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Consolidated Financial Statements

Notes

to the Consolidated Financial Statements of the Volkswagen Group as of December 31, 2023

Basis of presentation

Volkswagen AG is domiciled in Wolfsburg, Germany, and entered in the commercial register at the Braunschweig Local Court under No. HRB 100484. The fiscal year corresponds to the calendar year.

In accordance with Regulation No. 1606/2002 of the European Parliament and of the Council, Volkswagen AG prepared its consolidated financial statements for 2023 in compliance with the International Financial Reporting Standards (IFRSs), as adopted by the European Union. All the IFRSs adopted by the EU and required to be applied have been complied with.

The accounting policies applied in the previous year were generally retained.

The only changes required resulted from new or amended standards.

Moreover, all the provisions of German commercial law that Volkswagen is additionally required to apply, as well as the German Corporate Governance Code, have been complied with in the preparation of the consolidated financial statements.

The consolidated financial statements were prepared in euros. Unless otherwise stated, all amounts are given in millions of euros (€ million).

All figures shown are rounded, so minor discrepancies may arise from addition of these amounts.

The income statement was prepared using the internationally accepted cost of sales method.

Preparation of the consolidated financial statements in accordance with the aforementioned standards requires management to make estimates that affect the reported amounts of certain items in the consolidated balance sheet and in the consolidated income statement, as well as the related disclosure of contingent assets and liabilities. The consolidated financial statements provide a true and fair view of the net assets, financial position and results of operations as well as the cash flows of the Volkswagen Group.

The Board of Management completed preparation of the consolidated financial statements on February 20, 2024. On that date, the period ended in which adjusting events after the reporting period are recognized.

Effects of new and amended IFRSs

Volkswagen AG has applied all accounting pronouncements adopted by the EU and effective for periods beginning in fiscal year 2023.

Amendments to IAS 12 have had to be applied since January 1, 2023; they result from an agreement made by around 140 countries to implement global minimum taxation (Pillar Two). A temporary exemption from accounting for deferred taxes was embedded in IAS 12, which applies if the deferred taxes arise from the implementation of Pillar Two by the countries concerned. More information on Pillar Two can be found in the "Income tax income/expense" section.

Also applicable since January 1, 2023 are amendments to IAS 12 that relate to deferred taxes on right-of-use assets and lease liabilities as well as decommissioning and restoration liabilities. They require deferred taxes to be recognized when the relevant assets and liabilities are initially recognized.

In addition to this, amendments were made to IAS 1 that have also been applicable since January 1, 2023. Essentially, these amendments are aimed at making disclosures on accounting policies more company-specific and therefore more useful for decision-making by narrowing the definition of materiality. The Volkswagen Group's disclosures on accounting policies have been revised against this backdrop. In particular, generally worded disclosures derived from the IFRS standards have been reduced to a minimum.

Furthermore, amendments to IAS 8 have been in force since January 1, 2023, which provide greater clarity on the distinction between changes in accounting policies and changes in accounting estimates.

The amendments referred to above do not materially affect the Volkswagen Group's net assets, financial position and results of operations.

IFRS 17 – INSURANCE CONTRACTS

IFRS 17 specifies new accounting rules for insurance contracts. The Volkswagen Group applied IFRS 17 as of January 1, 2023 for the first time. The transition was conducted using the full retrospective approach, unless using that approach was impracticable. This was the case when not all of the required historical information, in particular for multiyear contracts, was available without undue cost and effort. In these instances, the Volkswagen Group generally used the modified retrospective approach.

The Volkswagen Group mainly conducts primary insurance and reinsurance business in the warranty and repair cost insurance class and reinsurance business in the residual debt insurance class. In addition, there are vehicle liability insurance portfolios, although almost all of them are in the process of being wound down.

Liabilities are mainly measured using the general measurement model. The data required for this purpose is determined using common actuarial methods, such as the chain ladder method.

The Volkswagen Group uses the bottom-up approach to calculate the discount rate. For the insurance business, the risk-free yield curve is generally derived from overnight index swaps of the currency in which the underlying insurance contracts have been entered into.

For contracts with the primary purpose of providing services at a fixed price (referred to as fixed-fee service contracts), the Volkswagen Group exercises the option to present these service contracts in accordance with IFRS 15. Similarly, for loan agreements that transfer a significant insurance risk of the borrower, the option to account for them under IFRS 9 has been exercised.

First-time application resulted in an insignificant change in equity as of January 1, 2023 and January 1, 2022, respectively. This is due primarily to the changed methodology for calculating liabilities related to the insurance business. In addition, netting cash flows when measuring the liabilities also led to an equal reduction of €0.7 billion in assets and liabilities related to the insurance business. The change in the methodology for recognizing income and expenses does not have any material effect on the income statement. Prior-year figures have been adjusted accordingly.

New and amended IFRSs not applied

In its 2023 consolidated financial statements, Volkswagen AG did not apply the following accounting pronouncements that have been adopted by the IASB until December 31, 2023, but were not yet required to be applied for the fiscal year.

Standard/Interpretation		Published by the IASB	Application mandatory[1]	Adopted by the EU	Expected impact
IFRS 16	Sale and leaseback transactions	Sept. 22, 2022	Jan. 1, 2024	Yes	No material impact
IAS 1	Classification of liabilities as current or non-current	Jan. 23, 2020	Jan. 1, 2024	Yes	No material impact
IAS 1	Non-current liabilities with Covenants	Oct. 31, 2022	Jan. 1, 2024	Yes	No material impact
IAS 7 / IFRS 7	Reverse factoring agreements	May 25, 2023	Jan. 1, 2024	No	Additional notes disclosure
IAS 21	Currency translation if currency is inconvertible	Aug. 15, 2023	Jan. 1, 2025	No	No material impact

1 Effective date from Volkswagen AG's perspective.

Key events

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 type EA 189 diesel engines and that this engine type had been installed in roughly eleven million vehicles worldwide. 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. This software function was developed and implemented from 2006 on without knowledge at the level of the Board of Management. Members of the Board of Management did not learn of the development and implementation of this software function until the summer of 2015.

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 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 (CARB), 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.

In fiscal year 2023, there were no material special items in connection with the diesel issue.

Further information on the litigation in connection with the diesel issue can be found in the "Litigation" section.

ANTITRUST INVESTIGATIONS

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. In a judgment rendered in February 2022, the European General Court (Court of First Instance) rejected in its entirety the appeal filed by Scania in this connection. Scania's April 2022 appeal against this judgment was rejected in full by the European Court of Justice, the court of last resort, in February 2024.

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 for a large number of these legal disputes as they are not expected to result in final damage awards at the highest appeals level. For those actions in which, after re-assessing the risks, the final outcome at the highest appeals level appears more likely than not to result in the payment of damages by MAN or Scania, provisions have been recognized in an amount of €89 million. Contingent liabilities have not been disclosed as their quantification is not currently possible. This applies in particular to the proceedings that are currently in an early stage – including those as to which the process of expert assessment is still in an early stage.

In March 2022, the European Commission and the Competition and Markets Authority (CMA), the English antitrust authorities, searched the premises of various automotive manufacturers and automotive industry organizations and/or served them with formal requests for information. In the Volkswagen Group, the investigation affects Volkswagen Group UK, which was searched by the CMA, and Volkswagen AG, which has received a Group-wide information request from the European Commission. The investigation relates to European, Japanese, and Korean manufacturers as well as national organizations operating in such countries and the European organization European Automobile Manufacturers' Association (ACEA), which are suspected of having agreed from 2001/2002 to the initiation of the proceedings to avoid paying for the services of recycling companies that dispose of end-of-life vehicles (ELV) (specifically passenger cars and vans up to 3.75 tons). Also alleged is an agreement to refrain from competitive use of ELV issues, that is, not to publicize relevant recycling data (recyclates, recyclability, recovery) for competitive purposes. The violation under investigation is alleged to have taken place in particular in the "ACEA" Working Group Recycling and related sub-groups thereof. Volkswagen AG is responding to the European Commission's information requests. Volkswagen Group UK is cooperating with the CMA. In this matter, CMA furthermore issued requests for information to Volkswagen AG. In July 2022, Volkswagen AG filed an action for judicial review challenging the CMA's requests for information in particular because Volkswagen AG believes that they exceed the CMA's jurisdiction. In February 2023, the court granted the claim. The CMA appealed this judgment in April 2023, and in January 2024 the appellate court ruled in the CMA's favor. Volkswagen AG is considering whether to appeal this decision. Concurrent therewith, Volkswagen AG continues to examine the possibilities for reasonable cooperation with the CMA.

In addition, a few national and international authorities 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.

RUSSIA-UKRAINE CONFLICT

The start of the Russia-Ukraine conflict in February 2022 led not only to a humanitarian crisis but also brought market upheaval around the world. There have been substantial price rises, particularly on the energy and commodity markets, and significant increases in interest and inflation rates have been observed internationally. There were some signs of normalization in the markets during the course of fiscal year 2023.

Against the backdrop of the Russia-Ukraine conflict and the resulting consequences, Volkswagen had decided to suspend vehicle production in Russia for the time being. Vehicle exports to Russia have also been halted. In addition, the respective sanction requirements must also be complied with in relation to parts supplies and the provision of technical information.

There was again no easing of the Russia-Ukraine conflict in fiscal year 2023. For this reason, the discontinuation of business activities in Russia continued to take concrete shape in the Volkswagen Group. In this context, further sales negotiations with a number of investors continued or were concluded.

On May 18, 2023, the Volkswagen Group completed the sale of its shares in OOO Volkswagen Group Rus (Volkswagen Group Rus), Kaluga/Russia, and that company's local subsidiaries (OOO Volkswagen Components and Services, Kaluga/Russia, OOO Scania Leasing, Moscow/Russia, OOO Scania Finance, Moscow/ Russia, OOO Scania Insurance, Moscow/Russia) to OOO ART-FINANCE, Moscow/Russia, which is supported by the Russian dealer AO Avilon Automotive Group, Moscow/Russia. On registration of the transaction on May 22, 2023, ownership of the shares in Volkswagen Group Rus was transferred from the seller to the buyer. The transaction comprises the production facilities in Kaluga, the importer structure of the Group brands Volkswagen Passenger Cars, Volkswagen Commercial Vehicles, Audi, Škoda, Bentley, Lamborghini and Ducati for potential after-sales business and the warehouse activities, as well as Scania's financial services activities, including all associated employees.

In this context, the Volkswagen Group had already made significant impairments in fiscal year 2022 and recognized appropriate provisions. The selling price amounted to €0.1 billion. The deconsolidation of the affected companies resulted in a loss of €0.4 billion in fiscal year 2023, which is reported in the other operating result. This result is split between the Automotive Division (€– 0.4 billion) and the Financial Services Division (€0.1 billion). The loss is mainly attributable to the realization of currency translation effects of €– 0.3 billion, which have been reclassified from the currency translation reserve to other operating expenses.

Apart from winding down Volkswagen Group Rus and its subsidiaries, no additional material expenses were recognized in connection with the Russia-Ukraine conflict in fiscal year 2023.

For information on other subsidiaries of the Volkswagen Group being wound down, please refer to the note entitled "IFRS 5 – Noncurrent Assets Held for Sale".

Please also refer to the comments in the 2023 group management report, specifically in the chapters entitled Business Development, Results of Operations, Financial Position and Net Assets, Report on Expected Developments and Report on Risks and Opportunities.

MATERIAL TRANSACTIONS OF THE CURRENT FISCAL YEAR

SCOUT MOTORS INC.

Under the Volkswagen Group's North America strategy, Scout Motors Inc., Arlington, Virginia/USA, a wholly owned subsidiary of Volkswagen Finance Luxemburg, Strassen/Luxembourg, was established in fiscal year 2022. A new vehicle brand is to be created under the name of Scout to distribute electrified all-terrain vehicles and pickups will be distributed in the USA from 2026. In order to finance the creation of the Scout brand, as well as vehicle development and production planning, an amount of USD 493 million was contributed to the company in fiscal year 2023. The company has been included in the Volkswagen consolidated financial statements since January 1, 2023.

ARGO AI

The process of winding down Argo AI, LLC, Pittsburgh/USA (Argo AI) was initiated in the third quarter of 2022. In this context, Volkswagen contributed USD 60 million to the company in the first half of 2023. The contribution was written down in full. In the previous year, an expense of €1.9 billion had been recognized from the full impairment of the equity investment in Argo AI in the other financial result.

QUANTUMSCAPE CORPORATION

In fiscal years 2020 and 2021, the Volkswagen Group acquired new shares in QuantumScape Corporation, San José/USA (QuantumScape) through forward purchase agreements resulting from a capital increase. Due to QuantumScape's simultaneous listing on the New York Stock Exchange, the forward purchase agreements had to be measured at the respective closing prices. As a consequence, a non-cash gain of €1.4 billion was recognized in the financial result in fiscal year 2020 and a non-cash expense of €0.6 billion in fiscal year 2021. In total, there was a non-cash increase of €0.8 billion.

Due to the share price performance, the Volkswagen Group conducted an impairment test on the shares in QuantumScape. The carrying amount was adjusted on the basis of the impairment test. This adjustment led to a non-cash expense of €0.3 billion in the second quarter of 2023. An additional adjustment of €0.1 billion was identified in the third quarter of 2023. In total, a non-cash expense of €0.4 billion was recognized in fiscal year 2023; it is presented in the other financial result.

XPENG INC.

On December 6, 2023, Volkswagen acquired 4.99% of the ordinary shares of the electric vehicle company XPeng Inc., Cayman Islands (XPeng), at a purchase price totaling USD 706 million. The realization of a forward transaction dating from July 26, 2023 resulted in a non-cash gain of €74.2 million in fiscal year 2023, which was recognized in the other financial result under gains and losses from fair value changes of hedging instruments/derivatives not included in hedge accounting. Along with the agreement to acquire the shares, a technological framework agreement was signed with Guangdong Xiaopeng Motors Technology Co. Ltd., Guangzhou/China, a subsidiary of XPeng, for the joint development of electric vehicles in China, among other things.

The investment in XPeng is measured at fair value through other comprehensive income.

AUDI FAW NEV CO.

On September 27, 2023, the shareholders AUDI AG, Ingolstadt, Volkswagen (China) Investment Co., Ltd., Beijing/China and China FAW Corporation Limited, Changchun/China resolved amendments to the Articles of Association of Audi FAW NEV Co., Ltd., Changchun/China (Audi FAW NEV Co.), effective from October 1, 2023. With equity interests unchanged, the amendments led to a loss of control over the company by the Volkswagen Group and resulted in its deconsolidation. The company has since October 1, 2023 been jointly controlled within the meaning of IFRS 11. The investment in Audi FAW NEV Co. will consequently be included in the consolidated financial statements as a joint venture using the equity method. As a result of the change to the way the investment is accounted for, the cash and cash equivalents previously reported declined by a low three-digit million-Euro amount. Other than that, there were no material effects on the Volkswagen Group's net assets, financial position and results of operations.

HORIZON ROBOTICS INC.

On December 7, 2023, Volkswagen acquired preferred shares of Horizon Robotics Inc., Cayman Islands (Horizon Robotics), a leading provider of energy-efficient computing platforms for autonomous driving in China, from Horizon Robotics at a purchase price of USD 200 million and issued a convertible loan to Horizon Robotics in an amount of USD 800 million. Both investments are classified as debt instruments in the financial statements and measured at fair value through profit or loss. The measurement resulted in non-cash gains of €0.7 million in fiscal year 2023, which are recognized in the other financial result under gains and losses from marketable securities and loans.

To promote the development of highly automated and autonomous driving in China, Volkswagen has also agreed the establishment of a joint venture with Horizon Robotics. On December 14, 2023, Volkswagen invested an amount of CNY 2 billion to this end in exchange for an ownership interest of 60% in the new company, CARIZON (Beijing) Technology Company Limited, Beijing/China (CARIZON). In addition, Volkswagen has committed to contribute capital in the future of up to CNY 8.4 billion to the joint venture.

MATERIAL TRANSACTIONS OF THE PREVIOUS FISCAL YEAR

IPO OF PORSCHE AG

On September 28, 2022, as part of the IPO of Dr. Ing. h.c. F. Porsche AG, Stuttgart (Porsche AG), a total of 25% of the preferred shares of Porsche AG (including additional allocations) in an amount of around €9.4 billion were successfully placed with investors. The non-voting preferred shares of Porsche AG have been traded on the Regulated Market of the Frankfurt Stock Exchange since September 29, 2022. Since the end of the stabilization period on October 11, 2022, the free float of the preferred shares has been 24.2% of the preferred share capital of Porsche AG.

In connection with the IPO, Volkswagen additionally sold an interest of 25% of Porsche AG's ordinary shares plus one ordinary share to Porsche Automobil Holding SE, Stuttgart (Porsche SE) at a purchase price of around €10.1 billion. The purchase of the ordinary shares was completed in two tranches.

The cash inflow for the preferred shares and the first tranche of the ordinary shares occurred at the beginning of the fourth quarter of 2022.

The resolution of the extraordinary General Meeting of Volkswagen AG on December 16, 2022 gave rise to the obligation to pay a special dividend and led to a total obligation to the shareholders of Volkswagen AG amounting to €9.6 billion. The cash outflow was slated for January 9, 2023 and occurred on that day.

Volkswagen AG and Porsche SE agreed to offset the obligation to pay a special dividend to Porsche SE against Volkswagen AG's claim to the payment of the purchase price still outstanding for the second tranche of ordinary shares. In the consolidated financial statements as of December 31, 2022, the purchase price receivable of €3.0 billion for the second tranche and the dividend liability of €3.1 billion were therefore presented on a net basis. Upon payment of the special dividend on January 9, 2023, the netting process was completed.

The employees of Volkswagen AG, Volkswagen Sachsen GmbH and Porsche AG participated in the economic success of the placement of the preferred shares and the sale of ordinary shares in Porsche AG by way of a one-off payment. The total bonus for employees, which was recognized through profit or loss in fiscal year 2022, amounted to €0.5 billion in the Volkswagen Group.

For more detailed information, please refer to the disclosures provided in the consolidated financial statements as of December 31, 2022.

ACQUISITION OF EUROPCAR

In 2021, together with investment firm Attestor Limited and Pon Holdings B.V., Volkswagen made a joint public takeover offer for the shares of Europcar Mobility Group S.A., Paris/France (Europcar) through the consortium company Green Mobility Holding S.A. (GMH) based in Strassen/Luxembourg. The European Commission issued final antitrust approval at the end of May 2022. During the extended offer period, the French Financial Markets Authority gave Europcar shareholders the opportunity to tender their shares to the consortium company. In total, 93.6% of Europcar's shareholders accepted the offer. The consortium jointly assumed control of Europcar in mid-June 2022. Because the acceptance rate was over 90%, a squeeze-out was initiated for the remaining Europcar shares in July 2022, and the company was delisted. Since July 13, 2022, the consortium company has held 100% of the shares in Europcar. The purchase price was 51 cents per Europcar share.

At the end of June 2022, the entire portion of the purchase price attributable to Volkswagen, amounting to €1.7 billion, was contributed to GMH. Since joint control has been contractually agreed, the company, in which Volkswagen holds 66% of the shares, will be accounted for using the equity method in the Volkswagen consolidated financial statements. In addition, Volkswagen is the writer of put options held by the other members of the consortium, and the other members have granted Volkswagen call options on their shares in the consortium company. The long-term extension of the Attestor options was arranged in December 2022. The measurement of the options led to a total non-cash expense of €0.3 billion in the previous year, which was recognized in the financial result.

The completion of the Europcar transaction marks another important milestone for Volkswagen in the Group's Mobility Solutions initiative under the NEW AUTO strategy. With this transaction, the Volkswagen Group intends to secure a significant share of the global market for mobility services. Europcar Mobility Group is to become one of the cornerstones of the mobility platform planned by Volkswagen.

Effects of climate change

Against the backdrop of climate change and the resulting stricter emissions regulations, the transformation of the automotive industry towards e-mobility and further digitalization continues to make progress. In its NEW AUTO strategy, the Volkswagen Group has again stepped up the pace of its transformation towards e-mobility.

In the preparation of the consolidated financial statements, the Board of Management took into account the potential effects of climate changes and future regulatory requirements, and especially the corresponding transformation towards e-mobility. Potential effects, especially on noncurrent assets, provisions for emissions levies and future cash flows were, as far as possible, incorporated as part of the significant estimates and assumptions included in the consolidated financial statements. The Volkswagen Group aims to increase the share of all-electric vehicles as a proportion of total deliveries from 8.3% in 2023 to more than 50% in 2030.

The Group aims to offer its customers worldwide around 50 completely battery-electric models by 2030. The effects of the transformation towards e-mobility and the planned increase in the share of all-electric vehicles planned in this context are taken into account in compiling the medium-term planning and therefore in the calculation of future cash flows for determining recoverable amounts in impairment tests of goodwill and intangible assets with indefinite useful lives, especially when planning future vehicle models, development costs and production facilities. An amount in the low triple-digit billion euro range has been earmarked for this purpose in the medium-term planning. In addition, Volkswagen regularly assesses whether these developments give rise to the need for ad hoc impairment tests or for adjustments to the useful lives of other noncurrent non-financial assets. No material effects on the useful lives of capitalized development costs or property, plant and equipment were identified, given the periods under consideration for the regulatory requirements and due to the parallel production of battery-electric vehicles and vehicles with combustion engines in the coming years. With reference to increasingly stringent emissions regulations, it is ensured that the various international regulations are taken into account and that any obligations are recognized appropriately. This did not result in any material effects on the consolidated financial statements. The increase in development costs in the areas of e-mobility and digitalization have, however, led to a corresponding increase in internally generated intangible assets. For more information, please refer to the "Accounting policies" section.

For a detailed presentation of how sustainability is taken into account within the Group strategy, in the management of the Group and in Group planning, please refer to the sections entitled "Goals and Strategies" and "Sustainable Value Enhancement" in the group management report.

Basis of consolidation

In addition to Volkswagen AG, the consolidated financial statements comprise all significant German and non-German subsidiaries, including structured entities that are controlled directly or indirectly by Volkswagen AG. The structured entities are used primarily to enter into asset-backed securities transactions to refinance the financial services business and to invest surplus liquidity in special securities funds.

Subsidiaries whose business is dormant or insignificant, both individually and in the aggregate, for the fair presentation of the net assets, financial position and results of operations as well as the cash flows of the Volkswagen Group are not consolidated. They are carried in the consolidated financial statements at cost net of any impairment losses and reversals of impairment losses required to be recognized.

Significant companies where Volkswagen AG is able, directly or indirectly, to significantly influence financial and operating policy decisions (associates), or that are directly or indirectly jointly controlled (joint ventures), are accounted for using the equity method. Joint ventures also include companies in which the Volkswagen Group holds the majority of voting rights, but whose articles of association or partnership agreements stipulate that important decisions may only be resolved unanimously. Insignificant associates and joint ventures are carried at cost net of any impairment losses and reversals of impairment losses required to be recognized.

The composition of the Volkswagen Group is shown in the following table:

	2023	2022
Volkswagen AG and consolidated subsidiaries		
Germany	143	149
Abroad	810	797
Subsidiaries carried at cost		
Germany	91	86
Abroad	287	290
At equity accounted associates and joint ventures and at fair value accounted other equity investments		
Germany	50	45
Abroad	111	102
Associates and joint ventures carried at cost		
Germany	52	51
Abroad	56	48
	1,600	**1,568**

The list of all shareholdings that forms part of the annual financial statements of Volkswagen AG can be downloaded from the electronic companies register at www.unternehmensregister.de and from www.volkswagen-group.com/investor-relations.

