

Other disclosures

32. IAS 23 (Borrowing Costs)

Capitalized borrowing costs amounted to €65 million (previous year: €68 million) and related mainly to capitalized development costs. An average cost of debt of 1.5% (previous year: 1.6%) was used as a basis for capitalization in the Volkswagen Group.

33. IFRS 16 (Leases)

1. LESSEE ACCOUNTING

The Volkswagen Group is a lessee, mainly as a result of leasing office equipment, real estate and other means of production. The leases are negotiated individually and include a large number of contract terms and conditions. The following amounts for right-of-use assets resulting from leases are included in the balance sheet items:

PRESENTATION OF AND CHANGES IN RIGHT-OF-USE ASSETS FROM LEASES FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2019

€ million	Right of use on land, land rights and buildings incl. buildings on third party land	Right of use on technical equipment and machinery	Right of use on other equipment, operational and office equipment	Total
Cost				
Balance at Jan. 1, 2019	5,139	77	294	5,510
Foreign exchange differences	82	0	1	83
Changes in consolidated group	13	–	0	13
Additions	1,201	5	459	1,666
Transfers	–8	–39	–5	–52
Classified as held for sale	9	–	1	10
Disposals	166	0	11	177
Balance at Dec. 31, 2019	6,253	44	738	7,034
Depreciation and impairment				
Balance at Jan. 1, 2019	63	17	4	84
Foreign exchange differences	3	0	0	4
Changes in consolidated group	1	–	–	1
Additions to cumulative depreciation	810	6	126	942
Additions to cumulative impairment losses	–	–	–	–
Transfers	–8	–	0	–8
Classified as held for sale	1	–	0	1
Disposals	19	0	4	23
Reversal of impairment losses	–	–	0	0
Balance at Dec. 31, 2019	848	23	126	998
Carrying amount at Dec. 31, 2019	5,404	21	611	6,036

**PRESENTATION OF AND CHANGES IN RIGHT-OF-USE ASSETS FROM LEASES FOR THE PERIOD
FROM JANUARY 1 TO DECEMBER 31, 2020**

€ million	Right of use on land, land rights and buildings incl. buildings on third party land	Right of use on technical equipment and machinery	Right of use on other equipment, operational and office equipment	Total
Cost				
Balance at Jan. 1, 2020	6,253	44	738	7,034
Foreign exchange differences	-210	-3	-8	-221
Changes in consolidated group	47	-	7	54
Additions	1,240	16	102	1,358
Transfers	-24	-1	2	-23
Disposals	297	1	97	394
Balance at Dec. 31, 2020	7,009	56	744	7,809
Depreciation and impairment				
Balance at Jan. 1, 2020	848	23	126	998
Foreign exchange differences	-37	-2	-3	-43
Changes in consolidated group	5	-	1	6
Additions to cumulative depreciation	896	8	158	1,062
Additions to cumulative impairment losses	27	-	1	27
Transfers	0	0	-1	-1
Disposals	130	0	78	209
Reversal of impairment losses	0	0	0	0
Balance at Dec. 31, 2020	1,608	28	204	1,840
Carrying amount at Dec. 31, 2020	5,401	27	540	5,969

Subleases of right-of-use assets generated income of €16 million (previous year: €20 million) in the fiscal year.

The measurement of right-of-use assets from leases and the associated lease liabilities is based on a best estimate regarding the exercise of extension and termination options. If there are material changes in circumstances or in the contract, this estimate is updated.

The tables below show how the lease liabilities are assigned in the balance sheet and give an overview of their contractual maturities:

ASSIGNMENT OF LEASE LIABILITIES TO THE RESPECTIVE BALANCE SHEET ITEMS

€ million	Dec. 31, 2020	Dec. 31, 2019
Financial liabilities – Noncurrent	5,119	5,208
Financial liabilities – Current	1,005	1,002
Lease liabilities – Total	6,124	6,210

MATURITY ANALYSIS OF LEASE LIABILITIES

€ million	REMAINING CONTRACTUAL MATURITIES			Total
	under one year	within one to five years	over five years	
Lease liabilities at Dec. 31, 2020	1,005	2,591	2,528	6,124
Lease liabilities at Dec. 31, 2019	1,002	2,613	2,595	6,210

Interest expenses of €216 million (previous year: €230 million) were incurred for lease liabilities in the fiscal year.

No right-of-use assets are recognized for low-value or short-term leases. Expenses for leasing low-value assets totaled €285 million (previous year: €270 million) in the fiscal year. This figure does not include any expenses for short-term leases, which totaled €268 million (previous year: €333 million) in the fiscal year. Variable lease expenses not included in the measurement of lease liabilities accounted for €1 million (previous year: €1 million) in the fiscal year.

Leases gave rise to cash outflows totaling €1,865 million (previous year: €1,797 million) in the fiscal year.

The table below shows a summary of potential future cash outflows, that have not been included in the measurement of the lease liabilities:

€ million	2020	2019
Future cash outflows to which the lessee is potentially exposed		
Variable lease payments	0	1
Residual value guarantees	0	0
Extension options	3,350	3,575
Termination options	8	3
Obligations under leases not yet commenced	270	359
	3,628	3,938

2. LESSOR ACCOUNTING

The Volkswagen Group is a lessor in both the finance lease business and the operating lease business. The subject of these transactions is primarily motor vehicles and, to a small extent, land and buildings and items of equipment for dealerships.

The Volkswagen Group fully accounts for the default risk on lease receivables by recognizing loss allowances, which are recognized in accordance with the requirements of IFRS 9. As lessor, the Volkswagen Group covers risks arising from the assets underlying the leases by, among other measures, taking account of residual value guarantees received for parts of the lease portfolio and by taking account of forward-looking residual values forecast on the basis of internal and external information as part of residual value management. The forecast residual values are regularly reviewed.

2.1 OPERATING LEASES

Assets leased under long-term operating leases amounted to €51,244 million at the end of the fiscal year (previous year: €49,476 million). While €558 million (previous year: €538 million) is attributable to investment property, assets separately reported as lease assets in the balance sheet amount to €50,686 million (previous year: €48,938 million). They relate primarily to vehicles in an amount of €50,605 million (previous year: €48,853 million) as well as land, land rights and buildings, including buildings on third-party land, in an amount of €79 million (previous year: €78 million). The remaining assets relate to technical equipment and machinery as well as other equipment, operating and office equipment. More information on changes in value of investment property and lease assets can be found in the section entitled "Lease assets and investment property".

The following cash inflows from expected outstanding, non-discounted operating lease payments are expected over the coming years:

DISCLOSURE AS OF DECEMBER 31, 2019

€ million	2020	2021	2022	2023	2024	From 2025	Total
Lease payments ¹	8,138	5,526	3,139	829	338	344	18,315

1 Prior-year figures adjusted.

DISCLOSURE AS OF DECEMBER 31, 2020

€ million	2021	2022	2023	2024	2025	From 2026	Total
Lease payments	7,893	5,636	3,178	1,220	452	362	18,741

BREAKDOWN OF INCOME FROM OPERATING LEASES

€ million	2020	2019
Lease income	12,429	12,014
Income from variable lease payments	7	13
Total	12,436	12,027

2.2 FINANCE LEASES

Interest income from the net investment in the leases amounted to €2.4 billion (previous year: €2.4 billion) in the fiscal year. Furthermore, a selling profit from the finance leases in the amount of €0.8 billion (previous year: €1.2 billion) was recognized.

The following table shows the reconciliation of outstanding lease payments under finance leases to the net investment:

€ million	Dec. 31, 2020	Dec. 31, 2019
Non-discounted lease payments	53,162	54,302
Non-guaranteed residual value	4,255	4,112
Unearned interest income	-3,468	-3,789
Loss allowance on lease receivables	-1,414	-971
Net investment	52,534	53,652

The following cash inflows from expected outstanding, non-discounted finance lease payments are expected over the coming years:

DISCLOSURE AS OF DECEMBER 31, 2019

€ million	2020	2021	2022	2023	2024	From 2025	Total
Lease payments	19,428	14,590	12,179	6,883	847	373	54,302

DISCLOSURE AS OF DECEMBER 31, 2020

€ million	2021	2022	2023	2024	2025	From 2026	Total
Lease payments	19,059	15,299	12,051	5,684	612	456	53,162

34. IFRS 7 (Financial Instruments)

The table below shows the carrying amounts of financial instruments by measurement category:

CARRYING AMOUNT OF FINANCIAL INSTRUMENTS BY IFRS 9 MEASUREMENT CATEGORY

€ million	Dec. 31, 2020	Dec. 31, 2019
Financial assets at fair value through profit or loss	21,898	16,331
Financial assets at fair value through other comprehensive income (debt instruments)	3,545	3,139
Financial assets at fair value through other comprehensive income (equity instruments)	152	68
of which classified as held for sale	–	3
Financial assets measured at amortized cost	151,497	149,203
of which classified as held for sale	–	158
Financial liabilities at fair value through profit or loss	2,403	1,760
Financial liabilities measured at amortized cost	230,904	229,229
of which classified as held for sale	–	44

CLASSES OF FINANCIAL INSTRUMENTS

Financial instruments are divided into the following classes at the Volkswagen Group:

- > financial instruments measured at fair value;
- > financial instruments measured at amortized cost;
- > derivative financial instruments within hedge accounting;
- > not allocated to any measurement category; and
- > credit commitments and financial guarantees (off-balance sheet).

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS

The following table shows the reconciliation of the balance sheet items to the relevant classes of financial instruments, broken down by the carrying amount and fair value of the financial instruments.

The fair value of financial instruments measured at amortized cost, such as receivables and liabilities, is calculated by discounting using a market rate of interest for a similar risk and matching maturity. For reasons of materiality, the fair value of current balance sheet items is generally deemed to be their carrying amount.

For reconciliation to the carrying amounts, the “Not allocated to a measurement category” column in the table also includes items other than financial instruments.

The risk variables governing the fair value of the receivables are risk-adjusted interest rates.

“Financial instruments measured at fair value” also include shares in partnerships and corporations.

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2019

€ million	MEASURED AT FAIR VALUE	MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO A MEASUREMENT CATEGORY	BALANCE SHEET ITEM AT DEC. 31, 2019
	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	–	–	–	–	8,169	8,169
Other equity investments	54	–	–	–	1,848	1,902
Financial services receivables	288	51,404	52,581	–	35,281	86,973
Other financial assets	1,012	3,625	3,628	916	–	5,553
Tax receivables	–	–	–	–	341	341
Current assets						
Trade receivables	1	17,940	17,940	–	–	17,941
Financial services receivables	22	39,936	39,936	–	18,656	58,615
Other financial assets	1,477	10,120	10,120	619	–	12,216
Tax receivables	–	9	9	–	1,181	1,190
Marketable securities	16,681	88	88	–	–	16,769
Cash, cash equivalents and time deposits	–	25,923	25,923	–	–	25,923
Assets held for sale	3	158	158	–	634	795
Noncurrent liabilities						
Noncurrent financial liabilities	–	108,348	110,679	–	5,208	113,556
Other noncurrent financial liabilities	943	2,549	2,554	1,007	–	4,499
Current liabilities						
Current financial liabilities	–	86,911	86,911	–	1,002	87,912
Trade payables	–	22,745	22,745	–	–	22,745
Other current financial liabilities	817	8,614	8,614	1,427	–	10,858
Tax payables	–	19	19	–	389	408
Liabilities associated with assets held for sale	–	44	44	–	326	370

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2020

€ million	MEASURED AT FAIR VALUE	MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT ALLOCATED TO A MEASUREMENT CATEGORY	BALANCE SHEET ITEM AT DEC. 31, 2020
	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	-	-	-	-	10,080	10,080
Other equity investments	177	-	-	-	1,688	1,865
Financial services receivables	279	47,879	50,231	-	34,408	82,565
Other financial assets	1,512	4,105	4,220	2,217	-	7,834
Tax receivables	-	-	-	-	376	376
Current assets						
Trade receivables	52	16,191	16,191	-	-	16,243
Financial services receivables	26	39,474	39,474	-	18,506	58,006
Other financial assets	2,402	9,915	9,915	917	-	13,234
Tax receivables	-	9	9	-	1,177	1,186
Marketable securities	21,146	15	15	-	-	21,162
Cash, cash equivalents and time deposits	-	33,909	33,909	-	-	33,909
Noncurrent liabilities						
Noncurrent financial liabilities	-	109,690	115,282	-	5,119	114,809
Other noncurrent financial liabilities	1,188	2,322	2,317	748	-	4,257
Current liabilities						
Current financial liabilities	-	87,643	87,643	-	1,005	88,648
Trade payables	-	22,677	22,677	-	-	22,677
Other current financial liabilities	1,215	8,545	8,545	831	-	10,590
Tax payables	-	38	38	-	301	340

The carrying amount of lease receivables was €52.9 billion (previous year: €53.9 billion) and their fair value (fair value hierarchy level 3) was €55.0 billion (previous year: €55.0 billion).

Uniform valuation techniques and inputs are used to measure fair value. The fair value of Level 2 and 3 financial instruments is measured in the individual divisions on the basis of Group-wide specifications. The measurement techniques used are explained in the section entitled "Accounting policies". The fair value of Level 3 receivables was measured by reference to individual expectations of losses; these are based to a significant extent on the Company's assumptions about counterparty credit quality. The inputs used are not observable in an active market.

The following tables contain an overview of the financial assets and liabilities measured at fair value by level:

FINANCIAL ASSETS AND LIABILITIES MEASURED AT FAIR VALUE BY LEVEL

€ million	Dec. 31, 2019	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	54	43	0	11
Financial services receivables	288	–	–	288
Other financial assets	1,012	–	595	417
Current assets				
Trade receivables	1	–	–	1
Financial services receivables	22	–	–	22
Other financial assets	1,477	–	1,304	173
Marketable securities	16,681	16,681	–	–
Assets held for sale	3	–	–	3
Noncurrent liabilities				
Other noncurrent financial liabilities	943	–	425	518
Current liabilities				
Other current financial liabilities	817	–	570	247

€ million	Dec. 31, 2020	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	177	40	0	137
Financial services receivables	279	–	–	279
Other financial assets	1,512	–	784	729
Current assets				
Trade receivables	52	–	–	52
Financial services receivables	26	–	–	26
Other financial assets	2,402	–	2,242	160
Marketable securities	21,146	21,060	86	–
Noncurrent liabilities				
Other noncurrent financial liabilities	1,188	–	644	543
Current liabilities				
Other current financial liabilities	1,215	–	851	364

FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES MEASURED AT AMORTIZED COST BY LEVEL

€ million	Dec. 31, 2019	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	92,518	–	–	92,518
Trade receivables	17,940	–	17,940	–
Other financial assets	13,748	456	4,534	8,758
Tax receivables	9	–	9	–
Cash, cash equivalents and time deposits	25,923	24,912	1,010	–
Assets held for sale	158	4	154	–
Fair value of financial assets measured at amortized cost	150,296	25,372	23,648	101,276
Fair value of financial liabilities measured at amortized cost				
Trade payables	22,745	–	22,745	–
Financial liabilities	197,590	42,828	152,329	2,433
Other financial liabilities	11,168	707	10,069	392
Tax payables	19	–	19	–
Liabilities associated with assets held for sale	44	–	44	–
Fair value of financial liabilities measured at amortized cost	231,566	43,535	185,205	2,825

€ million	Dec. 31, 2020	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	89,705	–	–	89,705
Trade receivables	16,191	–	16,191	–
Other financial assets	14,135	466	4,834	8,834
Tax receivables	9	–	9	–
Cash, cash equivalents and time deposits	33,909	33,721	188	–
Fair value of financial assets measured at amortized cost	153,950	34,187	21,223	98,540
Fair value of financial liabilities measured at amortized cost				
Trade payables	22,677	–	22,677	–
Financial liabilities	202,925	41,909	161,016	–
Other financial liabilities	10,862	691	9,851	320
Tax payables	38	–	38	–
Fair value of financial liabilities measured at amortized cost	236,502	42,600	193,582	320

DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING BY LEVEL

€ million	Dec. 31, 2019	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	916	–	916	–
Current assets				
Other financial assets	619	–	619	–
Noncurrent liabilities				
Other noncurrent financial liabilities	1,007	–	1,007	–
Current liabilities				
Other current financial liabilities	1,427	–	1,427	–

€ million	Dec. 31, 2020	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	2,217	–	2,217	–
Current assets				
Other financial assets	917	–	917	–
Noncurrent liabilities				
Other noncurrent financial liabilities	748	–	748	–
Current liabilities				
Other current financial liabilities	831	–	728	102

The allocation of fair values to the three levels in the fair value hierarchy is based on the availability of observable market prices. Level 1 is used to report the fair value of financial instruments for which a price is directly available in an active market. Examples include marketable securities and other equity investments measured at fair value that are listed and traded on a public market. Fair values in Level 2, for example of derivatives, are measured on the basis of market inputs using market-based valuation techniques. In particular, the inputs used include exchange rates, yield curves and commodity prices that are observable in the relevant markets and obtained through pricing services. Fair Values in Level 3 are calculated using valuation techniques that incorporate inputs that are not directly observable in active markets. In the Volkswagen Group, long-term commodity futures are allocated to Level 3 because the prices available on the market must be extrapolated for measurement purposes. This is done on the basis of observable inputs obtained for the different commodities through pricing services. Options on equity instruments, residual value protection models, customer financing receivables, receivables from vehicle financing programs and other equity investments are also reported in Level 3. Equity instruments are measured primarily using the relevant business plans and entity-specific discount rates. The significant inputs used to measure fair value for the residual value protection models include forecasts and estimates of used vehicle residual values for the appropriate models. The measurement of vehicle financing programs requires in particular the use of the corresponding vehicle price.

