82	2.0%	2.0%	5.2%	3.6%
320	16.74	9.23	2.0%	0.9%	4.8%	3.0%
315	15.87	8.05	2.0%	2.5%	5.1%	3.5%
307	15.83	8.36	2.1%	1.7%	4.9%	3.0%
335	16.77	7.78	1.9%	2.2%	5.8%	4.1%
308	15.84	8.36	2.1%	1.7%	4.9%	3.0%
356	12.02	9.33	2.1%	1.5%	5.8%	3.8%
n.a.	20.82	6.11	1.7%	2.6%	5.8%	n.a.

	v	Valuation results*		
Regional market	Fair value (in € million)	thereof investment properties (in € million)	thereof other asset classes (in € million)	
Dec. 31, 2022				
Berlin	27,793.9	27,424.6	369.3	
Rhine Main Area	7,545.4	7,452.2	93.2	
Dresden	5,769.2	5,730.4	38.9	
Southern Ruhr Area	5,509.3	5,499.1	10.1	
Rhineland	5,631.7	5,624.8	6.9	
Hamburg	3,653.7	3,648.7	5.0	
Hanover	3,211.9	3,209.0	2.9	
Munich	3,062.1	3,047.6	14.5	
Kiel	3,137.3	3,132.0	5.3	
Stuttgart	2,514.2	2,509.5	4.7	
Northern Ruhr Area	2,227.0	2,219.7	7.4	
Leipzig	2,161.3	2,160.0	1.3	
Bremen	1,559.5	1,557.0	2.5	
Westphalia	1,235.8	1,234.5	1.3	
Freiburg	802.1	800.5	1.6	
Other strategic locations	3,750.2	3,740.5	9.7	
Total strategic locations	79,564.5	78,990.1	574.4	
Non-strategic locations	504.6	496.5	8.1	
Vonovia Germany	80,069.1	79,486.6	582.5	
Vonovia Sweden**	6,876.3	6,876.3	_	
Vonovia Austria**	3,026.5	2,972.0	54.6	

* Fair value of the developed land excl. € 4,722.5 million for development, undeveloped land, inheritable building rights granted and other; € 2,502.2 million of this amount relates to investment properties. The investment properties balance sheet item also includes the present value in connection with payments for right-of-use assets in the amount of € 463.0 million.

** The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

Sensitivity Analyses

The sensitivity analyses performed on Vonovia's real estate portfolio show the impact of value drivers dependent upon market developments. Those influenced in particular are the market rents and their development, the amount of recognized administrative and maintenance expenses, cost increases, the vacancy rate and interest rates. The effect of possible fluctuations in these parameters is shown separately for each parameter according to regional market in the following.

Interactions between the parameters are possible but cannot be quantified owing to the complexity of the interrelationships. The vacancy and market rent parameters, for example, can influence each other. If rising demand for housing is not met by adequate supply developments, then this can result in lower vacancy rates and, at the same time, rising market rents. If, however, the rising demand is compensated for by a high vacancy reserve in the location in question, then the market rent level does not necessarily change.

Changes in the demand for housing can also impact the risk associated with the expected payment flows, which is then reflected in adjusted amounts recognized for discounting and capitalized interest rates. The effects do not, however, necessarily have to have a favorable impact on each other, for example, if the changes in the demand for residential real estate are overshadowed by macroeconomic developments.

In addition, factors other than demand can have an impact on these parameters. Examples include changes in the portfolio, in seller and buyer behavior, political decisions and developments on the capital market.

		Valuation parameters inv	estment properties (Level 5)		
Management costs residential (€ per residential unit p.a.)	Maintenance costs total residential (€/m² p.a.)	Market rent residential (€/m² per month)	Market rent increase residential	Stabilized vacancy rate residential	Discount rate total	Capitalized interest rate tota
287	15.92	8.24	2.0%	1.0%	4.1%	2.3%
311	15.74	9.92	1.9%	1.1%	4.4%	2.8%
276	15.29	6.93	1.8%	2.3%	4.3%	2.9%
305	13.74	7.43	1.6%	2.6%	4.2%	3.0%
308	15.21	8.89	1.8%	1.7%	4.5%	3.0%
297	15.45	8.95	1.7%	1.2%	4.2%	2.7%
296	15.27	7.87	1.7%	2.0%	4.4%	3.1%
298	15.63	12.45	2.0%	0.6%	4.4%	2.7%
299	15.92	8.06	1.7%	1.7%	4.5%	3.1%
312	16.03	9.67	1.9%	1.2%	4.6%	3.0%
307	14.35	6.73	1.3%	3.3%	4.4%	3.6%
292	16.26	7.07	1.7%	3.1%	4.1%	2.7%
304	14.38	7.42	1.8%	2.0%	4.3%	2.9%
303	14.31	7.72	1.7%	2.0%	4.5%	3.2%
309	16.58	9.03	1.7%	0.9%	4.2%	2.7%
303	15.44	7.91	1.7%	2.5%	4.5%	3.2%
296	15.39	8.22	1.8%	1.7%	4.3%	2.7%
323	16.11	7.64	1.6%	2.6%	5.0%	3.6%
296	15.40	8.21	1.8%	1.7%	4.3%	2.7%
379	12.83	9.78	2.1%	1.5%	5.6%	3.6%
n.a.	21.34	5.88	1.7%	2.6%	5.5%	n.a