The following consolidated German subsidiaries with the legal form of a corporation or partnership have met the criteria set out in section 264(3) or section 264b of the Handelsgesetzbuch (HGB – German Commercial Code) and have as far as possible exercised the option not to publish annual financial statements:

> AUDI AG, Ingolstadt
> Audi Berlin GmbH, Berlin
> Audi Frankfurt GmbH, Frankfurt am Main
> Audi Hamburg GmbH, Hamburg
> Audi Hannover GmbH, Hanover
> Audi Leipzig GmbH, Leipzig
> Audi München GmbH, Munich
> Audi Sport GmbH, Neckarsulm
> Audi Stuttgart GmbH, Stuttgart
> Auto & Service PIA GmbH, Munich
> Autostadt GmbH, Wolfsburg
> Bugatti Engineering GmbH, Wolfsburg
> CARIAD SE, Wolfsburg
> dx.one GmbH, Wolfsburg
> Eberhardt Kraftfahrzeug GmbH + Co. KG, Ulm
> GETAS Verwaltung GmbH & Co. Objekt Augsburg KG, Pullach i. Isartal
> GETAS Verwaltung GmbH & Co. Objekt Heinrich-von-Buz-Straße KG, Pullach i. Isartal
> HABAMO Verwaltung GmbH & Co. Objekt Sterkrade KG, Pullach i. Isartal
> Haberl Beteiligungs-GmbH, Munich
> Held & Ströhle GmbH & Co. KG, Ulm
> H-Tec SYSTEMS GmbH, Augsburg
> MAHAG Automobilhandel und Service GmbH & Co. oHG, Munich
> MAHAG GmbH, Munich
> MAHAG Sportwagen Zentrum Albrechtstraße GmbH, Munich
> MAN Energy Solutions SE, Augsburg
> MOIA GmbH, Berlin
> MOIA Operations Germany GmbH, Hanover
> Porsche Holding Stuttgart GmbH, Stuttgart
> Porsche Niederlassung Mannheim GmbH, Mannheim
> Porsche Siebte Vermögensverwaltung GmbH, Wolfsburg
> PowerCo SE, Salzgitter
> PZ Leipzig GmbH, Leipzig
> Schwaba GmbH, Augsburg
> SEAT Deutschland Niederlassung GmbH, Weiterstadt
> SKODA AUTO Deutschland GmbH, Weiterstadt
> SZM Sportwagen Zentrum München GmbH, Munich
> VfL Wolfsburg-Fußball GmbH, Wolfsburg
> VGRB GmbH, Berlin
> VGRD GmbH, Wolfsburg
> VGRDD GmbH, Dresden
> VGRHH GmbH, Hamburg
> Volkswagen ADMT Hannover GmbH, Hanover
> Volkswagen AirService GmbH, Braunschweig
> Volkswagen Automobile Berlin GmbH, Berlin
> Volkswagen Automobile Chemnitz GmbH, Chemnitz
> Volkswagen Automobile Frankfurt GmbH, Frankfurt am Main

> Volkswagen Automobile Hamburg GmbH, Hamburg
> Volkswagen Automobile Hannover GmbH, Hanover
> VOLKSWAGEN Automobile Leipzig GmbH, Leipzig
> Volkswagen Automobile Rhein-Neckar GmbH, Mannheim
> Volkswagen Automobile Stuttgart GmbH, Stuttgart
> Volkswagen Beteiligungsverwaltung GmbH, Wolfsburg
> Volkswagen Deutschland GmbH & Co. KG, Wolfsburg
> Volkswagen Deutschland Verwaltungs GmbH, Wolfsburg
> Volkswagen Gebrauchtfahrzeughandels und Service GmbH, Langenhagen
> Volkswagen Group IT Solutions GmbH, Wolfsburg
> Volkswagen Group Real Estate GmbH & Co. KG, Wolfsburg
> Volkswagen Group Services GmbH, Wolfsburg
> Volkswagen Immobilien GmbH, Wolfsburg
> Volkswagen Konzernlogistik GmbH & Co. OHG, Wolfsburg
> Volkswagen Leasingobjekt GmbH, Braunschweig
> Volkswagen Original Teile Logistik GmbH & Co. KG, Baunatal
> Volkswagen Osnabrück GmbH, Osnabrück
> Volkswagen Sachsen GmbH, Zwickau
> Volkswagen Sechste Leasingobjekt GmbH, Braunschweig
> Volkswagen Software Asset Management GmbH, Wolfsburg
> Volkswagen Vermögensverwaltungs-GmbH, Wolfsburg
> Volkswagen Zubehör GmbH, Dreieich

CONSOLIDATED SUBSIDIARIES

The fiscal year's changes in the consolidated Group are shown in the following table:

Number	Germany	Abroad
Initially consolidated		
Subsidiaries previously carried at cost	2	20
Newly acquired subsidiaries	–	–
Newly formed subsidiaries	–	15
Other	–	1
	2	**36**
Deconsolidated		
Mergers	6	9
Liquidations	–	6
Sales/other	1	9
	7	**24**

The initial consolidation or deconsolidation of these subsidiaries, either individually or collectively, did not have a significant effect on the presentation of the net assets, financial position and results of operations. The unconsolidated structured entities are immaterial from a Group perspective. In particular, they do not give rise to any significant risks to the Group.

INVESTMENTS IN ASSOCIATES

From a Group perspective, the associates QuantumScape, Gotion High-Tech Co., Ltd., Hefei/China (Gotion), Northvolt AB, Stockholm/Sweden (Northvolt AB), and Sinotruk (Hong Kong) Ltd., Hongkong/China (Sinotruk), were material as of the balance sheet date.

QuantumScape

QuantumScape is a US-based start-up for lithium-metal solid state batteries. A strategic partnership has been set up between Group companies and QuantumScape for the future joint production of battery cells. QuantumScape's principal place of business is in San José/USA.

As of December 31, 2023, the quoted market price of the shares in QuantumScape amounted to €541 million (previous year: €453 million).

Gotion

Gotion is a Chinese technology company that engages primarily in research and development, production and sales of lithium-ion batteries and in electric transmission and transformation businesses. Group companies and Gotion have agreed upon a strategic framework for cooperation in the development, manufacture and distribution of battery cells. Gotion's principal place of business is in Hefei/China.

As of December 31, 2023, the quoted market price of the shares in Gotion amounted to €1.2 billion (previous year: €1.8 billion).

Northvolt AB

Northvolt AB develops and produces lithium-ion batteries. Battery purchase agreements are in place between Group companies and Northvolt AB. Northvolt AB's principal place of business is in Stockholm/Sweden.

Sinotruk

Sinotruk is one of the largest truck manufacturers in the Chinese market. Sinotruk's principal place of business is in Hongkong/China.

As of December 31, 2023, the quoted market price of the shares in Sinotruk amounted to €1,222 million (previous year: €903 million).

SUMMARIZED FINANCIAL INFORMATION ON MATERIAL ASSOCIATES ON A 100 % BASIS

€ million	QuantumScape[1]	Gotion[2]	Northvolt AB[3]	Sinotruk[4]
2023				
Equity interest in %	17	25	23	25
Noncurrent assets	404	5,675	3,580	4,072
Current assets	1,072	5,628	3,306	10,165
Noncurrent liabilities	100	2,763	3,362	154
Current liabilities	44	5,202	462	8,414
Net assets	1,332	3,337	3,063	5,669
Sales revenue	–	3,183	102	9,836
Earnings after tax from continuing operations	–413	75	–271	425
Earnings after tax from discontinued operations	–	–	–	–
Other comprehensive income	15	–16	79	–2
Total comprehensive income	–398	59	–192	423
Dividends received[5]	–	–	–	25
2022				
Equity interest in %	20	25	23	25
Noncurrent assets	387	3,823	2,137	4,150
Current assets	1,194	4,936	2,905	10,393
Noncurrent liabilities	113	1,653	1,323	180
Current liabilities	47	3,774	248	8,258
Net assets	1,422	3,332	3,471	6,105
Sales revenue	–	1,985	67	7,863
Earnings after tax from continuing operations	–398	35	–65	309
Earnings after tax from discontinued operations	–	–	–	–
Other comprehensive income	–24	–21	16	5
Total comprehensive income	–422	14	–49	314
Dividends received[5]	–	6	–	54

1 Balance sheet amounts refer to the September 30 reporting date and income statement amounts refer to the period from October 1 to September 30.
2 Balance sheet amounts refer to the September 30 reporting date and income statement amounts refer to the period from October 1 to September 30. Balance sheet amounts of the previous year refer to the September 30 reporting date and income statement amounts of the previous year refer to the period from January 1 to September 30.
3 The financial information presented refers to fiscal year 2022. The prior-year financial information presented refers to fiscal year 2021.
4 Balance sheet amounts refer to the June 30 reporting date and income statement amounts refer to the period from July 1 to June 30.
5 Proportionate dividends are shown net of withholding tax.

RECONCILIATION OF THE FINANCIAL INFORMATION TO THE CARRYING AMOUNT OF THE EQUITY-ACCOUNTED INVESTMENTS

€ million	QuantumScape	Gotion	Northvolt AB[2]	Sinotruk
2023				
Net assets at January 1	1,422	3,332	3,471	6,105
Profit or loss	–413	75	–271	425
Other comprehensive income	15	–16	79	–2
Changes in share capital	0	0	0	–
Changes in reserves	416	110	25	–7
Foreign exchange differences	–108	–165	–241	–735
Dividends[1]	–	–	–	–118
Net assets at December 31	1,332	3,337	3,063	5,669
Proportionate equity	233	782	703	1,417
Consolidation/Goodwill/Others	394	120	–10	–504
Carrying amount of equity-accounted investments	626	902	693	913
2022				
Net assets at January 1	1,432	2,725	1,109	5,539
Profit or loss	–398	35	–65	309
Other comprehensive income	–24	–21	16	5
Changes in share capital	0	16	0	–
Changes in reserves	132	630	2,463	–74
Foreign exchange differences	279	–30	–53	565
Dividends[1]	–	–24	–	–238
Net assets at December 31	1,422	3,332	3,471	6,105
Proportionate equity	281	790	818	1,526
Consolidation/Goodwill/Others	842	231	93	–682
Carrying amount of equity-accounted investments	1,123	1,021	911	845

1 Dividends are shown before withholding tax.
2 The financial information presented refers to fiscal year 2022. The prior-year financial information presented refers to fiscal year 2021.

SUMMARIZED FINANCIAL INFORMATION ON INDIVIDUALLY IMMATERIAL ASSOCIATES ON THE BASIS OF THE VOLKSWAGEN GROUP'S PROPORTIONATE INTEREST

€ million	2023	2022
Earnings after tax from continuing operations	–17	–32
Earnings after tax from discontinued operations	–	–
Other comprehensive income	0	16
Total comprehensive income	–16	–16
Carrying amount of equity-accounted investments	1,965	1,440

There were no unrecognized losses relating to investments in associates in the fiscal year (previous year: €2 million). Financial guarantees have been issued to associates in an amount of €1 million (previous year: €1 million).

INTERESTS IN JOINT VENTURES

From a Group perspective, the joint ventures FAW-Volkswagen Automotive Company Ltd., Changchun/China, SAIC-Volkswagen Automotive Company Ltd., Shanghai/China, and SAIC-Volkswagen Sales Company Ltd., Shanghai/China, were material at the reporting date.

FAW-Volkswagen Automotive Company

FAW-Volkswagen Automotive Company develops, produces and sells passenger cars. There is an agreement in place between Group companies and the joint venture partner China FAW Corporation Limited regarding a long-term strategic partnership. The principal place of business is in Changchun/China.

SAIC-Volkswagen Automotive Company

SAIC-Volkswagen Automotive Company develops and produces passenger cars. There is an agreement in place between Group companies and the joint venture partner Shanghai Automotive Industry Corporation regarding a long-term strategic partnership. The principal place of business is in Shanghai/China.

SAIC-Volkswagen Sales Company

SAIC-Volkswagen Sales Company sells passenger cars for SAIC-Volkswagen Automotive Company. There is an agreement in place between Group companies and the joint venture partner Shanghai Automotive Industry Corporation regarding a long-term strategic partnership. The principal place of business is in Shanghai/China.

SUMMARIZED FINANCIAL INFORMATION ON THE MATERIAL JOINT VENTURES ON A 100% BASIS

€ million	FAW-Volkswagen Automotive Company	SAIC-Volkswagen Automotive Company[1]	SAIC-Volkswagen Sales Company
2023			
Equity interest in %	40	50	30
Noncurrent assets	9,465	6,006	820
Current assets	17,346	7,369	4,229
of which cash and cash equivalents	12,319	2,029	330
Noncurrent liabilities	727	528	103
of which financial liabilities[2]	11	2	21
Current liabilities	17,808	10,759	4,617
of which financial liabilities[2]	12	1,394	21
Net assets	8,276	2,088	329
Sales revenue	46,846	18,728	21,754
Depreciation and amortization	1,857	1,406	34
Interest income	196	28	5
Interest expenses	5	37	2
Earnings before tax from continuing operations	4,918	293	433
Income tax expense	1,294	–64	109
Earnings after tax from continuing operations	3,624	357	324
Earnings after tax from discontinued operations	–	–	–
Other comprehensive income	–152	–13	–
Total comprehensive income	3,472	344	324
Dividends received[3]	1,407	548	105
2022			
Equity interest in %	40	50	30
Noncurrent assets	11,021	7,003	937
Current assets	13,941	6,459	3,656
of which cash and cash equivalents	8,355	1,243	525
Noncurrent liabilities	1,112	593	128
of which financial liabilities[2]	25	2	24
Current liabilities	14,832	9,831	4,091
of which financial liabilities[2]	30	2,135	13
Net assets	9,018	3,039	374
Sales revenue	47,986	22,844	25,112
Depreciation and amortization	2,333	1,899	25
Interest income	316	45	7
Interest expenses	2	24	3
Earnings before tax from continuing operations	5,711	1,391	453
Income tax expense	1,510	80	126
Earnings after tax from continuing operations	4,201	1,311	328
Earnings after tax from discontinued operations	–	–	–
Other comprehensive income	161	26	–
Total comprehensive income	4,361	1,337	328
Dividends received[3]	1,527	683	100

1 SAIC-Volkswagen Sales Company sells passenger cars for SAIC-Volkswagen Automotive Company. Therefore, the sales revenue reported for SAIC-Volkswagen Automotive Company was mostly generated from its business with SAIC-Volkswagen Sales Company.
2 Excluding trade liabilities.
3 Proportionate dividends are shown net of withholding tax.

RECONCILIATION OF THE FINANCIAL INFORMATION TO THE CARRYING AMOUNT OF THE EQUITY-ACCOUNTED INVESTMENTS

€ million	FAW-Volkswagen Automotive Company	SAIC-Volkswagen Automotive Company	SAIC-Volkswagen Sales Company
2023			
Net assets at January 1	9,018	3,039	374
Profit or loss	3,624	357	324
Other comprehensive income	–152	–13	–
Changes in share capital	–	–	–
Changes in reserves	–	–	–
Foreign exchange differences	–534	–149	–17
Dividends[1]	–3,681	–1,145	–351
Net assets at December 31	8,276	2,088	329
Proportionate equity	3,310	1,044	99
Consolidation/Goodwill/Others	–738	–463	–
Carrying amount of equity-accounted investments	2,572	581	99
2022			
Net assets at January 1	8,724	3,202	392
Profit or loss	4,201	1,311	328
Other comprehensive income	161	26	–
Changes in share capital	–	–	–
Changes in reserves	–	–	–
Foreign exchange differences	–67	–73	–12
Dividends[1]	–4,001	–1,427	–334
Net assets at December 31	9,018	3,039	374
Proportionate equity	3,607	1,519	112
Consolidation/Goodwill/Others	–824	–891	–
Carrying amount of equity-accounted investments	2,783	628	112

1 Dividends are shown before withholding tax.

SUMMARIZED FINANCIAL INFORMATION ON INDIVIDUALLY IMMATERIAL JOINT VENTURES ON THE BASIS OF THE VOLKSWAGEN GROUP'S PROPORTIONATE INTEREST

€ million	2023	2022[1]
Earnings after tax from continuing operations	332	197
Earnings after tax from discontinued operations	–	–
Other comprehensive income	–90	346
Total comprehensive income	242	543
Carrying amount of equity-accounted investments	3,887	3,436

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

The carrying amount of equity-accounted investments includes the equity investment in GMH.

There were no unrecognized losses relating to investments in joint ventures in the fiscal year and the previous year. Contingent liabilities to joint ventures amounted to €219 million (previous year: €236 million), while financial guarantees stood at €70 million (previous year: €70 million). Cash funds of joint ventures amounting to €150 million (previous year: €172 million) are deposited as collateral for asset-backed securities transactions and are therefore not freely available.

IFRS 5 – NONCURRENT ASSETS HELD FOR SALE

Assets and disposal groups held for sale of the current fiscal year

The intention resolved at Dr. Ing. h.c. F. Porsche AG, Stuttgart (Porsche AG) in September 2022 to sell two Russian sales companies in the Passenger Cars and Light Commercial Vehicles segment, OOO Porsche Russland, Moscow/Russia, and OOO Porsche Center Moscow, Moscow/Russia, as well as one company assigned to the Financial Services segment, OOO Porsche Financial Services Russland, Moscow/Russia, continues to be in place. In view of the change in external conditions, the disposal project is expected to be completed within fiscal year 2024. An impairment loss of €25 million was recognized for the disposal group as of December 31, 2022. Another minor impairment loss and offsetting currency translation effects were identified as of December 31, 2023; they are recognized in the other operating result.

It was resolved in the fourth quarter of 2022 to sell the following fully consolidated subsidiaries allocated to the Financial Services segment: OOO Volkswagen Bank RUS, Moscow/Russia, OOO Volkswagen Group Finanz, Moscow/Russia, and OOO Volkswagen Financial Services RUS, Moscow/Russia. Once the resolution had been passed by the competent bodies, the implementation of a disposal plan was started and expected to be completed in 2023. However, it could not be finalized as an approval by the Russian authorities was still outstanding as of December 31, 2023. It is expected that the outstanding approval will ultimately be granted and the disposal plan therefore completed in the first half of 2024. Impairment losses of €186 million were recognized in this context in the period up to December 31, 2023. The companies, OOO Volkswagen Group Finanz, Moscow/Russia, and OOO Volkswagen Financial Services RUS, Moscow/Russia, were sold after the end of the fiscal year, on January 18, 2024.

On December 15, 2022, the Supervisory Board of Volkswagen AG resolved to sell the MAN ES gas turbine business of MAN Energy Solutions SE, Augsburg, and MAN Energy Solutions Schweiz AG, Zurich/Switzerland, by way of an asset deal to CSIC Longjiang GH Gas Turbine Co. Ltd., Harbin/China, and its subsidiaries under German and Swiss law. Following approval by the competent authorities, the transaction is expected to be completed within fiscal year 2024.

In accordance with IFRS 5, the assets and liabilities held for sale were recognized at the lower of their carrying amount and fair value less expected costs of disposal.

The main groups of assets and liabilities classified as held for sale in the Volkswagen Group as of December 31, 2023, are shown below.

€ million	Dec. 31, 2023
Intangible assets	53
Property, plant and equipment	27
Lease assets	5
Inventories	0
Trade receivables	2
Cash and securities	73
Other assets	30
Assets held for sale	**190**
Financial liabilities	15
Provisions	4
Other liabilities	12
Liabilities associated with assets held for sale	**31**

The cumulative income and expenses in connection with the disposal groups held for sale are recognized in other comprehensive income; they amount to €– 289 million.

Transactions completed in the current fiscal year

On March 3, 2023, the Supervisory Board of the Volkswagen Group resolved to sell OOO Volkswagen Group Rus, Kaluga/Russia, and its subsidiaries, OOO Scania Finance, Moscow/Russia, OOO Scania Insurance, Moscow/Russia, and OOO Scania Leasing, Moscow/Russia. These companies were consequently classified as a disposal group held for sale as of March 31, 2023. The sale was completed in May 2023. Additional disclosures can be found in the "Key events" section.

EURO-Leasing GmbH, Sittensen, a fully consolidated subsidiary of Volkswagen Financial Services AG, transferred its passenger cars business to a shelf company acquired in the fiscal year. Subsequently, 51% of the shares in the company, which was renamed Euromobil GmbH, Sittensen, was sold to Europcar Mobility Group, Paris/France. The removal of Euromobil GmbH from full consolidation, the sale of the shares and the remeasurement of the remaining 49% interest resulted in a gain of €13 million, which is reported in other operating income. The transaction was finally completed in the fourth quarter of 2023.

Currency translation

As standard, the Volkswagen Group uses the exchange rates of an external market data provider for translation. All exchange rates are based on the respective euro translation rates, from which all non-euro rate combinations are derived.

The rates applied are presented in the following table:

		BALANCE SHEET MIDDLE RATE ON DECEMBER 31		INCOME STATEMENT AVERAGE RATE	
	€1 =	2023	2022	2023	2022
Argentina	ARS	894.99391	188.75869	317.91705	136.67276
Australia	AUD	1.62920	1.57060	1.62859	1.51749
Brazil	BRL	5.37495	5.64440	5.40306	5.44441
Canada	CAD	1.46810	1.44395	1.45957	1.37048
Czech Republic	CZK	24.71800	24.14500	24.00353	24.55830
India	INR	92.11700	88.16400	89.33732	82.73456
Japan	JPY	156.79000	140.66500	151.93821	138.02361
Mexico	MXN	18.76890	20.88790	19.19575	21.21209
People's Republic of China	CNY	7.87000	7.36605	7.65984	7.08135
Poland	PLN	4.34090	4.68600	4.54402	4.68566
Republic of Korea	KRW	1,440.71500	1,338.29500	1,413.50465	1,358.19726
Russia	RUB	99.96610	76.28680	92.29940	73.27417
South Africa	ZAR	20.44415	18.07945	19.95520	17.20322
Sweden	SEK	11.08735	11.07865	11.47160	10.62776
United Kingdom	GBP	0.86910	0.88680	0.87001	0.85256
USA	USD	1.10770	1.06770	1.08170	1.05409

Accounting policies

MEASUREMENT PRINCIPLES

With certain exceptions, such as financial instruments measured at fair value and provisions for pensions and other post-employment benefits, items in the Volkswagen Group are accounted for under the historical cost convention (cost model). The methods used to measure the individual items are explained in more detail below.

INTANGIBLE ASSETS

Intangible assets are accounted for under the cost model.

Purchased intangible assets are recognized at cost and – if they have finite useful lives – amortized over their useful lives using the straight-line method. This relates in particular to software, which is normally amortized over three years, or licenses, which are normally amortized over the term of the license.

Development costs for future series products and other internally generated intangible assets are capitalized, provided the cash-generating unit to which the respective intangible asset is attributable is not impaired and the other criteria for recognition as assets are met.

The costs are amortized using the straight-line method from the start of use (e.g. start of production) over the expected life cycle of the models, powertrains or software developed – generally between three and nine years.

Amortization charges on intangible assets are allocated to the relevant functional areas in the income statement.

Brand names from business combinations usually have an indefinite useful life and are therefore not amortized. An indefinite useful life is usually the result of a brand's further use and maintenance.

Goodwill, intangible assets with indefinite useful lives and intangible assets that are not yet available for use are tested for impairment at least once a year. Assets in use and other intangible assets with finite useful lives are tested for impairment only if there are specific indications that they may be impaired. To determine the recoverable amount of goodwill and intangible assets with indefinite and finite useful lives, the respective brand is normally the cash-generating unit that is used as the testing level. Measurement of value in use is based on management's current medium-term planning (referred to as budget planning round). The planning period generally covers five years. This planning is based on expectations regarding future global economic trends and on assumptions derived from those trends about the markets for passenger cars and commercial vehicles, expected trends in the Volkswagen Group's market shares, the timing and cost of the development of vehicle models and the amount of investments in production facilities, as well as changes in price and cost structures, taking particular account of the transformation to e-mobility and an increase in regulatory requirements. The planning for the Financial Services segment is likewise prepared on the basis of these expectations, and also reflects the relevant market penetration rates of expected vehicle sales with finance or lease agreements and other services, as well as regulatory requirements. The planning for the Power Engineering segment reflects expectations about trends in the various individual markets. The planning includes reasonable assumptions about macroeconomic trends (exchange rate, interest rate and commodity price trends) and historical developments.

The Volkswagen Group's planning is based on the assumption that global economic output will grow overall in 2024 albeit at a slower pace. The persistently high inflation in many regions and the resulting restrictive monetary policy measures taken by central banks are expected to have an increasingly adverse effect on consumer spending. Risks will continue to arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, continuing geopolitical tensions and conflicts are weighing on growth prospects; risks are associated in particular with the Russia-Ukraine conflict and the confrontations in the Middle East. It is, however, assumed that both the advanced economies and the emerging markets will show positive momentum on average, even with below-average growth in gross domestic product. Moreover, the global economy is expected to recover in 2025 and continue a path of stable growth until 2028.