The table below provides a summary of changes in level 3 balance sheet items measured at fair value:

CHANGES IN BALANCE SHEET ITEMS MEASURED AT FAIR VALUE BASED ON LEVEL 3

€ million	Financial assets measured at fair value	Financial liabilities measured at fair value	Financial assets held for sale
Balance at Jan. 1, 2019	990	816	–
Foreign exchange differences	22	9	–
Changes in consolidated Group	0	–	–
Total comprehensive income	154	293	–
recognized in profit or loss	157	293	–
recognized in other comprehensive income	–3	–	–
Additions (purchases)	13	–	3
Sales and settlements	–215	–301	–
Transfers into Level 2	–46	–51	–
Classified as held for sale	–3	–	–
Balance at Dec. 31, 2019	913	765	3
Total gains or losses recognized in profit or loss	157	–293	–
Net other operating expense/income	161	–292	–
of which attributable to assets/liabilities held at the reporting date	115	–238	–
Financial result	–4	–1	–
of which attributable to assets/liabilities held at the reporting date	–4	–	–

€ million	Financial assets measured at fair value	Financial liabilities measured at fair value
Balance at Jan. 1, 2020	913	765
Foreign exchange differences	–39	–9
Changes in consolidated Group	66	–
Total comprehensive income	433	551
recognized in profit or loss	425	452
recognized in other comprehensive income	8	99
Additions (purchases)	312	–
Sales and settlements	–203	–323
Transfers into Level 2	–100	–77
Balance at Dec. 31, 2020	1,383	908
Total gains or losses recognized in profit or loss	425	–452
Net other operating expense/income	407	–452
of which attributable to assets/liabilities held at the reporting date	313	–370
Financial result	18	0
of which attributable to assets/liabilities held at the reporting date	7	0

The transfers between the levels of the fair value hierarchy are reported at the respective reporting dates. The transfers out of Level 3 into Level 2 comprise commodity futures for which observable quoted prices are now available for measurement purposes due to the decline in their remaining maturities; consequently, no further extrapolation is required. There were no transfers between other levels of the fair value hierarchy.

Commodity prices are the key risk variable for the fair value of commodity futures. Sensitivity analyses are used to present the effect of changes in commodity prices on earnings after tax and equity.

If commodity prices for commodity futures classified as Level 3 had been 10% higher (lower) as of December 31, 2020, earnings after tax would have been €263 million (previous year: €168 million) higher (lower). The equity is not affected.

The key risk variable for measuring options on equity instruments held by the Company is the relevant enterprise value. Sensitivity analyses are used to present the effect of changes in risk variables on earnings after tax.

If the assumed enterprise values as of December 31, 2020 had been 10% higher, earnings after tax would have been €4 million (previous year: €3 million) higher. If the assumed enterprise values as of December 31, 2020 had been 10% lower, earnings after tax would have been €4 million (previous year: €3 million) lower.

Residual value risks result from hedging agreements with dealerships under which earnings effects caused by market-related fluctuations in residual values that arise from buy-back obligations under leases are borne in part by the Volkswagen Group.

The key risk variable influencing the fair value of the options relating to residual value risks is used car prices. Sensitivity analyses are used to quantify the effects of changes in used car prices on earnings after tax.

If the prices of the used cars covered by the residual value protection model had been 10% higher as of December 31, 2020, earnings after tax would have been €382 million (previous year: €354 million) higher. If the prices of the used cars covered by the residual value protection model had been 10% lower as of December 31, 2020, earnings after tax would have been €419 million (previous year: €374 million) lower.

If the risk-adjusted interest rates applied to receivables measured at fair value had been 100 basis points higher as of December 31, 2020, earnings after tax would have been €2 million (previous year: €3 million) lower. If the risk-adjusted interest rates as of December 31, 2020 had been 100 basis points lower, earnings after tax would have been €2 million (previous year: €3 million) higher.

If the corresponding vehicle prices used in the vehicle financing programs had been 10% higher as of December 31, 2020, earnings after tax would have been €2 million (previous year: €5 million) higher. If the corresponding vehicle prices used in the vehicle financing programs had been 10% lower as of December 31, 2020, earnings after tax would have been €2 million (previous year: €5 million) lower.

If the result of operations of equity investments measured at fair value had been 10% better as of December 31, 2020, equity would have been €5.8 million (previous year: €0.2 million) higher, and earnings after tax would have been €2.1 million (previous year: €- million) higher. If the result of operations of equity investments measured at fair value had been 10% worse, equity would have been €5.8 million (previous year: €0.2 million) lower, and earnings after tax would have been €2.1 million (previous year: €- million) lower.

OFFSETTING OF FINANCIAL ASSETS AND LIABILITIES

The following tables contain information about the effects of offsetting in the balance sheet and the potential financial effects of offsetting in the case of instruments that are subject to a legally enforceable master netting arrangement or a similar agreement.

€ million	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off in the balance sheet	Net amounts of financial assets presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2019
				Financial instruments	Collateral received	
Derivatives	3,396	-146	3,250	-2,010	-45	1,195
Financial services receivables	146,218	-630	145,588	-	-98	145,490
Trade receivables	17,952	-11	17,941	0	-	17,941
Marketable securities	16,769	-	16,769	-	-	16,769
Cash, cash equivalents and time deposits	25,923	-	25,923	-	-	25,923
Other financial assets	14,436	146	14,581	0	-	14,581

€ million	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off in the balance sheet	Net amounts of financial assets presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2020
				Financial instruments	Collateral received	
Derivatives	6,216	-165	6,051	-1,770	-35	4,246
Financial services receivables	141,185	-614	140,571	-	-98	140,473
Trade receivables	16,253	-10	16,243	0	-	16,243
Marketable securities	21,162	-	21,162	-	-	21,162
Cash, cash equivalents and time deposits	33,909	-	33,909	-	-	33,909
Other financial assets	15,203	-	15,203	0	-	15,203

Other financial assets include receivables from tax allocations of €9 million (previous year: €9 million).

€ million	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2019
				Financial instruments	Collateral pledged	
Derivatives	4,195	0	4,195	-1,900	-53	2,241
Financial liabilities	201,468	-	201,468	-	-1,729	199,740
Trade payables	22,756	-11	22,745	0	-	22,745
Other financial liabilities	11,812	-630	11,182	-	-	11,182

€ million	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2020
				Financial instruments	Collateral pledged	
Derivatives	3,417	-8	3,409	-1,769	-2	1,638
Financial liabilities	203,457	-	203,457	-	-1,955	201,502
Trade payables	22,687	-10	22,677	0	-	22,677
Other financial liabilities	12,247	-771	11,476	-	-	11,476

The “Financial instruments” column shows the amounts that are subject to a master netting arrangement but were not set off because they do not meet the criteria for offsetting in the balance sheet. The “Collateral received” and “Collateral pledged” columns show the amounts of cash collateral and collateral in the form of financial instruments received and pledged for the total assets and liabilities that do not meet the criteria for offsetting in the balance sheet.

Other financial liabilities include liabilities from tax allocations of €38 million (previous year: €19 million).

ASSET-BACKED SECURITIES TRANSACTIONS

Asset-backed securities transactions with financial assets amounting to €30.6 billion (previous year adjusted: €30.8 billion) entered into to refinance the financial services business are included in bonds, commercial paper and notes, and liabilities from loans. The corresponding carrying amount of the receivables from the customer and dealer financing and the finance lease business amounted to €34.5 billion (previous year: €34.1 billion). Collateral of €48.9 billion (previous year: €47.9 billion) in total was furnished as part of asset-backed securities transactions. The expected payments were assigned to structured entities and the equitable liens in the financed vehicles were transferred. These asset-backed securities transactions did not result in the receivables from financial services business being derecognized, as the Group retains nonpayment and late payment risks. The difference between the assigned receivables and the related liabilities is the result of different terms and conditions and the share of the securitized paper and notes held by the Volkswagen Group itself.

Most of the public and private asset-backed securities transactions of the Volkswagen Group can be repaid in advance (clean-up call) if less than 10% of the original transaction volume is outstanding. The assigned receivables cannot be assigned again or pledged elsewhere as collateral. The claims of the holders of commercial paper and notes are limited to the assigned receivables and the receipts from those receivables are earmarked for the repayment of the corresponding liability.

As of December 31, 2020, the fair value of the assigned receivables still recognized in the balance sheet was €35.4 billion (previous year: €34.8 billion). The fair value of the related liabilities was €30.6 billion (previous year adjusted: €30.7 billion) at that reporting date.

The Volkswagen Bank GmbH Group is contractually obliged, under certain conditions, to transfer funds to the structured entities that are included in its financial statements. Since the receivables are transferred to the special purpose entity by way of undisclosed assignment, the situation may occur in which the receivable has already been reduced in a legally binding manner at the originator, for example if the obligor effectively offsets it against receivables owed to it by a company belonging to the Volkswagen Group. In this case, collateral must be furnished for the resulting compensation claims against the special purpose entity, for example if the rating of the Group company concerned declines to a contractually agreed reference value.

ADDITIONAL INCOME STATEMENT DISCLOSURES IN ACCORDANCE WITH IFRS 7 (FINANCIAL INSTRUMENTS)

The table below shows net gains and losses on financial assets and financial liabilities by measurement category, followed by a detailed explanation of key aspects:

NET GAINS OR LOSSES FROM FINANCIAL INSTRUMENTS BY IFRS 9 MEASUREMENT CATEGORY

€ million	2020	2019
Financial instruments at fair value through profit or loss	2,309	-242
Financial assets measured at amortized cost	2,899	6,282
Financial assets at fair value through other comprehensive income (debt instruments)	4	7
Financial liabilities measured at amortized cost	-3,242	-4,420
	1,970	1,628

Net gains and losses in the category "financial instruments at fair value through profit or loss" are mainly composed of the fair value measurement gains and losses on derivatives, including interest and gains and losses on currency translation.

Net gains and losses from financial assets measured at fair value through other comprehensive income (debt instruments) relate to interest income from fixed-income securities.

Net gains and losses from financial assets and liabilities measured at amortized cost mainly comprise interest income and expenses calculated according to the effective interest method pursuant to IFRS 9, currency translation effects, and the recognition of loss allowances. Interest also includes interest income and expenses from the lending business of the Financial Services Division.

The table below presents total interest income and expenses from financial assets and liabilities measured at amortized cost, separately from financial assets measured at fair value through other comprehensive income:

TOTAL INTEREST INCOME AND EXPENSES ATTRIBUTABLE TO FINANCIAL INSTRUMENTS NOT MEASURED AT FAIR VALUE THROUGH PROFIT OR LOSS

€ million	2020	2019
Financial assets and liabilities measured at amortized cost		
Interest income	6,982	7,563
Interest expenses	3,707	4,120
Financial assets (debt instruments) and liabilities measured at fair value through other comprehensive income		
Interest income	4	8
Interest expenses	-	-

GAINS AND LOSSES ON THE DISPOSAL OF FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	2020	2019
Gains arising from the derecognition of financial assets measured at amortized cost	810	845
Losses arising from the derecognition of financial assets measured at amortized cost	-1,527	-978
	-717	-133

In the fiscal year, €2 million (previous year: €2 million) was recognized as an expense and €29 million (previous year: €44 million) as income from fees and commissions for trust activities and from financial assets and liabilities not measured at fair value that are not accounted for using the effective interest method.

35. Cash flow statement

Cash flows are presented in the cash flow statement classified into cash flows from operating activities, investing activities and financing activities, irrespective of the balance sheet classification.

Cash flows from operating activities are derived indirectly from earnings before tax. Earnings before tax are adjusted to eliminate noncash expenditures (mainly depreciation, amortization and impairment losses) and income. Other noncash income and expense results mainly from measurement effects in connection with financial instruments and to fair value changes relating to hedging transactions. This results in cash flows from operating activities after accounting for changes in working capital, which also include changes in lease assets and in financial services receivables.

Investing activities include additions to property, plant and equipment and equity investments, additions to capitalized development costs and investments in securities, loans and time deposits.

Financing activities include outflows of funds from dividend payments and the redemption of bonds, inflows from capital increases and the issuance of bonds, and changes in other financial liabilities. Please refer to the "Equity" section for information on the in-/outflows from the issuance/repayment of hybrid capital contained in the capital contributions.

The changes in balance sheet items that are presented in the cash flow statement cannot be derived directly from the balance sheet, as the effects of currency translation and changes in the consolidated Group are non-cash transactions and are therefore eliminated.

In the fiscal year, cash flows from operating activities include interest received amounting to €7,192 million (previous year: €7,640 million) and interest paid amounting to €2,677 million (previous year: €2,604 million). Cash flows from operating activities also include dividend payments (net of withholding tax) received from joint ventures and associates of €3,098 million (previous year: €3,679 million).

Dividends amounting to €2,419 million (previous year: €2,419 million) were paid to Volkswagen AG shareholders.

€ million	Dec. 31, 2020	Dec. 31, 2019
Cash, cash equivalents and time deposits as reported in the balance sheet	33,909	25,923
Time deposits	-477	-1,593
Cash and cash equivalents as reported in the cash flow statement	33,432	24,329

Time deposits are not classified as cash equivalents. Time deposits have a contractual maturity of more than three months. The maximum default risk corresponds to its carrying amount.

The following table shows the classification of changes in financial liabilities into cash and non-cash transactions:

€ million	Jan. 1, 2019	Cash-effective changes	NON-CASH CHANGES				Dec. 31, 2019
			Foreign exchange differences	Changes in consolidated Group	Classified as held for sale	Other changes	
Bonds	81,549	6,132	496	–	–	452	88,629
Other total third-party borrowings	108,886	–3,392	1,616	–193	0	–287	106,630
Finance lease liabilities ^{1,2}	5,567	–957	81	16	9	1,513	6,210
Total third-party borrowings	196,001	1,783	2,193	–177	9	1,678	201,468
Put options and compensation rights granted to noncontrolling interest shareholders ³	1,853	–1,135	–	–	–	–718	–
Other financial assets and liabilities	–182	18	–3	–	–	87	–81
Financial assets and liabilities in financing activities	197,672	666	2,189	–177	9	1,046	201,387

1 Due to the initial application of IFRS 16, the values in the opening balance were adjusted.

2 Other changes in lease liabilities largely contain noncash additions of lease liabilities.

3 Other changes in put options/compensation rights granted to noncontrolling interest shareholders largely contain the reclassification of the residual liability to equity after the put options granted expired in the fiscal year.

€ million	Jan. 1, 2020	Cash-effective changes	NON-CASH CHANGES			Dec. 31, 2020
			Foreign exchange differences	Changes in consolidated Group	Other changes	
Bonds	88,629	5,366	–979	–	–389	92,626
Other total third-party borrowings	106,630	3,404	–5,638	267	44	104,707
Finance lease liabilities ¹	6,210	–1,100	–195	39	1,170	6,124
Total third-party borrowings	201,468	7,670	–6,812	306	825	203,457
Other financial assets and liabilities	–81	172	132	–	–202	21
Financial assets and liabilities in financing activities	201,387	7,843	–6,680	306	622	203,478

1 Other changes in lease liabilities largely contain noncash additions of lease liabilities.

36. Financial risk management and financial instruments

1. HEDGING GUIDELINES AND FINANCIAL RISK MANAGEMENT PRINCIPLES

The principles and responsibilities for managing and controlling the risks that could arise from financial instruments are defined by the Board of Management and monitored by the Supervisory Board. General rules apply to the Group-wide risk policy; these are oriented on the statutory requirements and the “Minimum Requirements for Risk Management by Credit Institutions”.

Group Treasury is responsible for operational risk management and the control of risks from financial instruments. The Group Board of Management Committee for Risk Management is regularly informed about current financial risks. In addition, the Group Board of Management and the Supervisory Board are regularly updated on the current risk situation. Some functions of the MAN Energy Solutions, Porsche Holding Salzburg and TRATON GROUP subgroups are included in Group Treasury’s operational risk management and control for risks relating to financial instruments. Subgroups have their own risk management structures.

For more information, see the section on financial risks in the Report on Risks and Opportunities of the group management report.