Due to the special situation in Sweden, where changes in inflation will have a considerable impact on future rent increases, it has been assumed that at least one-third of any change in inflation will spill over into rental growth. The table below shows the percentage impact on values in the event of a change in the valuation parameters. The absolute impact on values is calculated by multiplying the percentage impact by the fair value of the investment properties.

	Change in valı	Change in value as a % under varying parameters			
	Management costs residential	Maintenance costs residential	Cost increase/inflation		
Regional market	-10%/10%	-10%/10%	-0.5%/+0.5% points		
June 30, 2023					
Berlin	0.6/-0.6	1.9/-1.9	5.6/-5.6		
Rhine Main Area	0.5/-0.5	1.6/-1.6	3.6/-3.8		
Dresden	0.8/-0.8	2.4/-2.4	5.5/-5.5		
Southern Ruhr Area	0.9/-0.9	2.4/-2.4	5.5/-5.5		
Rhineland	0.6/-0.6	1.9/-1.9	4.1/-4.2		
Hamburg	0.6/-0.6	1.9/-1.9	4.5/-4.6		
Hanover	0.7/-0.7	2.2/-2.2	4.7/-4.8		
Munich	0.4/-0.4	1.2/-1.2	3.5/-3.6		
Kiel	0.8/-0.8	2.3/-2.3	4.7/-4.8		
Stuttgart	0.5/-0.5	1.7/-1.6	3.6/-3.7		
Northern Ruhr Area	1.1/-1.1	3.1/-3.1	5.9/-5.9		
Leipzig	0.8/-0.8	2.7/-2.7	6.2/-6.2		
Bremen	0.8/-0.8	2.3/-2.3	5.9/-5.9		
Westphalia	0.8/-0.8	2.3/-2.3	4.9/-5.0		
Freiburg	0.6/-0.6	2.0/-2.0	4.4/-4.5		
Other strategic locations	0.8/-0.8	2.3/-2.3	4.7/-4.8		
Total strategic locations	0.7/-0.7	2.0/-2.0	5.0/-5.0		
Non-strategic locations	0.7/-0.7	2.3/-2.3	4.1/-4.2		
Vonovia Germany	0.7/-0.7	2.0/-2.0	5.0/-5.0		
Vonovia Sweden*	0.7/-0.7	1.6/-1.6	4.7/-5.0		
Vonovia Austria*	n.a./n.a.	0.3/-0.4	0.4/-0.5		

* The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

Market rent residential	Market rent increase residential	Stabilized vacancy rate residential	Discounting and capitalized interest rates total
 -2%/+2%	-0.2%/+0.2% points	-1%/+1% points	-0.25%/+0.25% points
-2.4/2.4	-9.3/11.3	1.4/-1.7	11.2/-9.2
-2.4/2.3	-7.4/8.6	1.1/-1.6	9.1/-7.6
-2.5/2.5	-7.8/9.1	1.8/-1.8	8.9/-7.6
-2.6/2.6	-8.0/9.4	2.0/-1.9	8.8/-7.5
-2.4/2.4	-7.3/8.6	1.7/-1.7	8.7/-7.4
-2.4/2.4	-8.1/9.5	1.2/-1.7	9.7/-8.1
-2.4/2.4	-7.3/8.5	1.8/-1.8	8.4/-7.2
-2.1/2.1	-7.8/9.2	0.8/-1.4	10.2/-8.5
-2.5/2.5	-7.1/8.2	1.8/-1.8	7.9/-6.8
-2.4/2.3	-7.2/8.3	1.5/-1.6	8.6/-7.3
-2.8/2.8	-7.1/8.2	2.2/-2.2	7.2/-6.3
-2.5/2.5	-8.2/9.8	1.9/-1.9	9.4/-8.0
-2.5/2.4	-8.2/9.6	1.9/-1.9	9.1/-7.8
-2.5/2.5	-7.1/8.3	1.8/-1.9	7.9/-6.8
-2.5/2.4	-7.9/9.2	1.2/-1.7	9.3/-7.8
-2.6/2.5	-7.2/8.3	1.8/-1.8	8.0/-6.9
-2.5/2.4	-8.2/9.7	1.5/-1.7	9.6/-8.1
-2.3/2.3	-6.2/7.1	1.7/-1.7	7.2/-6.3
-2.5/2.4	-8.2/9.7	1.5/-1.7	9.6/-8.1
-2.8/2.8	-8.3/9.6	0.6/-1.2	7.8/-6.8
-0.3/0.3	-0.9/1.0	0.8/-0.8	4.0/-3.6