The Volkswagen Group's automotive market and volume planning reflects the above regional differentiation and takes account of the impact of regional conflicts. The Volkswagen Group aims to increase the share of all-electric vehicles as a proportion of total deliveries from 8.3% in 2023 to more than 50% in 2030. The negative impact on earnings expected to arise from 2024 onward from higher material costs and more stringent emission and fuel consumption legislation is to be more than offset by improvements in pricing and the product mix as well as corresponding programs to increase efficiency. In addition, the planning is based on the assumption that the supply situation for intermediates and commodities will improve from fiscal year 2024 onward.

For information on the assumptions in the detailed planning period, please refer to the notes on management estimates and judgment. Further details can be found in the Report on Expected Developments, which is part of the management report. The planning assumptions are adapted to reflect the current state of knowledge.

The estimation of cash flows is generally based on the expected growth trends for the markets concerned. The estimates for the cash flows following the end of the planning period are generally based on a growth rate of up to 1% p.a. (previous year: up to 1% p.a.) in the Passenger Cars segment, and on a growth rate of up to 1% p.a. (previous year: up to 1% p.a.) in the Power Engineering and Commercial Vehicles segments.

Value in use is determined for the purpose of impairment testing of goodwill, indefinite-lived intangible assets and finite-lived intangible assets – mainly capitalized development costs – using the following pretax weighted average cost of capital (WACC) rates, which are adjusted if necessary for country-specific discount factors:

WACC	2023	2022
Passenger Cars segment	10.7%	10.2%
Commercial Vehicles segment	12.1%	13.4%
Power Engineering segment	15.7%	14.2%

The WACC rates are calculated based on the risk-free rate of interest, a market risk premium and the cost of debt. Additionally, specific peer group information on beta factors and leverage is taken into account. The composition of the peer groups used to determine beta factors and leverage is continuously reviewed and adjusted if necessary.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is accounted for under the cost model. Investment grants received are generally deducted from cost. Special operational equipment is reported under other equipment, operating and office equipment. Property, plant and equipment is depreciated using the straight-line method over its estimated useful life.

Depreciation is based mainly on the following useful lives:

	Useful life
Buildings	20 to 50 years
Site improvements	10 to 20 years
Technical equipment and machinery	6 to 12 years
Other equipment, operating and office equipment, including special operational equipment	3 to 15 years

Value in use of property, plant and equipment is determined using the principles described for intangible assets. The cost of capital for product-specific tools and other investments is the same as the cost of capital for intangible assets given above for each segment.

LEASES

The right-of-use assets for leases are reported in the balance sheet under those items in which the assets underlying the lease would have been recognized if the Volkswagen Group had been their beneficial owner. For this reason, the right-of-use assets are presented under noncurrent assets, mostly in property, plant and equipment, as of the balance sheet date.

Practical expedients are allowed for short-term and low-value leases; the Volkswagen Group makes use of this option and therefore does not recognize right-of-use assets or liabilities for these types of leases. In this respect, the lease payments are recognized as expenses in the income statement. Leases are accounted for being as of low value if the value of the leased asset when new is no higher than €5,000. Furthermore, the accounting rules of IFRS 16 are not applied to leases of intangible assets.

A large number of leases contain extension and termination options.

LEASE ASSETS

Vehicles leased out under operating leases are recognized at cost and depreciated to their estimated residual value using the straight-line method over the term of the lease. The forecast residual values are adjusted to include constantly updated internal and external information on residual values, depending on specific local factors and experience in the marketing of used cars. This requires management to make assumptions in particular about vehicle supply and demand in the future, as well as about vehicle price trends. Such assumptions are based either on qualified estimates or on data published by external experts. Qualified estimates are based on external data – if available – that reflects additional information that is available from within the company, such as historical experience and current sales data.

INVESTMENT PROPERTY

Real estate and buildings held in order to obtain rental income (investment property) are accounted for under the cost model; the depreciation method and the useful lives applied to depreciation generally correspond to those of the property, plant and equipment used by the Company itself. The fair value of investment property is disclosed in the notes. Fair value is generally estimated using an investment method based on internal calculations. This involves determining the income value for a specific building on the basis of gross income, taking into account additional factors such as land value, remaining useful life and a multiplier specific to property.

CAPITALIZATION OF BORROWING COSTS

Borrowing costs of qualifying assets are capitalized as part of the cost of these assets. A qualifying asset is an asset that necessarily takes at least a year to get ready for its intended use.

EQUITY-ACCOUNTED INVESTMENTS

The cost of shares in associates and joint ventures is accounted for using the equity method. Testing the net investment for impairment, the recoverable amount is determined using the principles described for indefinite-lived intangible assets.

FINANCIAL INSTRUMENTS

Regular way purchases or sales of financial instruments are accounted for at the settlement date – that is, at the date on which the asset is delivered.

In the Volkswagen Group, financial assets and liabilities are allocated to the "at amortized cost" and "at fair value" categories.

FINANCIAL ASSETS AND LIABILITIES AT AMORTIZED COST

Financial assets measured at amortized cost using the effective interest method relate to
> receivables from financing business;
> trade receivables;
> other receivables and financial assets;
> time deposits;
> cash and cash equivalents.

In contrast, financial liabilities measured at amortized cost using the effective interest method consist of
> trade payables;
> other financial liabilities;
> liabilities to banks;
> commercial paper and notes;
> loans.

For reasons of materiality, discounting or unwinding of discounting is not applied to current receivables and liabilities (due within one year).

FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE

Financial assets measured at fair value through other comprehensive income relate firstly to non-derivative financial assets with contractual cash flows that relate solely to payments of principal and interest on the principal amount outstanding (debt instruments) that are held with the aim of both collecting contractual cash flows and selling financial assets ("hold and sell" business model). Certain changes in the fair value of these debt instruments (impairment losses, foreign exchange gains and losses, interest calculated using the effective interest method) are recognized immediately in profit or loss.

Secondly, those equity instruments not held for trading ("hold" business model) are measured at fair value through other comprehensive income. Here, Volkswagen exercises the option to recognize changes in fair value always through other comprehensive income.

At Volkswagen, the category of financial assets at fair value through profit or loss primarily comprises
> hedging relationships to which hedge accounting is not applied and
> investment fund units.

All financial liabilities at fair value through profit or loss relate to derivatives not designated as hedging instruments in hedge accounting.

Fair value generally corresponds to the market or quoted market price. If no active market exists, fair value is determined using other observable inputs as far as possible. If no observable inputs are available, fair value is determined using valuation techniques, such as by discounting the future cash flows at the market interest rate, or by using recognized option pricing models, and, as far as possible, verified by confirmations from the banks that handle the transactions.

In the case of current financial receivables and liabilities, amortized cost generally corresponds to the principal or repayment amount.

The fair value option for financial assets and financial liabilities is not used in the Volkswagen Group.

Shares in subsidiaries, associates and joint ventures that are neither consolidated for reasons of materiality nor accounted for using the equity method do not fall within the scope of IFRS 9 and IFRS 7.

DERIVATIVES AND HEDGE ACCOUNTING

Volkswagen Group companies use derivatives to hedge balance sheet items and future cash flows (hedged items). Appropriate derivatives such as swaps, forward transactions and options are used as hedging instruments.

The accounting treatment of changes in the fair value of hedging instruments depends on the nature of the hedging relationship. In the case of hedges against the risk of change in the fair value of balance sheet items (fair value hedges), both the hedging instrument and the hedged risk portion of the hedged item are measured at fair value. If appropriate, several risk portions of the hedged items are combined into one portfolio. In a portfolio fair value hedge, changes in fair values are recognized on the basis of the individual transaction in the same way as in fair value hedging. Gains or losses from the measurement of hedging instruments and hedged items are recognized in profit or loss. In addition to the guidance of IFRS 9, the Volkswagen Group applies the guidance of IAS 39 on portfolio hedging to hedge the interest rate risk in the Financial Services Division.

In the case of hedges of future cash flows (cash flow hedges), the hedging instruments are also measured at fair value. The designated effective portion of the hedging instrument is accounted for through OCI I and the non-designated portion through OCI II. They are only recognized in the income statement or reclassified to inventories when the hedged item is realized. The ineffective portion of cash flow hedges is recognized through profit or loss immediately.

Derivatives used by the Volkswagen Group for financial management purposes to hedge against interest rate, foreign currency, commodity price, equity price, or fund price risks, but that do not meet the strict hedge accounting criteria of IFRS 9, are classified as financial assets or liabilities at fair value through profit or loss (referred to below as derivatives to which hedge accounting is not applied). This also applies to options on shares. External hedging instruments of intragroup hedged items that are subsequently eliminated in the consolidated financial statements are also assigned to this category as a general rule. Assets and liabilities measured at fair value through profit or loss consist of derivatives or components of derivatives that are not included in hedge accounting. These relate for example to the non-designated currency forwards used to hedge sales revenue, interest rate hedges, commodity forwards and swaps and currency forwards relating to commodity forwards and swaps.

IMPAIRMENT LOSSES ON FINANCIAL INSTRUMENTS

Financial assets are exposed to default risk, which is taken into account by recognizing loss allowances or, if losses have already been incurred, by recognizing impairment losses. Default risk on loans and receivables in the financial services segment is accounted for by recognizing specific loss allowances and general loss allowances.

In particular, a loss allowance is recognized on these financial assets in the amount of the expected loss in accordance with Group-wide standards. The actual specific loss allowances for the losses incurred are then charged to this loss allowance. A potential impairment is assumed not only for a number of situations such as delayed payment over a period of more than 90 days, the institution of enforcement measures, the threat of insolvency or overindebtedness, application for or the opening of bankruptcy proceedings, or the failure of reorganization measures, but also for receivables that are not past due.

Insignificant receivables and significant individual receivables for which there is no indication of impairment are grouped into homogeneous portfolios on the basis of comparable credit risk features and allocated by risk class. Average historical default probabilities in combination with forward-looking parameters for the respective portfolio are then used to calculate the amount of the impairment loss.

Credit risks must be considered for all financial assets measured at amortized cost or fair value through other comprehensive income (debt instruments), as well as for contract assets in accordance with IFRS 15 and lease receivables within the scope of IFRS 16. The rules on impairment also apply to risks from irrevocable credit commitments not recognized in the balance sheet and to the measurement of financial guarantees.

As a matter of principle, a simplified process, which takes historical default rates and forward-looking information into account, and specific loss allowances are used to account for impairment losses on receivables outside the Financial Services segment.

DEFERRED TAXES

The tax consequences of dividend payments are generally not taken into account until the resolution on appropriation of earnings available for distribution has been adopted.

Deferred tax assets that are unlikely to be realized within a clearly predictable period are reduced by loss allowances.

Deferred tax assets for tax loss carryforwards are usually measured on the basis of future taxable income over a planning period of five fiscal years.

INVENTORIES

Raw materials, consumables and supplies, merchandise, work in progress and self-produced finished goods reported in inventories are carried at the lower of cost or net realizable value. Borrowing costs are not capitalized. The measurement of same or similar inventories is generally based on the weighted average method.

SHARE-BASED PAYMENT

Share-based payment in the Volkswagen Group comprises cash-settled performance share plans that are recognized in accordance with IFRS 2.

OTHER PROVISIONS

Provisions not resulting in an outflow of resources within one year are recognized at their settlement value discounted to the balance sheet date. Discounting is based on market interest rates. An average discount rate of 2.87% (previous year: 3.16%) was used in the Eurozone. The settlement value also reflects cost increases expected.

OTHER LIABILITIES (NOT WITHIN THE SCOPE OF A SPECIFIC IFRS)

Other noncurrent liabilities outside the scope of a specific IFRS are carried at amortized cost in the balance sheet. Differences between historical cost and the repayment amount are amortized using the effective interest method.

Other current liabilities outside the scope of a specific IFRS are recognized at their repayment or settlement amount.

REVENUE AND EXPENSE RECOGNITION

Sales revenue, interest and commission income from financial services and other operating income are recognized only when the relevant services have been rendered or the goods have been delivered, i.e. when the customer has obtained control of the goods or services. Where new and used vehicles and original parts are sold, the Company's performance generally occurs upon delivery, because that is the point when control is transferred, and the inventory risk and, for deliveries to a dealer, generally also the pricing decision pass to the customer. Revenue is reported net of sales allowances (discounts, customer bonuses, or rebates). The Volkswagen Group measures sales allowances and other variable consideration on the basis of experience and by taking account of current circumstances. Vehicles are normally sold to dealers on payment terms. A trade receivable is recognized for the period between vehicle delivery and receipt of payment. Any financing component included in the transaction is only recognized if the period between the transfer of the goods and the payment of consideration is longer than one year and the amount to be accrued is significant.

Income from financing and finance lease agreements is recognized using the effective interest method. If non-interest-bearing or low-interest vehicle financing arrangements are agreed, sales revenue for the vehicles is reduced by the interest benefits granted. Sales revenue from operate leases is recognized over the term of the contract on a straight line basis.

In contracts under which the goods or services are transferred over a period of time, revenue is recognized, depending on the type of goods or services provided, either according to the stage of completion or, to simplify, on a straight-line basis; the latter is only allowed if revenue recognition on a straight-line basis does not differ materially from recognition according to the stage of completion. As a rule, the stage of completion is determined as the proportion that contract costs incurred by the end of the reporting period bear to the estimated total contract costs (cost-to-cost method). Contract costs incurred generally represent the best way to measure the stage of completion for the performance obligation. If the outcome of a performance obligation satisfied over time is not sufficiently certain, but the Company expects, as a minimum, to recover its costs, revenue is only recognized in the amount of contract costs incurred (zero profit margin method). Since long-term construction contracts invariably give rise to contingent receivables from customers for the period to completion or payment by the customer, contract assets are recognized for the corresponding amounts. A trade receivable is recognized as soon as the Company has transferred the goods or services in full.

If services are sold to the customer at the same time as the vehicle, and the customer pays for them in advance, the Group recognizes a corresponding contract liability until the services have been transferred. Examples of services that customers pay for in advance are servicing, maintenance and certain warranty contracts as well as mobile online services. For extended warranties granted to all customers for a particular model, a provision is normally recognized in the same way as for statutory warranties. If the warranty is optional for the customer or includes an additional service component, the related sales revenue is deferred and recognized over the term of the warranty.

Income from the sale of assets for which a Group company has a buyback obligation is recognized only when the assets have definitively left the Group. If a fixed repurchase price was agreed when the contract was entered into, the difference between the selling price and the present value of the repurchase price is recognized ratably as income over the term of the contract. Prior to that time, the assets are carried as inventories in the case of short contract terms and as lease assets in the case of long contract terms.

Sales revenue is generally determined on the basis of the price stated in the contract. If variable consideration (e.g. volume-based bonus payments) has been agreed in a contract, the large number of contracts involved means that revenue has to be estimated using the expected value method. In exceptional cases, the most probable amount method may also be used. Once the expected sales revenue has been estimated, an additional check is carried out to determine whether there is any uncertainty that necessitates the reversal of the revenue initially recognized so that it can be virtually ruled out that sales revenue subsequently has to be adjusted downward. Provisions for reimbursements arise mainly from dealer bonuses.

In multiple element arrangements, the transaction price is allocated to the different performance obligations of the contract on the basis of relative standalone selling prices. In the Automotive Division, non-vehicle-related services are generally measured at their standalone selling prices for reasons of materiality.

Cost of sales includes the costs incurred to generate the sales revenue and the cost of goods purchased for resale. This item also includes the costs of additions to warranty provisions. Research and development costs not eligible for capitalization in the period and amortization of development costs are likewise carried under cost of sales. Reflecting the presentation of interest and commission income in sales revenue, the interest and commission expenses attributable to the financial services business are presented in cost of sales.

GOVERNMENT GRANTS

Government grants related to assets are deducted when arriving at the carrying amount of the asset and are recognized in profit or loss over the life of the depreciable asset as a reduced depreciation expense.

Government grants related to income, i.e. that compensate the Group for expenses incurred, are generally recognized in profit or loss for the period and allocated to those items in which the expenses to be compensated by the grants are also recognized. Grants in the form of nonmonetary assets (e.g. the use of land free of charge or the transfer of resources free of charge) are disclosed as a memo item.

ESTIMATES AND ASSUMPTIONS BY MANAGEMENT

Preparation of the consolidated financial statements requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities, and income and expenses, as well as the related disclosure of contingent assets and liabilities of the reporting period. The estimates and assumptions relate largely to the following matters:

The impairment testing of nonfinancial assets (especially goodwill, brand names, capitalized development costs and special operational equipment) and equity-accounted investments, or investments accounted at cost, and the measurement of options on shares in companies that are not traded in an active market require assumptions about the future cash flows during the planning period, and possibly beyond it, as well as about the discount rate to be applied. The estimates made in order to separate cash flows mainly relate to future market shares, the trend in the respective markets and the profitability of the Volkswagen Group's products. When determining cash flows for conducting impairment tests on companies or equity investments with new technology operations, it is of particular importance to assess whether these new technologies are technically feasible and have the potential for industrial use. The recoverability of the Group's lease assets depends in particular on the residual value of the leased vehicles after expiration of the lease term, because this represents a significant portion of the expected cash flows. More detailed information on impairment tests and the measurement parameters used for those tests can be found in the explanations above regarding intangible assets.

If there are no observable market inputs, the fair values of assets acquired and liabilities assumed in a business combination are measured using recognized valuation techniques, such as the relief-from-royalty method or the residual method.

Impairment testing of financial assets requires estimates about the extent and probability of occurrence of future events. As far as possible, estimates are derived from experience taking into account current market data as well as rating categories and scoring information. The sections entitled "IFRS 7 (Financial Instruments)" and "Financial risk management and financial instruments" contain further details on how to determine loss allowances.

Accounting for provisions is also based on estimates of the extent and probability of occurrence of future events, as well as estimates of the discount rate. As far as possible, these are also based on experience or external opinions. The assumptions applied in the measurement of pension provisions are described in the "Provisions for pensions and other post-employment benefits" section. Actuarial gains or losses arising from changes in measurement inputs are recognized in other comprehensive income and therefore do not affect profit or loss reported in the income statement. Any change in the estimates of the amount of other provisions is always recognized in profit or loss. The provisions are regularly adjusted to reflect new information obtained. The use of expected values invariably means that unused provisions are reversed or additional amounts have to be recognized for provisions. Similarly to expenses for the recognition of provisions, income from the reversal of provisions is allocated to the respective functions. Warranty claims from sales transactions are calculated on the basis of losses to date, estimated future losses and the policy on ex gratia arrangements. In addition, assumptions must be made about the nature and extent of future warranty and ex gratia claims.

For the provisions recognized in connection with the diesel issue, assumptions were made in particular for working hours, material costs and hourly wage rates, depending on the series, model year and country concerned. In addition, assumptions were made for future resale prices of repurchased vehicles. These assumptions are based on qualified estimates, which are based, in turn, upon external data, and also reflect additional information available internally, such as values derived from past experience. Further information on the legal proceedings and on the legal risks associated with the diesel issue can be found in the "Litigation" section.

Tax provisions were recognized for potential future retrospective tax payments, while other provisions were recognized for ancillary tax payments arising in this connection.

Volkswagen AG and its subsidiaries have operations worldwide and are audited by local tax authorities on an ongoing basis. Amendments to tax laws and changes in legal precedent and their interpretation by the tax authorities in the respective countries may lead to tax payments that differ from the estimates made in the financial statements.

The measurement of the tax provision is based on the most likely exposure resulting from this risk materializing. Volkswagen decides whether to account for multiple tax uncertainties separately or in groups on the merits of each individual case considered, depending on which type of presentation is better suited to predicting the extent to which the tax risk will materialize. The pricing of individual products and services is complex, especially in relation to contracts for the cross-border supply of intragroup goods and services, because it is in many cases not possible to observe market prices for internally generated products, or the use of market prices for similar products is subject to uncertainty because they are not comparable. In these cases, prices – including for tax purposes – are determined on the basis of standardized, generally accepted valuation techniques.

If actual developments differ from the assumptions made for recognizing the provisions, the figures actually recorded may differ compared to the estimates expected originally.

An overview of other provisions can be found in the “Noncurrent and current other provisions” section.

Government grants are recognized based on an assessment as to whether there is reasonable assurance that the Group companies will fulfill the conditions for awarding the grants and that the grants will in fact be awarded. This assessment is based on the nature of the legal entitlement and past experience.

Estimates of the useful life of finite-lived assets are based on experience and are reviewed regularly. Where estimates are modified the residual useful life is adjusted and an impairment loss is recognized, if necessary. As part of this review, the useful lives of certain items of property, plant and equipment were reassessed and extended in January 2023. These adjustments had a positive effect on the operating result in an amount of around €1.4 billion in 2023. A positive effect of around €0.8 billion is expected in 2024.

Estimates of lease terms under IFRS 16 are based on the non-cancelable period of a lease and an assessment of whether existing extension and termination options will be exercised. The determination of the lease term and the discount rates used impacts on the amounts to be recognized for right-of-use assets and lease liabilities.

Measuring deferred tax assets requires assumptions regarding future taxable income and the timing of the realization of deferred tax assets.

The estimates and assumptions are based on underlying assumptions that reflect the current state of available knowledge. Specifically, the expected future development of business was based on the circumstances known at the date of preparation of these consolidated financial statements and a realistic assessment of the future development of the global and sector-specific environment. Estimates and assumptions remain subject to a high degree of uncertainty because future business developments are subject to uncertainties that in part cannot be influenced by the Group. This applies in particular to short- and medium-term cash flow forecasts and to the discount rates used.

Developments in this environment that differ from the assumptions and that cannot be influenced by management could result in amounts that differ from the original estimates. If actual developments differ from the expected developments, the underlying assumptions and, if necessary, the carrying amounts of the assets and liabilities affected are adjusted.

Following the slump in global economic output in 2020 and the incipient recovery due to base and catch-up effects in 2021 and the continuing normalization of economic activity in 2022, despite the Russia-Ukraine conflict, the global economy recorded positive overall growth of 2.7% in fiscal year 2023 (previous year: growth of 3.1%). The slowdown in economic momentum compared with the previous year was mainly due to weaker growth in the advanced economies, whereas the overall rate of change in the emerging markets increased somewhat.

The Volkswagen Group's planning is based on the assumption that global economic output will grow overall in 2024 albeit at a slower pace. The persistently high inflation in many regions and the resulting restrictive monetary policy measures taken by central banks are expected to have an increasingly adverse effect on consumer spending. Risks will continue to arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, continuing geopolitical tensions and conflicts are weighing on growth prospects; risks are associated in particular with the Russia-Ukraine conflict and the confrontations in the Middle East. It is, however, assumed that both the advanced economies and the emerging markets will show positive momentum on average, even with below-average growth in gross domestic product. Moreover, the global economy is expected to recover in 2025 and continue a path of stable growth until 2028.

Estimates and assumptions by management were based in particular on assumptions relating to the development of the general economic environment, the automotive markets and the legal environment. These and further assumptions are explained in detail in the Report on Expected Developments, which is part of the group management report.

Segment reporting

Segments are identified on the basis of the Volkswagen Group's internal management and reporting. In line with the Group's multibrand strategy, each of its brands (operating segments) is managed by its own Board of Management. The Group targets and requirements laid down by the Board of Management of Volkswagen AG must be complied with. Segment reporting comprises four reportable segments: Passenger Cars and Light Commercial Vehicles, Commercial Vehicles, Power Engineering and Financial Services.

The activities of the Passenger Cars and Light Commercial Vehicles segment cover the development of vehicles, engines and vehicle software, the production and sale of passenger cars and light commercial vehicles, and the corresponding genuine parts business. In the Passenger Cars and Light Commercial Vehicles reporting segment, the individual brands are combined into a single reportable segment, in particular as a response to the high degree of technological and economic interlinking in the production network. Furthermore, there is collaboration within key areas such as procurement, research and development or treasury.

The Commercial Vehicles segment primarily comprises the development, production and sale of trucks and buses, the corresponding genuine parts business and related services. As in the case of the passenger car brands, there is collaboration within the areas procurement, development and sales. The aim is to create closer cooperation within the business areas.

The Power Engineering segment combines the large-bore diesel engines, turbomachinery and propulsion components businesses.

The activities of the Financial Services segment comprise dealership and customer financing, leasing, direct banking and insurance activities, fleet management and mobility services. In this segment, activities are combined for reporting purposes taking into particular account the comparability of the type of services and of the regulatory environment.

Purchase price allocation for companies acquired is allocated directly to the corresponding segments.

At Volkswagen, segment profit or loss is measured on the basis of the operating result.

In segment reporting, the share of the result of joint ventures is contained in the result of equity-accounted investments in the corresponding segments.