2. CREDIT AND DEFAULT RISK

The credit and default risk arising from financial assets involves the risk of default by counterparties, and therefore comprises at a maximum the amount of the claims under carrying amounts receivable from them and the irrevocable credit commitments. The maximum potential credit and default risk is reduced by collateral held and other credit enhancements. Collateral is held predominantly for financial assets in the “at amortized cost” category. It relates primarily to collateral for financial services receivables and trade receivables. Collateral comprises vehicles and assets transferred as security, as well as guarantees and real property liens. Cash collateral is also used in hedging transactions.

For level 3 and level 4 financial assets with objective indications of impairment as of the reporting date, the collateral provided led to a reduction in risk by €1.2 billion (previous year: €1.3 billion). Collateral of €237 million (previous year: €285 million) has been accepted for assets measured at fair value through profit or loss.

Significant cash and capital investments, as well as derivatives, are only entered into with national and international banks. Risk is additionally limited by a limit system based primarily on the equity base of the counterparties concerned and on credit assessments by international rating agencies. Financial guarantees issued also give rise to credit and default risk. The maximum default risk is determined by the guarantee amount. The corresponding amounts are presented in the Liquidity risk section.

There were no material concentrations of risk at individual counterparties or counterparty groups in the past fiscal year due to the global allocation of the Group’s business activities and the resulting diversification. There was a slight change in the concentration of credit and default risk exposures to the German public banking sector as a whole that has arisen from Group-wide cash and capital investments as well as derivatives: the portion attributable to this sector was 6.0% at the end of 2020 compared with 5.2% at the end of 2019. Any existing concentration of risk is assessed and monitored both at the level of individual counterparties or counterparty groups and with regard to the countries in which these are based, in each case using the share of all credit and default risk exposures accounted for by the risk exposure concerned.

For China, credit and default risk exposures accounted for 26.1% at the end of 2020, as against 34.2% at the end of 2019. There were no other concentrations of credit and default risk exposures in individual countries.

LOSS ALLOWANCE

The Volkswagen Group consistently uses the expected credit loss model of IFRS 9 for all financial assets and other risk exposures.

The expected credit loss model under IFRS 9 takes in both loss allowances for financial assets for which there are no objective indications of impairment and loss allowances for financial assets that are already impaired. For the calculation of impairment losses, IFRS 9 distinguishes between the general approach and the simplified approach.

Under the general approach, financial assets are allocated to one of three stages, plus an additional stage for financial assets that are already impaired when acquired (stage 4). Stage 1 comprises financial assets that are recognized for the first time or for which the probability of default has not increased significantly. The expected credit losses for the next twelve months are calculated at this stage. Stage 2 comprises financial assets with a significantly increased probability of default, while financial assets with objective indications of default are allocated to stage 3. The lifetime expected credit losses are calculated at these stages. Stage 4 financial assets, which are already impaired when acquired, are subsequently measured by recognizing a loss allowance on the basis of the accumulated lifetime expected losses. Financial assets classified as impaired on acquisition remain in this category until they are derecognized.

The Volkswagen Group applies the simplified approach to trade receivables and contract assets with a significant financing component in accordance with IFRS 15. The same applies to receivables under operating or finance leases accounted for under IFRS 16. Under the simplified approach, the expected losses are consistently determined for the entire life of the asset.

The tables below show the reconciliation of the loss allowance for various financial assets and financial guarantees and credit commitments:

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2019	750	946	896	634	146	3,372
Foreign exchange differences	6	4	3	3	0	16
Changes in consolidated group	2	–	0	1	–	3
Newly extended/purchased financial assets (additions)	464	–	–	255	1	719
Other changes within a stage	–64	–222	157	–3	–32	–165
Transfers to						
Stage 1	39	–75	–12	–	–	–48
Stage 2	–91	206	–16	–	–	98
Stage 3	–45	–76	334	–	–	213
Financial instruments derecognized during the period (disposals)	–146	–106	–145	47	–4	–354
Utilization	–	–	–322	–177	–16	–516
Changes to models or risk parameters	–2	1	0	2	–	1
Classified as held for sale	0	–	–	–2	–	–2
Carrying amount at Dec. 31, 2019	913	677	893	760	94	3,336

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2020	913	677	893	760	94	3,336
Foreign exchange differences	–33	–32	–89	–29	–5	–189
Changes in consolidated group	13	–2	24	2	–	37
Newly extended/purchased financial assets (additions)	415	–	–	252	18	685
Other changes within a stage	79	69	–35	16	5	134
Transfers to						
Stage 1	22	–61	–14	–	–	–53
Stage 2	–126	320	–42	–	–	152
Stage 3	–167	–88	513	–	–	258
Financial instruments derecognized during the period (disposals)	–197	–121	–170	–154	–6	–647
Utilization	–	–	–257	–33	–21	–311
Changes to models or risk parameters	9	23	1	1	2	36
Carrying amount at Dec. 31, 2020	929	786	825	814	87	3,440

The gross carrying amount of assets measured at amortized cost is €136.0 billion (previous year: €137.7 billion), of which €16.7 billion (previous year: €18.5 billion) is attributable to the simplified approach.

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2019	18	1	1	0	19
Foreign exchange differences	0	0	0	0	0
Changes in consolidated group	0	-	-	-	0
Newly extended/purchased financial assets (additions)	10	0	0	0	10
Other changes within a stage	0	0	-1	0	0
Transfers to					
Stage 1	0	0	-	-	0
Stage 2	-2	1	-	-	-1
Stage 3	0	0	-	-	0
Financial instruments derecognized during the period (disposals)	-9	0	-	0	-10
Utilization	-	-	0	-	0
Changes to models or risk parameters	0	0	-	-	0
Classified as held for sale	0	-	-	-	-
Carrying amount at Dec. 31, 2019	17	2	0	0	18

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2020	17	2	0	0	18
Foreign exchange differences	-1	0	0	0	-1
Changes in consolidated group	0	-	-	-	0
Newly extended/purchased financial assets (additions)	8	0	0	0	8
Other changes within a stage	1	1	0	0	2
Transfers to					
Stage 1	0	0	-	-	0
Stage 2	0	1	-	-	1
Stage 3	0	0	0	-	0
Financial instruments derecognized during the period (disposals)	-4	-1	-	0	-5
Utilization	-	-	-1	-	-1
Changes to models or risk parameters	0	0	-	-	0
Carrying amount at Dec. 31, 2020	19	3	0	0	22

CHANGES IN LOSS ALLOWANCE FOR LEASE RECEIVABLES AND CONTRACT ASSETS

€ million	SIMPLIFIED APPROACH	
	2020	2019
Carrying amount at Jan. 1	1,312	1,193
Foreign exchange differences	-29	14
Changes in consolidated group	0	6
Newly extended/purchased financial assets (additions)	377	249
Other changes	225	261
Financial instruments derecognized during the period (disposals)	-314	-282
Utilization	-107	-88
Changes to models or risk parameters	51	-42
Classified as held for sale	-	0
Carrying amount at Dec. 31	1,516	1,312

The gross carrying amounts of lease receivables and contract assets declined from €55.6 billion to €54.8 billion in the fiscal year under review.

The loss allowance on assets measured at fair value in Stage 1 rose by €0 million (previous year: €2 million) in fiscal year 2020, resulting in a closing balance of €3 million (previous year: €3 million). Of this amount, €2 million is attributable to Stage 1 (previous year: €2 million) and €1 million to Stage 2 (previous year €1 million).

The amount contractually outstanding for financial assets that have been derecognized in the current year and are still subject to enforcement proceedings is €221 million (previous year: €331 million).

MODIFICATIONS

There were contract modifications to financial assets in the reporting period that did not lead to the derecognition of the asset. These were primarily attributable to credit ratings and relate to financial assets for which loss allowances were measured in the amount of the expected lifetime credit losses. For trade and lease receivables, the treatment is simplified by considering the credit rating-based modifications where the receivables are more than 30 days past due. Before the modification, amortized cost amounted to €493 million (previous year: €120 million). In the reporting period, contract modifications resulted in net income/net expenses of €6.4 million (previous year: €-0.2 million).

As of the reporting date, the gross carrying amounts of financial assets that have been modified since initial recognition and were simultaneously reclassified from stage 2 or 3 to stage 1 in the reporting period amounted to €81 million (previous year: €28 million). As a result, the measurement of the loss allowance for these financial assets was changed from lifetime expected credit losses to 12-month expected credit losses.

MAXIMUM CREDIT RISK

The table below shows the maximum credit risk to which the Volkswagen Group was exposed as of the reporting date, broken down by class to which the impairment model is applied:

MAXIMUM CREDIT RISK BY CLASS

€ million	Dec. 31, 2020	Dec. 31, 2019
Financial instruments measured at fair value	3,545	3,139
Financial instruments measured at amortized cost	151,497	149,045
Financial guarantees and credit commitments	3,788	5,988
Not allocated to a measurement category	52,914	53,938
Total	211,744	212,109

RATING CATEGORIES

The Volkswagen Group performs a credit assessment of borrowers in all loan and lease agreements, using scoring systems for the high-volume business and rating systems for corporate customers and receivables from dealer financing. Receivables rated as good are contained in risk class 1. Receivables from customers whose credit rating is not good but have not yet defaulted are contained in risk class 2. Risk class 3 comprises all defaulted receivables.

The table below presents the gross carrying amounts of financial assets by rating category:

GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS BY RATING CATEGORY AS OF DECEMBER 31, 2019

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	120,926	8,272	–	66,344	89
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	3,240	5,031	–	3,226	43
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	2,514	901	359
Total	124,166	13,303	2,514	70,470	490

GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS BY RATING CATEGORY AS OF DECEMBER 31, 2020

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	112,446	10,109	–	65,040	106
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	5,278	12,926	–	2,877	64
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	2,709	1,157	288
Total	117,725	23,035	2,709	69,074	458

Furthermore, the default risk exposure for financial guarantees and credit commitments is presented below:

DEFAULT RISK FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS AS OF DECEMBER 31, 2019

€ million	Stage 1	Stage 2	Stage 3	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	3,373 ¹	178	–	0
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	100	25	–	0
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	7	3
Total	3,474	203	7	4

1 Prior-year figures adjusted.

DEFAULT RISK FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS AS OF DECEMBER 31, 2020

€ million	Stage 1	Stage 2	Stage 3	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	3,368	201	–	0
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	66	82	–	1
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	10	2
Total	3,434	283	10	3

Collateral that was accepted for financial assets in the current fiscal year was recognized in the balance sheet in the amount of €159 million (previous year: €149 million). This mainly relates to vehicles.

3. LIQUIDITY RISK

The solvency and liquidity of the Volkswagen Group are ensured at all times by rolling liquidity planning, a liquidity reserve in the form of cash, confirmed credit lines and the issuance of securities on the international money and capital markets. The volume of confirmed bilateral and syndicated credit lines stood at €27.9 billion as of December 31, 2020 (previous year: €27.0 billion), of which €2.3 billion (previous year: €3.8 billion) was drawn down.

Local cash funds in certain countries (e.g. China, Brazil, Argentina, South Africa and India) are only available to the Group for cross-border transactions subject to exchange controls. There are no significant restrictions over and above these.

The following overview shows the contractual undiscounted cash flows from financial instruments:

MATURITY ANALYSIS OF UNDISCOUNTED CASH FLOWS FROM FINANCIAL INSTRUMENTS

€ million	REMAINING CONTRACTUAL MATURITIES			2020	REMAINING CONTRACTUAL MATURITIES			2019
	up to one year	within one to five years	more than five years		up to one year	within one to five years	more than five years	
Financial liabilities	89,371	98,159	25,106	212,636	90,137	96,135	25,542	211,814
Trade payables	22,675	1	–	22,677	22,745	0	–	22,745
Other financial liabilities	9,151	2,156	152	11,460	8,633	2,355	176	11,164
Derivatives	73,927	56,294	6,736	136,958	70,932	57,182	5,912	134,027
	195,125	156,611	31,995	383,731	192,447	155,672	31,630	379,750

The cash outflows on other financial liabilities include outflows on liabilities for tax allocations amounting to €38 million (previous year: €19 million).

Derivatives comprise both cash flows from derivative financial instruments with negative fair values and cash flows from derivatives with positive fair values for which gross settlement has been agreed. Derivatives entered into through offsetting transactions are also accounted for as cash outflows. The cash outflows from derivatives for which gross settlement has been agreed are matched in part by cash inflows. These cash inflows are not reported in the maturity analysis. If these cash inflows were also recognized, the cash outflows presented would be substantially lower. This also particularly applies if hedges have been closed with offsetting transactions.

The cash outflows from irrevocable credit commitments are presented in the section entitled "Other financial obligations", classified by contractual maturities.

As of December 31, 2020, the maximum potential liability under financial guarantees amounted to €447 million (previous year: €425 million). Financial guarantees are assumed to be due immediately in all cases.

4. MARKET RISK

4.1 Hedging policy and financial derivatives

During the course of its general business activities, the Volkswagen Group is exposed to foreign currency, interest rate, commodity price, equity price and fund price risk. Corporate policy is to limit such risk by means of hedging. Generally, all necessary hedging transactions are executed or coordinated centrally by Group Treasury; exceptions include the MAN Energy Solutions, Porsche Holding GmbH, Salzburg and TRATON GROUP subgroups, as well as some regions such as South America.

DISCLOSURES ON GAINS AND LOSSES FROM FAIR VALUE HEDGES

Fair value hedges involve hedging against the risk of changes in the carrying amount of balance sheet items. As of the reporting date, both hedging instruments and hedged items are measured at fair value in relation to the hedged risk, and the resulting changes in value are recognized on a net basis in the corresponding income statement item.

The following table shows the gains and losses from fair value hedges by risk type:

DISCLOSURES ON GAINS AND LOSSES FROM FAIR VALUE HEDGES

€ million	Dec. 31, 2020	Dec. 31, 2019
Hedging interest rate risk		
Other financial result	–	–
Other operating result	–43	–5
Hedging currency risk		
Other financial result	–	–
Other operating result	–12	–39
Combined interest rate and currency risk hedging		
Other financial result	–	–
Other operating result	0	2

DISCLOSURES ON GAINS AND LOSSES FROM CASH FLOW HEDGES

Cash flow hedges are used to hedge against risks of fluctuations in future cash flows. These cash flows may arise from a recognized asset or liability, or from a highly probable forecast transaction. The following table shows the gains and losses from cash flow hedges by risk type:

DISCLOSURES ON GAINS AND LOSSES FROM CASH FLOW HEDGES

€ million	2020	2019
Hedging interest rate risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	-46	-41
Recognized in profit or loss	0	0
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	-	-
Due to realization of the hedged item	-1	-1
Hedging currency risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	1,434	-2,136
Recognized in profit or loss	-5	-1
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	-15	4
Due to realization of the hedged item	69	137
Combined interest rate and currency risk hedging		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	38	-4
Recognized in profit or loss	-6	2
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	-	-
Due to realization of the hedged item	-19	2
Hedging commodities price risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	0	-
Recognized in profit or loss	-	-
Reclassification from the cash flow hedge reserve to profit or loss		
Due to early discontinuation of the hedging relationships	-	-
Due to realization of the hedged item	-1	-4

The table presents effects taken to equity, reduced by deferred taxes.

The gain or loss from changes in the fair value of hedging instruments used in hedge accounting corresponds to the basis for determining hedge ineffectiveness. The ineffective portion of a cash flow hedge is the income or expense resulting from changes in the fair value of the hedging instrument that exceed the changes in the fair value of the hedged item. This hedge ineffectiveness is attributable to differences in the parameters for the hedging instrument and the hedged item. Such income and expenses are recognized in other operating income/expenses or in the financial result.

The Volkswagen Group uses two different methods to present market risk from nonderivative and derivative financial instruments in accordance with IFRS 7. For quantitative risk measurement, interest rate and foreign currency risk in the Volkswagen Financial Services subgroup is measured using a value-at-risk (VaR) model on the basis of a historical simulation, while market risk in the other Group companies is determined using a sensitivity analysis. The value-at-risk calculation indicates the size of the maximum potential loss on the portfolio as a whole within a time horizon of 40 days, measured at a confidence level of 99%. To provide the basis for this calculation, all cash flows from nonderivative and derivative financial instruments are aggregated into an interest rate gap analysis. The historical market data used in calculating value at risk covers a period of 1,000 trading days. The sensitivity analysis calculates the effect on equity and profit or loss by modifying risk variables within the respective market risks.