	Change in valı	Change in value as a % under varying parameters				
	Management costs residential	Maintenance costs residential	Cost increase/inflation			
Regional market	-10%/10%	-10%/10%	-0.5%/+0.5% points			
Dec. 31, 2022						
Berlin	0.7/-0.7	2.2/-2.2	6.5/-6.4			
Rhine Main Area	0.6/-0.6	1.7/-1.7	4.1/-4.2			
Dresden	0.9/-0.9	2.7/-2.7	6.4/-6.3			
Southern Ruhr Area	1.0/-1.0	2.6/-2.6	6.2/-6.2			
Rhineland	0.7/-0.7	2.0/-2.0	4.7/-4.8			
Hamburg	0.7/-0.7	2.1/-2.1	5.2/-5.3			
Hanover	0.8/-0.8	2.4/-2.4	5.4/-5.4			
Munich	0.4/-0.4	1.4/-1.4	3.9/-4.0			
Kiel	0.9/-0.9	2.5/-2.5	5.5/-5.5			
Stuttgart	0.6/-0.6	1.8/-1.8	4.1/-4.2			
Northern Ruhr Area	1.2/-1.2	3.4/-3.4	6.6/-6.6			
Leipzig	0.9/-0.9	3.0/-3.0	7.4/-7.2			
Bremen	0.9/-0.9	2.6/-2.6	6.6/-6.4			
Westphalia	0.9/-0.9	2.6/-2.6	5.7/-5.8			
Freiburg	0.7/-0.6	2.2/-2.2	5.1/-5.1			
Other strategic locations	0.8/-0.8	2.5/-2.5	5.3/-5.3			
Total strategic locations	0.7/-0.8	2.3/-2.3	5.7/-5.7			
Non-strategic locations	0.8/-0.8	2.4/-2.4	4.7/-4.8			
Vonovia Germany	0.8/-0.8	2.3/-2.3	5.7/-5.7			
Vonovia Sweden*	0.7/-0.7	1.6/-1.7	4.7/-5.1			
Vonovia Austria*	n.a.	0.4/-0.4	0.4/-0.5			

* The valuation methods used for the portfolio in Austria and Sweden use and provide valuation parameters that are only partially comparable.

18 Financial Assets

The increase in financial assets is due primarily to the initial recognition of a long-term option to buy back shares in the Südewo portfolio amounting to ϵ 359.0 million (December 31, 2022: ϵ - million). In a sensitivity analysis, the WACC, as the main influencing factor, was changed by +5%/-5%, which would result in a change in equity affecting net income of ϵ -45 million/ ϵ +52 million. The shares were sold in the first half of 2023.

Financial assets also include loan receivables of \in 803.3 million (December 31, 2022: \in 781.8 million), taking into account the expected credit loss, from the QUARTERBACK Immobilien Group granted in line with standard market conditions. \in 490.4 million (December 31, 2022: \in 672.1 million) of these loans are classified as current and \in 312.9 million (December 31, 2022: \in 109.7 million) as non-current. The change is due to loan repayments and, on the other hand, new loans taken out with a maturity of more than twelve months.