The reconciliation contains activities and other operations that by definition do not constitute segments. It also includes the unallocated Group financing activities. Consolidation adjustments between the segments are also contained in the reconciliation.

Investments in intangible assets, property, plant and equipment, and investment property are reported net of investments in right-of-use assets from leases.

As a matter of principle, business relationships between the companies within the segments of the Volkswagen Group are transacted at arm's length prices.

REPORTING SEGMENTS 2023

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total segments	Reconciliation	Volkswagen Group
Sales revenue from external customers	223,152	44,725	4,043	49,998	321,918	366	322,284
Intersegment sales revenue	22,528	1,007	1	4,130	27,665	-27,665	–
Total sales revenue	245,680	45,731	4,044	54,128	349,584	-27,300	322,284
Depreciation and amortization	14,555	2,740	134	9,970	27,400	-617	26,783
Impairment losses	298	57	9	879	1,242	479	1,721
Reversal of impairment losses	38	5	–	444	486	0	486
Segment result (operating result)	19,474	3,714	366	3,792	27,345	-4,769	22,576
Share of the result of equity-accounted investments	2,112	124	0	55	2,291	–	2,291
Interest result and other financial result	8,248	-458	23	-71	7,741	-9,414	-1,673
Equity-accounted investments	8,476	1,234	17	2,512	12,239	–	12,239
Investments in intangible assets, property, plant and equipment, and investment property	22,636	2,205	134	282	25,257	538	25,795

REPORTING SEGMENTS 2022[1]

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total segments	Reconciliation	Volkswagen Group
Sales revenue from external customers	193,074	38,346	3,564	43,667	278,651	399	279,050
Intersegment sales revenue	17,304	1,170	1	2,990	21,466	-21,466	–
Total sales revenue	210,378	39,516	3,565	46,657	300,116	-21,067	279,050
Depreciation and amortization	16,004	2,885	148	9,870	28,907	-656	28,251
Impairment losses	2,501	34	2	371	2,908	3	2,911
Reversal of impairment losses	60	4	2	557	623	–	623
Segment result (operating result)	17,156	1,588	281	5,638	24,662	-2,553	22,109
Share of the result of equity-accounted investments	2,186	97	3	116	2,403	–	2,403
Interest result and other financial result	2,277	98	-4	-159	2,213	-4,655	-2,442
Equity-accounted investments	10,731	1,084	18	836	12,668	–	12,668
Investments in intangible assets, property, plant and equipment, and investment property	20,125	1,907	84	217	22,334	338	22,672

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

RECONCILIATION

€ million	2023	2022[1]
Segment sales revenue	**349,584**	**300,116**
Unallocated activities	1,599	1,405
Group financing	24	27
Consolidation/Holding company function	-28,923	-22,498
Group sales revenue	**322,284**	**279,050**
Segment result (operating result)	**27,345**	**24,662**
Unallocated activities	114	-2
Group financing	10	-37
Consolidation/Holding company function	-4,894	-2,514
Operating result	**22,576**	**22,109**
Financial result	**618**	**-40**
Consolidated result before tax	**23,194**	**22,070**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

BY REGION 2023

€ million	Germany	Europe/ Other markets[1]	North America	South America	Asia-Pacific	Hedges sales revenue	Total
Sales revenue from external customers	59,646	128,303	67,908	17,139	50,109	-821	322,284
Intangible assets, property, plant and equipment, lease assets and investment property	126,254	51,605	33,520	4,586	4,750	–	220,715

1 Excluding Germany.

BY REGION 2022[2]

€ million	Germany	Europe/ Other markets[1]	North America	South America	Asia-Pacific	Hedges sales revenue	Total
Sales revenue from external customers	49,042	105,472	59,910	15,476	51,443	-2,294	279,050
Intangible assets, property, plant and equipment, lease assets and investment property	119,386	47,661	32,517	2,709	4,848	–	207,121

1 Excluding Germany.
2 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Allocation of sales revenue to the regions follows the destination principle.

The allocation of interregional intragroup transactions regarding the segment assets has been presented uniformly according to the economic ownership.

Income statement disclosures

1. Sales revenue

STRUCTURE OF GROUP SALES REVENUE 2023

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total Segments	Reconciliation	Volkswagen Group
Vehicles	191,217	31,224	–	–	222,441	–19,325	203,115
Genuine parts	16,171	6,854	–	–	23,025	–196	22,829
Used vehicles and third-party products	12,977	2,560	–	22,897	38,434	–4,598	33,836
Engines, powertrains and parts deliveries	12,659	1,010	–	–	13,669	–71	13,598
Power Engineering	–	–	4,044	–	4,044	–1	4,043
Motorcycles	890	–	–	–	890	–	890
Leasing business	918	1,575	0	18,124	20,617	–1,387	19,230
Interest and similar income	310	0	–	12,500	12,810	–860	11,950
Hedges sales revenue	–930	26	–	–	–904	83	–821
Other sales revenue	11,469	2,482	–	607	14,558	–945	13,614
	245,680	**45,731**	**4,044**	**54,128**	**349,584**	**–27,300**	**322,284**

STRUCTURE OF GROUP SALES REVENUE 2022[1]

€ million	Passenger Cars and Light Commercial Vehicles	Commercial Vehicles	Power Engineering	Financial Services	Total Segments	Reconciliation	Volkswagen Group
Vehicles	160,562	25,542	–	0	186,104	–14,657	171,447
Genuine parts	14,970	6,759	–	–	21,729	–160	21,570
Used vehicles and third-party products	11,474	2,334	–	20,485	34,293	–3,650	30,643
Engines, powertrains and parts deliveries	12,313	858	–	–	13,171	–65	13,105
Power Engineering	–	–	3,565	–	3,565	–1	3,564
Motorcycles	915	–	–	–	915	–	915
Leasing business	764	1,693	0	16,669	19,126	–1,231	17,895
Interest and similar income	285	1	–	8,873	9,160	–418	8,742
Hedges sales revenue	–2,220	–20	–	–	–2,241	–53	–2,294
Other sales revenue	11,314	2,349	–	631	14,294	–831	13,463
	210,378	**39,516**	**3,565**	**46,657**	**300,116**	**–21,067**	**279,050**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

For segment reporting purposes, the sales revenue of the Group is presented by segment and market.

Other sales revenue comprises revenue from workshop services and extended warranties, among other things.

Of the sales revenue recognized in the period under review, an amount of €8,936 million (previous year: €8,045 million) was included in contract liabilities as of January 1, 2023.

The sales revenue realized in the period under review comprises performance obligations of €363 million (previous year: €718 million) that had already been met in an earlier period.

In addition to existing performance obligations of €4,794 million (previous year: €3,939 million) in the Power Engineering segment, most of which are expected to be satisfied or for which sales revenue is expected to be recognized by December 31, 2024, the vast majority of the Volkswagen Group's performance obligations that were unsatisfied as of the reporting date relate to vehicle deliveries. Most of these deliveries had already been made at the time this report was prepared, or will be made in the first quarter of 2024. The calculation of the amounts for the Power Engineering Business Area took account of both contracts with a term of up to one year and service contracts under which the Volkswagen Group realizes sales revenue in exactly the same amount as the customer benefits from the services rendered by the Company. In the case of variable consideration, sales revenue is only recognized to the extent that there is reasonable assurance that this sales revenue will not subsequently have to be reversed or adjusted downward.

2. Cost of sales

Cost of sales includes interest expenses of €7,968 million (previous year: €3,323 million) attributable to the financial services business.

This item also includes impairment losses on intangible assets (primarily development costs), property, plant and equipment (primarily other equipment, operating and office equipment), and lease assets in the amount of €1,335 million (previous year: €843 million). The impairment losses totaling €388 million (previous year: €572 million) recognized during the reporting year on intangible assets and items of property, plant and equipment result primarily from lower values in use of various products in the Passenger Cars and Light Commercial Vehicles segment, due to market and exchange rate risks, and in particular from expected declines in volumes. The impairment losses on lease assets in the amount of €947 million (previous year: €270 million) are predominantly attributable to the Financial Services segment. They are based on constantly updated internal and external information that is factored into the forecast residual values of the vehicles. €138 million (previous year: €10 million) of this figure is reported in current lease assets.

Government grants related to income amounted to €292 million in the fiscal year (previous year: €457 million) and were generally allocated to the functional areas.

3. Distribution expenses

Distribution expenses amounting to €21.3 billion (previous year: €19.8 billion) include nonstaff overheads and personnel costs, and depreciation and amortization applicable to the distribution function, as well as the costs of shipping, advertising and sales promotions.

4. Administrative expenses

Administrative expenses of €12.7 billion (previous year: €11.7 billion) mainly include nonstaff overheads and personnel costs, as well as depreciation and amortization charges applicable to the administrative function.

5. Other operating income

€ million	2023	2022[1]
Income from reversal of loss allowances on receivables and other assets	2,164	1,512
Income from reversal of provisions and accruals	922	988
Income from derivatives within hedge accounting	766	892
Income from derivatives not within hedge accounting Financial Services	894	1,999
Income from other hedges	2,245	5,396
Income from foreign exchange gains	3,419	3,640
Income from sale of promotional material	304	339
Income from cost allocations	1,470	1,099
Income from investment property	12	30
Gains on asset disposals and the reversal of impairment losses on noncurrent assets	586	724
Miscellaneous other operating income	2,369	2,615
	15,152	**19,234**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

Foreign exchange gains mainly comprise gains from changes in exchange rates between the dates of recognition and payment of receivables and liabilities denominated in foreign currencies, as well as exchange rate gains resulting from measurement at the closing rate. Foreign exchange losses from these items are included in other operating expenses.

Income from other hedges includes primarily gains from the fair value measurement and realization of derivative financial instruments used to hedge exchange rates and commodity prices in the Automotive Division that are not designated in a hedging relationship. Losses are included in other operating expenses.

6. Other operating expenses

€ million	2023	2022[1]
Loss allowances on trade receivables	558	345
Loss allowances on other receivables and other assets	2,051	2,756
Expenses from derivatives within hedge accounting	754	971
Expenses from derivatives not within hedge accounting Financial Services	1,221	1,309
Expenses from other hedges	4,857	2,417
Foreign exchange losses	3,793	3,762
Expenses from cost allocations	1,113	833
Expenses for termination agreements	62	280
Losses on disposal of noncurrent assets	406	321
Miscellaneous other operating expenses	4,719	4,820
	19,534	**17,813**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Allowances on other receivables and other assets include allowances on receivables from long-term construction contracts amounting to €2.1 million (previous year: €0.3 million). In the previous year, allowances on other receivables and other assets also included expenses incurred in connection with the Russia-Ukraine conflict (see "Key events" section).

Expenses from other hedges include primarily losses from the fair value measurement and realization of derivative financial instruments used to hedge exchange rates and commodity prices in the Automotive Division that are not designated in a hedging relationship. Gains are included in other operating income.

7. Share of the result of equity-accounted investments

€ million	2023	2022[1]
Share of profits of equity-accounted investments	2,910	2,957
of which from joint ventures	2,713	2,893
of which from associates	196	64
Share of losses of equity-accounted investments	619	554
of which from joint ventures	174	187
of which from associates	445	367
	2,291	**2,403**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

8. Interest result

€ million	2023	2022[1]
Interest income	**2,658**	**1,325**
Other interest and similar income	2,656	1,325
Valuation of fair value hedges	2	–
Interest expenses	**–3,592**	**–408**
Other interest and similar expenses	–2,050	–938
Valuation of fair value hedges	–3	1
Expenses from discounting lease liabilities	–222	–158
Interest result from compounding/discounting other noncurrent liabilities	–304	1,236
Net interest on the net defined benefit liability	–1,014	–549
Interest result	**–934**	**916**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

In the previous year, the positive interest result from compounding/discounting other noncurrent liabilities was mainly the result of adjustments to the discount rates used to measure noncurrent provisions.

9. Other financial result

€ million	2023	2022
Income from profit and loss transfer agreements	28	55
Cost of loss absorption	–63	–52
Other income from equity investments	341	168
Other expenses from equity investments	–837	–2,270
Gains and losses from marketable securities and loans	725	–1,013
Realized income of loan receivables and payables in foreign currency	1,093	1,227
Realized expenses of loan receivables and payables in foreign currency	–1,226	–985
Gains and losses from remeasurement and impairment of financial instruments	–904	166
Gains and losses from fair value changes of hedging instruments/derivatives not included in hedge accounting	111	–662
Gains and losses from fair value changes of hedging instruments/derivatives included in hedge accounting	–6	7
Other financial result	**–739**	**–3,359**

Other expenses from equity investments reported in the previous year related primarily to the impairment loss of €1.9 billion recognized to write down all shares held in Argo AI. See "Key events" section for more information.

Gains and losses from marketable securities and loans are mainly the result of positive net income from funds, which had been negatively affected in the previous year by the turbulence in the capital markets attributable to the Russia-Ukraine conflict.

In fiscal year 2023, gains and losses from remeasurement and impairment of financial instruments are primarily attributable to valuation adjustments on cash and cash equivalents held in Argentina.

Gains and losses from fair value changes of hedging instruments/derivatives not included in hedge accounting include gains on the measurement of the options in connection with the acquisition of Europcar in an amount of €0.1 billion. In the previous year, the measurement of the options had resulted in losses of €0.3 billion (see "Key events" section).

10. Income tax income/expense

COMPONENTS OF TAX INCOME AND EXPENSE

€ million	2023	2022[1]
Current tax expense, Germany	2,880	1,179
Current tax expense, abroad	3,911	4,084
Current income tax expense	**6,791**	**5,263**
of which prior-period income (–)/expense (+)	-62	666
Deferred tax income (–)/expense (+), Germany	-740	3,334
Deferred tax income (–)/expense (+), abroad	-786	-2,380
Deferred tax income (–)/expense (+)	**-1,526**	**954**
Income tax income/expense	**5,266**	**6,217**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

The statutory corporation tax rate in Germany for the 2023 assessment period was 15%. Including trade tax and the solidarity surcharge, this resulted in an aggregate tax rate of 30.0% (previous year: 30.0%).

A tax rate of 30.0% (previous year: 30.0%) was used to measure deferred taxes in the German consolidated tax group.

The local income tax rates applied to companies outside Germany vary between 0% and 46% (previous year: 0% and 46%). In the case of split tax rates, the tax rate applicable to undistributed profits is applied.

The realization of tax benefits from tax loss carryforwards from previous years resulted in a reduction in current income taxes in 2023 of €816 million (previous year: €1,013 million).

The tax loss carryforwards and the expiry of loss carryforwards that could not be used changed as follows:

	PREVIOUSLY UNUSED TAX LOSS CARRYFORWARDS		THEREOF UNUSABLE TAX LOSS CARRYFORWARDS	
€ million	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2023	Dec. 31, 2022
Non-expiring tax loss carryforwards	14,993	13,178	4,577	4,512
Expiry within 10 years	1,880	3,556	1,152	1,199
Expiry over 10 years	10,511	11,002	381	1,335
Total	**27,385**	**27,736**	**6,111**	**7,045**

The benefit arising from previously unrecognized tax losses or tax credits of a prior period that is used to reduce current tax expense in the current fiscal year amounts to €120 million (previous year: €139 million). Deferred tax expense was reduced by €372 million (previous year: €1,687 million) because of a benefit arising from previously unrecognized tax losses and tax credits of a prior period. Deferred tax expense resulting from the write-down of a deferred tax asset amounts to €44 million (previous year: €70 million). Deferred tax income resulting from the reversal of a write-down of deferred tax assets amounts to €125 million (previous year: €34 million).

Tax credits granted by various countries amounted to €473 million (previous year: €493 million).

No deferred tax assets were recognized for deductible temporary differences of €2,232 million (previous year: €2,262 million) and for tax credits of €128 million (previous year: €159 million) that would expire in the next 20 years.

In accordance with IAS 12.39, deferred tax liabilities of €251 million (previous year: €265 million) for temporary differences and undistributed profits of Volkswagen AG subsidiaries were not recognized because control exists.

Deferred tax income resulting from changes in tax rates amounted to €9 million at Group level (previous year: deferred tax expense of €31 million).

Deferred tax assets of €6,508 million (previous year: €1,731 million) were recognized without being offset by deferred tax liabilities in the same amount. In fiscal year 2023, the existing deferred tax assets of companies within the German tax group, which had been recognized due to positive results in the past, were included in this analysis. The companies concerned are expecting positive tax income in the future, following losses in the reporting period or the previous year.

€2,861 million (previous year adjusted: €2,407 million (see changes in comprehensive income)) of the deferred taxes recognized in the balance sheet was credited to equity and relates to other comprehensive income. €– 66 million (previous year: €– 6 million) of this figure is attributable to noncontrolling interests. In fiscal year 2023, no deferred tax income from the remeasurement of pension plans directly through equity was reclassified within equity (previous year: €2 million). In the previous year, there were effects from capital transactions with noncontrolling interests. The classification of changes in deferred taxes is presented in the statement of comprehensive income.

In fiscal year 2023, tax effects of €3 million resulting from equity transaction costs were credited to equity (previous year: €3 million).

DEFERRED TAXES CLASSIFIED BY BALANCE SHEET ITEM

The following recognized deferred tax assets and liabilities were attributable to recognition and measurement differences in the individual balance sheet items and to tax loss carryforwards:

	DEFERRED TAX ASSETS		DEFERRED TAX LIABILITIES	
€ million	Dec. 31, 2023	Dec. 31, 2022[1]	Dec. 31, 2023	Dec. 31, 2022[1]
Intangible assets	1,179	1,170	15,095	13,698
Property, plant and equipment, and lease assets	6,076	5,236	8,041	8,190
Noncurrent financial assets	410	55	10	193
Inventories	2,743	2,073	924	979
Receivables and other assets (including Financial Services Division)	2,492	2,144	10,258	10,090
Other current assets	3,117	4,077	35	76
Pension provisions	5,476	4,674	88	92
Liabilities and other provisions	13,807	14,012	5,022	5,707
Loss allowances on deferred tax assets from temporary differences	–194	–236	–	–
Temporary differences, net of loss allowances	35,107	33,205	39,473	39,025
Tax loss carryforwards, net of loss allowances	5,678	5,394	–	–
Tax credits, net of loss allowances	345	330	–	–
Value before consolidation and offset	**41,130**	**38,929**	**39,473**	**39,025**
of which attributable to noncurrent assets and liabilities	27,347	25,438	31,800	31,194
Offset	30,488	29,152	30,488	29,152
Consolidation	3,298	3,151	796	862
Amount recognized	**13,940**	**12,929**	**9,781**	**10,736**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

The tax expense reported for 2023 of €5,266 million (previous year adjusted: €6,217 million (see disclosures on IFRS 17)) was €1,692 million (previous year adjusted: €404 million (see disclosures on IFRS 17)) lower than the expected tax expense of €6,958 million that would have resulted from application of a tax rate for the Group of 30.0% (previous year: 30.0%) to the earnings before tax of the Group.

RECONCILIATION OF EXPECTED TO EFFECTIVE INCOME TAX

€ million	2023	2022[1]
Profit before tax	23,194	22,070
Expected income tax income (–)/expense (+) (tax rate 30.0%; previous year 30.0%)	**6,958**	**6,621**
Reconciliation:		
Effect of different tax rates outside Germany	–1,171	–561
Proportion of taxation relating to:		
tax-exempt income	–1,461	–1,398
expenses not deductible for tax purposes	1,100	1,101
effects of loss carryforwards	52	–1,247
permanent differences	–761	382
Tax credits	–120	–96
Prior-period tax expense	–361	688
Effect of tax rate changes	–9	31
Nondeductible withholding tax	702	369
Other taxation changes	337	327
Effective income tax expense	**5,266**	**6,217**
Effective tax rate in %	22.7	28.2

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

GLOBAL MINIMUM TOP-UP TAX

The Organisation for Economic Co-operation and Development (OECD) has published the model rules for Pillar Two (Pillar 2) based on G20 Inclusive Framework on Tax Avoidance and Profit Shifting, which are intended to address the tax challenges arising from the digitalization of the global economy in order to ensure an effective minimum tax rate of 15%. Volkswagen Group falls within the scope of the OECD model regulations of Pillar Two. The Pillar Two legislation has been enacted or substantially enacted in countries Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Japan, Liechtenstein, Luxembourg, Malaysia, Mauritius, Netherlands, Qatar, Romania, Slovakia, Slovenia, South Korea, Sweden, Switzerland, United Arab Emirates, United Kingdom and Vietnam and will enter into force from 1 January 2024 in different combinations of rules and in some cases at a later date. Since the Pillar Two legislation had not yet been finalized at the time of the report, Volkswagen Group is not subject to any tax burden in this regard for the financial year 2023.

The exception introduced in May 2023 with the amendments to IAS 12 means that deferred taxes in connection with income taxes resulting from applicable or announced tax provisions implementing the Pillar Two model rules published by the OECD are neither recognized nor disclosed at Volkswagen Group.

According to legislation, Volkswagen Group will be liable for an additional tax per country at the difference between the GloBE effective tax rate and the minimum tax rate of 15%.

Volkswagen Group is currently in the process of assessing the impact of Pillar Two legislation becoming effective as of in 2024 et seq. Based on the country-by-country reporting (CbCR) for the financial years 2021 and 2022, all Group companies are subject to an effective tax rate per country of more than 15% however with the exception of countries Bermuda, Bosnia and Herzegovina, Bulgaria, Cayman Islands, Estonia, Finland, Ireland, Kosovo, Kuwait, Latvia, Lithuania, Norway, Oman, Pakistan, Panama, Qatar, Saudi Arabia, Tanzania, Thailand, Turkey and the United Arab Emirates. Although the average effective tax rate is less than 15% based on the CbCR data, Volkswagen

Group may not be required to pay Pillar Two income taxes in respect of these countries. This is due to specific adjustments provided for in the Pillar Two legislation, which may result in deviations from the effective tax rates calculated. Overall, it is assumed that the tax burden for Volkswagen Group from Pillar Two based on the 2021 and 2022 CbCR data will amount to a range of between EUR 10 million to 20 EUR million. This would have an effect of 0.04% - 0.08% on the Group tax rate. Hence, there are no material effects on the net assets, financial position and earnings of Volkswagen Group.

Due to the complexity of the application of the legislation, the quantitative effects of the legislation enacted or entered into force can currently only be estimated in ranges. Therefore, even for group companies with an effective tax rate of more than 15%, Pillar Two may have tax implications. Furthermore, on the basis of the CbCR Safe Harbour, this assessment only applies on a transitional basis (currently until the end of the financial year 2026). For the years following the expiry of the CbCR Safe Harbours, further analyses will be carried out on the basis of the general set of rules.

11. Earnings per share

Basic earnings per share are calculated by dividing earnings attributable to Volkswagen AG shareholders by the weighted average number of ordinary and preferred shares outstanding during the reporting period. Since there were no transactions in 2023 and 2022 that had a dilutive effect on the number of shares, diluted earnings per share are equivalent to basic earnings per share.

In accordance with Article 27(2) No. 3 of the Articles of Association of Volkswagen AG, preferred shares are entitled to a €0.06 higher dividend than ordinary shares.