DISCLOSURES ON HEDGING INSTRUMENTS IN HEDGE ACCOUNTING

The Volkswagen Group regularly enters into hedging instruments to hedge against changes in the carrying amount of balance sheet items. The summary below shows the notional amounts, fair values and base variables for determining the ineffectiveness of hedging instruments entered into to hedge against the risk of changes in carrying amounts in fair value hedges:

DISCLOSURES ON HEDGING TRANSACTIONS IN FAIR VALUE HEDGES IN 2019

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	55,443	650	97	586
Hedging currency risk				
Currency forwards, currency options, cross-currency swaps	6,807	74	111	-17
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	580	13	1	12

DISCLOSURES ON HEDGING TRANSACTIONS IN FAIR VALUE HEDGES IN 2020

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	48,371	819	116	626
Hedging currency risk				
Currency forwards, currency options, cross-currency swaps	6,433	56	79	1
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	48	2	-	2

In addition, hedging instruments are entered into to hedge against the risk of fluctuations in future cash flows. The table below shows the notional amounts, fair values and base variables for determining the ineffectiveness of hedging instruments designated as cash flow hedges:

DISCLOSURES ON HEDGING TRANSACTIONS IN CASH FLOW HEDGES IN 2019

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	14,017	6	48	-32
Hedging currency risk				
Currency forwards and cross-currency swaps	87,271	689	2,090	96
Currency options	15,198	73	68	1
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	1,648	29	19	11

DISCLOSURES ON HEDGING TRANSACTIONS IN CASH FLOW HEDGES IN 2020

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	13,461	1	96	-93
Hedging currency risk				
Currency forwards and cross-currency swaps	84,862	1,866	1,174	1,824
Currency options	19,021	347	74	132
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	1,607	43	40	2

The change in the fair value to determine ineffectiveness corresponds to the change in fair value of the designated component.

DISCLOSURES ON HEDGED ITEMS IN HEDGE ACCOUNTING

In addition to disclosures on hedging instruments, disclosures are also required on the hedged items, broken down by risk category and type of designation for hedge accounting. Below follows a list of hedged items designated in fair value hedges, separately from those designated in cash flow hedges:

DISCLOSURES ON HEDGED ITEMS IN FAIR VALUE HEDGES IN 2019

€ million	Carrying amount	Cumulative hedge adjustments	Hedge adjustments current period/ fiscal year	Cumulative hedge adjustments from discontinued hedging relationships
Hedging interest rate risk				
Financial services receivables	20,680	17	32	–
Other financial assets	194	24	7	–
Financial liabilities	40,704	519	278	–
Hedging currency risk				
Financial services receivables	–	–	–	–
Other financial assets	991	–3	–55	–
Financial liabilities	1,595	32	–4	–
Combined interest rate and currency risk hedging				
Financial services receivables	–	–	–	–
Other financial assets	209	–26	2	–
Financial liabilities	48	3	3	–

DISCLOSURES ON HEDGED ITEMS IN FAIR VALUE HEDGES IN 2020

€ million	Carrying amount	Cumulative hedge adjustments	Hedge adjustments current period/ fiscal year	Cumulative hedge adjustments from discontinued hedging relationships
Hedging interest rate risk				
Financial services receivables	19,059	18	14	0
Other financial assets	150	7	–17	–
Financial liabilities	35,924	873	423	–
Hedging currency risk				
Financial services receivables	–	–	–	–
Other financial assets	602	18	8	–
Financial liabilities	951	30	–2	–
Combined interest rate and currency risk hedging				
Financial services receivables	–	–	–	–
Other financial assets	–	–	–	–
Financial liabilities	50	5	5	–

DISCLOSURES ON HEDGED ITEMS IN CASH FLOW HEDGES IN 2019

€ million	Changes in fair value to determine hedge ineffectiveness	RESERVE FOR	
		Active cash flow hedges	Discontinued cash flow hedges
Hedging interest rate risk			
Designated components	-29	-30	0
Non-designated components	-	-	-
Deferred taxes	-	7	0
Total hedging interest rate risk	-29	-23	0
Hedging currency risk			
Designated components	143	184	-5
Non-designated components	-	-1,380	-6
Deferred taxes	-	366	0
Total hedging currency risk	143	-830	-11
Combined interest rate and currency risk hedging			
Designated components	20	-2	-26
Non-designated components	-	-	-
Deferred taxes	-	1	8
Total hedging combined interest rate and currency risk	20	-2	-18
Hedging commodity price risk			
Designated components	-	-	1
Non-designated components	-	-	-
Deferred taxes	-	-	0
Total hedging commodity price risk	-	-	1

DISCLOSURES ON HEDGED ITEMS IN CASH FLOW HEDGES IN 2020

€ million	Changes in fair value to determine hedge ineffectiveness	RESERVE FOR	
		Active cash flow hedges	Discontinued cash flow hedges
Hedging interest rate risk			
Designated components	-90	-90	1
Non-designated components	-	-	-
Deferred taxes	-	19	0
Total hedging interest rate risk	-90	-71	1
Hedging currency risk			
Designated components	1,956	1,952	4
Non-designated components	-	-1,008	0
Deferred taxes	-	-299	-1
Total hedging currency risk	1,956	644	3
Combined interest rate and currency risk hedging			
Designated components	0	-1	-
Non-designated components	-	-	-
Deferred taxes	-	0	-
Total hedging combined interest rate and currency risk	0	-1	-
Hedging commodity price risk			
Designated components	-	-	0
Non-designated components	-	-	-
Deferred taxes	-	-	0
Total hedging commodity price risk	-	-	0

CHANGES IN THE RESERVE

When accounting for cash flow hedges, the designated effective portions of a hedging relationship are recognized in OCI. Any changes in excess of the fair value of the designated component are recognized as ineffectiveness through profit or loss.

The tables below show a reconciliation to the reserve:

CHANGES IN THE RESERVE FOR CASH FLOW HEDGES (OCI I)

€ million	Interest rate risk	Currency risk	Interest rate/ currency risk	Commodity price risk	Total
Balance at Jan. 1, 2019	19	1,783	-17	5	1,790
Gains or losses from effective hedging relationships	-41	-1,092	-4	-	-1,137
Reclassifications due to changes in whether the hedged item is expected to occur	-	1	-	-	1
Reclassifications due to realization of the hedged item	-1	-557	2	-4	-561
Balance at Dec. 31, 2019	-23	135	-20	1	93

CHANGES IN THE RESERVE FOR CASH FLOW HEDGES (OCI I)

€ million	Interest rate risk	Currency risk	Interest rate/ currency risk	Commodity price risk	Total
Balance at Jan. 1, 2020	-23	135	-20	1	93
Gains or losses from effective hedging relationships	-46	1,984	38	0	1,976
Reclassifications due to changes in whether the hedged item is expected to occur	-	-41	-	-	-41
Reclassifications due to realization of the hedged item	-1	-724	-19	-1	-744
Balance at Dec. 31, 2020	-70	1,355	-1	0	1,284

If expectations about the occurrence of the hedged item change, the arrangement is reclassified by terminating the hedging relationship prematurely. Changed expectations are primarily caused by a change in projections for hedging sales revenue.

Changes in the fair values of non-designated components of a derivative are likewise generally recognized immediately through profit or loss. An exception from this principle is any change in the fair value attributable to non-designated time values of options, to the extent that they relate to the hedged item. Moreover, the Volkswagen Group initially recognizes in equity (hedging costs) changes in the fair values of non-designated forward components in currency forwards and currency hedges attributed to cash flow hedges. This means that the Volkswagen Group recognizes changes in the fair value of the non-designated component or parts thereof immediately through profit or loss only if there is ineffectiveness.

The tables below show a summary of changes in the reserve for hedging costs resulting from the non-designated portions of options and currency hedges:

CHANGES IN THE RESERVE FOR HEDGING COSTS – NON-DESIGNATED TIME VALUES OF OPTIONS

€ million	CURRENCY RISK	
	2020	2019
Balance at Jan. 1	-35	-1
Gains and losses from non-designated time value of options		
Hedged item is recognized at a point in time	50	-71
Reclassifications due to changes in whether the hedged item is expected to occur		
Hedged item is recognized at a point in time	0	0
Reclassification due to realization of the hedged item		
Hedged item is recognized at a point in time	43	38
Balance at Dec. 31	59	-35

CHANGES IN THE RESERVE FOR HEDGING COSTS – NON-DESIGNATED FORWARD COMPONENT AND CROSS CURRENCY BASIS SPREAD (CCBS)

€ million	CURRENCY RISK	
	2020	2019
Balance at Jan. 1	-942	-628
Gains and losses from non-designated forward elements and CCBS		
Hedged item is recognized at a point in time	-600	-973
Reclassification due to realization of the hedged item		
Hedged item is recognized at a point in time	749	656
Reclassification due to changes in whether the hedged item is expected to occur		
Hedged item is recognized at a point in time	26	3
Balance at Dec. 31	-766	-942

4.2 Market risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup)

4.2.1 Foreign currency risk

Foreign currency risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup) is attributable to investments, financing measures and operating activities. Currency forwards, currency options, currency swaps and cross-currency interest rate swaps are used to limit foreign currency risk. These transactions relate to the exchange rate hedging of material payments covering general business activities that are not made in the functional currency of the respective Group companies. The principle of matching currencies applies to the Group's financing activities.

Hedging transactions entered into in 2020 as part of foreign currency risk management were amongst others in Australian dollars, Brazilian real, British pound sterling, Chinese renminbi, Hong Kong dollars, Indian rupees, Japanese yen, Canadian dollars, Mexican pesos, Norwegian kroner, Polish zloty, Russian rubles, Swedish kronor, Swiss francs, Singapore dollars, South African rand, South Korean won, Taiwan dollars, Czech koruna, Hungarian forints and US dollars.

All nonfunctional currencies in which the Volkswagen Group enters into financial instruments are included as relevant risk variables in the sensitivity analysis in accordance with IFRS 7.

If the functional currencies concerned had appreciated or depreciated by 10% against the other currencies, the exchange rates shown below would have resulted in the following effects on the hedging reserve in equity and on earnings after tax. It is not appropriate to add together the individual figures, since the results of the various functional currencies concerned are based on different scenarios.

The following table shows the sensitivities of the main currencies in the portfolio as of December 31, 2020:

€ million	DEC. 31, 2020		DEC. 31, 2019	
	+10%	-10%	+10%	-10%
Exchange rate				
EUR / GBP				
Hedging reserve	951	-947	1,472	-1,472
Earnings after tax	-59	59	-172	172
EUR / USD				
Hedging reserve	168	-75	964	-979
Earnings after tax	-527	527	-473	473
EUR / CNY				
Hedging reserve	520	-477	739	-761
Earnings after tax	-114	114	-155	155
EUR / CHF				
Hedging reserve	454	-442	414	-396
Earnings after tax	-4	4	-1	1
EUR / SEK				
Hedging reserve	287	-287	87	-85
Earnings after tax	-78	78	-122	122
EUR / JPY				
Hedging reserve	280	-274	342	-344
Earnings after tax	-32	32	-13	13
EUR / AUD				
Hedging reserve	172	-172	87	-87
Earnings after tax	-22	22	-25	25
EUR / KRW				
Hedging reserve	114	-114	79	-78
Earnings after tax	-55	55	-19	19
EUR / CAD				
Hedging reserve	123	-117	190	-190
Earnings after tax	-11	11	-14	14
CZK / GBP				
Hedging reserve	109	-109	136	-136
Earnings after tax	-1	1	0	0
CZK / PLN				
Hedging reserve	85	-85	105	-105
Earnings after tax	-3	3	1	-1
EUR / TWD				
Hedging reserve	75	-75	88	-88
Earnings after tax	-10	10	-6	6
EUR / CZK				
Hedging reserve	50	-50	98	-98
Earnings after tax	-31	31	-62	62
BRL / USD				
Hedging reserve	-1	0	-1	1
Earnings after tax	71	-71	74	-74
EUR / BRL				
Hedging reserve	3	-3	6	-6
Earnings after tax	-64	64	-111	111

4.2.2 Interest rate risk

Interest rate risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup) results from changes in market interest rates, primarily for medium- and long-term variable interest receivables and liabilities. Interest rate swaps and cross-currency interest rate swaps are sometimes entered into to hedge against this risk primarily under fair value or cash flow hedges, and depending on market conditions. Intragroup financing arrangements are mainly structured to match the maturities of their refinancing. Departures from the Group standard are subject to centrally defined limits and monitored on an ongoing basis.

Interest rate risk within the meaning of IFRS 7 is calculated for these companies using sensitivity analyses. The effects of the risk-variable market rates of interest on the financial result and on equity are presented, net of tax.

If market interest rates had been 100 bps higher as of December 31, 2020, equity would have been €218 million (previous year: €98 million) lower. If market interest rates had been 100 bps lower as of December 31, 2020, equity would have been €241 million (previous year: €90 million) higher.

If market interest rates had been 100 bps higher as of December 31, 2020, earnings after tax would have been €16 million lower (previous year: €55 million higher). If market interest rates had been 100 bps lower as of December 31, 2020, earnings after tax would have been €23 million higher (previous year: €47 million lower).

4.2.3 Commodity price risk

Commodity price risk in the Volkswagen Group (excluding Volkswagen Financial Services subgroup) primarily results from price fluctuations and the availability of ferrous and non-ferrous metals, precious metals, commodities required in connection with the Group's digitalization and electrification strategy, as well as of coal, CO₂ certificates and rubber.

Commodity price risk is limited by entering into forward transactions and swaps. Likewise, selected commodities were purchased on the spot market, which led to a corresponding increase in inventories. Commodity price risk within the meaning of IFRS 7 is presented using sensitivity analyses. These show the effect on earnings after tax of changes in the risk variable commodity prices.

If the commodity prices of the hedged nonferrous metals, coal and rubber had been 10% higher (lower) as of December 31, 2020, earnings after tax would have been €559 million (previous year: €415 million) higher (lower).

4.2.4 Equity and bond price risk

The special funds launched using surplus liquidity and the equity interests measured at fair value are subject in particular to equity price and bond price risk, which can arise from fluctuations in quoted market prices, stock exchange indices and market rates of interest. The changes in bond prices resulting from variations in the market rates of interest are quantified in sections 4.2.1 and 4.2.2, as are the measurement of foreign currency and other interest rate risks arising from the special funds and the equity interests measured at fair value. As a rule, risks arising from the special funds are countered by ensuring a broad diversification of products, issuers and regional markets when investing funds, as stipulated by the Investment Guidelines of the Group. In addition, the Investment Guidelines define fixed minimum values, which are to be met by taking suitable risk management measures. In addition, exchange rates are hedged when market conditions are appropriate.

As part of the presentation of market risk, IFRS 7 requires disclosures on how hypothetical changes in risk variables affect the price of financial instruments. Potential risk variables here are in particular quoted market prices or indices, as well as interest rate changes as bond price parameters.

If share prices had been 10% higher as of December 31, 2020, earnings after tax would have been €160 million (previous year: €118 million) higher and equity would have been €2 million (previous year: €3 million) higher. If share prices had been 10% lower as of December 31, 2020, earnings after tax would have been €179 million (previous year: €175 million) lower and equity would have been €2 million (previous year: €3 million) lower.

4.3 Market risk at Volkswagen Financial Services subgroup

Exchange rate risk in the Volkswagen Financial Services subgroup is mainly attributable to assets that are not denominated in the functional currency and from refinancing within operating activities. Interest rate risk relates to refinancing without matching maturities and the varying interest rate elasticity of individual asset and liability items. The risks are limited by the use of currency and interest rate hedges.

Microhedges and portfolio hedges are used for interest rate hedging. Fixed-rate assets and liabilities included in the hedging strategy are recognized at fair value, as opposed to their original subsequent measurement at amortized cost. The resulting effects in the income statement are offset by the corresponding gains and losses on the interest rate hedging instruments (swaps). Currency hedges (currency forwards and cross-currency interest rate swaps) are used to mitigate foreign currency risk. All cash flows in foreign currency are hedged.

As of December 31, 2020, the value at risk was €213 million (previous year: €147 million) for interest rate risk and €148 million (previous year: €172 million) for foreign currency risk.

The entire value at risk for interest rate and foreign currency risk at the Volkswagen Financial Services subgroup was €170 million (previous year: €170 million).

5. METHODS FOR MONITORING HEDGE EFFECTIVENESS

Since the implementation of IFRS 9, the Volkswagen Group determines hedge effectiveness mainly on a prospective basis using the critical terms match method. Retrospective analysis of effectiveness uses effectiveness tests in the form of the dollar offset method. Under the dollar offset method, the changes in value of the hedged item expressed in monetary units are compared with the changes in value of the hedging instrument expressed in monetary units.

To this end, the accumulated changes in the fair value of the designated spot component of the hedging instrument and hedged item are compared. If the critical terms do not match, the same procedure is applied to the non-designated component.

For hedges involving interest rate or cross-currency swaps, the Volkswagen Group is exposed to uncertainty resulting from the IBOR reform, which may affect the timing, the amount of the IBOR-based cash flows, or the hedged risk of the hedged item or the hedging instrument. The Volkswagen Group applies the practical expedients allowed in connection with the amendments to the standard, irrespective of the remaining maturity of the hedged items and hedging instruments included in the hedges, to all hedges affected by the aforementioned uncertainty arising from the IBOR reform.