	rying parameters	Change in value as a % under va	
Discounting and capitalized interest rates tota	Stabilized vacancy rate residential	Market rent increase residential	Market rent residential
-0.25%/+0.25% points	-1%/+1% points	-0.2%/+0.2% points	-2%/+2%
12.5/-10.2	1.6/-1.8	-10.3/12.7	-2.6/2.5
10.0/-8.3	1.0/-1.6	-8.0/9.5	-2.4/2.4
9.9/-8.3	1.9/-2.0	-8.6/10.2	-2.6/2.6
9.5/-8.0	2.1/-2.1	-8.6/10.2	-2.6/2.6
9.6/-8.2	1.7/-1.8	-8.1/9.5	-2.5/2.5
10.7/-8.8	1.3/-1.8	-8.7/10.6	-2.5/2.4
9.2/-7.8	1.9/-1.9	-8.0/9.4	-2.5/2.5
11.1/-9.1	0.8/-1.5	-8.4/10.1	-2.2/2.2
8.9/-7.6	1.9/-1.9	-7.9/9.3	-2.6/2.5
9.3/-7.9	1.5/-1.7	-7.8/9.1	-2.4/2.4
7.8/-6.7	2.3/-2.3	-7.7/8.9	-2.8/2.8
10.6/-8.8	2.0/-2.0	-9.1/11.1	-2.6/2.7
9.8/-8.2	2.0/-2.0	-8.7/10.4	-2.5/2.5
8.8/-7.5	1.9/-2.0	-7.9/9.3	-2.5/2.5
10.3/-8.5	1.2/-1.8	-8.6/10.3	-2.5/2.5
8.7/-7.5	1.9/-1.9	-7.8/9.1	-2.6/2.6
10.7/-8.8	1.6/-1.9	-9.0/10.8	-2.5/2.5
8.0/-6.9	1.7/-1.8	-6.7/7.8	-2.3/2.3
10.6/-8.8	1.6/-1.9	-8.9/10.8	-2.5/2.5
8.3/-7.2	0.6/-1.2	-8.8/10.2	-2.9/2.8
4.4/-4.0	0.9/-0.9	-1.0/1.1	-0.4/0.4

<u>19 Long-term Financial Assets Accounted for Using the</u> Equity Method

As of the reporting date Vonovia held interests in 24 joint ventures and eight associates (December 31, 2022: 26 joint ventures and eight associates).

Vonovia holds 40% of the non-listed QUARTERBACK Immobilien AG with registered office in Leipzig, which was classed as an associate as of June 30, 2022. Vonovia also holds interests in 11 non-listed financial investments of QUARTERBACK Immobilien AG, with equity interests of between 44% and 50% (QUARTERBACK property companies), that were classified as joint ventures (previous year: 11).

The 40% stake in the non-listed QUARTERBACK Immobilien AG and QBI's eleven non-listed financial investments in which Vonovia holds a stake of between 44% and 50% in each case was adjusted on the basis of the financial information as of March 31, 2023, that was available on the preparation cut-off date.

in € million	Dec. 31, 2022 QUARTER- BACK Immobilien AG	June 30, 2023 QUARTER- BACK Immobilien AG	Dec. 31, 2022 QUARTER- BACK- Objektge- sellschaften	June 30, 2023 QUARTERBACK- Objektge- sellschaften	
Non-current assets	764.0	770.0	229.5	231.9	
Current assets					
Cash and cash equivalents	104.9	103.1	21.1	18.0	
Other current assets	1,510.3	1,511.3	589.3	558.5	
Total non-current assets	1,615.2	1,614.4	610.4	576.5	
Total non-current liabilities	841.6	934.6	86.6	51.8	
Total current liabilities	1,186.2	1,106.3	510.3	524.0	
Non-controlling interests	42.5	43.1	12.0	11.8	
Equity (100%)	308.9	300.4	231.0	220.7	
Group share in %	40%	40%	44% to 50%	44% to 50%	
Group share of net assets in EUR	123.6	120.2	106.6	103.2	
Group adjustments	-49.5	-48.1	-5.4	-6.3	
Carrying amount of share in joint venture	74.1	68.5	101.2	96.9	
Revenues	311.1	93.9	59.0	21.6	
Change in inventories	302.2	9.1	17.7	0.3	
Interest income	20.6	1.7	8.4	2.6	
Depreciation and amortization	-4.3	-1.3	-0.2	-0.1	
Interest expenses	-78.2	-22.6	-23.2	-7.8	
Income taxes	-18.1	2.0	-0.6	-0.2	
Total gain and comprehensive income for the fiscal year (100%)	7.8	-7.9	-3.1	-7.7	

The at-equity adjustment of the investments in the QUAR-TERBACK Group results in a negative result of ϵ 9.8 million as of June 30, 2023 (H1 2022: ϵ 4.9 million). In addition to these investments, Vonovia also holds interests in 20 (December 31, 2022: 21) other entities that are accounted for using the equity method and are currently of minor importance; quoted market prices are not available. The following table shows, in aggregated form, the carrying amount and the share of profit and other comprehensive income of these companies.

in € million	Dec. 31, 2022	June 30, 2023
Carrying amount of shares in companies accounted for using the equity method	64.8	57.7
Group share of net income from companies not accounted for using the equity method	10% to 50%	10% to 50%
Pro rata total comprehensive income	-6.6	-2.4

The interests were adjusted for these entities provided that corresponding financial information was available.