		2023	2022[1]
Weighted average number of:			
Ordinary shares – basic/diluted	Shares	295,089,818	295,089,818
Preferred shares – basic/diluted	Shares	206,205,445	206,205,445
Earnings after tax	€ million	17,928	15,852
Earnings attributable to noncontrolling interests	€ million	1,329	395
Earnings attributable to Volkswagen AG hybrid capital investors	€ million	586	576
Earnings attributable to Volkswagen AG shareholders	€ million	16,013	14,881
of which basic/diluted earnings attributable to ordinary shares	€ million	9,419	8,753
of which basic/diluted earnings attributable to preferred shares	€ million	6,594	6,129
Earnings per ordinary share – basic/diluted	€	31.92	29.66
Earnings per preferred share – basic/diluted	€	31.98	29.72

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Balance sheet disclosures

12. Intangible assets

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2023

€ million	Brand names	Goodwill	Capitalized development costs for products under development	Capitalized development costs for products currently in use	Other intangible assets	Total
Cost						
Balance at Jan. 1, 2023	**17,633**	**26,211**	**17,595**	**44,949**	**15,464**	**121,853**
Foreign exchange differences	-27	-114	-8	23	-105	-231
Changes in consolidated Group	–	210	-137	–	31	104
Additions	–	–	9,275	1,868	1,302	12,445
Transfers	–	–	-4,763	4,763	219	219
Disposals	10	2	35	966	323	1,336
Balance at Dec. 31, 2023	**17,596**	**26,305**	**21,927**	**50,638**	**16,587**	**133,053**
Amortization and impairment						
Balance at Jan. 1, 2023	**105**	**9**	**93**	**29,021**	**9,385**	**38,612**
Foreign exchange differences	3	0	0	13	-23	-7
Changes in consolidated Group	–	–	–	–	-40	-40
Additions to cumulative amortization	–	–	–	5,120	1,298	6,418
Additions to cumulative impairment losses	–	6	23	45	71	145
Transfers	–	–	–	0	-2	-2
Disposals	10	2	0	954	212	1,179
Reversal of impairment losses	–	–	–	3	–	3
Balance at Dec. 31, 2023	**98**	**13**	**116**	**33,240**	**10,476**	**43,944**
Carrying amount at Dec. 31, 2023	**17,498**	**26,292**	**21,811**	**17,398**	**6,111**	**89,109**

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2022

€ million	Brand names	Goodwill	Capitalized development costs for products under development	Capitalized development costs for products currently in use	Other intangible assets	Total
Cost						
Balance at Jan. 1, 2022	**17,661**	**26,203**	**10,287**	**44,806**	**13,789**	**112,745**
Foreign exchange differences	-22	-17	16	-125	155	7
Changes in consolidated Group	5	75	1	40	110	232
Additions	–	–	9,057	666	1,945	11,668
Transfers	0	–	-1,728	1,738	55	65
Classified as held for sale	0	–	4	65	30	99
Disposals	11	50	33	2,111	560	2,764
Balance at Dec. 31, 2022	**17,633**	**26,211**	**17,595**	**44,949**	**15,464**	**121,853**
Amortization and impairment						
Balance at Jan. 1, 2022	**89**	**29**	**88**	**26,120**	**8,731**	**35,056**
Foreign exchange differences	0	0	0	-118	29	-89
Changes in consolidated Group	–	–	–	7	9	16
Additions to cumulative amortization	2	–	–	5,058	1,111	6,171
Additions to cumulative impairment losses	16	30	21	65	15	147
Transfers	–	–	0	1	-5	-4
Classified as held for sale	–	–	0	18	25	43
Disposals	2	50	15	2,095	481	2,642
Reversal of impairment losses	–	–	–	–	–	–
Balance at Dec. 31, 2022	**105**	**9**	**93**	**29,021**	**9,385**	**38,612**
Carrying amount at Dec. 31, 2022	**17,528**	**26,202**	**17,502**	**15,929**	**6,079**	**83,241**

Other intangible assets comprise in particular concessions, purchased customer lists and dealer relationships, industrial and similar rights, and licenses in such rights and assets.

The allocation of the brand names and goodwill to the operating segments is shown in the following table:

€ million	2023	2022
Brand names by operating segment		
Porsche	13,823	13,823
Scania Vehicles and Services	878	878
MAN Truck & Bus	1,127	1,127
MAN Energy Solutions	415	415
Navistar	784	813
Ducati	404	404
Other	68	68
	17,498	**17,528**
Goodwill by operating segment		
Porsche	18,825	18,825
Scania Vehicles and Services	2,546	2,548
MAN Truck & Bus	587	587
MAN Energy Solutions	263	263
Navistar	2,989	3,101
Ducati	290	290
Škoda	168	168
Porsche Holding Salzburg	125	126
Other	498	294
	26,292	**26,202**

The impairment test for recognized goodwill and brand names is always based on value in use, which has been determined at the level of the respective brand. In this process, the WACC rates, based on the risk-free rate of interest, a market risk premium and the cost of debt, are applied. For more information on the general approach and key assumptions, please refer to the details provided on intangible assets in the "Accounting policies" section. Moreover, the following aspects were of significance for the brands with material recognized brand names and goodwill:

The Porsche cash-generating unit is based on the assumption that Porsche's current position as a profitable manufacturer of exclusive sports cars is to be expanded further. Under the "Road to 20" program, the Porsche AG Group has a long-term profitability target of achieving an operating return on sales of more than 20% for the Group.

For MAN Truck & Bus, the year 2023 marked a turnaround, after the positive effects from the realignment program had not been fully leveraged because of the negative impacts of the war in Ukraine in the previous year. After a period of stabilization in 2024, the transformation towards e-mobility will have an increasing effect on cash from fiscal year 2025 onwards.

Moreover, Navistar Sales & Services is to be taken to new levels of strength. The measures applied to this end range from using the powerful component and technology organization within the TRATON GROUP through expanding the financial services business down to making even more effective use of one of the largest independent dealer and service networks in the North American market which Navistar has already access to.

At Scania Vehicles & Services, a rise in sales volume and the expansion of the vehicle services business are additionally having a positive impact on the planned cash flows.

For all cash-generating units, recoverability is not affected by a variation in the growth forecast of – 0.5 percentage points with respect to the perpetual annuity or of + 0.5 percentage point with respect to the discount rate. Due to market volatility in recent years, the planned cash flows were also tested for their sensitivity to reasonably possible changes and their recoverability was established.

Research and development costs developed as follows:

€ million	2023	2022	%
Total research and development costs	21,779	18,908	15.2
of which: capitalized development costs	11,142	9,723	14.6
Capitalization ratio in %	51.2	51.4	
Amortization of capitalized development costs	5,187	5,144	0.8
Research and development costs recognized in profit or loss	**15,824**	**14,329**	**10.4**

13. Property, plant and equipment

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2023

€ million	Land, land rights and buildings, including buildings on third-party land	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Total
Cost **Balance at Jan. 1, 2023**	**50,789**	**53,934**	**91,212**	**9,991**	**205,925**
Foreign exchange differences	-281	-268	-288	-100	-936
Changes in consolidated Group	-298	-464	-434	-418	-1,614
Additions	2,080	1,280	4,326	7,141	14,826
Transfers	1,194	798	3,595	-5,446	142
Disposals	670	1,009	2,874	166	4,720
Balance at Dec. 31, 2023	**52,814**	**54,271**	**95,537**	**11,001**	**213,622**
Amortization and impairment **Balance at Jan. 1, 2023**	**23,083**	**42,377**	**76,565**	**10**	**142,035**
Foreign exchange differences	-113	-216	-239	0	-568
Changes in consolidated Group	-281	-446	-413	-10	-1,150
Additions to cumulative amortization	2,337	3,053	4,712	–	10,102
Additions to cumulative impairment losses	26	185	19	13	244
Transfers	-2	-1,134	1,246	6	116
Disposals	423	962	2,642	0	4,026
Reversal of impairment losses	0	1	6	3	10
Balance at Dec. 31, 2023	**24,627**	**42,857**	**79,243**	**15**	**146,742**
Carrying amount at Dec. 31, 2023	**28,186**	**11,414**	**16,294**	**10,986**	**66,880**

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2022

€ million	Land, land rights and buildings, including buildings on third-party land	Technical equipment and machinery	Other equipment, operating and office equipment	Payments on account and assets under construction	Total
Cost					
Balance at Jan. 1, 2022	**48,281**	**52,144**	**88,111**	**7,645**	**196,181**
Foreign exchange differences	158	314	697	70	1,240
Changes in consolidated Group	18	10	27	21	77
Additions	2,065	1,240	2,858	6,698	12,861
Transfers	1,117	1,702	1,489	-4,373	-65
Classified as held for sale	21	39	-14	0	45
Disposals	830	1,439	1,985	71	4,325
Balance at Dec. 31, 2022	**50,789**	**53,934**	**91,212**	**9,991**	**205,925**
Amortization and impairment					
Balance at Jan. 1, 2022	**21,083**	**40,103**	**71,296**	**4**	**132,486**
Foreign exchange differences	83	270	592	0	945
Changes in consolidated Group	-48	34	12	0	-2
Additions to cumulative amortization	2,250	3,175	6,379	–	11,804
Additions to cumulative impairment losses	154	132	132	6	425
Transfers	13	8	-17	0	4
Classified as held for sale	9	9	-2	–	16
Disposals	426	1,336	1,823	-3	3,583
Reversal of impairment losses	16	1	8	3	29
Balance at Dec. 31, 2022	**23,083**	**42,377**	**76,565**	**10**	**142,035**
Carrying amount at Dec. 31, 2022	**27,705**	**11,557**	**14,647**	**9,981**	**63,890**

Government grants of €237 million (previous year adjusted: €66 million) were deducted from the cost of property, plant and equipment.

In connection with land and buildings, real property liens of €1,497 million (previous year: €1,517 million) are pledged as collateral for partial retirement obligations, financial liabilities and other liabilities.

14. Lease assets and investment property

CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2023

€ million	Lease assets	Investment property	Total
Cost **Balance at Jan. 1, 2023**	**80,919**	**961**	**81,880**
Foreign exchange differences	–779	–13	–792
Changes in consolidated Group	1,098	4	1,101
Additions	32,974	6	32,980
Transfers	–57	93	36
Disposals	28,061	19	28,080
Balance at Dec. 31, 2023	**86,093**	**1,033**	**87,126**
Amortization and impairment **Balance at Jan. 1, 2023**	**21,539**	**351**	**21,890**
Foreign exchange differences	–216	–3	–219
Changes in consolidated Group	92	0	92
Additions to cumulative amortization	10,241	21	10,263
Additions to cumulative impairment losses	809	1	810
Transfers	–19	34	15
Disposals	10,051	4	10,055
Reversal of impairment losses	395	0	396
Balance at Dec. 31, 2023	**21,999**	**401**	**22,400**
Carrying amount at Dec. 31, 2023	**64,094**	**632**	**64,726**

CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2022

€ million	Lease assets	Investment property	Total
Cost **Balance at Jan. 1, 2022**	**79,146**	**947**	**80,092**
Foreign exchange differences	1,105	17	1,122
Changes in consolidated Group	187	–5	182
Additions	24,105	4	24,110
Transfers	–14	4	–10
Disposals	23,611	6	23,617
Balance at Dec. 31, 2022	**80,919**	**961**	**81,880**
Amortization and impairment **Balance at Jan. 1, 2022**	**19,447**	**332**	**19,779**
Foreign exchange differences	262	3	265
Changes in consolidated Group	73	–1	72
Additions to cumulative amortization	10,255	21	10,276
Additions to cumulative impairment losses	261	1	261
Transfers	–4	1	–3
Disposals	8,216	3	8,220
Reversal of impairment losses	539	1	540
Balance at Dec. 31, 2022	**21,539**	**351**	**21,890**
Carrying amount at Dec. 31, 2022	**59,380**	**610**	**59,990**

Lease assets include assets leased out under the terms of operating leases and assets covered by long-term buy-back agreements.

Investment property includes apartments rented out and leased dealerships with a fair value of €1,456 million (previous year: €1,279 million). Fair value is estimated using an investment method based on internal calculations (Level 3 of the fair value hierarchy). Operating expenses of €85 million (previous year: €69 million) were incurred for the maintenance of investment property in use. Expenses of €0.4 million (previous year: €0.8 million) were incurred for unused investment property.

Rental income from investment property amounted to €81 million in fiscal year 2023 (previous year adjusted: €89 million).

15. Equity-accounted investments and other equity investments

CHANGES IN EQUITY-ACCOUNTED INVESTMENTS AND OTHER EQUITY INVESTMENTS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2023

€ million	Equity-accounted investments	Other equity investments	Total
Gross carrying amount **Balance at Jan. 1, 2023**	**15,235**	**4,538**	**19,774**
Foreign exchange differences	–217	–48	–265
Changes in consolidated Group	271	–386	–114
Additions	570	2,085	2,655
Transfers	–	–	–
Disposals	–	321	321
Changes recognized in profit or loss	2,243	–13	2,230
Dividends[1]	–2,511	–	–2,511
Other changes recognized in other comprehensive income	–388	–122	–510
Balance at Dec. 31, 2023	**15,204**	**5,734**	**20,937**
Impairment losses **Balance at Jan. 1, 2023**	**2,567**	**1,050**	**3,617**
Foreign exchange differences	–3	–8	–12
Changes in consolidated Group	–19	94	76
Additions	523	304	826
Transfers	–	–	–
Disposals	27	96	124
Reversal of impairment losses	76	40	116
Balance at Dec. 31, 2023	**2,964**	**1,303**	**4,267**
Carrying amount at Dec. 31, 2023	**12,239**	**4,431**	**16,670**

1 Dividends are shown before withholding tax.

CHANGES IN EQUITY-ACCOUNTED INVESTMENTS AND OTHER EQUITY INVESTMENTS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2022[2]

€ million	Equity-accounted investments	Other equity investments	Total
Gross carrying amount **Balance at Jan. 1, 2022**	**13,102**	**4,033**	**17,135**
Foreign exchange differences	-82	1	-81
Changes in consolidated Group	203	-233	-30
Additions	2,167	1,499	3,666
Transfers	–	–	–
Disposals	–	318	318
Changes recognized in profit or loss	2,399	5	2,404
Dividends[1]	-2,877	–	-2,877
Other changes recognized in other comprehensive income	323	-449	-125
Balance at Dec. 31, 2022	**15,235**	**4,538**	**19,774**
Impairment losses **Balance at Jan. 1, 2022**	**571**	**1,033**	**1,604**
Foreign exchange differences	-2	-4	-6
Changes in consolidated Group	-25	11	-15
Additions	2,077	180	2,258
Transfers	–	–	–
Disposals	–	121	121
Reversal of impairment losses	54	50	104
Balance at Dec. 31, 2022	**2,567**	**1,050**	**3,617**
Carrying amount at Dec. 31, 2022	**12,668**	**3,489**	**16,157**

1 Dividends are shown before withholding tax.
2 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Equity-accounted investments include joint ventures in the amount of €7,139 million (previous year: €6,959 million) and associates in the amount of €5,100 million (previous year: €5,709 million).

Among the additions to equity-accounted investments in the fiscal year under review, an amount of €0.3 billion is attributable to the capital contribution to the new joint venture CARIZON established with Horizon Robotics. In the previous year, material additions to equity-accounted investments had included a capital increase of €1.7 billion at GMH in connection with the acquisition of Europcar.

Among the additions to other equity investments, the main item was an amount of €0.7 billion for the acquisition of shares of XPeng.

Changes in the consolidated Group affecting equity-accounted investments in the fiscal year relate mainly to the joint venture Audi FAW NEV Co. in an amount of €0.3 billion. In the previous year, the main changes in the consolidated Group affecting equity-accounted investments had related to the associate Brose Sitech Sp. z o.o., Polkowice/Poland in an amount of €0.3 billion.

Additions to impairment losses on equity-accounted investments in an amount of €0.4 billion were mostly attributable to the associate QuantumScape in the fiscal year. In the previous year, additions to impairment losses on equity-accounted investments in an amount of €1.9 billion were mostly attributable to the joint venture Argo AI.

Additional disclosures on the above mentioned equity investments can be found in the "Key events" section.

Of the other changes recognized in other comprehensive income, €– 377 million (previous year adjusted: €366 million (see disclosures on IFRS 17)) is attributable to joint ventures and €– 12 million (previous year: €– 43 million) to associates. They are mainly the result of foreign exchange differences in the amount of €– 288 million (previous year: €157 million), pension plan remeasurements in the amount of €– 3 million (previous year: €9 million) and fair value measurement of cash flow hedges in the amount of €– 128 million (previous year: €143 million).

16. Noncurrent and current financial services receivables

€ million	Carrying amount			Fair value	Carrying amount			Fair value
	Current	Noncurrent	Dec. 31, 2023	Dec. 31, 2023	Current	Noncurrent	Dec. 31, 2022	Dec. 31, 2022
Receivables from financing business								
Customer financing	27,025	49,354	76,379	76,713	27,087	49,065	76,152	75,302
Dealer financing	17,968	3,780	21,748	21,731	14,243	2,653	16,896	16,908
Direct banking	361	22	382	387	338	17	356	359
	45,353	**53,155**	**98,509**	**98,831**	**41,668**	**51,735**	**93,403**	**92,568**
Receivables from operating leases	496	–	496	496	387	–	387	387
Receivables from finance leases	20,532	41,318	61,850	61,720	19,493	35,209	54,702	53,748
	66,381	**94,474**	**160,855**	**161,047**	**61,549**	**86,944**	**148,493**	**146,703**

Finance lease receivables included in financial services receivables of €160.9 billion (previous year: €148.5 billion) increased by €293 million (previous year: decline of €156 million) due to hedged fair value changes of hedged items designated in portfolio hedges.

The receivables from customer and dealer financing are secured by vehicles or real property liens. Of the receivables, €957 million (previous year: €767 million) was furnished as collateral for financial liabilities and contingent liabilities.

The receivables from dealer financing include €30 million (previous year: €15 million) receivable from unconsolidated affiliated companies.

17. Noncurrent and current other financial assets

€ million	Carrying amount			Carrying amount		
	Current	Noncurrent	Dec. 31, 2023	Current	Noncurrent	Dec. 31, 2022[1]
Positive fair values of derivative financial instruments	3,289	4,629	7,918	3,916	7,545	11,461
Receivables from loans, bonds, profit participation rights (excluding interest)	8,972	6,201	15,173	6,843	5,253	12,097
Miscellaneous financial assets	4,692	927	5,619	4,389	1,033	5,422
	16,953	**11,757**	**28,710**	**15,148**	**13,832**	**28,980**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Other financial assets include receivables from related parties of €14.3 billion (previous year: €11.8 billion). Other financial assets amounting to €90 million (previous year: €118 million) were furnished as collateral for financial liabilities and contingent liabilities. There is no original right of disposal or pledge for the furnished collateral on the part of the collateral taker.

In addition, miscellaneous financial assets include receivables from restricted deposits that serve as collateral (mainly under asset-backed securities transactions).

The positive fair values of derivatives relate to the following items:

€ million	Dec. 31, 2023	Dec. 31, 2022
Transactions for hedging		
foreign currency risk from assets using fair value hedges	28	50
foreign currency risk from liabilities using fair value hedges	50	38
interest rate risk using fair value hedges	364	868
interest rate risk using cash flow hedges	170	504
foreign currency and price risk from future cash flows (cash flow hedges)	3,801	3,282
Hedging transactions Total	**4,413**	**4,741**
Assets related to derivatives not included in hedging relationships	3,506	6,720
Total	**7,918**	**11,461**

Positive fair values of €260 million (previous year: €822 million) were recognized from transactions for hedging interest rate risk (fair value hedges) designated in portfolio hedges.

Further details on derivative financial instruments as a whole are given in the section entitled "Financial risk management and financial instruments".

18. Noncurrent and current other receivables

	CARRYING AMOUNT			CARRYING AMOUNT		
€ million	Current	Noncurrent	Dec. 31, 2023	Current	Noncurrent	Dec. 31, 2022[1]
Other recoverable income taxes	5,431	1,240	6,671	4,852	1,028	5,879
Miscellaneous receivables	3,368	1,462	4,830	2,961	1,449	4,410
	8,799	**2,702**	**11,501**	**7,813**	**2,477**	**10,290**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Miscellaneous receivables include assets to fund post-employment benefits in the amount of €127 million (previous year: €70 million). This item also includes assets from reinsurance contracts held in an amount of €35 million (previous year adjusted: €38 million (see disclosures on IFRS 17)).

Current other receivables are predominantly non-interest-bearing.

Other receivables include contingent receivables from long-term construction contracts recognized in accordance with project progress. They correspond to the contract assets recognized under contracts with customers and changed as follows:

€ million	2023	2022
Contingent construction contract receivables at Jan. 1	**212**	**306**
Additions and disposals	136	–96
Change in valuation allowances	–1	1
Foreign exchange differences	0	2
Contingent construction contract receivables at Dec. 31	**347**	**212**

The Volkswagen Group capitalizes costs to obtain a contract and amortizes them on a straight-line basis over the life of the contract only if they are material, the underlying contract has a term of at least one year, and these costs would not have been incurred, if the corresponding contract had not been entered into. As of December 31, 2023, no costs to obtain contracts were recognized as assets (previous year: €81 million). In fiscal year 2023, the capitalized costs to obtain contracts were realized in total; in the previous year, amortization charges on capitalized costs to obtain contracts had amounted to €47 million.

19. Tax assets

	CARRYING AMOUNT			CARRYING AMOUNT		
€ million	Current	Noncurrent	Dec. 31, 2023	Current	Noncurrent	Dec. 31, 2022[1]
Deferred tax assets	–	13,940	13,940	–	12,929	12,929
Tax receivables	1,649	437	2,086	1,732	394	2,125
	1,649	**14,377**	**16,025**	**1,732**	**13,323**	**15,054**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Deferred tax assets include an amount of €7,867 million (previous year adjusted: €7,016 million (see disclosures on IFRS 17)) arising from recognition and measurement differences between IFRS carrying amounts and the tax base, which will reverse within one year.

20. Inventories

€ million	Dec. 31, 2023	Dec. 31, 2022
Raw materials, consumables and supplies	9,787	10,458
Work in progress	5,005	6,041
Finished goods and purchased merchandise	30,994	29,466
Current lease assets	6,183	5,170
Prepayments	1,649	1,165
Hedges on inventories	–16	–26
	53,601	**52,274**

At the same time as the relevant revenue was recognized, inventories in the amount of €234 billion (previous year: €204 billion) were included in cost of sales. Loss allowances (excluding lease assets) recognized as expenses in the reporting period amounted to €621 million (previous year: €582 million). Vehicles with a value amounting to €236 million (previous year: €257 million) were assigned as collateral for partial retirement obligations.

21. Trade receivables

€ million	Dec. 31, 2023	Dec. 31, 2022[1]
Trade receivables from		
third parties	18,340	14,785
unconsolidated subsidiaries	185	210
joint ventures	3,234	3,451
associates	89	87
other investees and investors	1	1
	21,849	**18,534**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

The fair values of the trade receivables correspond to the carrying amounts.

22. Marketable securities and time deposits

The marketable securities serve to safeguard liquidity. They are mainly short-term fixed-income securities and shares. Most securities are measured at fair value. Current securities amounting to €1,264 million (previous year: €1,406 million) were furnished as collateral for financial liabilities and contingent liabilities. There is no original right of disposal or pledge for the furnished collateral on the part of the collateral taker.

23. Cash and cash equivalents

€ million	Dec. 31, 2023	Dec. 31, 2022
Bank balances	43,158	28,685
Checks, cash-in-hand, bills and call deposits	291	487
	43,449	**29,172**

Bank balances are held at various banks in different currencies and also include time deposits with maturities of less than three months.

24. Equity

The subscribed capital of Volkswagen AG is composed of no-par value bearer shares with a notional value of €2.56. As well as ordinary shares, there are preferred shares that entitle the bearer to a €0.06 higher dividend than ordinary shares, but do not carry voting rights.

The Annual General Meeting on May 10, 2023 resolved to create authorized capital of up to €228 million, expiring on May 9, 2028, to issue new preferred bearer shares.

The subscribed capital is composed of 295,089,818 no-par value ordinary shares (previous year: 295,089,818) and 206,205,445 no-par value preferred shares (previous year: 206,205,445), and amounts to €1,283,315,873 (previous year: €1,283,315,873).

The capital reserves comprise the share premium totaling €14,225 million (previous year: €14,225 million) from capital increases, the share premium of €219 million from the issuance of bonds with warrants and an amount of €107 million appropriated on the basis of the capital reduction implemented in 2006. No amounts were withdrawn from the capital reserves.

DIVIDENDS AND DIVIDEND PROPOSAL

In accordance with section 58(2) of the Aktiengesetz (AktG – German Stock Corporation Act), the dividend payment by Volkswagen AG is based on the net retained profits reported in the annual financial statements of Volkswagen AG prepared in accordance with the German Commercial Code. Based on these annual financial statements of Volkswagen AG, following the transfer of €1,720 million to revenue reserves, net retained profits of €4,526 million are eligible for distribution. The Board of Management and Supervisory Board will propose to the Annual General Meeting that a total dividend of €4,524 million, i.e. €9.00 per ordinary share and €9.06 per preferred share, be paid from the net retained profits. Shareholders are not entitled to a dividend payment until it has been resolved by the Annual General Meeting.

In fiscal year 2023, based on the resolution of the Annual General Meeting of Volkswagen AG of May 10, 2023, a dividend of €8.70 per ordinary share and €8.76 per preferred share was distributed. In addition, the increased dividend of €19.06 per ordinary and preferred share resolved at the extraordinary General Meeting of Volkswagen AG on December 16, 2022, in connection with the IPO of Porsche AG was distributed in January 2023.