The uncertainty relates mainly to the following interest rate benchmarks: USD LIBOR, GBP LIBOR and CAD CDOR. In the case of fair value hedges, the uncertainty relates to the identifiability of the risk component which results from the change in the fair value used to hedge against risks of changes in the carrying amounts of financial assets and financial liabilities. In cash flow hedges used to hedge against risks arising from changes in future cash flows, the uncertainty relates to the highly probable requirement for hedged future variable cash flows. The expected impact of the IBOR reform is being assessed on an ongoing basis. Any measures required have already been initiated for certain interest rate benchmarks; for other interest rate benchmarks, they will be initiated in good time in the future. By adapting systems and processes, these measures are intended to ensure that new interest rate benchmarks can be rolled out to replace the interest rate benchmarks discontinued as a result of the IBOR reform in a timely manner.

NOTIONAL AMOUNT OF DERIVATIVES

The notional amounts of hedging instruments exposed to the uncertainty from the IBOR reform described above are €25,466 million (previous year: €35,389 million) in total. In the fiscal year, €12,617 million of this total was attributable to the USD LIBOR (previous year: €12,847 million), €9,147 million to the GBP LIBOR (previous year: €13,112 million), €3,620 million to the CAD CDOR (previous year: €3,990 million) and €82 million to the JPY LIBOR (previous year: €0 million). Compared with the previous year, we believe that the notional amounts of AUD BBSW and NOK OIBOR hedging instruments are no longer exposed to any uncertainty from the IBOR reform.

The summary below presents the remaining maturities profile of the notional amounts of the hedging instruments, which are accounted for under the Volkswagen Group's hedge accounting rules, and of derivatives to which hedge accounting is not applied:

NOTIONAL AMOUNT OF DERIVATIVES

€ million	REMAINING TERM			TOTAL NOTIONAL AMOUNT	TOTAL NOTIONAL AMOUNT
	up to one year	within one to five years	more than five years	Dec. 31, 2020	Dec. 31, 2019
Notional amount of hedging instruments within hedge accounting					
Hedging interest rate risk					
Interest rate swap	18,225	38,981	4,626	61,832	69,460
Hedging currency risk					
Currency forwards/Cross-currency swaps					
Currency forwards/Cross-currency swaps in CNY	5,217	1,051	–	6,268	10,869
Currency forwards/Cross-currency swaps in GBP	10,526	6,656	–	17,182	25,153
Currency forwards/Cross-currency swaps in USD	12,411	16,404	3,501	32,316	23,965
Currency forwards/Cross-currency swaps in other currencies	18,607	16,922	–	35,529	34,091
Currency options					
Currency options in USD	2,297	6,452	–	8,749	8,755
Currency options in CNY	3,986	–	–	3,986	2,047
Currency options in other currencies	2,123	4,164	–	6,287	4,395
Combined interest rate and currency risk hedging					
Cross-currency interest rate swaps	1,138	517	–	1,655	2,228
Notional amount of other derivatives					
Hedging Interest rate risk					
Interest rate swap	20,308	36,174	17,996	74,478	70,852
Hedging Currency risk					
Currency forwards/Cross-currency swaps					
Currency forwards/Cross-currency swaps in USD	6,636	4,479	608	11,722	11,498
Currency forwards/Cross-currency swaps in other currencies	13,654	1,291	32	14,977	21,105
Currency options					
Currency options in USD	82	–	–	82	188
Currency options in other currencies	41	–	–	41	487
Combined interest rate and currency risk hedging					
Cross-currency interest rate swaps	3,870	8,088	2,542	14,501	13,499
Hedging Commodity price risk					
Forward commodity contracts (aluminum)	1,001	2,099	–	3,099	3,041
Forward commodity contracts (copper)	333	604	–	938	956
Forward commodity contracts (nickel)	267	1,451	608	2,326	2,075
Forward commodity contracts (other)	96	47	–	143	188

Both derivatives closed with offsetting transactions and the offsetting transactions themselves are included in the respective notional amount. The offsetting transactions cancel out the effects of the original hedging transactions. If the offsetting transactions were not included, the respective notional amount would be significantly lower. In addition to the derivatives used for hedging foreign currency, interest rate and price risk, the Group held options and other derivatives on equity instruments at the reporting date, mainly in connection with fund investments.

The notional volume with a remaining maturity of less than one year was €10.4 billion (previous year: €18.2 billion), and the notional volume with a remaining maturity of more than one year amounted to €0.2 billion (previous year: €– billion).

Also in connection with fund investments, the Group held credit default swaps with a notional amount of €36.6 billion (previous year: €30.6 billion).

Existing cash flow hedges in the notional amount of €2.1 billion (previous year: €0.2 billion) were discontinued because of a reduction in the projections. In addition, hedges were to be terminated due to internal risk regulations.

Items hedged under cash flow hedges are expected to be realized in accordance with the maturity buckets of the hedges reported in the table. For cash flow hedges, the Volkswagen Group achieved an average hedging interest rate of 0.72% for hedging interest rate risk. In addition, currency risk was hedged at the following hedging exchange rates for the major currency pairs: EUR/USD at 1.19; EUR/GBP at 0.89; EUR/CNY at 8.02.

The fair values of the derivatives are estimated using market data at the balance sheet date as well as by appropriate valuation techniques. The following term structures were used for the calculation:

in %	EUR	CAD	CHF	CNY	CZK	GBP	JPY	SEK	USD
Interest rate for six months	-0.4707	0.4178	-0.7357	2.8501	0.4538	0.0147	-0.1458	0.0495	0.1818
Interest rate for one year	-0.5150	0.4386	-0.7293	2.9022	0.5548	-0.0131	-0.0958	0.0034	0.1821
Interest rate for five years	-0.4645	0.8320	-0.5610	3.3500	1.1150	0.1926	-0.0375	0.1325	0.4300
Interest rate for ten years	-0.2650	1.2375	-0.2875	4.0700	1.2850	0.3966	0.0513	0.3880	0.9240

37. Capital management

The Group's capital management ensures that its goals and strategies can be achieved in the interests of shareholders, employees and other stakeholders. In particular, management focuses on generating the minimum return on invested assets in the Automotive Division that is required by the capital markets, and on increasing the return on equity in the Financial Services Division. In the process, it aims overall to achieve the highest possible growth in the value of the Group and its divisions for the benefit of all the Company's stakeholder groups.

In order to ensure that resources are used as efficiently as possible in the Automotive Division and to measure the success of this, we have for a number of years been using a value-based management system, with value contribution as an absolute performance measure and return on investment (ROI) as a relative indicator.

Value contribution is defined as the difference between operating profit after tax and the opportunity cost of invested capital. The opportunity cost of capital is calculated by multiplying the market cost of capital by average invested capital. Invested capital is calculated by taking the operating assets reported in the balance sheet (property, plant and equipment, intangible assets, lease assets, inventories and receivables) and deducting non-interest-bearing liabilities (trade payables and payments on account received). Average invested capital is derived from the balance at the beginning and the end of the reporting period. In the reporting year, the Automotive Division's operating result was weighed down primarily by the continued negative impact of the spread of the SARS-CoV-2 virus. This resulted in a negative value contribution of €54 million.

The return on investment is defined as the return on invested capital for a particular period based on the operating result after tax. If the return on investment exceeds the market cost of capital, there is an increase in the value of the invested capital and a positive value contribution. In the Group, a minimum required rate of return on invested capital of 9 % is defined, which applies to both the business units and the individual products and product lines. The goal of generating a sustained return on investment of over 14% is anchored in Strategy 2025. The return on investment therefore serves as a consistent target in operational and strategic management

and is used to measure target attainment for the Automotive Division, the individual business units, and projects and products. The return on investment achieved for the Automotive Division was 6.5% in the reporting period, which is below the minimum rate of return on invested capital of 9% and on a level with the current cost of capital of 6.5%.

Due to the specific features of the Financial Services Division, its management focuses on return on equity, a special target linked to invested capital. This measure is calculated as the ratio of earnings before tax to average equity. Average equity is calculated from the balance at the beginning and the end of the reporting period. In addition, the goals of the Financial Services Division are to meet the banking supervisory authorities' regulatory capital requirements, to procure equity for the growth planned in the coming fiscal years and to support its external rating by ensuring capital adequacy. To ensure compliance with prudential requirements at all times, a planning procedure integrated into internal reporting has been put in place at the Volkswagen Bank, allowing the required equity to be continuously determined on the basis of actual and expected business performance. In the reporting period, this again ensured that regulatory minimum capital requirements were always met both at Group level and at the level of subordinate companies' individual, specific capital requirements.

The return on investment and value contribution in the Automotive Division as well as the return on equity and the equity ratio in the Financial Services Division are shown in the following table:

€ million	2020	2019
Automotive Division¹		
Operating result after tax	7,450	13,019
Invested capital (average)	114,907	116,016
Return on investment (ROI) in %	6.5	11.2
Cost of capital in %	6.5	6.3
Opportunity cost of invested capital	7,504	7,328
Value contribution²	-54	5,691
Financial Services Division		
Earnings before tax	2,776	3,219
Average equity	31,463	29,684
Return on equity before tax in %	8.8	10.8
Equity ratio in %	13.2	12.8

1 Including proportionate inclusion of the Chinese joint ventures and allocation of consolidation adjustments between the Automotive and Financial Services Divisions; excluding effects on earnings and assets from purchase price allocation.

2 The value contribution corresponds to the Economic Value Added (EVA®). EVA® is a registered trademark of Stern Stewart & Co.

38. Contingent liabilities

€ million	Dec. 31, 2020	Dec. 31, 2019
Liabilities under guarantees	525	574
Liabilities under warranty contracts	165	192
Assets pledged as security for third-party liabilities	19	19
Other contingent liabilities	7,912	7,708
	8,621	8,494

It was considered improbable in the fiscal year under review that there would be an outflow of economic resources relating to the contingent liabilities based on trust assets and liabilities of the savings and trust entities belonging to the South American subsidiaries not included in the consolidated balance sheet.

In the case of liabilities from guarantees, the Group is required to make specific payments if the debtors fail to meet their obligations.

The other contingent liabilities primarily comprise potential liabilities arising from matters relating to taxes and customs duties, as well as litigation and proceedings relating to suppliers, dealers, customers, employees and investors. The contingent liabilities recognized in connection with the diesel issue totaled €4.2 billion (previous year: €3.7 billion), of which €3.5 billion (previous year: €3.4 billion) was attributable to investor lawsuits. Also included are certain elements of the class action lawsuits and proceedings/misdemeanor proceedings relating to the diesel issue as far as these can be quantified. As some of these proceedings are still at a very early stage, the plaintiffs have in a number of cases so far not specified the basis of their claims and/or there is insufficient certainty about the number of plaintiffs or the amounts being claimed. Where these lawsuits meet the definition of a contingent liability, no disclosure was normally required because it had not been possible to measure the amount involved.

In addition, other contingent liabilities include an amount of €0.5 billion for potential liabilities resulting from the risk of tax proceedings instituted by the Brazilian tax authorities against MAN Latin America.

Since 2016, the U.S. National Highway Traffic Safety Administration (NHTSA) has announced further extensions of the recalls for various models from different manufacturers containing certain airbags produced by the Takata company. Recalls were also demanded by the local authorities in individual countries. The recalls also included models manufactured by the Volkswagen Group. Appropriate provisions have been recognized. Currently, the possibility of further extensions to the recalls that could also affect Volkswagen Group models cannot be ruled out. It is not possible at the moment to provide further disclosures in accordance with IAS 37.86 in relation to this matter because the technical investigations and consultations with the authorities are still being carried out.

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to additional important legal cases. This is so as to not compromise the results of the proceedings or the interests of the Company. Further information can be found under the section entitled "Litigation".

39. Litigation

Volkswagen AG and the companies in which it is directly or indirectly invested are involved in a substantial number of legal disputes and governmental proceedings in Germany and abroad. Such legal disputes and other proceedings occur, among other things, in connection with products and services or in relation to employees, public authorities, dealers, investors, customers, suppliers, or other contracting parties. For the companies in question, these disputes and proceedings may result in payments such as fines or in other obligations or consequences. In particular, substantial compensatory or punitive damages may have to be paid and cost-intensive measures may have to be implemented. In this context, specific estimation of the objectively likely consequences is often possible only to a very limited extent, if at all.

Various legal proceedings are pending worldwide, particularly in the USA, in which customers are asserting purported product-related claims, either individually or in class actions. These claims are as a rule based on alleged vehicle defects, including defects alleged in vehicle parts supplied to the Volkswagen Group. Compliance with legal or regulatory requirements (such as the GDPR) is another area in which risks may arise. This is particularly true in gray areas where Volkswagen and the relevant public authorities may interpret the law differently.

In connection with their business activities, Volkswagen Group companies engage in constant dialogue with regulatory agencies including the German Kraftfahrt-Bundesamt (Federal Motor Transport Authority). It is not possible to predict with assurance how government regulators will assess certain issues of fact and law in a particular situation. For this reason, the possibility that certain vehicle characteristics and/or type approval aspects may in particular ultimately be deemed deficient or impermissible cannot be ruled out. This is fundamentally a question of the regulatory agency's specific evaluation in a concrete situation.

Risks may also result from actions for infringement of intellectual property, including infringement of patents, trademarks, or other third-party rights, particularly in Germany and the USA. If Volkswagen is alleged or determined to have violated third-party intellectual property rights, it may have to pay damages, modify manufacturing processes, or redesign products, and may be barred from selling certain products; this may result in delivery and production restrictions or interruptions.

Criminal acts by individuals, which even the best compliance management system can never completely prevent, are another potential source of legal risks.

Appropriate insurance has been taken out to cover these risks where they were sufficiently definite and such coverage was economically sensible. Where necessary based on the information currently available, identified and correspondingly measurable risks have been reflected by recognizing provisions in amounts considered appropriate or disclosing contingent liabilities, as the case may be. As some risks cannot be assessed or can only be assessed to a limited extent, the possibility of material loss or damage not covered by the insured amounts or by provisions cannot be ruled out. This is, for instance, the case with regard to the legal risks assessed in connection with the diesel issue.

Diesel issue

On September 18, 2015, the US Environmental Protection Agency (EPA) publicly announced in a “Notice of Violation” that irregularities in relation to nitrogen oxide (NO_x) emissions had been discovered in emissions tests on certain Volkswagen Group vehicles with 2.0 l diesel engines in the USA. In this context, Volkswagen AG announced that noticeable discrepancies between the figures recorded in testing and those measured in actual road use had been identified in around eleven million vehicles worldwide with type EA 189 diesel engines. On November 2, 2015, the EPA issued a “Notice of Violation” alleging that irregularities had also been discovered in the software installed in US vehicles with type V6 3.0 l diesel engines.

The so-called diesel issue is rooted in a modification of parts of the software of the relevant engine control units – which, according to Volkswagen AG’s legal position, is only unlawful under US law – for the type EA 189 diesel engines that Volkswagen AG was developing at that time. The decision to develop and install this software function was taken in late 2006 below Board of Management level. No member of the Board of Management had, at that time and for many years to follow, knowledge of the development and implementation of this software function.

There are furthermore no findings that, following the publication in May 2014 of the study by the International Council on Clean Transportation, an unlawful “defeat device” under US law was disclosed either to the Ausschuss für Produktsicherheit (Product Safety Committee) or to the persons responsible for preparing the 2014 annual and consolidated financial statements as the cause of the high NO_x emissions in certain US vehicles with 2.0 l type EA 189 diesel engines. Rather, at the time the 2014 annual and consolidated financial statements were being prepared, the persons responsible for preparing these financial statements remained under the impression that the issue could be resolved with comparatively little expense.

In the course of the summer of 2015, however, it became progressively apparent to individual members of Volkswagen AG’s Board of Management that the cause of the discrepancies in the USA was a modification of parts of the software of the engine control unit that was later identified as an unlawful “defeat device” as defined by US law. This culminated in Volkswagen’s disclosure of a “defeat device” to the EPA and the California Air Resources Board, a department of the Environmental Protection Agency of the State of California, on September 3, 2015. According to the assessment at the time by the responsible persons dealing with the matter, the magnitude of the costs expected to result for the Volkswagen Group (recall costs, retrofitting costs, and financial penalties) was not fundamentally dissimilar to that in previous cases involving other vehicle manufacturers. It therefore appeared to be manageable overall considering the business activities of the Volkswagen Group. This assessment by Volkswagen AG was based, among other things, on the advice of a law firm engaged in the USA for regulatory approval issues, according to which similar cases had in the past been amicably resolved with the US authorities. The EPA’s publication of the “Notice of Violation” on September 18, 2015, which the Board of Management had not expected, especially at that time, then presented the situation in an entirely different light.

The AUDI AG Board of Management members in office at the time in question have likewise stated that they had no knowledge of the use of “defeat device” software that was prohibited by US law in the type V6 3.0 l TDI engines until the EPA issued its November 2015 “Notice of Violation”.

Within the Volkswagen Group, Volkswagen AG has development responsibility for the four-cylinder diesel engines such as the type EA 189, and AUDI AG has development responsibility for the six- and eight-cylinder diesel engines such as the type V6 3.0 l and V8 4.2 l diesel engines.