With regard to the other 20 entities, Vonovia has no significant financial obligations or guarantees with respect to joint ventures and associates.

Section (E): Capital Structure

20 Total Equity

Development of the Subscribed Capital

in€	
As of Jan. 1, 2023	795,849,997.00
Capital increase against non-cash contributions on June 13, 2023 (scrip dividend)	18,795,001.00
As of June 30, 2023	814,644,998.00

Development of the Capital Reserves

in €

As of Jan. 1, 2023	5,151,544,376.12
Premium from capital increase for scrip dividend on June 13, 2023	284,744,265.15
Transaction costs on the issue of new shares (after allowing for deferred taxes)	-100,209.74
Other changes not affecting net income	-2,525,035.72
As of June 30, 2023	5,433,663,395.81

Dividend

The Annual General Meeting held on May 17, 2023, resolved to pay a dividend for the 2022 fiscal year in the amount of ϵ 0.85 per share, or ϵ 676,472,497.45 in total.

As in previous years, shareholders were offered the option of choosing between being paid the dividend in cash or being granted new shares. During the subscription period, shareholders holding a total of 44.87% of the shares carrying dividend rights opted for the scrip dividend instead of the cash dividend. As a result, 18,795,001 new shares were issued using the company's authorized capital pursuant to Section 5b of the Articles of Association ("2018 authorized capital") at a subscription price of ϵ 16.15, i.e., a total amount of ϵ 303,539,266.15. The total amount of the dividend distributed in cash therefore came to ϵ 372,933,231.30.

Authorized Capital

After being used in connection with the capital increase in 2023, the 2022 authorized capital fell by \in 18,795,001.00 from \in 233,000,000.00 to \in 214,204,999.00 as of June 30, 2023. Shareholder subscription rights for the 2021 authorized capital can be excluded.

Non-Controlling Interests and Retained Earnings

On May 31, 2023, Vonovia sold a direct equity holding of 34.5%, or approximately 27.6%, in a selected portfolio to Apollo Capital Management L.P. for ϵ 1.0 billion (Südewo transaction). This resulted in the addition of non-controlling interests of ϵ 760.4 million. The corresponding difference increased the company's retained earnings by ϵ 239.6 million.

A call option that Vonovia can exercise to buy the shares back was agreed as part of the transaction. The valuation of this option resulted in a market value of \in 359.0 million. As this option was agreed as part of the transaction, it was also recognized outside profit or loss in retained earnings.

21 Non-derivative Financial Liabilities

	Dec. 31, 2	June 30, 2023		
in € million	Non-current	Current	Non-current	Current
Non-derivative financial liabilities		Γ		
Liabilities to banks	17,086.4	1,021.4	13,090.3	1,200.5
Liabilities to other creditors	24,183.3	2,558.4	27,304.8	2,659.9
Deferred interest from non-derivative financial liabilities	-	210.2	_	181.0
	41,269.7	3,790.0	40,395.1	4,041.4

The U.S. dollar bond issued in 2013 is translated at the exchange rate at the end of the reporting period in line with applicable IFRS provisions. Allowing for the hedging rate prescribed through the interest hedging transaction entered into, this financial liability would be ϵ 45.6 million (December 31, 2022: ϵ 50.0 million) lower than the recognized value.

The nominal obligations of the liabilities to banks and the liabilities to other creditors developed as follows:

in € million	Dec. 31, 2022 June 30, 2			
Bond (USD)*	185.0	185.0		
Bond (SEK)*	121.2	121.2		
Bond (EMTN)*	21,155.3	20,698.3		
Bond (EMTN Green Bond)*	2,200.0	2,200.0		
Bond (EMTN Social Bond)*	2,400.0	2,400.0		
Bond (Deutsche Wohnen)*	1,760.7	1,760.7		
Registered bonds*	600.0	600.0		
Bearer bonds*	1,260.2	1,260.2		
Promissory note loan*	1,165.0	1,045.0		
Mortgages**	13,911.8	13,924.8		
	44,759.2	44,195.2		

 Under the conditions of existing loan agreements, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.

** For a portion of the mortgages, Vonovia is obliged to fulfill certain financial covenants, which it fulfilled.

Of the nominal obligations to creditors, ϵ 12,276.1 million (December 31, 2022: ϵ 12,287.4 million) are secured by land charges and other collateral (account pledge agreements, assignments, pledges of company shares and guarantees of Vonovia SE or other Group companies). In the event that payment obligations are not fulfilled, the securities provided are used to satisfy the claims of the banks.

Repayment of Bonds Under the European Medium-Term Notes Program (EMTN)

In January 2023, Vonovia implemented an open market repurchase to buy back bonds maturing in 2028, 2029 and 2033. ϵ 53.6 million was bought back early within this context. A bond in the amount of ϵ 403.4 million was repaid as planned in April 2023.