HYBRID CAPITAL

Under IAS 32, the hybrid notes of the Volkswagen Group must be classified in their entirety as equity. The capital raised was recognized in equity, less a discount and transaction costs and net of deferred taxes. The interest payments payable to the noteholders will be recognized directly in equity. IAS 32 only allows these hybrid notes to be classified as debt once the respective hybrid note is called. Interest may be accumulated depending on whether a dividend is paid to Volkswagen AG shareholders.

In July 2023, Volkswagen AG called a hybrid note (maturity: 10 years) with a principal amount of €750 million, which had been placed in 2013 via Volkswagen International Finance N.V., Amsterdam/the Netherlands (issuer). Once called, the note was classified as debt in accordance with IAS 32. Equity and net liquidity of the Volkswagen Group were reduced accordingly. The hybrid note was redeemed on September 4, 2023.

From the hybrid capital issued on September 6, 2023, Volkswagen AG recorded a cash inflow of €1,750 million less transaction costs of €9 million. In addition, the recognition of deferred taxes led to non-cash effects of €3 million.

NONCONTROLLING INTERESTS

As of December 31, 2023, noncontrolling interests amounted to €14,218 million (previous year adjusted: €12,952 million (see disclosures on IFRS 17)). Noncontrolling interests are mainly attributable to the Porsche AG Group (see “Key events” section for details) and the TRATON GROUP.

The table below shows summarized financial information of the Porsche AG Group, including amortized goodwill and fair value adjustments, which were determined at the acquisition date:

€ million	2023	2022[2]
Noncontrolling interests in %[1]	24.58	24.58
Noncontrolling interests	12,384	11,030
Noncurrent assets	63,261	60,383
Current assets	20,040	20,154
Noncurrent liabilities	19,420	18,249
Current liabilities	13,567	16,579
Sales revenue	40,530	37,637
Earnings after tax	5,128	4,934
Other comprehensive income, net of tax	–471	1,947
Dividend paid to noncontrolling interest shareholders	225	6
Gross cash flow	8,889	8,283
Change in working capital	–1,866	–1,168
Cash flows from operating activities	7,023	7,114
Cash flows from investing activities	–4,322	–4,104
Net cash flow	2,701	3,011

1 The percentage only includes direct noncontrolling interests.
2 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

The table below shows summarized financial information of the TRATON GROUP, including amortized goodwill and fair value adjustments, which were determined at the acquisition date:

€ million	2023	2022
Noncontrolling interests in %[1]	10.28	10.28
Noncontrolling interests	1,553	1,442
Noncurrent assets	41,769	40,333
Current assets	21,101	19,108
Noncurrent liabilities	23,272	21,682
Current liabilities	22,373	22,636
Sales revenue	46,872	40,335
Earnings after tax	2,448	1,136
Other comprehensive income, net of tax	–25	10
Dividend paid to noncontrolling interest shareholders	36	26
Gross cash flow	5,263	4,042
Change in working capital	–2,680	–4,702
Cash flows from operating activities	2,583	–660
Cash flows from investing activities	–2,385	–1,916
Net cash flow	198	–2,576

1 The percentage only includes direct noncontrolling interests.

25. Noncurrent and current financial liabilities

	CARRYING AMOUNT			CARRYING AMOUNT		
€ million	Current	Noncurrent	Dec. 31, 2023	Current	Noncurrent	Dec. 31, 2022
Bonds	25,272	73,885	99,157	21,284	71,835	93,119
Commercial paper and notes	21,446	23,281	44,727	17,239	18,034	35,273
Liabilities to banks	25,769	15,288	41,057	18,840	23,266	42,105
Deposits business	35,589	3,238	38,827	24,107	2,642	26,749
Loans and miscellaneous liabilities	1,288	1,250	2,537	876	677	1,554
Lease liabilities	1,112	5,381	6,494	1,102	5,283	6,385
	110,476	**122,323**	**232,799**	**83,448**	**121,737**	**205,185**

26. Noncurrent and current other financial liabilities

	CARRYING AMOUNT			CARRYING AMOUNT		
€ million	Current	Noncurrent	Dec. 31, 2023	Current[1]	Noncurrent	Dec. 31, 2022[1]
Negative fair values of derivative financial instruments	2,649	4,680	7,329	2,281	5,565	7,846
Interest payable	1,256	281	1,537	837	215	1,052
Miscellaneous financial liabilities	10,117	2,006	12,123	16,689	2,409	19,097
	14,022	**6,968**	**20,990**	**19,807**	**8,188**	**27,995**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Under miscellaneous current financial liabilities, an amount of €6,750 million was attributable in the previous year to the obligation to pay a special dividend to the shareholders of Volkswagen AG in connection with the IPO of Porsche AG (see "Key events" section).

The negative fair values of derivatives relate to the following items:

€ million	Dec. 31, 2023	Dec. 31, 2022
Transactions for hedging		
foreign currency risk from assets using fair value hedges	30	12
foreign currency risk from liabilities using fair value hedges	81	14
interest rate risk using fair value hedges	1,793	2,596
interest rate risk using cash flow hedges	64	54
foreign currency and price risk from future cash flows (cash flow hedges)	2,443	2,801
Hedging transactions Total	**4,412**	**5,477**
Liabilities related to derivatives not included in hedging relationships	2,918	2,369
Total	**7,329**	**7,846**

Negative fair values of €110 million (previous year: €0 million) were recognized from transactions for hedging interest rate risk (fair value hedges) designated in portfolio hedges.

Further details on derivative financial instruments as a whole are given in the section entitled "Financial risk management and financial instruments".

27. Noncurrent and current other liabilities

€ million	CARRYING AMOUNT Current	Noncurrent	Dec. 31, 2023	CARRYING AMOUNT Current[1]	Noncurrent[1]	Dec. 31, 2022[1]
Payments received on account of orders	10,446	7,001	17,447	9,579	6,301	15,880
Liabilities relating to						
other taxes	3,930	219	4,149	3,544	159	3,703
social security	881	74	955	806	149	955
wages and salaries	6,789	799	7,588	6,503	878	7,381
Miscellaneous liabilities	2,298	1,792	4,091	2,232	1,658	3,890
	24,345	**9,885**	**34,230**	**22,665**	**9,144**	**31,810**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

The liabilities from payments on account received under contracts with customers correspond to the contract liabilities under contracts with customers; they are part of the payments received on account of orders. They changed as follows:

€ million	2023	2022
Liabilities from advance payments received under contracts with customers at Jan. 1	**14,286**	**12,762**
Additions and disposals	1,603	1,467
Changes in consolidated Group	6	–4
Classified as held for sale	0	2
Foreign exchange differences	–143	63
Liabilities from advance payments received under contracts with customers at Dec. 31	**15,752**	**14,286**

28. Tax liabilities

€ million	CARRYING AMOUNT Current	Noncurrent	Dec. 31, 2023	CARRYING AMOUNT Current	Noncurrent	Dec. 31, 2022[1]
Deferred tax liabilities	–	9,781	9,781	–	10,736	10,736
Provisions for taxes	1,663	4,287	5,950	2,586	4,320	6,906
Tax payables	556	–	556	726	–	726
	2,219	**14,068**	**16,287**	**3,312**	**15,056**	**18,368**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

Deferred tax liabilities include an amount of €717 million (previous year adjusted: €780 million (see disclosures on IFRS 17)) arising from recognition and measurement differences between IFRS carrying amounts and the tax base, which will reverse within one year.

29. Provisions for pensions and other post-employment benefits

Provisions for pensions are recognized for commitments in the form of retirement, invalidity and dependents' benefits payable under pension plans. The benefits provided by the Group vary according to the legal, tax and economic circumstances of the country concerned, and usually depend on the length of service and remuneration of the employees.

Volkswagen Group companies provide occupational pensions under both defined contribution and defined benefit plans. In the case of defined contribution plans, the Company makes contributions to state or private pension schemes based on legal or contractual requirements, or on a voluntary basis. Once the contributions have been paid, there are no further obligations for the Volkswagen Group. Current contributions are recognized as pension expenses of the period concerned. In fiscal year 2023, they amounted to a total of €3,061 million (previous year: €2,846 million) in the Volkswagen Group. Of this figure, contributions to the compulsory state pension system in Germany amounted to €1,963 million (previous year: €1,854 million).

In the case of defined benefit plans, a distinction is made between pensions funded by provisions and externally funded plans.

The pension provisions for defined benefits are measured by independent actuaries using the internationally accepted projected unit credit method in accordance with IAS 19, under which the future obligations are measured on the basis of the ratable benefit entitlements earned as of the balance sheet date. Measurement reflects actuarial assumptions as to discount rates, salary and pension trends, employee turnover rates, longevity and increases in healthcare costs, which were determined for each Group company depending on the economic environment. Remeasurements arise from differences between what has actually occurred and the prior-year assumptions, from changes in assumptions, as well as from gains or losses on plan assets, excluding amounts included in net interest income or expenses. They are recognized in other comprehensive income, net of deferred taxes, in the period in which they arise.

Multi-employer pension plans exist in the Volkswagen Group in the United Kingdom, Switzerland, Sweden and the Netherlands. These plans are defined benefit plans. A small proportion of them are accounted for as defined contribution plans, as the Volkswagen Group is not authorized to receive the information required in order to account for them as defined benefit plans. Under the terms of the multi-employer plans, the Volkswagen Group is not liable for the obligations of the other employers. In the event of its withdrawal from the plans or their winding-up, the proportionate share of the surplus of assets attributable to the Volkswagen Group will be credited or the proportionate share of the deficit attributable to the Volkswagen Group will have to be funded. In the case of the defined benefit plans accounted for as defined contribution plans, the Volkswagen Group's share of the obligations represents a small proportion of the total obligations. No probable significant risks arising from multi-employer defined benefit pension plans that are accounted for as defined contribution plans have been identified. The expected contributions to those plans will amount to €30 million for fiscal year 2024.

Owing to their benefit character, the obligations of the US Group companies in respect of post-employment medical care in particular are also carried under provisions for pensions. These post-employment benefit provisions take into account the expected long-term change in the cost of healthcare. In fiscal year 2023, €40 million (previous year: €33 million) was recognized as an expense for healthcare costs. The related carrying amount as of December 31, 2023 was €550 million (previous year: €637 million).

The following amounts were recognized in the balance sheet for defined benefit plans:

€ million	Dec. 31, 2023	Dec. 31, 2022
Present value of funded obligations	20,233	18,082
Fair value of plan assets	16,381	14,880
Funded status (net)	3,851	3,201
Present value of unfunded obligations	25,590	24,090
Amount not recognized as an asset because of the ceiling in IAS 19	104	191
Net liability recognized in the balance sheet	**29,546**	**27,483**
of which provisions for pensions	29,672	27,553
of which other assets	127	70

Significant pension arrangements in the Volkswagen Group

For the period after their active working life, the Volkswagen Group offers its employees benefits under attractive, modern occupational pension arrangements. Most of the arrangements in the Volkswagen Group are pension plans for employees in Germany classified as defined benefit plans under IAS 19. The majority of these obligations are funded solely by recognized provisions. These plans are now largely closed to new members. To reduce the risks associated with defined benefit plans, in particular longevity, salary increases and inflation, the Volkswagen Group has introduced new defined benefit plans in recent years whose benefits are funded by appropriate external plan assets. The aforementioned risks have been largely reduced in these pension plans. The proportion of the total defined benefit obligation attributable to pension obligations funded by plan assets will continue to rise in the future. The significant pension plans are described in the following.

GERMAN PENSION PLANS FUNDED SOLELY BY RECOGNIZED PROVISIONS

The pension plans funded solely by recognized provisions comprise both contribution-based plans with guarantees and final salary plans. For contribution-based plans, an annual pension expense dependent on income and status is converted into a lifelong pension entitlement using annuity factors (guaranteed modular pension entitlements). The annuity factors include a guaranteed rate of interest. At retirement, the modular pension entitlements earned annually are added together. For final salary plans, the underlying salary is multiplied at retirement by a percentage that depends on the years of service up until the retirement date.

The present value of the guaranteed obligation rises as interest rates fall and is therefore exposed to interest rate risk.

The pension system provides for lifelong pension payments. The companies bear the longevity risk in this respect. This is accounted for by calculating the annuity factors and the present value of the guaranteed obligation using the latest generational mortality tables – the "Heubeck 2018 G" mortality tables – which already reflect future increases in life expectancy.

To reduce the inflation risk from adjusting the regular pension payments by the rate of inflation, a pension adjustment that is not indexed to inflation was introduced for pension plans where this is permitted by law.

GERMAN PENSION PLANS FUNDED BY EXTERNAL PLAN ASSETS

The pension plans funded by external plan assets are contribution-based plans with guarantees. In this case, an annual pension expense dependent on income and status is either converted into a lifelong pension entitlement using annuity factors (guaranteed modular pension entitlement) or paid out in a single lump sum or in installments. In some cases, employees also have the opportunity to provide for their own retirement through deferred compensation. The annuity factors include a guaranteed rate of interest. At retirement, the modular pension entitlements earned annually are added together. The pension expense is contributed on an ongoing basis to a separate pool of assets that is administered independently of the Company in trust and invested in the capital markets. If the plan assets exceed the present value of the obligations calculated using the guaranteed rate of interest, surpluses are allocated (modular pension bonuses).

Since the assets administered in trust meet the IAS 19 criteria for classification as plan assets, they are deducted from the obligations.

The amount of the pension assets is exposed to general market risk. The investment strategy and its implementation are therefore continuously monitored by the trusts' governing bodies, on which the companies are also represented. For example, investment policies are stipulated in investment guidelines with the aim of limiting market risk and its impact on plan assets. In addition, asset-liability management studies are conducted if required so as to ensure that investments are in line with the obligations that need to be covered. The pension assets are currently invested primarily in fixed-income or equity funds. The main risks are therefore interest rate and equity price risk. To mitigate market risk, the pension system also provides for cash funds to be set aside in an equalization reserve before any surplus is allocated.

The present value of the obligation is the present value of the guaranteed obligation after deducting the plan assets. If the plan assets fall below the present value of the guaranteed obligation, a provision must be recognized in that amount. The present value of the guaranteed obligation rises as interest rates fall and is therefore exposed to interest rate risk.

In the case of lifelong pension payments, the Volkswagen Group bears the longevity risk. This is accounted for by calculating the annuity factors and the present value of the guaranteed obligation using the latest generational mortality tables – the "Heubeck 2018 G" mortality tables – which already reflect future increases in life expectancy. In addition, the independent actuaries carry out annual risk monitoring as part of the review of the assets administered by the trusts.

To reduce the inflation risk from adjusting the regular pension payments by the rate of inflation, a pension adjustment that is not indexed to inflation was introduced for pension plans where this is permitted by law.

Calculation of the pension provisions was based on the following actuarial assumptions:

	GERMANY		ABROAD	
%	2023	2022	2023	2022
Discount rate at December 31	3.29	3.69	4.61	5.00
Payroll trend	3.39	3.23	3.77	4.41
Pension trend	2.19	2.19	2.63	2.96
Employee turnover rate	1.20	1.20	4.46	4.43
Annual increase in healthcare costs	–	–	5.46	5.56

These assumptions are averages that were weighted using the present value of the defined benefit obligation.

With regard to life expectancy, consideration is given to the latest mortality tables in each country. The discount rates are generally defined to reflect the yields on prime-rated corporate bonds with matching maturities and currencies. The iBoxx AA Corporate Bond index was taken as the basis for the obligations of German Group companies. Similar indices were used for foreign pension obligations.

The payroll trends cover expected wage and salary trends, which also include increases attributable to career development.

The pension trends either reflect the contractually guaranteed pension adjustments or are based on the rules on pension adjustments in force in each country.

The employee turnover rates are based on past experience and future expectations.

The following table shows changes in the net defined benefit liability recognized in the balance sheet:

€ million	2023	2022
Net liability recognized in the balance sheet at January 1	**27,483**	**41,376**
Current service cost	1,270	2,086
Net interest expense	1,007	546
Actuarial gains (–)/losses (+) arising from changes in demographic assumptions	5	–13
Actuarial gains (–)/losses (+) arising from changes in financial assumptions	2,637	–19,630
Actuarial gains (–)/losses (+) arising from experience adjustments	–86	1,762
Income (+)/expenses (–) from plan assets not included in interest income	619	–3,017
Change in amount not recognized as an asset because of the ceiling in IAS 19	–93	85
Employer contributions to plan assets	925	902
Employee contributions to plan assets	–22	–15
Pension payments from company assets	1,062	984
Past service cost (including plan curtailments)	8	38
Gains (–) or losses (+) arising from plan settlements	–22	–16
Changes in consolidated Group	0	–3
Classified as held for sale	–	–
Other changes	–50	105
Foreign exchange differences from foreign plans	–27	2
Net liability recognized in the balance sheet at December 31	**29,546**	**27,483**

The change in the amount not recognized as an asset because of the ceiling in IAS 19 contains an interest component, part of which was recognized in the financial result in profit or loss, and part of which was recognized outside profit or loss directly in equity.

The change in the present value of the defined benefit obligation is attributable to the following factors:

€ million	2023	2022
Present value of obligations at January 1	**42,172**	**58,555**
Current service cost	1,270	2,086
Interest cost	1,607	820
Actuarial gains(–)/losses (+) arising from changes in demographic assumptions	5	–13
Actuarial gains(–)/losses (+) arising from changes in financial assumptions	2,637	–19,630
Actuarial gains(–)/losses (+) arising from experience adjustments	–86	1,762
Employee contributions to plan assets	33	25
Pension payments from company assets	1,062	984
Pension payments from plan assets	552	549
Past service cost (including plan curtailments)	8	38
Gains (–) or losses (+) arising from plan settlements	–22	–16
Changes in consolidated Group	0	–3
Classified as held for sale	–	–
Other changes	–164	22
Foreign exchange differences from foreign plans	–22	59
Present value of obligations at December 31	**45,823**	**42,172**

The actuarial losses arising from changes in financial assumptions result primarily from the change in the discount rate in Germany. In the previous year, the rise in the discount rate from 1.2% to 3.7% led to actuarial gains of €19,588 million, while the increase in the pension trend from 1.7% to 2.2% had an offsetting effect, reducing actuarial gains by €2,389 million.

Changes in the relevant actuarial assumptions would have had the following effects on the defined benefit obligation:

		DEC. 31, 2023		DEC. 31, 2022	
Present value of defined benefit obligation if		€ million	Change in percent	€ million	Change in percent
Discount rate	is 0.5 percentage points higher	42,434	–7.40	39,172	–7.11
	is 0.5 percentage points lower	49,704	8.47	45,599	8.13
Pension trend	is 0.5 percentage points higher	47,744	4.19	43,926	4.16
	is 0.5 percentage points lower	44,066	–3.83	40,585	–3.76
Payroll trend	is 0.5 percentage points higher	46,058	0.51	42,398	0.54
	is 0.5 percentage points lower	45,611	–0.46	41,966	–0.49
Longevity	increases by one year	47,175	2.95	43,461	3.05

The sensitivity analysis shown above considers the change in one assumption at a time, leaving the other assumptions unchanged versus the original calculation. I.e. any correlation effects between the individual assumptions are ignored.

To examine the sensitivity of the present value of the defined benefit obligation to a change in assumed longevity, the estimates of mortality were reduced as part of a comparative calculation to the extent that doing so increases life expectancy by approximately one year.

The average duration of the defined benefit obligation weighted by the present value of the defined benefit obligation (Macaulay duration) is 16 years (previous year: 16 years).

The present value of the defined benefit obligation is attributable as follows to the members of the plan:

€ million	2023	2022
Active members with pension entitlements	23,408	21,054
Members with vested entitlements who have left the Company	2,463	2,270
Pensioners	19,951	18,848
	45,823	**42,172**

The maturity profile of payments attributable to the defined benefit obligation is presented in the following table, which classifies the present value of the obligation by the maturity of the underlying payments:

€ million	2023	2022
Payments due within the next fiscal year	1,626	1,638
Payments due between two and five years	6,901	6,655
Payments due in more than five years	37,296	33,879
	45,823	**42,172**

Changes in plan assets are shown in the following table:

€ million	2023	2022
Fair value of plan assets at January 1	**14,880**	**17,285**
Interest income on plan assets determined using the discount rate	600	274
Income (+)/expenses (–) from plan assets not included in interest income	619	–3,017
Employer contributions to plan assets	925	902
Employee contributions to plan assets	10	9
Pension payments from plan assets	552	550
Gains (+) or losses (–) arising from plan settlements	–	–
Changes in consolidated Group	–	0
Classified as held for sale	–	–
Other changes	–113	–81
Foreign exchange differences from foreign plans	11	57
Fair value of plan assets at December 31	**16,381**	**14,880**

The investment of the plan assets to cover future pension obligations resulted in income of €1,219 million (previous year: expenses of €2,742 million).

Employer contributions to plan assets are expected to amount to €973 million (previous year: €901 million) in the next fiscal year.

Plan assets are invested in the following asset classes:

€ million	DEC. 31, 2023 Quoted prices in active markets	DEC. 31, 2023 No quoted prices in active markets	DEC. 31, 2023 Total	DEC. 31, 2022 Quoted prices in active markets	DEC. 31, 2022 No quoted prices in active markets	DEC. 31, 2022 Total
Cash and cash equivalents	424	–	424	591	–	591
Equity instruments	324	–	324	278	–	278
Debt instruments	531	4	536	518	5	523
Direct investments in real estate	–	224	224	0	193	193
Derivatives	420	–5	415	444	29	473
Equity funds	5,217	2	5,219	4,593	1	4,594
Bond funds	6,362	87	6,449	5,522	107	5,628
Real estate funds	512	24	536	617	30	647
Other funds	1,200	216	1,416	1,011	233	1,244
Other instruments	217	621	839	105	604	709

Plan assets include €16 million (previous year: €15 million) invested in Volkswagen Group assets and €4 million (previous year: €5 million) in Volkswagen Group debt instruments.

The following amounts were recognized in the income statement:

€ million	2023	2022
Current service cost	1,270	2,086
Net interest on the net defined benefit liability	1,007	546
Past service cost (including plan curtailments)	8	38
Gains (–) or losses (+) arising from plan settlements	–22	–16
Net income (–) and expenses (+) recognized in profit or loss	**2,263**	**2,654**

The above amounts are generally included in the personnel costs of the functional areas in the income statement. Net interest on the net defined benefit liability is reported in interest expenses.

30. Noncurrent and current other provisions

€ million	Obligations arising from sales	Employee expenses	Litigation and legal risks	Miscellaneous provisions[1]	Total[1]
Balance at Jan. 1, 2022	**26,310**	**6,837**	**5,220**	**10,103**	**48,470**
Foreign exchange differences	208	18	83	127	435
Changes in consolidated Group	–1	12	–3	12	20
Classified as held for sale	6	1	1	2	10
Utilization	9,009	2,633	2,781	3,618	18,042
Additions/New provisions	11,528	2,830	974	6,449	21,780
Unwinding of discount/effect of change in discount rate	–465	–553	–53	–76	–1,146
Reversals	2,518	194	394	2,523	5,629
Balance at Dec. 31, 2022	**26,046**	**6,314**	**3,045**	**10,473**	**45,878**
of which current	12,396	3,073	1,181	7,946	24,596
of which noncurrent	13,650	3,241	1,864	2,527	21,283
Balance at Jan. 1, 2023	**26,046**	**6,314**	**3,045**	**10,473**	**45,878**
Foreign exchange differences	–230	–31	–4	–93	–358
Changes in consolidated Group	–112	–7	1	–234	–352
Classified as held for sale	–	–	–	–	–
Utilization	10,047	2,432	673	5,076	18,229
Additions/New provisions	13,833	2,719	508	5,519	22,578
Reclassifications	196	–	–	–196	–
Unwinding of discount/effect of change in discount rate	134	166	–1	–55	244
Reversals	2,056	251	387	1,552	4,245
Balance at Dec. 31, 2023	**27,764**	**6,477**	**2,489**	**8,786**	**45,517**
of which current	13,549	3,082	1,155	6,095	23,881
of which noncurrent	14,214	3,396	1,335	2,691	21,636

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

The obligations arising from sales contain provisions covering all risks relating to the sale of vehicles, components and genuine parts through to the disposal of end-of-life vehicles. They primarily comprise warranty obligations, calculated on the basis of losses to date and estimated future losses. They also include provisions for discounts, bonuses and similar allowances which are incurred after the balance sheet date, but for which there is a legal or constructive obligation attributable to sales revenue before the balance sheet date.