As a consequence of the diesel issue, numerous judicial and regulatory proceedings were initiated in various countries. Volkswagen has in the interim succeeded in making substantial progress and ending many of these proceedings. In the USA, Volkswagen AG and certain affiliates reached settlement agreements with various government authorities and private plaintiffs, the latter represented by a Plaintiffs’ Steering Committee in a multidistrict litigation in the US state of California. The agreements in question include various partial consent decrees as well as a plea agreement that resolved certain civil claims as well as criminal charges under US federal law and the laws of certain US states in connection with the diesel issue. Although Volkswagen is firmly committed to fulfilling the obligations arising from these agreements, a breach of these obligations cannot be completely ruled out. In the event of a violation, significant penalties could be imposed as stipulated in the agreements, in addition to the possibility of further monetary fines, criminal sanctions and injunctive relief. The last remaining vehicle class settlement program for customers in the United States, which pertained to second Generation 3.0 l TDI vehicles, ended in May 2020.

In agreement with the respective responsible authorities, the Volkswagen Group is making technical measures available worldwide for virtually all diesel vehicles with type EA 189 engines. For all clusters (groups of vehicles) within its jurisdiction, the Kraftfahrt-Bundesamt (KBA – German Federal Motor Transport Authority) determined that implementation of the technical measures would not result in any adverse changes in fuel consumption, CO₂ emissions, engine output, maximum torque, and noise emissions.

Following the studies carried out by AUDI AG to check all relevant diesel concepts for possible irregularities and retrofit potential, measures proposed by AUDI AG have been adopted and mandated by the KBA in various recall orders pertaining to vehicle models with V6 and V8 TDI engines. AUDI AG currently anticipates that the total cost, including recall expenses, of the ongoing largely software-based retrofit program that began in July 2017 will be manageable and has recognized corresponding balance-sheet risk provisions. AUDI AG has in the meantime developed software updates for many of the affected powertrains and, after approval by the KBA, already installed these in the vehicles of a large number of affected customers. The software updates still being developed are expected to be submitted to the KBA in 2021 for approval.

In connection with the diesel issue, potential consequences for Volkswagen's results of operations, financial position and net assets could emerge primarily in the following legal areas:

1. Criminal and administrative proceedings worldwide (excluding the USA/Canada)

Criminal investigations, regulatory offense proceedings, and/or administrative proceedings have been commenced in some countries. Criminal investigations into the core factual issues are being conducted by the Offices of the Public Prosecutor in Braunschweig and Munich.

In May 2020, the criminal proceedings against the current Chairman of the Board of Management of Volkswagen AG and a former member of its Board of Management (currently Chairman of the Supervisory Board) regarding alleged market manipulation relating to capital market disclosure obligations in connection with the diesel issue were definitively terminated by the Braunschweig Regional Court against payment in each case of a court-imposed sum of €4.5 million, thereby also terminating to the same extent the proceedings against Volkswagen AG as collateral participant. After permitting the charges against a former Chairman of the Board of Management of Volkswagen AG and the related action against Volkswagen AG to go forward in September 2020, the Braunschweig Regional Court in January 2021 terminated these proceedings – provisionally as regards the indictment which is for the time being still pending against the former Chairman of the Board of Management, but definitively as regards Volkswagen AG.

In September 2020, the Braunschweig Regional Court accepted the indictment of the same former Chairman of the Board of Management of Volkswagen AG and others on charges that include fraud in connection with the diesel issue involving type EA 189 engines and opened the main trial proceedings.

In June 2020, the Munich II Regional Court accepted the substantially unchanged indictment of the Munich II Office of the Public Prosecutor, which also names the former Chairman of the Board of Management of AUDI AG, and opened the main trial proceedings on charges of, among other things, fraud in connection with the diesel issue involving 3.0 l TDI engines. Trial proceedings commenced in September 2020.

In August 2020, the Munich II Office of the Public Prosecutor issued a further indictment charging three former members of the Board of Management of AUDI AG and others with, among other things, fraud in connection with the diesel issue involving 3.0 l and 4.2 l TDI engines.

In connection with the diesel issue, the Stuttgart Office of the Public Prosecutor is conducting a criminal investigation on suspicion of fraud and illegal advertising; this investigation also involves a member of the Board of Management of Dr. Ing. h.c. F. Porsche AG.

The respective Group companies have appointed renowned law firms to clarify the matters underlying the public prosecutor's accusations. The Board of Management and Supervisory Board receive regular updates on the current status.

As the type approval authority of proper jurisdiction, the KBA is moreover continuously testing Audi, Volkswagen, and Porsche brand vehicles for problematic functions. If certain functions are deemed impermissible by the KBA, the affected vehicles are recalled pursuant to a recall order or they are brought back into compliance by means of a voluntary service measure.

Moreover, additional administrative proceedings relating to the diesel issue are ongoing in other jurisdictions.

The companies of the Volkswagen Group are cooperating with the government authorities.

Risks may furthermore result from possible decisions by the European Court of Justice construing EU type approval provisions.

Whether the criminal and administrative proceedings will ultimately result in fines or other consequences for the Company, and if so what amounts these may entail, is currently subject to estimation risks. According to Volkswagen's estimates, the likelihood that a sanction will be imposed is 50% or less in the majority of these proceedings. Contingent liabilities have therefore been disclosed where the amount of such liabilities could be measured and the likelihood of a sanction being imposed was assessed at not less than 10%. Provisions were recognized to a small extent.

2. Product-related lawsuits worldwide (excluding the USA/Canada)

A general possibility exists that customers in the affected markets will file civil lawsuits or that importers and dealers will assert recourse claims against Volkswagen AG and other Volkswagen Group companies. Besides individual lawsuits, various forms of collective actions (i.e. assertion of individual claims by plaintiffs acting jointly or as representatives of a class) are available in various jurisdictions. Furthermore, in a number of markets it is possible for consumer and/or environmental organizations to bring suit to enforce alleged rights to injunctive relief, declaratory judgment, or damages.

Customer class action lawsuits and actions brought by consumer and/or environmental organizations are pending against Volkswagen AG and other Volkswagen Group companies in a number of countries including Australia, Belgium, Brazil, England and Wales, France, Germany, Italy, the Netherlands, Portugal, and South Africa. Alleged rights to damages and other relief are asserted in these actions. The pending actions include in particular the following:

In Australia, various class action lawsuits had been pending against Volkswagen AG and other Volkswagen Group companies, including the Australian subsidiaries. In December 2019, Volkswagen AG reached tentative agreements with the Australian class action plaintiffs terminating the litigation; the court approved these agreements in April 2020. Volkswagen AG anticipates that the total cost of settling these actions will be approximately AUD 180 million. Two civil suits filed against Volkswagen AG and other Group companies by the Australian Competition and Consumer Commission (ACCC) were settled in the second half of 2019. The settlement is not yet legally final, however, as an appellate court has yet to rule on the amount of the fine. Depending on the appellate court decision, Volkswagen AG continues to anticipate payment of a fine of up to AUD 125 million.

In Belgium, the Belgian consumer organization Test Aankoop VZW has filed a class action to which an opt-out mechanism has been held to apply. Given the opt-out rule, the class action potentially covers all vehicles with type EA 189 engines purchased by consumers on the Belgian market after September 1, 2014, unless the right to opt out is actively exercised. The asserted claims are based on purported violations of unfair competition and consumer protection law as well as on alleged breach of contract.

In Brazil, two consumer protection class actions are pending. The first of these class actions pertains to some 17 thousand Amarok vehicles and the second to roughly 67 thousand later generation Amaroks. In the first class action, an appeals judgment was rendered in May 2019 that only partially upheld the lower court's decision. This judgment initially reduced the damage liability of Volkswagen do Brasil considerably to around BRL 172 million plus interest. This amount can increase as a result of the adjudicated inflation rate and the assertion of individual claims alleging declines in the value of affected Amarok vehicles. The appeals judgment remains non-final since Volkswagen do Brasil has appealed it to a higher court. So far no judgment has been rendered in the second class action proceeding.

In Germany, Volkswagen AG and Verbraucherzentrale Bundesverband e.V. (Federation of Consumer Organizations) entered into an out of court settlement on February 28, 2020 terminating the consumer action for model declaratory judgment. The terms of the settlement require Volkswagen AG to offer individual settlements to consumers who registered claims under the action for model declaratory judgment and meet the settlement criteria. As a result, Volkswagen AG entered into individual settlements in the reporting year with some 245 thousand customers in an aggregate amount of roughly €770 million. The process of settling the consumer action for model declaratory judgment is thus almost complete. Verbraucherzentrale Bundesverband e.V. withdrew the action for model declaratory judgment on April 30, 2020.

In addition, various actions have been brought against companies of the Volkswagen Group in several German regional courts by financialright GmbH, which is asserting rights assigned to it by a total of approximately 45 thousand customers in Germany, Slovenia, and Switzerland.

In England and Wales, suits filed in court by various law firms have been joined in a single collective action (group litigation). Because of the opt-in mechanism, not all vehicles with type EA 189 engines are automatically covered by the group litigation; potential claimants must instead take action in order to join. To date, some 90 thousand plaintiffs have registered claims under the group litigation, for which the opt-in period has expired. In these proceedings, the High Court in England and Wales ruled in April 2020 that the switch logic in the EA 189 engine constituted an unlawful defeat device; the court believed that it was also bound by the findings of the KBA (German Federal Motor Transport Authority) in this respect. In August 2020, the Court of Appeal rejected Volkswagen's appeal against the High Court's ruling on these preliminary questions; this decision is final. The question of liability on the part of Volkswagen was not a matter addressed by the High Court's ruling and will be dealt with at a later stage of the proceedings. The main trial proceedings are to begin in January 2023.

In France, the French consumer organization Confédération de la Consommation, du Logement et du Cadre de Vie (CLCV) filed a class action in September 2020 against Volkswagen Group Automotive Retail France and Volkswagen AG for up to 950 thousand French owners and lessees of vehicles with type EA 189 engines. This is an opt-in class action in which the affected consumers are not required to opt into the class action until a legally final judgment is rendered.

In Italy, a class action lawsuit filed by the consumer association Altroconsumo on behalf of Italian customers is pending before the Venice Regional Court. This litigation involves damage claims based on alleged breaches of contract as well as claims based on purported violations of Italian consumer protection law. Some 82 thousand customers have registered for the class action, whereby the validity of the majority of the registrations is still unclear.

In the Netherlands, Stichting Volkswagen Car Claim has brought an opt-out class action seeking declaratory rulings. Any individual claims would then have to be established afterwards in separate proceedings. In November 2019 the Regional Court in Amsterdam held the requests for relief to be inadmissible in part. Proceedings in the matter are presently suspended. Furthermore, in April 2020 an opt-out class action lawsuit seeking monetary damages on behalf of Dutch consumers was served on Volkswagen by the Diesel Emissions Justice Foundation. It is currently unclear whether other consumers in addition to those in the Netherlands may join this class action. The class action relates to vehicles with type EA 189 engines, among others.

In Portugal, a Portuguese consumer organization has filed an opt-out class action. Potentially, up to approximately 139 thousand vehicles with type EA 189 engines are affected in the Portuguese market. The complaint seeks vehicle return and alleges damages as well.

In South Africa, an opt-out class action seeking damages is pending that pertains to some 8 thousand vehicles with V6 and V8 TDI engines in addition to approximately 72 thousand vehicles with type EA 189 engines.

Furthermore, individual lawsuits and similar proceedings are pending against Volkswagen AG and other Volkswagen Group companies in various countries; most of these lawsuits are seeking damages or rescission of the purchase contract. In Germany, over 55 thousand individual lawsuits are currently pending. In May 2020, the Bundesgerichtshof (BGH – Federal Court of Justice) handed down its first decision ever in an individual product-related lawsuit in connection with the diesel issue. The BGH held that the buyer, who had purchased a vehicle with a type EA 189 engine prior to public disclosure of the diesel issue, had a claim for damages against Volkswagen AG. While the buyer can require reimbursement of the vehicle's purchase price, he must accept a deduction for the benefit derived from using the vehicle and must return it to Volkswagen AG. The judgment clarified the BGH's stance on the fundamental issues underlying a large number of the individual diesel lawsuits then still pending in Germany. On this basis, it has since been possible to conclude settlements and thus

significantly reduce the number of individual lawsuits pending. In a series of fundamental judgments rendered in July 2020, the BGH decided further legal issues of major importance for the litigation still pending with regard to vehicles with type EA 189 engines. The BGH held that plaintiffs who purchased their vehicle after the ad hoc announcement of September 22, 2015 have no claim for damages. The court furthermore ruled that purchasers of affected vehicles are not entitled to tort interest under section 849 of the German Civil Code. The court also made it clear that a plaintiff's potential damage claim may be completely offset by the benefit derived from using the vehicle.

Volkswagen estimates the likelihood that the plaintiffs will prevail to be 50% or less in the great majority of cases: customer class actions, complaints filed by consumer and/or environmental organizations, and individual lawsuits. Contingent liabilities are disclosed for these proceedings where the amount of such liabilities can be measured and the chance that the plaintiff will prevail was assessed as not remote. Since most of these actions are still in an early procedural stage, it is in many cases not yet possible to quantify the realistic risk exposure. Furthermore, provisions were recognized to the extent necessary based on the current assessment.

At this time, it cannot be estimated how many customers will choose to file lawsuits in the future in addition to those already pending and what prospect of success such lawsuits might have.

3. Lawsuits filed by investors worldwide (excluding the USA/Canada)

Investors from Germany and abroad have filed claims for damages against Volkswagen AG – in some cases along with Porsche Automobil Holding SE (Porsche SE) as joint and several debtors – based on purported losses due to alleged misconduct in capital market communications in connection with the diesel issue.

The vast majority of these investor lawsuits are currently pending before the Braunschweig Regional Court. In August 2016, the Braunschweig Regional Court issued an order referring common questions of law and fact relevant to the investor lawsuits pending before it to the Higher Regional Court in Braunschweig for binding declaratory rulings pursuant to the Kapitalanleger-Musterverfahrensgesetz (KapMuG – German Capital Investor Model Declaratory Judgment Act). In this proceeding, common questions of law and fact relevant to these actions are to be adjudicated by the Braunschweig Higher Regional Court in a single consolidated proceeding (model case proceedings). The lawsuits filed with the Braunschweig Regional Court are stayed pending resolution of the common issues, unless the cases can be dismissed for reasons independent of the common issues that are to be adjudicated in the model case proceedings. The resolution in the model case proceedings of the common questions of law and fact will be binding for the pending cases that have been stayed as described. The model case plaintiff is Deka Investment GmbH. Oral argument in the model case proceedings before the Braunschweig Higher Regional Court began in September 2018 and will be continued at subsequent hearings.

Further investor lawsuits have been filed with the Stuttgart Regional Court against Volkswagen AG, in some cases along with Porsche SE as joint and several debtor. A further investor action for model declaratory judgment is pending before the Stuttgart Higher Regional Court against Porsche SE; Volkswagen AG is involved in this action as a third party intervening in support of a party to the dispute. The Wolverhampton City Council, Administrating Authority for the West Midlands Metropolitan Authorities Pension Fund, has been appointed model case plaintiff. The first hearing for oral argument in these proceedings has yet to take place.

Additional investor lawsuits have been filed with various courts in Germany and the Netherlands.

Excluding the United States and Canada, claims in connection with the diesel issue totaling roughly €9.7 billion are currently pending worldwide against Volkswagen AG in the form of investor lawsuits, judicial applications for dunning and conciliation procedures, and claims under the KapMuG. Volkswagen AG remains of the opinion that it duly complied with its capital market obligations. Therefore, no provisions have been recognized for these investor lawsuits. Contingent liabilities have been disclosed where the chance of success was estimated to be not less than 10%.

4. Proceedings in the USA/Canada

In the USA and Canada, the matters described in the EPA's "Notices of Violation" are the subject of various types of lawsuits and requests for information that have been filed against Volkswagen AG and other Volkswagen Group companies, in particular by customers, investors, salespersons, and various government agencies in Canada and the United States, including the attorneys general of several US states.

The attorneys general of five US states (Illinois, Montana, New Hampshire, Ohio, and Texas) and some municipalities have suits pending in state and federal courts against Volkswagen AG, Volkswagen Group of America, Inc., and certain affiliates, alleging violations of environmental laws. The claims asserted by Illinois have been dismissed in full, but Illinois has appealed the dismissal of a subset of its claims. Certain claims asserted by Montana, Ohio, Texas, two Texas counties, Hillsborough County (Florida), and Salt Lake County (Utah) have also been dismissed, but these suits are currently proceeding as to other claims. Volkswagen has asked the US Supreme Court to review a decision by the US Court of Appeals for the Ninth Circuit that declined to dismiss certain claims brought by Hillsborough and Salt Lake Counties. A Texas appellate court dismissed claims asserted by Texas against Volkswagen AG and AUDI AG for lack of personal jurisdiction. Texas has indicated that it will seek discretionary review by the Texas Supreme Court of that decision.