Repayment of Secured Financing of Deutsche Wohnen

Deutsche Wohnen repaid secured financing in the amount of ϵ 281.8 million as scheduled in March 2023.

Repayment of Secured Financing of Vonovia

June 2023 saw Vonovia repay a secured financing arrangement in the amount of ε 75.9 million on the final maturity date.

Repayment of Promissory Note Loans

Vonovia repaid promissory note loans of ε 120.0 million as scheduled in March 2023.

Repayment of Commercial Paper

Vonovia repaid a commercial paper with a volume of \in 75.0 million as planned in June 2023.

Secured Financing

On March 16, 2023, Vonovia took out secured financing with Berlin Hyp in the amount of ϵ 550.0 million with a maturity of ten years. The financing was disbursed in April 2023.

Unsecured Financing

On April 19, 2023, Vonovia took out unsecured financing with Caixabank in the amount of ϵ 150.0 million with a maturity of five years. The financing was disbursed in April 2023.

22 Leases

The following table shows the development of right-of-use assets arising from leases within the meaning of IFRS 16 as of June 30, 2023, compared with December 31, 2022.

Development of Right-of-use Assets

in € million	Dec. 31, 2022	June 30, 2023		
	Г			
Right-of-use assets				
Leasehold contracts	2,016.8	1,824.3		
Interim rental agreements	3.0	3.2		
Right-of-use assets within investment properties	2,019.8	1,827.5		
Leasing of land for the construction of owner-occupied commercial properties	30.9	30.7		
Lease agreements for commer- cial premises	41.7	51.2		
Contracting	91.8	84.2		
Vehicle leases	4.7	5.2		
License agreements	0.5	0.6		
Leases of IT equipment	1.5	1.3		
Metering technology	22.6	20.8		
Right-of-use assets within property, plant and equipment	193.7	194.0		
	2,213.5	2,021.5		

The following table shows the development of current and non-current liabilities arising from leases within the meaning of IFRS 16 as of June 30, 2023, compared with December 31, 2022.

Development of Lease Liabilities

	Dec. 31, 20)22	June 30, 2023		
n € million	Non-current	Current	Non-current	Current	
Lease liabilities		Г			
Leasehold contracts (IAS 40)	470.1	12.2	464.9	11.9	
Interim rental agreements	1.7	1.4	2.1	1.2	
Leasing of land for the construction of owner-occupied commercial properties	31.9	0.1	31.3	0.1	
Lease agreements for commercial premises	32.0	10.3	41.1	11.6	
Contracting	81.9	11.4	73.7	12.4	
Vehicle leases	2.5	2.2	2.8	2.4	
License agreements	0.5	-	0.6	0.0	
Leases of IT equipment	0.8	0.7	0.8	0.6	
Metering technology	19.6	3.2	17.9	3.2	
	641.0	41.5	635.2	43.4	

Section (F): Corporate Governance Disclosures

23 Related Party Transactions

Vonovia had business relationships with unconsolidated investees and subsidiaries in the first half of 2023. These transactions resulted from the normal exchange of deliveries and services and are shown in the table below:

	Provided services		Purchased services		Receivables		Liabilities		Advanced payments	
in € million	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023	Jan. 1- June 30, 2022	Jan. 1- June 30, 2023	Dec. 31, 2022	June 30, 2023	Dec. 31, 2022	June 30, 2023	Dec. 31, 2022	June 30, 2023
Associated companies	0.0	22.4	31.7	7.8	646.5	650.6	0.1	5.1	290.1	343.0
Joint ventures	3.4	0.3	108.4	54.9	173.1	185.0	6.3	0.1	17.3	17.4
Other non-consoli- dated subsidiaries	0.0	_	-	_	1.8	0.2	_	_	-	_
	3.4	22.7	140.1	62.7	821.4	835.8	6.4	5.2	307.4	360.4

With regard to the Management Board contracts of employment and the IFRS 2 program that they include, we refer to the IFRS consolidated financial statements as of December 31, 2022.