Provisions for employee expenses are recognized for long-service awards, time credits, partial retirement arrangements, severance payments and similar obligations, among other things.

In addition to residual provisions relating to the diesel issue, the provisions for litigation and legal risks contain amounts related to a large number of legal disputes and official proceedings in which Volkswagen Group companies become involved in Germany and internationally in the course of their operating activities. In particular, such legal disputes and other proceedings may occur in relation to suppliers, dealers, customers, employees, or investors. Please refer to the "Litigation" section for a discussion of the legal risks.

Miscellaneous provisions relate to a wide range of identifiable specific risks, price risks and uncertain obligations, which are measured in the amount of the expected settlement value. Depending the jurisdiction concerned, they also include risk provisions for any non-compliance with legal emissions limits. Their measurement takes into account, among other things, the respective sales volume and the legally defined fee or the cost of acquiring emission rights from other manufacturers. Advantage has been taken of synergies between individual brands of the Volkswagen Group by establishing emission pools where possible.

Miscellaneous provisions additionally include provisions amounting to €944 million (previous year adjusted: €892 million (see disclosures on IFRS 17)) relating to the insurance business.

31. Trade payables

€ million	Dec. 31, 2023	Dec. 31, 2022[1]
Trade payables to		
third parties	30,157	27,966
unconsolidated subsidiaries	210	196
joint ventures	204	227
associates	322	342
other investees and investors	8	7
	30,901	**28,738**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

Trade payables include an amount of €993 million (previous year: €403 million) for which the Volkswagen Group has entered into reverse factoring agreements.

Under these agreements, suppliers can assign their receivables from Volkswagen Group companies at a discount to the commercial banks participating in the program and in this way receive the discounted invoice amount prematurely.

The Volkswagen Group companies settle the invoice amount with the bank as of the due date originally agreed.

Other disclosures

32. IAS 23 (Borrowing costs)

Capitalized borrowing costs amounted to €507 million (previous year: €178 million) and related mainly to capitalized development costs. An average cost of debt of 3.4% (previous year: 2.2%) 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, 2023

€ 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, 2023**	**8,758**	**62**	**911**	**9,731**
Foreign exchange differences	-94	-1	-5	-100
Changes in consolidated group	-118	0	-10	-127
Additions	1,285	10	276	1,571
Transfers	-14	–	0	-14
Classified as held for sale	–	–	–	–
Disposals	569	5	180	754
Balance at Dec. 31, 2023	**9,249**	**66**	**992**	**10,308**
Depreciation and impairment **Balance at Jan. 1, 2023**	**2,942**	**34**	**394**	**3,370**
Foreign exchange differences	-34	-1	-3	-38
Changes in consolidated group	-53	0	-4	-57
Additions to cumulative depreciation	1,048	7	196	1,251
Additions to cumulative impairment losses	0	–	–	0
Transfers	-1	–	0	-1
Classified as held for sale	–	–	–	–
Disposals	364	3	173	539
Reversal of impairment losses	–	–	–	–
Balance at Dec. 31, 2023	**3,538**	**37**	**411**	**3,986**
Carrying amount at Dec. 31, 2023	**5,711**	**29**	**581**	**6,322**

PRESENTATION OF AND CHANGES IN RIGHT-OF-USE ASSETS FROM LEASES FOR THE PERIOD FROM JANUARY 1 TO DECEMBER 31, 2022

€ 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, 2022	**7,962**	**63**	**816**	**8,841**
Foreign exchange differences	–8	0	–3	–12
Changes in consolidated group	51	–	1	52
Additions	1,477	7	174	1,657
Transfers	–32	–	–1	–32
Classified as held for sale	7	–	–	7
Disposals	685	7	75	768
Balance at Dec. 31, 2022	**8,758**	**62**	**911**	**9,731**
Depreciation and impairment				
Balance at Jan. 1, 2022	**2,332**	**34**	**289**	**2,656**
Foreign exchange differences	–10	0	–2	–12
Changes in consolidated group	–1	–	0	–1
Additions to cumulative depreciation	1,000	7	179	1,185
Additions to cumulative impairment losses	6	–	0	6
Transfers	–3	–	0	–3
Classified as held for sale	5	–	–	5
Disposals	362	7	72	440
Reversal of impairment losses	15	–	–	15
Balance at Dec. 31, 2022	**2,942**	**34**	**394**	**3,370**
Carrying amount at Dec. 31, 2022	**5,816**	**28**	**517**	**6,361**

Subleases of right-of-use assets generated income of €16 million (previous year: €17 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, 2023	Dec. 31, 2022
Financial liabilities – Noncurrent	5,381	5,283
Financial liabilities – Current	1,112	1,102
Lease liabilities – Total	**6,494**	**6,385**

MATURITY ANALYSIS OF UNDISCOUNTED LEASE LIABILITIES

	REMAINING CONTRACTUAL MATURITIES			
€ million	under one year	within one to five years	over five years	Total
Lease liabilities at Dec. 31, 2023	1,339	3,804	2,779	**7,921**
Lease liabilities at Dec. 31, 2022	1,290	3,544	2,813	**7,647**

Interest expenses of €233 million (previous year: €168 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 €294 million (previous year: €265 million) in the fiscal year. This figure does not include any expenses for short-term leases, which totaled €262 million (previous year: €234 million) in the fiscal year. Variable lease expenses not included in the measurement of lease liabilities accounted for €21 million (previous year: €19 million) in the fiscal year.

Leases gave rise to cash outflows totaling €1,986 million (previous year: €1,832 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	2023	2022
Future cash outflows to which the lessee is potentially exposed		
Variable lease payments	32	44
Extension options	3,408	3,513
Termination options	23	3
Obligations under leases not yet commenced	323	249
	3,788	**3,809**

No material cash outflows attributable to residual value guarantees are expected.

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 €64,726 million at the end of the fiscal year (previous year: €59,990 million). While €632 million (previous year: €610 million) is attributable to investment property, assets separately reported as lease assets in the balance sheet amount to €64,094 million (previous year: €59,380 million). They relate primarily to vehicles in an amount of €64,059 million (previous year: €59,263 million) as well as land, land rights and buildings, including buildings on third-party land, in an amount of €35 million (previous year: €109 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, 2023

€ million	2024	2025	2026	2027	2028	from 2029	Total
Lease payments	9,731	6,622	4,378	1,636	583	239	**23,189**

DISCLOSURE AS OF DECEMBER 31, 2022

€ million	2023	2024	2025	2026	2027	from 2028	Total
Lease payments	8,615	5,851	3,441	1,368	464	262	**20,001**

BREAKDOWN OF INCOME FROM OPERATING LEASES

€ million	2023	2022
Lease income	15,343	14,600
Income from variable lease payments	0	1
Total	**15,343**	**14,600**

2.2 Finance leases

Interest income from the net investment in the leases amounted to €3.3 billion (previous year: €2.6 billion) in the fiscal year. Furthermore, a selling profit from the finance leases in the amount of €1.6 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, 2023	Dec. 31, 2022
Non-discounted lease payments	**65,979**	**57,501**
Non-guaranteed residual value	3,499	3,466
Unearned interest income	-6,667	-4,497
Loss allowance on lease receivables	-1,223	-1,611
Net investment	**61,588**	**54,858**

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

DISCLOSURE AS OF DECEMBER 31, 2023

€ million	2024	2025	2026	2027	2028	from 2029	Total
Lease payments	22,616	17,479	15,111	9,238	921	613	**65,979**

DISCLOSURE AS OF DECEMBER 31, 2022

€ million	2023	2024	2025	2026	2027	from 2028	Total
Lease payments	21,172	15,055	12,381	7,588	848	457	**57,501**

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, 2023	Dec. 31, 2022[1]
Financial assets at fair value through profit or loss	27,325	28,185
Financial assets at fair value through other comprehensive income (debt instruments)	4,406	4,224
Financial assets at fair value through other comprehensive income (equity instruments)	910	277
Financial assets measured at amortized cost	183,469	170,220
of which classified as held for sale	76	570
Financial liabilities at fair value through profit or loss	2,935	2,522
Financial liabilities measured at amortized cost	270,883	247,553
of which classified as held for sale	15	132

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

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).

Reconcilitation 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 the carrying amount 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, 2023

	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, 2023
€ million	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	–	–	–	–	12,239	12,239
Other equity investments	1,150	–	–	–	3,281	4,431
Financial services receivables	89	53,066	53,389	–	41,318	94,474
Other financial assets	3,007	5,847	5,923	2,903	–	11,757
Tax receivables	–	–	–	–	437	437
Current assets						
Trade receivables	0	21,849	21,849	–	0	21,849
Financial services receivables	19	45,335	45,335	–	21,028	66,381
Other financial assets	1,927	13,517	13,517	1,509	–	16,953
Tax receivables	–	8	8	–	1,641	1,649
Marketable securities and time deposits	26,450	322	322	–	–	26,772
Cash and cash equivalents	–	43,449	43,449	–	–	43,449
Assets held for sale	–	76	76	–	114	190
Noncurrent liabilities						
Financial liabilities	–	116,941	116,782	–	5,381	122,323
Other financial liabilities	1,641	2,287	2,269	3,040	–	6,968
Current liabilities						
Financial liabilities	–	109,363	109,363	–	1,112	110,476
Trade payables	–	30,901	30,901	–	–	30,901
Other financial liabilities	1,294	11,356	11,356	1,372	–	14,022
Tax payables	–	18	18	–	537	556
Liabilities associated with assets held for sale	–	15	15	–	16	31

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2022[1]

	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, 2022
€ million	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	–	–	–	–	12,668	12,668
Other equity investments	342	–	–	–	3,147	3,489
Financial services receivables	178	51,557	50,721	–	35,209	86,944
Other financial assets	4,735	5,626	5,532	3,471	–	13,832
Tax receivables	–	–	–	–	394	394
Current assets						
Trade receivables	1	18,533	18,533	–	0	18,534
Financial services receivables	24	41,644	41,644	–	19,881	61,549
Other financial assets	2,845	11,032	11,032	1,270	–	15,148
Tax receivables	–	10	10	–	1,721	1,732
Marketable securities and time deposits	24,560	12,646	12,646	–	–	37,206
Cash and cash equivalents	–	29,172	29,172	–	–	29,172
Assets held for sale	–	570	570	–	163	733
Noncurrent liabilities						
Financial liabilities	–	116,455	112,101	–	5,283	121,737
Other financial liabilities	1,518	2,623	2,502	4,047	–	8,188
Current liabilities						
Financial liabilities	–	82,346	82,346	–	1,102	83,448
Trade payables	–	28,738	28,738	–	–	28,738
Other financial liabilities	1,004	17,372	17,372	1,430	–	19,807
Tax payables	–	17	17	–	709	726
Liabilities associated with assets held for sale	–	132	132	–	26	158

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

The category headed "not allocated to a measurement category" is used in particular for shares in equity-accounted investments, shares in non-consolidated affiliated companies as well as for lease receivables.

The carrying amount of lease receivables was €62.3 billion (previous year: €55.1 billion) and their fair value was €62.2 billion (previous year: €54.1 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, 2023	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	1,150	697	0	452
Financial services receivables	89	–	–	89
Other financial assets	3,007	–	2,161	846
Current assets				
Trade receivables	0	–	–	0
Financial services receivables	19	–	–	19
Other financial assets	1,927	–	1,599	328
Marketable securities and time deposits	26,450	26,367	83	–
Noncurrent liabilities				
Other financial liabilities	1,641	–	1,443	198
Current liabilities				
Other financial liabilities	1,294	–	1,255	39

€ million	Dec. 31, 2022	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	342	91	0	251
Financial services receivables	178	–	–	178
Other financial assets	4,735	–	2,571	2,165
Current assets				
Trade receivables	1	–	–	1
Financial services receivables	24	–	–	24
Other financial assets	2,845	–	2,283	562
Marketable securities and time deposits	24,560	24,487	73	–
Noncurrent liabilities				
Other financial liabilities	1,518	–	1,439	79
Current liabilities				
Other financial liabilities	1,004	–	982	23

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

€ million	Dec. 31, 2023	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	98,723	–	–	98,723
Trade receivables	21,849	–	21,849	–
Other financial assets	19,439	1,143	5,897	12,399
Tax receivables	8	–	8	–
Marketable securities and time deposits	322	13	309	–
Cash and cash equivalents	43,449	43,449	–	–
Assets held for sale	76	–	76	–
Fair value of financial assets measured at amortized cost	**183,867**	**44,605**	**28,139**	**111,122**
Fair value of financial liabilities measured at amortized cost				
Trade payables	30,901	–	30,901	–
Financial liabilities	226,146	49,058	175,706	1,382
Other financial liabilities	13,625	748	12,592	284
Tax payables	18	–	18	–
Liabilities associated with assets held for sale	15	–	15	–
Fair value of financial liabilities measured at amortized cost	**270,705**	**49,806**	**219,233**	**1,666**

€ million	Dec. 31, 2022[1]	Level 1[1]	Level 2[1]	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	92,366	–	–	92,366
Trade receivables	18,533	–	18,533	–
Other financial assets	16,564	605	5,379	10,580
Tax receivables	10	–	10	–
Marketable securities and time deposits	12,646	84	12,562	–
Cash and cash equivalents	29,172	29,172	–	–
Assets held for sale	570	557	13	–
Fair value of financial assets measured at amortized cost	**169,861**	**30,418**	**36,498**	**102,945**
Fair value of financial liabilities measured at amortized cost				
Trade payables	28,738	–	28,738	–
Financial liabilities	194,447	47,343	145,444	1,660
Other financial liabilities	19,874	592	18,840	442
Tax payables	17	–	17	–
Liabilities associated with assets held for sale	132	132	–	–
Fair value of financial liabilities measured at amortized cost	**243,208**	**48,067**	**193,039**	**2,102**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING BY LEVEL

€ million	Dec. 31, 2023	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	2,903	–	2,903	–
Current assets				
Other financial assets	1,509	–	1,509	–
Noncurrent liabilities				
Other financial liabilities	3,040	–	3,040	–
Current liabilities				
Other financial liabilities	1,372	–	1,372	–

€ million	Dec. 31, 2022	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	3,471	–	3,471	–
Current assets				
Other financial assets	1,270	–	1,270	–
Noncurrent liabilities				
Other financial liabilities	4,047	–	4,047	–
Current liabilities				
Other financial liabilities	1,430	–	1,430	–

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 swaps 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 and 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
Balance at Jan. 1, 2023	**3,181**	**102**
Foreign exchange differences	–29	2
Changes in consolidated Group	–6	–
Total comprehensive income	–748	141
recognized in profit loss	–752	141
recognized in other comprehensive income	4	–
Additions (purchases)	395	–
Sales and settlements	–775	37
Transfers into Level 1	–	–
Transfers into Level 2	–283	–45
Balance at Dec. 31, 2023	**1,734**	**237**
Total gains or losses recognized in profit or loss	**–752**	**–117**
Net other operating expense/income	–763	–129
of which attributable to assets/liabilities held at the reporting date	–773	–170
Financial result	11	12
of which attributable to assets/liabilities held at the reporting date	0	–12

€ million	Financial assets measured at fair value	Financial liabilities measured at fair value
Balance at Jan. 1, 2022	**2,119**	**303**
Foreign exchange differences	53	–6
Changes in consolidated Group	0	–
Total comprehensive income	2,027	–127
recognized in profit loss	1,999	–127
recognized in other comprehensive income	28	–
Additions (purchases)	167	–
Sales and settlements	–601	–46
Transfers into Level 1	0	–
Transfers into Level 2	–584	–22
Balance at Dec. 31, 2022	**3,181**	**102**
Total gains or losses recognized in profit or loss	**1,999**	**127**
Other operating result	1,962	127
of which attributable to assets/liabilities held at the reporting date[1]	1,651	24
Financial result	36	–
of which attributable to assets/liabilities held at the reporting date	12	–

1 Prior-year figures adjusted.

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 swaps 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.

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

If commodity prices for commodity swaps classified as Level 3 had been 10% higher (lower) as of December 31, 2023, earnings after tax would have been €217 million (previous year: €291 million) higher (lower). Beyond that, equity would not be materially 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 at December 31, 2023 had been 10% higher, earnings after tax would have been €2 million (previous year: €8 million) higher. If the assumed enterprise values as of December 31, 2023 had been 10% lower, earnings after tax would have been €2 million (previous year: €8 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, 2023, earnings after tax would have been €491 million (previous year: €470 million) higher. If the prices of the used cars covered by the residual value protection model had been 10% lower as of December 31, 2023, earnings after tax would have been €522 million (previous year: €504 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, 2023, earnings after tax would have been €1 million (previous year: €7 million) lower. If the risk-adjusted interest rates as of December 31, 2023 had been 100 basis points lower, earnings after tax would have been €3 million (previous year: €4 million) higher.

If the corresponding vehicle price used in the vehicle financing programs had been 10% higher as of December 31, 2023, earnings after tax would have been €10 million (previous year: €6 million) higher. If the corresponding vehicle prices used in the vehicle financing programs had been 10% lower as of December 31, 2023, earnings after tax would have been €10 million (previous year: €6 million) lower.

If the result of operations of equity investments measured at fair value had been 10% better as of December 31, 2023, equity would have been €11 million (previous year: €9 million) higher, and earnings after tax would have been €12 million (previous year: €5 million) higher. If the result of operations of equity investments measured at fair value had been 10% worse, equity would have been €11 million (previous year: €9 million) lower, and earnings after tax would have been €30 million (previous year: €5 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.

				AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		
€ 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	Financial instruments	Collateral received	Net amount at Dec. 31, 2023
Derivatives	7,974	-56	7,918	-4,245	–	3,673
Financial services receivables	161,453	-598	160,855	–	-68	160,787
Trade receivables	21,889	-39	21,850	–	–	21,850
Marketable securities and time deposits	26,772	–	26,772	–	–	26,772
Cash and cash equivalents	43,449	–	43,449	–	–	43,449
Other financial assets	21,970	-20	21,951	0	–	21,951

				AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		
€ million	Gross amounts of recognized financial assets[1]	Gross amounts of recognized financial liabilities set off in the balance sheet	Net amounts of financial assets presented in the balance sheet[1]	Financial instruments	Collateral received	Net amount at Dec. 31, 2022[1]
Derivatives	11,497	-36	11,461	-4,523	-37	6,901
Financial services receivables	149,090	-597	148,493	–	-81	148,412
Trade receivables	18,573	-39	18,534	0	–	18,534
Marketable securities and time deposits	37,206	–	37,206	–	–	37,206
Cash and cash equivalents	29,172	–	29,172	–	–	29,172
Other financial assets	17,998	-127	17,871	0	–	17,871

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

Other financial assets include receivables from tax allocations of €8 million (previous year: €10 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 Financial instruments	Collateral pledged	Net amount at Dec. 31, 2023
Derivatives	7,405	-76	7,329	-4,245	-24	3,059
Financial liabilities	232,798	–	232,798	–	-3,320	229,478
Trade payables	30,941	-39	30,901	0	–	30,901
Other financial liabilities	14,276	-598	13,679	–	–	13,679

€ million	Gross amounts of recognized financial liabilities[1]	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet[1]	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET Financial instruments	Collateral pledged	Net amount at Dec. 31, 2022[1]
Derivatives	8,009	-163	7,846	-4,523	–	3,323
Financial liabilities	205,185	–	205,185	–	-3,225	201,960
Trade payables	28,777	-39	28,738	0	–	28,738
Other financial liabilities	20,763	-597	20,166	–	–	20,166

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

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 €18 million (previous year: €17 million).

Asset-backed securities transactions

Asset-backed securities transactions with financial assets amounting to €34.3 billion (previous year: €28.0 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 €42.4 billion (previous year: €34.6 billion). Collateral of €66.9 billion (previous year: €53.1 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, 2023, the fair value of the assigned receivables still recognized in the balance sheet was €41.3 billion (previous year: €32.8 billion). The fair value of the related liabilities was €34.0 billion (previous year: €27.5 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	2023	2022[1]
Financial instruments at fair value through profit or loss	-1,323	3,024
Financial assets measured at amortized cost	6,891	5,771
Financial assets at fair value through other comprehensive income (debt instruments)	30	10
Financial liabilities measured at amortized cost	-9,186	-4,888
	-3,588	**3,917**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

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	2023	2022
Financial assets and liabilities measured at amortized cost		
Interest income	11,737	8,199
Interest expenses	9,442	4,705
Financial assets (debt instruments) measured at fair value through other comprehensive income		
Interest income	28	12
Interest expenses	3	0

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

€ million	2023	2022
Gains arising from the derecognition of financial assets measured at amortized cost	990	1,189
Losses arising from the derecognition of financial assets measured at amortized cost	-1,390	-1,006
	-400	**182**

In the fiscal year, €3 million (previous year: €2 million) was recognized as an expense and €30 million (previous year: €23 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 non-cash expenditures (mainly depreciation, amortization and impairment losses) and income. Other non-cash income and expense results mainly from measurement effects in connection with financial instruments and 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 changes in investments in securities and time deposits as well as loans.

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 €12,567 million (previous year: €8,504 million) and interest paid amounting to €7,011 million (previous year: €3,274 million). Cash flows from operating activities also include dividend payments (net of withholding tax) received from joint ventures and associates of €2,450 million (previous year: €2,781 million).

Dividends amounting to €10,897 million (previous year: €3,772 million) were paid to Volkswagen AG shareholders.

€ million	Dec. 31, 2023	Dec. 31, 2022
Cash and cash equivalents as reported in the balance sheet	43,449	29,172
Cash and cash equivalents held for sale	73	566
Cash and cash equivalents as reported in the cash flow statement	**43,522**	**29,738**

Time deposits with contractual maturities of more than three months are not classified as cash equivalents. 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, 2023	Cash-effective changes	NON - CASH CHANGES Foreign exchange differences	Changes in consolidated Group	Classified as held for sale	Other changes	Dec. 31, 2023
Bonds	93,119	5,158	-304	–	–	1,183	99,157
Other total third-party borrowings	105,808	22,812	-855	626	-112	-1,116	127,162
Finance lease liabilities[1]	6,385	-1,190	-61	1	0	1,359	6,494
Total third-party borrowings	**205,312**	**26,780**	**-1,220**	**626**	**-112**	**1,427**	**232,813**
Other financial assets and liabilities	-61	-36	-1	15	–	92	9
Financial assets and liabilities in financing activities	**205,250**	**26,744**	**-1,220**	**641**	**-112**	**1,519**	**232,822**

1 Other changes in lease liabilities largely contain non-cash additions of lease liabilities.

€ million	Jan. 1, 2022	Cash-effective changes	NON - CASH CHANGES Foreign exchange differences	Changes in consolidated Group	Classified as held for sale	Other changes	Dec. 31, 2022
Bonds	98,038	-1,762	-265	–	–	-2,892	93,119
Other total third-party borrowings	105,929	-4,210	174	842	-10	3,082	105,808
Finance lease liabilities[1]	6,245	-1,248	14	50	-2	1,325	6,385
Total third-party borrowings	**210,213**	**-7,220**	**-78**	**892**	**-11**	**1,516**	**205,312**
Other financial assets and liabilities	-21	-156	19	0	–	97	-61
Financial assets and liabilities in financing activities	**210,192**	**-7,376**	**-59**	**892**	**-11**	**1,613**	**205,250**

1 Other changes in lease liabilities largely contain non-cash 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. The MAN Energy Solutions, Porsche AG, Porsche Holding Salzburg and TRATON GROUP subgroups and the Financial Services Division are in part included in Group Treasury's operational risk management and control for risks relating to financial instruments and also 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 €1.3 billion (previous year: €1.1 billion). Collateral of €6 million (previous year adjusted: €34 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. Credit and default risk is 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 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 9.3% at the end of 2023 compared with 6.0% at the end of 2022. 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. This analysis excludes the items of Chinese companies in which Volkswagen holds an interest of 50% or less.