In March 2019, the US Securities and Exchange Commission (SEC) filed a lawsuit against, among others, Volkswagen AG, Volkswagen Group of America Finance, LLC, and VW Credit, Inc., asserting claims under US federal securities law based, among other things, on alleged misstatements and omissions in connection with the offer and sale of certain bonds and asset-backed securities. In August 2020, the US District Court for the Northern District of California granted in part and denied in part Volkswagen's motion to dismiss. The claims dismissed by the court included all claims against VW Credit, Inc. related to asset-backed securities. In September 2020, the SEC filed an amended complaint that, among other things, removed the dismissed claims.

Furthermore, in December 2019, the Canadian federal environmental regulator filed charges against Volkswagen AG in respect of 2.0 l and 3.0 l Volkswagen and Audi diesel vehicles at the conclusion of its criminal enforcement-related investigation into the diesel emissions issue. Volkswagen AG cooperated with the investigation and agreed to a plea resolution addressing all of the charges. In January 2020, Volkswagen AG pleaded guilty to the charges and agreed to pay a penalty of CAD 196.5 million, which was approved by the court. Following this approval, the Ontario provincial environmental regulator withdrew its action against Volkswagen AG charging a quasi-criminal enforcement-related offense with respect to certain Volkswagen and Audi 2.0 l diesel vehicles. As to private civil law matters, in an environmental class action lawsuit seeking punitive damages on behalf of the residents of the Province of Quebec, after authorizing the case to proceed as a class, a Quebec court ruled in October 2020 that issues raised as to the viability of plaintiffs' damages theory should be deferred until trial. On that basis, the court denied a motion to dismiss by Volkswagen. The case remains in the early stages.

In line with IAS 37.92, no statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to proceedings in the USA/Canada. This is so as to not compromise the results of the proceedings or the interests of the Company.

5. Special audit

In a November 2017 ruling, the Higher Regional Court of Celle ordered, upon the request of three US funds, the appointment of a special auditor for Volkswagen AG. The special auditor is to examine whether the members of the Board of Management and Supervisory Board of Volkswagen AG breached their duties in connection with the diesel issue from June 22, 2006 onwards and, if so, whether this resulted in damages for Volkswagen AG. The ruling by the Higher Regional Court of Celle is formally unappealable. However, Volkswagen AG has filed a constitutional complaint with the German Federal Constitutional Court alleging infringement of its constitutional rights. Following the formally unappealable ruling from the Higher Regional Court of Celle, the special auditor appointed by the court indicated that he was not available to conduct the special audit on grounds of age. In April 2020, the Celle Higher Regional Court issued a ruling appointing a different special auditor. Volkswagen AG has filed a constitutional complaint with the Federal Constitutional Court contesting this formally unappealable decision as well on grounds of infringement of its constitutional rights and has suggested joinder of this matter with its initial constitutional complaint against the decision to appoint the special auditor. It is currently unclear when the Federal Constitutional Court will rule on the two constitutional complaints. The constitutional complaints have no suspensory effect.

In addition, a second motion seeking appointment of a special auditor for Volkswagen AG to examine matters relating to the diesel issue has been filed with the Regional Court of Hanover. This proceeding has been stayed pending a decision by the Federal Constitutional Court in the initial special auditor litigation.

6. Risk assessment regarding the diesel issue

An amount of around €1.9 billion (previous year: €2.9 billion) has been included in the provisions for litigation and legal risks as of December 31, 2020 to account for the currently known legal risks related to the diesel issue based on the presently available information and the current assessments. Where adequately measurable at this stage, contingent liabilities relating to the diesel issue have been disclosed in the notes in an aggregate amount of €4.2 billion (previous year: €3.7 billion), whereby roughly €3.5 billion (previous year: €3.4 billion) of this amount results from lawsuits filed by investors in Germany. The provisions recognized, the contingent liabilities disclosed, and the other latent legal risks in the context of the diesel issue are in part subject to substantial estimation risks given the complexity of the individual relevant factors, the ongoing coordination with the authorities, and the fact that the fact-finding efforts have not yet been concluded. Should these legal or estimation risks materialize, this could result in further substantial financial charges. In particular, adjustment of the provisions recognized in light of knowledge acquired or events occurring in the future cannot be ruled out.

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to the diesel issue. This is so as to not compromise the results of the proceedings or the interests of the Company.

Additional important legal cases

In 2011, ARFB Anlegerschutz UG (haftungsbeschränkt) filed a claim for damages against Volkswagen AG and Porsche SE for allegedly violating disclosure requirements under capital market law in connection with the acquisition of ordinary shares in Volkswagen AG by Porsche SE in 2008. The damages being sought based on allegedly assigned rights currently amount to approximately €2.26 billion plus interest. In April 2016, the Hanover Regional Court formulated numerous objects of declaratory judgment that the antitrust panel of the Higher Regional Court in Celle will decide on in model case proceedings under the KapMuG. At the first hearing in October 2017, the court already indicated that it currently sees no justification for claims against Volkswagen AG, both because the pleadings are not sufficiently specific and for substantive legal reasons. Volkswagen AG sees the court's statements as confirmation that the claims against the Company are absolutely baseless. The Higher Regional Court has yet to render a decision as many hearings have been canceled, among other things due to motions for recusal filed by the plaintiff side (so far in all cases without success) and, more recently, as a result of the Covid-19 pandemic.

In Brazil, the Brazilian tax authorities commenced tax proceedings against MAN Latin America; at issue in these proceedings are the tax consequences of the acquisition structure chosen for MAN Latin America in 2009. In December 2017, an adverse administrative appeal ruling was rendered against MAN Latin America. MAN Latin America challenged this ruling before the regular court in 2018. Estimation of the risk in the event the tax authorities prevail on all points is subject to uncertainty because of differences in the amount of penalties and interest that might then apply under Brazilian law. However, a positive outcome for MAN Latin America remains the expectation. Should this not occur, a risk of about BRL 3.1 billion could result for the contested period from 2009 onwards; this amount has been included in contingent liabilities in the notes.

In 2011, the European Commission conducted searches at European truck manufacturers for suspected unlawful exchange of information during the period from 1997 to 2011; in November 2014, the Commission issued a statement of objections to MAN, Scania, and the other truck manufacturers concerned. In its settlement decision of July 2016, the European Commission assessed fines against five European truck manufacturers. MAN's fine was waived in full as the company had informed the European Commission about the irregularities as a key witness.

In September 2017, the European Commission fined Scania €0.88 billion. Scania has appealed to the European Court of Justice in Luxembourg and will use all means at its disposal to defend itself. Scania had already recognized a provision of € 0.4 billion in 2016.

Furthermore, antitrust lawsuits seeking damages have been received from customers. As is the case in any antitrust proceedings, this may result in further lawsuits for damages. No provisions have been recognized or contingent liabilities disclosed for these cases as most of them are still in an early stage and currently cannot be assessed for this reason. In other cases, the chance of a decision by a court of last resort that awards damages against MAN or Scania currently appears remote.

In April 2019, the European Commission issued a statement of objections to Volkswagen AG, AUDI AG, and Dr. Ing. h.c. F. Porsche AG in connection with the Commission's antitrust investigation of the automobile industry. These objections state the European Commission's preliminary evaluation of the matter and afford the opportunity to comment. The subject matter of the proceedings is limited to the cooperation of German automobile manufacturers on technical questions in connection with the development and introduction of SCR systems and gasoline particulate filters for passenger cars that were sold in the European Economic Area. The manufacturers are not charged with any other misconduct such as price fixing or allocating markets and customers. After receiving access to the investigation files starting in July 2019, Volkswagen in December 2019 filed its reply to the European Commission's statement of objections. The Chinese, South Korean, and Turkish competition authorities have also instituted proceedings in this matter.

In October 2020, the US District Court for the Northern District of California dismissed two antitrust class action complaints. The plaintiffs in these actions alleged that several automobile manufacturers including Volkswagen AG and other Group companies had conspired to unlawfully increase vehicle prices in violation of US antitrust and consumer protection law. The court held that the plaintiffs have not stated a claim for relief because the allegations in the complaints do not plausibly support that the alleged agreements unreasonably restrained competition in violation of US law. Plaintiffs have appealed this ruling. Plaintiffs in Canada filed claims with similar allegations on behalf of putative classes of purchasers against several automobile manufacturers, including Volkswagen Group Canada Inc., Audi Canada Inc., and other Volkswagen Group companies. Neither provisions nor contingent liabilities are stated because the early stage of the proceedings makes an assessment of the realistic risk exposure currently impossible.

In addition, a few national and international authorities have initiated antitrust investigations. Volkswagen is cooperating closely with the responsible authorities in these investigations. An assessment of the underlying situation is not possible at this early stage.

A settlement between Volkswagen and the Plaintiffs' Steering Committee resolving civil claims relating to approximately 98 thousand gasoline-powered Volkswagen, Audi, Porsche, and Bentley vehicles with automatic transmissions received final approval from the US District Court for the Northern District of California in February 2020.

Porsche AG has discovered potential regulatory issues relating to vehicles for various markets worldwide. There are questions as to the permissibility of specific hardware and software components used in type approval measurements. Differences compared with production versions may also have occurred in certain cases. Based on the information presently available, current production is not affected, however. The issues are unrelated to the defeat devices that were at the root of the diesel issue. Porsche AG is cooperating with the relevant authorities including the Stuttgart Office of the Public Prosecutor, which is investigating the matter in Germany. Based on the available information, no formal criminal investigation has been opened against the company, however. Porsche's own internal investigations are still in progress.

Five complaints related to these matters were filed with the US District Court for the Northern District of California. The complaints alleged that the affected vehicles used certain software and/or hardware that resulted in increased emissions and/or overstated fuel economy estimates as compared to the results of certification testing. The suits named Volkswagen AG, Dr. Ing. h.c. F. Porsche AG, AUDI AG, and Porsche Cars North America, Inc. as defendants; however, each defendant was not named in all the complaints. A consolidated complaint merging the five putative class actions into a single lawsuit was filed in January 2021. AUDI AG is no longer named as a defendant in the consolidated complaint.

Provisions were recognized by Volkswagen Bank GmbH and Volkswagen Leasing GmbH for possible claims in connection with financial services provided to consumers. These relate to actions involving certain features of customer loan and leasing agreements that may toll the running of the statutory cancellation time periods.

In February 2020, Volkswagen AG and another defendant were served with a lawsuit filed by GT Gettaxi Ltd. The lawsuit in particular alleges large damage claims. Volkswagen is assessing the alleged claims and defending itself against them.

In line with IAS 37.92, no further statements have been made concerning estimates of financial impact or regarding uncertainty as to the amount or maturity of provisions and contingent liabilities in relation to additional important legal cases. This is so as to not compromise the results of the proceedings or the interests of the Company.

40. Other financial obligations

€ million	PAYABLE	PAYABLE	PAYABLE	TOTAL
	2020	2021 – 2024	from 2025	Dec. 31, 2019
Purchase commitments in respect of				
property, plant and equipment ¹	7,423	1,412	1	8,836
intangible assets	913	275	1	1,189
investment property	24	–	–	24
Obligations from loan commitments and irrevocable credit commitments ¹	3,242	54	3	3,300
Obligations from leasing and rental contracts	329	172	151	652
Miscellaneous other financial obligations	3,257	1,712	997	5,966
	15,189	3,626	1,153	19,968

1 Prior-year figures adjusted.

€ million	PAYABLE	PAYABLE	PAYABLE	TOTAL
	2021	2022 – 2025	from 2026	Dec. 31, 2020
Purchase commitments in respect of				
property, plant and equipment	6,402	1,037	–	7,438
intangible assets	1,225	107	–	1,332
investment property	6	–	–	6
Obligations from loan commitments and irrevocable credit commitments	3,352	72	6	3,431
Obligations from leasing and rental contracts	313	265	167	746
Miscellaneous other financial obligations	6,291	2,160	575	9,026
	17,589	3,641	748	21,978

Other financial obligations include an amount of €0.9 billion for investments to which the Group has committed itself, both in the infrastructure for zero-emission vehicles and in initiatives to promote access to and awareness of these technologies. These commitments were made as part of the settlement agreements in the USA in connection with the diesel issue. In addition, this item includes payment of the purchase price for the acquisition of all Navistar's outstanding shares totaling around USD 3.7 billion, because the merger agreement between TRATON SE and Navistar contains conditions precedent and the purchase price payment cannot be capitalized at present.

41. Total fee of the Group auditor

Under the provisions of the Handelsgesetzbuch (HGB – German Commercial Code), Volkswagen AG is obliged to disclose the total fee charged for the fiscal year by the Group auditor, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (previous year: PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft).

€ million	2020	2019
Financial statement audit services	19	19
Other assurance services	5	4
Tax advisory services	21	1
Other services	7	32
	53	56

The financial statement audit services related to the audit of the consolidated financial statements of Volkswagen AG and to the annual financial statements of German Group companies, as well as to reviews of the interim consolidated financial statements of Volkswagen AG and of the interim financial statements of German Group companies. Other assurance services mainly related to statutory and non-statutory audits as well as non-statutory assurance services for capital market transactions. Other services provided by the auditors in the reporting period focused on advice on how to implement new legal standards and advice on corporate governance matters. The tax advisory services provided by the auditors in the reporting period related primarily to assistance in the preparation of tax returns for employees on delegations abroad.

42. Personnel expenses

€ million	2020	2019
Wages and salaries	32,103	34,683
Social security, post-employment and other employee benefit costs	8,413	8,231
	40,516	42,913

43. Average number of employees during the year

	2020	2019
Performance-related wage-earners	261,165	265,092
Salaried staff	307,342	304,174
	568,508	569,266
of which in the passive phase of partial retirement	10,762	9,554
Vocational trainees	17,678	18,180
	586,185	587,446
Employees of Chinese joint ventures	79,260	80,302
	665,445	667,748

44. Events after the balance sheet date

In January 2021, Volkswagen AG called a hybrid note with a principal amount of €1.25 billion, which had been placed in 2014 via Volkswagen International Finance N.V., Amsterdam, the Netherlands (issuer). The note, including all unpaid interest accrued up to that point, will be repaid in March 2021. Once called, the note has to be classified as debt in accordance with IAS 32, thus reducing equity and the liquidity of the Volkswagen Group.

On January 26, 2021, the Executive Boards of MAN SE and MAN Truck & Bus SE and the employee representatives signed an agreement covering the key points of a comprehensive realignment of MAN Truck & Bus SE. The agreement reached provides for restructuring of all areas of the MAN Truck & Bus business. The planned measures include reconfiguring the development and production network, with a strong focus on future technologies, as well as cutting around 3,500 jobs across all divisions in Germany by the end of 2022.

The cost of all restructuring measures (including as yet unspecified measures in connection with the production network) over the entire restructuring period is currently expected to be in the upper three-digit million range. Most of the cost will be attributable to HR measures.

45. Remuneration based on performance shares and phantom shares (share-based payment)

At the beginning of 2017, the Supervisory Board of Volkswagen Aktiengesellschaft resolved to adjust the remuneration system of the Board of Management with effect from January 1, 2017. The remuneration system of the Board of Management comprises non-performance-related and performance-related components. The performance-related remuneration now consists of a performance-related annual bonus with a one-year assessment period and a long-term incentive (LTI) in the form of a performance share plan with a forward-looking three-year term (share-based payment). In addition, a bonus was converted into phantom preferred shares (phantom shares) in 2016; the payment was made in 2019.

The group of beneficiaries of the performance share plan was expanded at the end of 2018 by including members of top management and at the end of 2019 by adding all other members of management and selected participants below management level. Performance shares were first granted to members of top management at the beginning of 2019. All other beneficiaries were allocated benefits on the basis of performance shares for the first time at the beginning of 2020. The function of the performance share plan for top management and other beneficiaries is largely identical to the performance share plan that was granted to the members of the Board of Management. When the performance share plan was launched, members of top management were guaranteed a minimum bonus amount for the first three years on the basis of the remuneration for 2018, while all other beneficiaries were given a guarantee for the first three years on the basis of the remuneration for 2019.

PERFORMANCE SHARES

Each performance period of the performance share plan has a term of three years. For members of the Board of Management and of top management, the annual target amount under the LTI is converted at the time of granting into performance shares on the basis of the initial reference price of Volkswagen's preferred shares. This annual target amount is allocated to the respective beneficiaries as a pure calculation position. Based on the degree of target achievement for the annual earnings per Volkswagen preferred share, the number of performance shares is definitively determined on the basis of a three-year, forward-looking performance period. After the end of the performance period, a cash settlement is made. The payment amount corresponds to the number of determined performance shares, multiplied by the closing reference price at the end of the period plus a dividend equivalent.

For all other beneficiaries, the payment amount is determined by multiplying the target amount by the degree of target achievement for the annual earnings per Volkswagen preferred share and the ratio of the closing reference price at the end of the period, plus a dividend equivalent, to the initial reference price. Target achievement is determined on the basis of a three-year performance period with a forward-looking horizon of one year. As a departure from this, target achievement in 2020 will initially be determined on the basis of a one-year forward-looking performance period, and in 2021 on the basis of a two-year performance period with a forward-looking horizon of one year. For all beneficiaries, the payment amount under the performance share plan is limited to 200% of the target amount; the payment amount is reduced by 20% if the average ratio of capex to sales revenue or the R&D ratio in the Automotive Division is smaller than 5% during the performance period.