Section (G): Additional Financial Management Disclosures

24 Additional Financial Instrument Disclosures

Measurement categories and classes:

Measurement categories and classes: in € million	Carrying amounts June 30, 2023	
		_
Assets		
Cash and cash equivalents		
Cash on hand and deposits at banking institutions	1,575.0	
Money market funds	101.6	
Trade receivables		
Receivables from the sale of properties	88.1	
Receivables from property letting	62.9	
Other receivables from trading	44.0	
Receivables from the sale of real estate inventories	198.1	
Financial assets		
Investments valued at equity	223.2	
Finance lease receivables	16.8	
Other current financial receivables from financial transactions*	142.1	
Loans to other investments	361.5	
Other non-current loans	10.9	
Other non-current loans to associates and joint ventures	517.5	
Non-current securities	5.6	
Other investments	327.1	
Derivative financial assets		
Cash flow hedges - no classification in accordance with IFRS 9	79.6	
Call option on equity instruments	359.0	
Stand-alone interest rate swaps and interest rate caps	91.6	
Liabilities		
Trade payables	457.6	
Non-derivative financial liabilities	44,436.5	
Derivatives and put options		
Purchase price liabilities from put options/rights to reimbursement	335.5	
Stand-alone interest rate swaps and interest rate caps	-	
Cash flow hedges	1.6	
Lease liabilities	678.5	
Liabilities from tenant financing	157.3	
Liabilities to non-controlling interests	234.6	

* This includes time deposits and short-term investments in highly liquid money market funds with an original maturity of more than three months.

A	mortized cost	Fair value affecting net income	Fair value recognized in equity with reclassification	Fair value recognized in equity without reclassification	Amounts recognized in balance sheet in acc. with IAS 28/IFRS 16	Fair value June30, 2023	Fair value hierarchy level
	1,575.0					1,575.0	n.a.
	101.6					101.6	n.a.
	88.1					88.1	n.a.
	62.9					62.9	n.a.
	44.0					44.0	n.a.
	198.1					198.1	n.a.
					223.2		n.a.
					16.8		n.a.
	142.1					142.1	2
	361.5					361.6	2
	10.9					10.9	2
	517.5					517.5	2
				5.6		5.6	1
				327.1		327.1	2
		-20.9	100.5			79.6	n.a.
		359.0				359.0	3
		91.6				91.6	2
	457.6					457.6	n.a.
	44,436.5					37,630.4	2
	335.5					217.5	3
							2
		1.6				1.6	2
					678.5		n.a.
	157.3					157.3	n.a.
	234.6					234.6	n.a.

Measurement categories and classes:

Measurement categories and classes:	Carrying amounts	
in € million	Dec. 31, 2022	
Assets		
Cash and cash equivalents		
Cash on hand and deposits at banking institutions	1,101.8	
Money market funds	200.6	
Trade receivables		
Receivables from the sale of properties	47.2	
Receivables from property letting	44.9	
Other receivables from trading	41.3	
Receivables from the sale of real estate inventories	196.8	
Financial assets		
Investments valued at equity	240.1	
Finance lease receivables	23.7	
Loans to other investments	33.1	
Other non-current loans	11.5	
Other non-current loans to associates and joint ventures	825.9	
Non-current securities	5.5	
Other investments	398.6	
Derivative financial assets		
Cash flow hedges - no classification in accordance with IFRS 9	115.1	
Stand-alone interest rate swaps and interest rate caps	99.8	
Liabilities		
Trade payables	568.5	
Non-derivative financial liabilities	45,059.7	
Derivatives and put options		
Purchase price liabilities from put options/rights to reimbursement	270.9	
Cash flow hedges	1.3	
Lease liabilities	682.5	
Liabilities from tenant financing	155.1	
Liabilities to non-controlling interests	235.8	

The section below provides information on the financial assets and financial liabilities not covered by IFRS 9:

- > Employee benefits in accordance with IAS 19: gross presentation of right to reimbursement arising from transferred pension obligations in the amount of \in 2.5 million (December 31, 2022: \in 2.6 million).
- > Amount by which the fair value of plan assets exceeds the corresponding obligation of € 1.3 million (December 31, 2022: € 1.6 million).

> Provisions for pensions and similar obligations: ϵ 518.7 million (December 31, 2022: ϵ 512.5 million).

Amortized cost	Fair value affecting net income	Fair value recognized in equity with reclassification	Fair value recognized in equity without reclassification	Amounts recognized in balance sheet in acc. with IAS 28/IFRS 16	Fair value Dec. 31, 2022	Fair value hierarchy leve
1,101.8					1,101.8	n.a.
200.6					200.6	n.a.
47.2					47.2	n.a.
44.9					44.9	n.a.
41.3					41.3	n.a.
196.8					196.8	n.a.
				240.1		n.a.
				23.7		n.a.
33.1					33.2	2
121.2					121.2	2
716.2					716.2	2
			5.5		5.5	1
			398.6		398.6	2
	-10.1	125.2			115.1	2
	99.8				99.8	2
568.5					568.5	n.a
45,059.7					37,783.4	2
270.9					189.6	3
	1.3				1.3	2
	1.5			682.5		n.a
155.1					155.1	n.a
235.8					235.8	n.a

The following table shows the assets and liabilities that are recognized in the balance sheet at fair value and their classification according to the fair value hierarchy:

in € million	June 30, 2023	Level 1	Level 2	Level 3
Assets				
Investment properties	85,617.9			85,617.9
Financial assets				
Non-current securities	5.6	5.6		
Other investments	327.1		327.1	
Assets held for sale				
Investment properties (contract closed)	358.0		358.0	
Derivative financial assets				
Cash flow hedges	79.6		79.6	
Call option on equity instruments	359.0			359.0
Stand-alone interest rate swaps and caps	91.6		91.6	
Liabilities				
Derivative financial liabilities				
Cash flow hedges	1.6		1.6	
Stand-alone interest rate swaps and caps	-		_	

in € million	Dec. 31, 2022	Level 1	Level 2	Level 3
Assets				
Investment properties	92,300.1			92,300.1
Financial assets				
Non-current securities	5.5	5.5		
Other investments	398.6		398.6	
Assets held for sale				
Investment properties (contract closed)	70.8		70.8	
Derivative financial assets				
Cash flow hedges	115.1		115.1	
Stand-alone interest rate swaps and caps	99.8		99.8	
Liabilities				
Derivative financial liabilities				
Cash flow hedges	1.3		1.3	
Stand-alone interest rate swaps and caps	-		_	

In general, Vonovia measures its investment properties on the basis of the discounted cash flow (DCF) methodology (Level 3). The material valuation parameters and valuation results can be found in chapter [D28] Investment Properties of the consolidated financial statements as of December 31, 2022. The investment properties classified as assets held for sale are recognized at the time of their transfer to assets held for sale at their new fair value, the agreed purchase price (Level 2).

No financial instruments were reclassified to different hierarchy levels as against the comparative period.

Securities are generally measured using the quoted prices in active markets (Level 1).

For the measurement of financial instruments, cash flows are initially calculated and then discounted. In addition to the tenor-specific EURIBOR/STIBOR rates (3M; 6M), the respective credit risk is taken as a basis for discounting. Depending on the expected cash flows, either Vonovia's own credit risk or the counterparty risk is taken into account in the calculation.

Due to the current interest rate environment (and the return to more positive market values as a result), counterparty risk premiums were relevant for the interest rate swaps in the consolidated financial statements alongside Vonovia's own credit risk. As with Vonovia's own risk, they are derived from rates observable on the capital markets and ranged from o to 179 basis points, depending on the residual maturities. Vonovia's own risk premiums were trading at between 78 and 278 basis points on the same cut-off date, depending on the maturities. Regarding the positive market values of the cross currency swaps, a counterparty risk of only 2 basis points was taken into account due to the short residual term.

As part of the valuation of the cross currency swaps, the USD cash flows are converted into EUR using the EUR/USD FX forward curve, after which all EUR cash flows are discounted using the 6M EURIBOR curve (Level 2).

The fair values of the cash and cash equivalents, trade receivables and other financial receivables approximate their carrying amounts at the reporting date owing to their mainly short maturities. The amount of the estimated impairment loss on cash and cash equivalents was calculated based on the losses expected over a period of twelve months. It was determined that the cash and cash equivalents have a low risk of default due to the external ratings and short residual maturities and that there is no need for any material impairment of cash and cash equivalents.

Risk in the area of rent receivables was examined through an analysis of the reduced general creditworthiness (as a special forward-looking parameter of impairment losses for financial assets as defined by IFRS 9). As Vonovia receives rent payments mostly in advance, only deferred rents and similar receivables are affected. Since these receivables are in any case very quickly subject to a specific valuation allowance, an additional need for impairment loss is currently not foreseeable. The further development of the receivables is continuously monitored. In the area of receivables from the sale of properties, the credit risk is compensated for by Vonovia retaining ownership of the property until the purchase price is paid.

Contingent liabilities exist at Vonovia for cases in which Vonovia SE and its subsidiaries give guarantees to various contractual counterparts. These have not changed to any significant extent since the consolidated financial statements as of December 31, 2022.

Vonovia is involved in a number of legal disputes resulting from normal business activities. In particular, these involve tenancy, construction and sales law disputes and, in individual cases, company law disputes (mainly following squeezeout processes). None of the legal disputes, taken in isolation, will have any material effects on the net assets, financial position or results of operations of Vonovia.

Bochum, July 26, 2023

Rolf Buch (CEO) (CRO)

Philip Grosse (CFO) (CDO)

1 toman

Arnd Fittkau

Daniel Riedl