BOARD OF MANAGEMENT

		Dec. 31, 2020	Dec. 31, 2019
Total expense of the reporting period	€ million	2	22
Carrying amount of the obligation	€ million	39	57
Intrinsic value of the obligation	€ million	30	31
Fair value on granting date	€ million	16	20
Granted performance shares	Shares	389,524	431,800
of which granted during the reporting period	Shares	99,150	155,418

The disclosure relates to current and former members of the Board of Management.

MEMBERS OF TOP MANAGEMENT

		Dec. 31, 2020	Dec. 31, 2019
Total expense of the reporting period	€ million	133	115
Carrying amount of the obligation	€ million	132	115
Intrinsic value of the obligation	€ million	130	104
Fair value at grant date	€ million	84	71
Granted performance shares	Shares	1,040,271	531,090
of which granted during the reporting period	Shares	509,181	531,090

MEMBERS OF MANAGEMENT AND SELECTED PARTICIPANTS BELOW MANAGEMENT LEVEL

In the fiscal year, beneficiary members of management and selected participants below management level were allocated a target amount of €629 million (previous year: €– million) on which target achievement of 100% is based. As of December 31, 2020, the total carrying amount of the obligation, which corresponded to the intrinsic value of the liabilities, was €609 million (previous year: €– million). A total expense of €613 million (previous year: €– million) was recognized for this commitment in the reporting period.

PHANTOM SHARES

At its meeting on April 22, 2016, Volkswagen AG's Supervisory Board accepted the offer made by the members of the Board of Management to withhold 30 % of the variable remuneration for fiscal year 2015 for the Board of Management members active on the date of the resolution and to make its disposal subject to future share price performance by means of phantom shares. The amount withheld led to the creation of 50,703 phantom preferred shares. In 2018, Mr. Stadler received a cash payment of the value of 8,633 shares in an amount of €1.0 million as part of the termination of his contract of service. The other phantom shares were settled as planned in fiscal year 2019. The payment amount totaled €5.3 million. In the previous year, changes in the value of the phantom shares led to the recognition of expenses of €0.3 million.

46. Related party disclosures in accordance with IAS 24

Related parties as defined by IAS 24 are natural persons and entities that Volkswagen AG has the ability to control or on which it can exercise significant influence, or natural persons and entities that have the ability to control or exercise significant influence on Volkswagen AG, or that are influenced by another related party of Volkswagen AG.

All transactions with related parties are regularly conducted on an arm's length basis.

Porsche SE held the majority of the voting rights in Volkswagen AG as of the reporting date. The creation of rights of appointment for the State of Lower Saxony was resolved at the Extraordinary General Meeting of Volkswagen AG on December 3, 2009. This means that Porsche SE cannot elect all shareholder representatives to Supervisory Board of Volkswagen AG for as long as the State of Lower Saxony holds at least 15% of Volkswagen AG's ordinary shares. However, Porsche SE has the power to participate in the operating policy decisions of the Volkswagen Group and is therefore classified as a related party as defined by IAS 24.

The contribution of Porsche SE's holding company operating business to Volkswagen AG on August 1, 2012 has the following effects on the agreements between Porsche SE, Volkswagen AG and companies of the Porsche Holding Stuttgart Group that existed prior to the contribution and were entered into on the basis of the Comprehensive Agreement and its related implementation agreements:

- > As part of the contribution of Porsche SE's holding company operating business to Volkswagen AG, Volkswagen AG undertook to assume standard market liability compensation effective August 1, 2012 for guarantees issued to external creditors, whereby it is indemnified internally.
- > Volkswagen AG continues to indemnify Porsche SE internally against claims by the Einlagensicherungsfonds (German deposit protection fund) after Porsche SE submitted an indemnification agreement required by the Bundesverband Deutscher Banken (Association of German Banks) to the Einlagensicherungsfonds in August 2009. Volkswagen AG has also undertaken to indemnify the Einlagensicherungsfonds against any losses caused by measures taken by the latter in favor of a bank in which Volkswagen AG holds a majority interest.
- > Under certain conditions, Porsche SE continues to indemnify Porsche Holding Stuttgart, Porsche AG and their legal predecessors against tax disadvantages that exceed the obligations recognized in the financial statements of those companies relating to periods up to and including July 31, 2009. In return, Volkswagen AG has undertaken to reimburse Porsche SE for any tax advantages of Porsche Holding Stuttgart, Porsche AG and their legal predecessors and subsidiaries relating to tax assessment periods up to July 31, 2009. Based on the results of the external tax audit for the assessment periods 2006 to 2008, which has now been completed, and based on information for the 2009 assessment period available at the date of preparing these consolidated financial statements, a compensation obligation estimated in the low triple-digit million euro range will arise for Volkswagen AG. New information emerging in the future could result in an increase or decrease in the potential compensation obligation.

Under the terms of the Comprehensive Agreement, Porsche SE and Volkswagen AG had granted each other put and call options with regard to the remaining 50.1 % interest in Porsche Holding Stuttgart held by Porsche SE until the contribution of its holding company operating business to Volkswagen AG. Both Volkswagen AG (if it had exercised its call option) and Porsche SE (if it had exercised its put option) had undertaken to bear the tax burden resulting from the exercise of the options and any subsequent activities in relation to the equity investment in Porsche Holding Stuttgart (e.g. from recapture taxation on the spin-off in 2007 and/or 2009). If tax benefits had accrued to Volkswagen AG, Porsche Holding Stuttgart, Porsche AG, or their respective subsidiaries as a result of recapture taxation on the spin-off in 2007 and/or 2009, the purchase price to be paid by Volkswagen AG for the transfer of the outstanding 50.1 % equity investment in Porsche Holding Stuttgart if the put option had been exercised by Porsche SE would have been increased by the present value of the tax benefit. This arrangement was taken over under the terms of the contribution agreement to the effect that Porsche SE has a claim against Volkswagen AG for payment in the amount of the present value of the realizable tax benefits from any recapture taxation of the spin-off in 2007 as a result of the contribution. It was also agreed under the terms of the contribution that Porsche SE will indemnify Volkswagen AG, Porsche Holding Stuttgart and their subsidiaries against taxes if measures taken by or not taken by Porsche SE result in recapture taxation for 2012 at these companies in the course of or following implementation of the contribution. In this case, too, Porsche SE is entitled to assert a claim for payment against Volkswagen AG in the amount of the present value of the realizable tax benefits that arise at the level of Volkswagen AG or one of its subsidiaries as a result of such a transaction.

Further agreements were entered into and declarations were issued in connection with the contribution of Porsche SE's holding company operating business to Volkswagen AG, in particular:

- > Porsche SE indemnifies its contributed subsidiaries, Porsche Holding Stuttgart, Porsche AG and their subsidiaries against certain liabilities to Porsche SE that relate to the period up to and including December 31, 2011 and that exceed the obligations recognized in the financial statements of those companies for that period.
- > Moreover, Porsche SE indemnifies Volkswagen AG, Porsche Holding Stuttgart, Porsche AG and their subsidiaries against half of the taxes (other than taxes on income) arising at those companies in conjunction with the contribution that would not have been incurred in the event of the exercise of the call option on the shares of Porsche Holding Stuttgart that continued to be held by Porsche SE until the contribution. Volkswagen AG therefore indemnifies Porsche SE against half of such taxes that it incurs. In addition, Porsche Holding Stuttgart is indemnified against half of the land transfer tax and other costs triggered by the merger.
- > Additionally, Porsche SE and Porsche AG agreed to allocate any subsequent VAT receivables or liabilities from transactions in the period up to December 31, 2009 to the company entitled to the receivable or incurring the liability.
- > A range of information, conduct and cooperation obligations were agreed by Porsche SE and the Volkswagen Group in the contribution agreement.

According to a notification dated January 4, 2021, the State of Lower Saxony and Hannoversche Beteiligungsgesellschaft Niedersachsen mbH, Hanover, held 20.00 % of the voting rights of Volkswagen AG on December 31, 2020. As mentioned above, the General Meeting of Volkswagen AG on December 3, 2009 also resolved that the State of Lower Saxony may appoint two members of the Supervisory Board (right of appointment).

The following tables present the amounts of supplies and services transacted, as well as outstanding receivables and liabilities, between consolidated companies of the Volkswagen Group and related parties:

RELATED PARTIES

€ million	SUPPLIES AND SERVICES RENDERED		SUPPLIES AND SERVICES RECEIVED	
	2020	2019	2020	2019
Porsche SE and its majority interests	5	5	0	1
Supervisory Board members	4	5	1	1
Board of Management members	0	0	0	0
Unconsolidated subsidiaries	872	1,243	1,160	1,597
Joint ventures and their majority interests	17,660	16,627	632	646
Associates and their majority interests	230	181	1,332	1,312
Pension plans	1	1	1	3
Other related parties	0	0	1	1
State of Lower Saxony, its majority interests and joint ventures	11	10	4	4

€ million	RECEIVABLES FROM		LIABILITIES (INCLUDING OBLIGATIONS) TO	
	Dec. 31, 2020	Dec. 31, 2019	Dec. 31, 2020	Dec. 31, 2019
Porsche SE and its majority interests	4	4	0	0
Supervisory Board members	0	0	167	170
Board of Management members	0	0	31	60 ¹
Unconsolidated subsidiaries	1,164	1,497	1,477	1,667
Joint ventures and their majority interests	12,207	12,953	2,250	2,683
Associates and their majority interests	397	326	951	1,063
Pension plans	1	1	–	–
Other related parties	0	0	198	264
State of Lower Saxony, its majority interests and joint ventures	25	1	2	0

1 Prior-year figures adjusted.

The tables above do not contain the dividend payments (net of withholding tax) of €3,098 million (previous year: €3,679 million) received from joint ventures and associates and dividends of €756 million (previous year: €753 million) paid to Porsche SE.

Receivables from joint ventures are primarily attributable to loans granted in an amount of €8,534 million (previous year: €8,290 million) as well as trade receivables in an amount of €3,349 million (previous year: €4,375 million). Receivables from non-consolidated subsidiaries also result primarily from loans granted in an amount of €642 million (previous year: €938 million) as well as trade receivables in an amount of €190 million (previous year: €188 million).

Impairment losses of €24 million (previous year: €56 million) were recognized on the outstanding related party receivables. In the fiscal year, expenses of €14 million (previous year: €37 million) were incurred in this context.

In addition, the Volkswagen Group has furnished guarantees to external banks on behalf of related parties in the amount of €354 million (previous year: €322 million).

In the reporting period, the Volkswagen Group made capital contributions of €505 million (previous year: €668 million) to related parties.

The changes in supplies and services rendered to and received from joint ventures and their majority interests are primarily attributable to supply relationships with the Chinese joint ventures.

As in the previous year, obligations to members of the Supervisory Board and other related parties relate primarily to interest-bearing bank balances of Supervisory Board members and other related parties that were invested at standard market terms and conditions at Volkswagen Group companies.

Obligations to the Board of Management comprise outstanding balances for the annual bonus and the fair values of the performance shares in the amount of €24.2 million (previous year: €50.1 million) granted to Board of Management members.

In addition to the amounts shown above, the following expenses were recognized for benefits and remuneration granted to members of the Board of Management and Supervisory Board of the Volkswagen Group in the course of their activities as members of these bodies:

€	2020	2019
Short-term benefits	30,682,893	36,307,352
Benefits based on performance shares and virtual shares	6,570,097	19,606,328
Post-employment benefits (service cost only)	7,248,486	12,901,219
Termination benefits	11,577,039	10,100,271
	56,078,514	78,915,169

Benefits paid on the basis of performance shares include the cost of €6.6 million (previous year: €19.5 million) attributable to the performance shares granted to Board of Management members under the remuneration system applicable as from 2017.

In fiscal year 2020, the share price performance up to the settlement date led to the recognition of expense of €– million (previous year: expense of €0.1 million) for the phantom shares.

The post-employment benefits relate to additions to pension provisions for current members of the Board of Management. The termination benefits relate to the payments made to Mr. Sommer in connection with his early departure from the Board of Management on June 30, 2020 and to Mr. Renschler in connection with his early departure from the Board of Management on July 15, 2020.

Disclosures on the pension provisions for members of the Board of Management and more detailed explanations of the remuneration of the Board of Management and the Supervisory Board can be found in the section entitled “Remuneration of the Board of Management and the Supervisory Board” and in the remuneration report, which is part of the management report.

47. German Corporate Governance Code

On November 13, 2020, the Board of Management and Supervisory Board of Volkswagen AG issued their declaration of conformity with the German Corporate Governance Code as required by section 161 of the Aktiengesetz (AktG – German Stock Corporation Act) and made it permanently available to the shareholders of Volkswagen AG on the Company’s website at www.volkswagenag.com/en/InvestorRelations/corporate-governance/declaration-of-conformity.html.

In December 2020, the Executive Board and Supervisory Board of TRATON SE likewise issued their declaration of conformity with the German Corporate Governance Code and made it permanently available to the shareholders at ir.traton.com/websites/traton/English/5000/corporate-governance.html.

In December 2020, the Executive Board and Supervisory Board of MAN SE issued their declaration of conformity with the German Corporate Governance Code as required by section 161 of the AktG and made it permanently available to the shareholders at www.corporate.man.eu/en/investor-relations/corporate-governance/corporate-governance-at-man/Corporate-Governance-at-MAN.html.

48. Remuneration of the Board of Management and the Supervisory Board

€	2020	2019
Board of Management remuneration		
Non-performance-related remuneration	18,578,569	13,332,515
Performance-related remuneration	6,903,129	17,647,682
Long-term incentive component	12,746,420	14,414,075
	38,228,118	45,394,271
Supervisory Board remuneration		
Non-performance-related remuneration	4,770,194	4,547,188
Performance-related remuneration	571,002	779,967
	5,341,196	5,327,155

NON-PERFORMANCE-RELATED REMUNERATION OF THE BOARD OF MANAGEMENT

The non-performance-related remuneration of the Board of Management comprises fixed remuneration and fringe benefits. In addition, Mr. Duesmann was granted compensation of lost entitlements in the amount of €7.3 million due to the change of employer. The fringe benefits result from noncash benefits granted and include in particular the use of operating assets such as company cars and the payment of insurance premiums. Taxes due on these noncash benefits were mainly borne by Volkswagen AG.

PERFORMANCE-RELATED REMUNERATION AND LONG-TERM INCENTIVE COMPONENT OF THE BOARD OF MANAGEMENT

Performance-related remuneration includes the annual bonus with a one-year assessment period. The long-term incentive component contains the long-term incentive (LTI) in the form of a performance share plan with a forward-looking three-year term. For details on performance share plans for members of the Board of Management, please refer to the information in the section entitled “Remuneration based on performance shares and phantom shares (share-based payment)”.

Advances granted to members of the Board of Management under the performance share plan amounted to €6.5 million as of December 31, 2020 (previous year: €12.3 million). In the fiscal year, a total of €4.3 million (previous year: €– million) of the advances paid to members of the Board of Management were deducted from the payment amount under the performance share plan.

SUPERVISORY BOARD REMUNERATION

The remuneration of the members of the Supervisory Board of Volkswagen AG is comprised entirely of non-performance-related remuneration components. Remuneration for supervisory board work at subsidiaries comprises a mix of non-performance-related and performance-related components.

PENSION ENTITLEMENTS AND BENEFITS TO RETIRED MEMBERS OF THE BOARD OF MANAGEMENT

On December 31, 2020, the pension provisions for members of the Board of Management amounted to €36.6 million (previous year: €60.5 million). Current pensions are index-linked in line with the index-linking of the highest collectively agreed salary insofar as the application of section 16 of the Gesetz zur Verbesserung der betrieblichen Altersversorgung (BetrAVG – German Company Pension Act) does not lead to a higher increase.

For former members of the Board of Management and their surviving dependents €35.9 million (previous year adjusted: €14.5 million) were granted. Pension provisions in accordance with IFRSs for this group of individuals amounted to €396.3 million (previous year: €373.7 million).

In connection with his departure from the Board of Management effective March 31, 2020, Mr. Schot was granted the following amounts:

- a non-performance-related component of €2.4 million (previous year: €– million),
- a performance-related component of €3.8 million (previous year €– million) and
- a long-term incentive component of €3.0 million (previous year: €– million).

In connection with his departure from the Board of Management effective June 30, 2020, Mr. Sommer was granted a non-performance-related component of €1.5 million (previous year: €– million).

In connection with his departure from the Board of Management effective July 15, 2020, Mr. Renschler was granted a non-performance-related component of €10.1 million (previous year: €– million).

The individual remuneration of the members of the Board of Management and the Supervisory Board is explained in the remuneration report, which is part of the group management report. A comprehensive assessment of the individual remuneration components, including the LTI in the form of the performance share plan, can also be found there.

Wolfsburg, February 16, 2021

Volkswagen Aktiengesellschaft
The Board of Management