Credit and default risk exposures at the end of 2023 accounted for 18.1% for Germany, compared with 15.2% at the end of 2022, and for 17.5% for China as against 14.0% at the end of 2022. There were no other material 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 GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS MEASURED AT AMORTIZED COST

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2023	**137,947**	**12,423**	**2,063**	**20,746**	**368**	**173,548**
Foreign exchange differences	-2,068	-41	18	-170	2	-2,258
Changes in consolidated group	-354	–	–	184	–	-170
Changes	14,054	-613	-532	2,941	-19	15,831
Modifications	5	1	0	–	0	6
Transfers to						
Stage 1	3,512	-3,450	-62	–	–	0
Stage 2	-5,756	5,834	-78	–	–	0
Stage 3	-664	-314	978	–	–	0
Classified as held for sale	15	–	–	1	–	16
Carrying amount at Dec. 31, 2023	**146,691**	**13,839**	**2,388**	**23,703**	**351**	**186,972**

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, 2023	**904**	**740**	**1,134**	**519**	**26**	**3,323**
Foreign exchange differences	-15	-2	12	-1	2	-5
Changes in consolidated group	0	–	–	22	–	22
Newly extended/purchased financial assets (additions)	688	–	–	242	6	936
Other changes within a stage	-189	-174	153	8	11	-191
Transfers to						
Stage 1	34	-99	-19	–	–	-85
Stage 2	-118	336	-36	–	–	183
Stage 3	-225	-71	607	–	–	311
Financial instruments derecognized during the period (disposals)	-217	-117	-160	-159	-11	-664
Utilization	–	–	-315	-21	-12	-348
Changes to models or risk parameters	28	41	4	18	4	96
Classified as held for sale	–	–	–	0	–	0
Carrying amount at Dec. 31, 2023	**890**	**654**	**1,380**	**628**	**25**	**3,578**

CHANGES IN GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS MEASURED AT AMORTIZED COST[1]

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2022	**115,232**	**23,918**	**1,978**	**19,589**	**404**	**161,121**
Foreign exchange differences	454	268	49	38	3	811
Changes in consolidated group	203	4	15	206	–	428
Changes	24,875	–13,174	–634	916	–38	11,945
Modifications	2	0	0	0	–1	0
Transfers to						
Stage 1	3,163	–3,116	–47	–	–	0
Stage 2	–4,707	4,794	–87	–	–	0
Stage 3	–532	–264	796	–	–	0
Classified as held for sale	–742	–7	–6	–2	–	–757
Carrying amount at Dec. 31, 2022	**137,947**	**12,423**	**2,063**	**20,746**	**368**	**173,548**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

CHANGES IN LOSS ALLOWANCE FOR FINANCIAL ASSETS MEASURED AT AMORTIZED COST[1]

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	Total
Carrying amount at Jan. 1, 2022	**828**	**675**	**1,212**	**492**	**49**	**3,257**
Foreign exchange differences	10	17	35	8	2	71
Changes in consolidated group	10	–	–	–17	–	–7
Newly extended/purchased financial assets (additions)	557	–	–	225	10	793
Other changes within a stage	53	41	90	6	–27	162
Transfers to						
Stage 1	37	–109	–34	–	–	–106
Stage 2	–89	296	–51	–	–	156
Stage 3	–138	–53	458	–	–	267
Financial instruments derecognized during the period (disposals)	–232	–131	–205	–152	–5	–724
Utilization	–	–	–373	–47	–11	–431
Changes to models or risk parameters	23	11	8	4	9	54
Classified as held for sale	–156	–7	–5	0	–	–168
Carrying amount at Dec. 31, 2022	**904**	**740**	**1,134**	**519**	**26**	**3,323**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

CHANGES IN DEFAULT RISK POSITIONS OF FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2023	**9,960**	**3,529**	**318**	**222**	**14,029**
Foreign exchange differences	0	20	0	0	20
Changes in consolidated group	-178	–	–	–	-178
Changes	473	-928	-151	-130	-736
Modifications	–	–	–	–	–
Transfers to					
Stage 1	36	-36	0	–	0
Stage 2	-99	101	-1	–	0
Stage 3	-5	-3	8	–	–
Carrying amount at Dec. 31, 2023	**10,185**	**2,683**	**174**	**92**	**13,134**

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, 2023	**34**	**19**	**23**	**32**	**108**
Foreign exchange differences	0	0	0	0	0
Changes in consolidated group	0	–	–	–	0
Newly extended/purchased financial assets (additions)	10	–	–	0	10
Other changes within a stage	-4	-8	18	-21	-15
Transfers to					
Stage 1	1	-1	–	–	0
Stage 2	-1	1	–	–	0
Stage 3	-3	0	6	–	3
Financial instruments derecognized during the period (disposals)	-10	-1	0	-2	-14
Utilization	–	–	-3	–	-3
Changes to models or risk parameters	–	–	0	–	0
Carrying amount at Dec. 31, 2023	**27**	**10**	**44**	**10**	**90**

CHANGES IN DEFAULT RISK POSITIONS OF FINANCIAL GUARANTEES AND CREDIT COMMITMENTS

€ million	Stage 1	Stage 2	Stage 3	Stage 4	Total
Carrying amount at Jan. 1, 2022	**12,032**	**3,858**	**312**	**228**	**16,430**
Foreign exchange differences	-54	-54	0	1	-107
Changes in consolidated group	-108	–	–	–	-108
Changes	-1,862	-314	-3	-7	-2,186
Modifications	–	–	–	–	–
Transfers to					
Stage 1	92	-92	0	–	0
Stage 2	-136	137	-1	–	0
Stage 3	-5	-6	10	–	–
Carrying amount at Dec. 31, 2022	**9,960**	**3,529**	**318**	**222**	**14,029**

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, 2022	**43**	**20**	**20**	**7**	**90**
Foreign exchange differences	1	0	0	0	1
Changes in consolidated group	0	–	–	–	0
Newly extended/purchased financial assets (additions)	14	–	–	0	14
Other changes within a stage	2	0	0	26	28
Transfers to					
Stage 1	0	–2	0	–	–1
Stage 2	–1	1	–	–	1
Stage 3	0	0	3	–	3
Financial instruments derecognized during the period (disposals)	–24	–2	–1	0	–27
Utilization	–	–	0	0	0
Changes to models or risk parameters	–1	0	0	–	–1
Carrying amount at Dec. 31, 2022	**34**	**19**	**23**	**32**	**108**

CHANGES IN GROSS CARRYING AMOUNTS OF LEASE RECEIVABLES AND CONTRACT ASSETS

	SIMPLIFIED APPROACH	
€ million	2023	2022
Carrying amount at Jan. 1	**57,015**	**55,515**
Foreign exchange differences	374	–889
Changes in consolidated group	–232	294
Changes	6,869	2,240
Modifications	8	3
Classified as held for sale	–	–149
Carrying amount at Dec. 31	**64,035**	**57,015**

CHANGES IN LOSS ALLOWANCE FOR LEASE RECEIVABLES AND CONTRACT ASSETS

	SIMPLIFIED APPROACH	
€ million	2023	2022
Carrying amount at Jan. 1	**1,713**	**1,297**
Foreign exchange differences	17	–4
Changes in consolidated group	–162	5
Newly extended/purchased financial assets (additions)	510	611
Other changes	–224	307
Financial instruments derecognized during the period (disposals)	–400	–297
Utilization	–82	–71
Changes to models or risk parameters	–32	14
Classified as held for sale	–	–149
Carrying amount at Dec. 31	**1,341**	**1,713**

CHANGES IN GROSS CARRYING AMOUNTS OF ASSETS MEASURED AT FAIR VALUE

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	No loss allowance	Total
Carrying amount at Jan. 1, 2023	**1,470**	**2,768**	**–**	**–**	**–**	**28,456**	**32,694**
Foreign exchange differences	-15	–	–	–	–	-43	-57
Changes in consolidated group	–	–	–	–	–	–	–
Changes	1,230	-971	–	–	-56	-193	10
Modifications	–	–	–	–	–	7	7
Transfers to							
Stage 1	–	–	–	–	–	–	–
Stage 2	–	–	–	–	–	–	–
Stage 3	–	–	–	–	–	–	–
Carrying amount at Dec. 31, 2023	**2,685**	**1,797**	**–**	**–**	**-56**	**28,228**	**32,654**

CHANGES IN GROSS CARRYING AMOUNTS OF ASSETS MEASURED AT FAIR VALUE

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4	No loss allowance	Total
Carrying amount at Jan. 1, 2022	**2,795**	**1,931**	**–**	**–**	**–**	**23,668**	**28,394**
Foreign exchange differences	18	–	–	–	–	73	91
Changes in consolidated group	–	–	–	–	–	0	0
Changes	-438	-68	–	–	–	4,715	4,209
Modifications	–	–	–	–	–	–	–
Transfers to							
Stage 1	–	–	–	–	–	–	–
Stage 2	-905	905	–	–	–	–	–
Stage 3	–	–	–	–	–	–	–
Carrying amount at Dec. 31, 2022	**1,470**	**2,768**	**–**	**–**	**–**	**28,456**	**32,694**

The loss allowance on assets measured at fair value in Stage 1 rose by €6 million (previous year: €0 million) in fiscal year 2023 and those in Stage 2 declined by €2 million (previous year: increase of €1 million), resulting in a closing balance of €12 million (previous year: €8 million). Of this amount, €10 million is attributable to Stage 1 (previous year: €4 million) and €3 million to Stage 2 (previous year €4 million).

The amount contractually outstanding for financial assets that have been derecognized in the current fiscal year and are still subject to enforcement proceedings is €270 million (previous year: €304 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 the result of changes in 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 amount to €315 million (previous year: €548 million). In the reporting period, contract modifications resulted in net income/net expenses of €– 1 million (previous year: €– 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: €324 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, 2023	Dec. 31, 2022[1]
Financial assets measured at fair value	4,413	4,230
Financial assets measured at amortized cost	183,392	170,220
Financial guarantees and credit commitments	13,044	13,921
Not allocated to a measurement category	62,346	55,090
Total	**263,196**	**243,460**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

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 as well as 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, 2023

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	143,891	9,504	–	83,823	28
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	5,485	6,132	–	2,610	54
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	2,388	1,304	214
Total	**149,376**	**15,637**	**2,388**	**87,737**	**295**

GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS BY RATING CATEGORY AS OF DECEMBER 31, 2022[1]

€ million	Stage 1	Stage 2	Stage 3	Simplified approach	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	137,035	10,549	–	74,500	103
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	2,382	4,642	–	2,150	44
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	2,063	1,112	221
Total	**139,417**	**15,191**	**2,063**	**77,762**	**368**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

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, 2023

€ million	Stage 1	Stage 2	Stage 3	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	10,040	2,579	–	14
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	145	104	–	3
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	174	75
Total	**10,185**	**2,683**	**174**	**92**

DEFAULT RISK FOR FINANCIAL GUARANTEES AND CREDIT COMMITMENTS AS OF DECEMBER 31, 2022

€ million	Stage 1	Stage 2	Stage 3	Stage 4
Credit risk rating grade 1 (receivables with no credit risk – standard loans)	9,850	2,856	–	87
Credit risk rating grade 2 (receivables with credit risk – intensified loan management)	110	673	–	9
Credit risk rating grade 3 (cancelled receivables – non-performing loans)	–	–	318	126
Total	**9,960**	**3,529**	**318**	**222**

Collateral that was accepted for financial assets in the current fiscal year was recognized in the balance sheet in the amount of €303 million (previous year: €205 million). This mainly relates to vehicles.

3. Liquidity risk

The solvency and liquidity of the Volkswagen Group are secured by rolling liquidity planning, a liquidity reserve, 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 €31.3 billion as of December 31, 2023 (previous year: €27.3 billion), of which €0.4 billion (previous year: €1.0 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 liquidity risk in Argentina rose considerably as a result of the progressive depreciation of the Argentinian peso, especially in December 2023. It cannot be ruled out that the currency will depreciate further in fiscal year 2024.

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

MATURITY ANALYSIS OF UNDISCOUNTED CASH FLOWS FROM FINANCIAL INSTRUMENTS

	REMAINING CONTRACTUAL MATURITIES				REMAINING CONTRACTUAL MATURITIES			
€ million	up to one year	within one to five years	more than five years	2023	up to one year[1]	within one to five years	more than five years	2022[1]
Financial liabilities	116,805	111,952	23,572	252,328	86,834	108,078	24,942	219,854
Trade payables	30,890	11	1	30,901	28,721	16	0	28,738
Other financial liabilities	11,374	2,135	107	13,616	17,532	2,479	125	20,136
Derivatives	81,487	88,276	10,295	180,058	79,591	87,649	10,916	178,155
Liabilities associated with assets held for sale	18	0	–	19	114	25	–	139
	240,575	**202,373**	**33,974**	**476,922**	**212,792**	**198,247**	**35,983**	**447,023**

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the “Effects of new and amended IFRSs” section).

The cash outflows on other financial liabilities include outflows on liabilities for tax allocations amounting to €18 million (previous year: €17 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 a 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 a 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 obligations from loan commitments and irrevocable credit commitments are presented in the section entitled “Other financial obligations”, classified by contractual maturities.

As of December 31, 2023, the maximum potential liability under financial guarantees amounted to €910 million (previous year: €1,185 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; exceptions include, among others, the MAN Energy Solutions, Porsche AG, Porsche Holding Salzburg and TRATON GROUP subgroups and the Financial Services Division, as well as some regions such as South America and China.

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 opposite changes in value are recognized 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, 2023	Dec. 31, 2022
Hedging interest rate risk		
Other financial result	–10	15
Other operating result	–48	–18
Hedging currency risk		
Other financial result	–	–
Other operating result	–45	–13
Combined interest rate and currency risk hedging		
Other financial result	–	–
Other operating result	0	0

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	2023	2022
Hedging interest rate risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	–278	287
Recognized in profit or loss	–4	–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	4	–8
Hedging currency risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	467	–187
Recognized in profit or loss	2	–2
Reclassification from the cash flow hedge reserve to profit or loss or inventories		
Due to early discontinuation of the hedging relationships	–91	–130
Due to realization of the hedged item	362	1,472
Combined interest rate and currency risk hedging		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	72	20
Recognized in profit or loss	–	1
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	–57	–40
Hedging commodities price risk		
Gains or losses from changes in fair value of hedging instruments within hedge accounting		
Recognized in equity	5	–
Recognized in profit or loss	–	–
Reclassification from the cash flow hedge reserve to profit or loss or inventories		
Due to early discontinuation of the hedging relationships	–	–
Due to realization of the hedged item	1	–

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 60 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 VaR covers a period of four years. 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 2023

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	52,663	366	1,773	–1,693
Hedging currency risk				
Currency forwards, currency options, cross-currency swaps	6,749	67	64	–31
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	773	9	67	–55

DISCLOSURES ON HEDGING TRANSACTIONS IN FAIR VALUE HEDGES IN 2022

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	58,170	868	2,596	–2,305
Hedging currency risk				
Currency forwards, currency options, cross-currency swaps	4,384	87	26	40
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	140	0	–	0

In addition, hedges are used to hedge against risks 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 in cash flow hedges:

DISCLOSURES ON HEDGING TRANSACTIONS IN CASH FLOW HEDGES IN 2023

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	17,331	165	62	27
Hedging currency risk				
Currency forwards and cross-currency swaps	113,139	3,534	2,273	2,340
Currency options	14,231	208	152	31
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	1,273	49	15	26
Hedging commodities price risk				
Commodity forwards/swaps	431	15	6	9

DISCLOSURES ON HEDGING TRANSACTIONS IN CASH FLOW HEDGES IN 2022

€ million	Notional amount	Other assets	Other liabilities	Fair value changes to determine hedge ineffectiveness
Hedging interest rate risk				
Interest rate swaps	15,371	509	30	419
Hedging currency risk				
Currency forwards and cross-currency swaps	119,499	3,087	2,540	2,204
Currency options	27,342	166	268	–77
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	1,437	23	17	1
Hedging commodities price risk				
Commodity forwards/swaps	–	–	–	–

The fair value change used to determine ineffectiveness corresponds to the fair value change 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 2023

€ 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	18,196	293	225	–
Other financial assets	–	–	–	–
Financial liabilities	37,503	–1,527	1,065	–
Hedging currency risk				
Financial services receivables	–	–	–	–
Other financial assets	1,169	2	2	–
Financial liabilities	856	–5	2	–
Combined interest rate and currency risk hedging				
Financial services receivables	–	–	–	–
Other financial assets	36	0	0	–
Financial liabilities	976	116	77	–

DISCLOSURES ON HEDGED ITEMS IN FAIR VALUE HEDGES IN 2022

€ 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	14,764	–156	–156	–
Other financial assets	–	–	–	–
Financial liabilities	34,622	–2,890	–3,061	–
Hedging currency risk				
Financial services receivables	–	–	–	–
Other financial assets	795	–5	–1	–
Financial liabilities	1,132	–7	–23	–
Combined interest rate and currency risk hedging				
Financial services receivables	–	–	–	–
Other financial assets	–	–	–	–
Financial liabilities	181	39	39	–

DISCLOSURES ON HEDGED ITEMS IN CASH FLOW HEDGES IN 2023

€ million	Changes in fair value to determine hedge ineffectiveness	RESERVE FOR Active cash flow hedges	RESERVE FOR Discontinued cash flow hedges
Hedging interest rate risk			
Designated components	25	30	1
Non-designated components	–	–	–
Deferred taxes	–	1	0
Total hedging interest rate risk	25	31	1
Hedging currency risk			
Designated components	2,338	2,320	26
Non-designated components	–	-1,137	-24
Deferred taxes	–	-324	-1
Total hedging currency risk	2,338	859	2
Combined interest rate and currency risk hedging			
Designated components	26	-7	–
Non-designated components	–	–	–
Deferred taxes	–	2	–
Total hedging combined interest rate and currency risk	26	-5	–
Hedging commodity price risk			
Designated components	10	9	–
Non-designated components	–	–	–
Deferred taxes	–	-3	–
Total hedging commodity price risk	10	6	–

DISCLOSURES ON HEDGED ITEMS IN CASH FLOW HEDGES IN 2022

€ million	Changes in fair value to determine hedge ineffectiveness	RESERVE FOR Active cash flow hedges	RESERVE FOR Discontinued cash flow hedges
Hedging interest rate risk			
Designated components	424	420	0
Non-designated components	–	–	–
Deferred taxes	–	-114	0
Total hedging interest rate risk	424	306	0
Hedging currency risk			
Designated components	2,130	1,998	-8
Non-designated components	–	-1,800	-11
Deferred taxes	–	-61	6
Total hedging currency risk	2,130	137	-13
Combined interest rate and currency risk hedging			
Designated components	1	-29	–
Non-designated components	–	–	–
Deferred taxes	–	9	–
Total hedging combined interest rate and currency risk	1	-20	–
Hedging commodity price risk			
Designated components	–	–	–
Non-designated components	–	–	–
Deferred taxes	–	–	–
Total hedging commodity price risk	–	–	–

Changes in the reserve

When accounting for cash flow hedges, the designated effective portions of a hedge are recognized in OCI I directly in equity. All changes beyond this in the fair value of the designated component are recognized as ineffectiveness in 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, 2023	**307**	**1,397**	**-20**	**–**	**1,684**
Gains or losses from effective hedging relationships	-278	733	72	5	533
Reclassifications due to changes in whether the hedged item is expected to occur	–	-137	–	–	-137
Reclassifications due to realization of the hedged item	4	-325	-57	1	-377
Balance at Dec. 31, 2023	**33**	**1,669**	**-5**	**6**	**1,703**

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, 2022	**28**	**-665**	**-1**	**–**	**-637**
Gains or losses from effective hedging relationships	287	1,244	20	–	1,551
Reclassifications due to changes in whether the hedged item is expected to occur	–	-133	–	–	-133
Reclassifications due to realization of the hedged item	-8	952	-40	–	904
Balance at Dec. 31, 2022	**307**	**1,397**	**-20**	**–**	**1,684**

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 respectively 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

	CURRENCY RISK	
€ million	2023	2022
Balance at Jan. 1	**–87**	**–80**
Gains and losses from non-designated time value of options		
Hedged item is recognized at a point in time	17	82
Reclassifications due to changes in whether the hedged item is expected to occur		
Hedged item is recognized at a point in time	1	1
Reclassification due to realization of the hedged item		
Hedged item is recognized at a point in time	46	–91
Balance at Dec. 31	**–22**	**–87**

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

	CURRENCY RISK	
€ million	2023	2022
Balance at Jan. 1	**–1,187**	**–287**
Gains and losses from non-designated forward elements and CCBS		
Hedged item is recognized at a point in time	–283	–1,514
Reclassification due to changes in whether the hedged item is expected to occur		
Hedged item is recognized at a point in time	44	2
Reclassifications due to realization of the hedged item		
Hedged item is recognized at a point in time	641	611
Balance at Dec. 31	**–785**	**–1,187**

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 2023 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, 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, 2023:

	DEC. 31, 2023		DEC. 31, 2022	
€ million	+10%	-10%	+10%	-10%
Exchange rate				
EUR / USD				
Hedging reserve	408	-393	497	-534
Earnings after tax	-978	978	-731	717
EUR / GBP				
Hedging reserve	1,176	-1,182	1,309	-1,317
Earnings after tax	-93	87	-120	121
EUR / CNY				
Hedging reserve	754	-644	1,299	-1,310
Earnings after tax	-542	542	-342	342
EUR / CHF				
Hedging reserve	883	-909	796	-823
Earnings after tax	10	-10	-1	1
EUR / SEK				
Hedging reserve	191	-190	171	-169
Earnings after tax	-234	234	-67	67
EUR / BRL				
Hedging reserve	54	-54	41	-41
Earnings after tax	-219	219	-66	66
EUR / CAD				
Hedging reserve	205	-205	280	-279
Earnings after tax	-26	26	-20	20
EUR / JPY				
Hedging reserve	190	-188	160	-157
Earnings after tax	-33	33	-36	36
EUR / PLN				
Hedging reserve	187	-187	-72	72
Earnings after tax	-26	26	-37	37
EUR / AUD				
Hedging reserve	169	-169	262	-262
Earnings after tax	-44	44	-31	31
EUR / KRW				
Hedging reserve	184	-179	133	-133
Earnings after tax	-27	27	-46	45
EUR / TWD				
Hedging reserve	155	-155	183	-183
Earnings after tax	-19	19	-10	10
EUR / MXN				
Hedging reserve	122	-122	73	-73
Earnings after tax	-10	10	2	-4
EUR / INR				
Hedging reserve	-96	96	-65	65
Earnings after tax	-7	7	-13	13
CAD / USD				
Hedging reserve	-91	91	-60	60
Earnings after tax	-11	11	-8	7

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 used to hedge against this risk, partially as fair value or cash flow hedge, 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 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, 2023, equity would have been €21 million (previous year: €20 million) lower. If market interest rates had been 100 bps lower as of December 31, 2023, equity would have been €22 million (previous year: €22 million) higher.

If market interest rates had been 100 bps higher as of December 31, 2023, earnings after tax would have been €362 million (previous year: €143 million) lower. If market interest rates had been 100 bps lower as of December 31, 2023, earnings after tax would have been €382 million (previous year: €149 million) higher.

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, CO_2 certificates and rubber.

Commodity price risk is limited by entering into forward transactions and swaps.

However, not all commodities are suitable for these types of hedges, e.g. because of low market liquidity or a lack of correlation between hedged item and hedging instrument. 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 what effect changes in the commodity price risk variable would have on earnings after tax and on equity.

If the commodity prices of the hedged nonferrous metals, coal and rubber had been 10% higher (lower) as of December 31, 2023, earnings after tax would have been €648 million (previous year: €954 million) higher (lower).

If commodity prices in hedging transactions to which hedge accounting is applied had been 10% higher (lower) as of December 31, 2023, equity would have been €27 million higher (lower). As of the end of 2022, there were no hedging relationships that qualified for hedge accounting.

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, hedgings are executed 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, 2023, earnings after tax would have been €290 million (previous year: €107 million) higher and equity would have been €4 million (previous year: €4 million) higher. If share prices had been 10% lower as of December 31, 2023, earnings after tax would have been €270 million (previous year: €65 million) lower and equity would have been €4 million (previous year: €4 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 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, 2023, the value at risk was €976 million (previous year: €792 million) for interest rate risk and €133 million (previous year: €76 million) for foreign currency risk.

The entire value at risk for interest rate and foreign currency risk at the Volkswagen Financial Services subgroup was €893 million (previous year: €720 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 a test for ineffectivities 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.

Notional amount of derivatives

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 IN 2023

	REMAINING TERM			TOTAL NOTIONAL AMOUNT
€ million	up to one year	within one to five years	more than five years	Dec. 31, 2023
Notional amount of hedging instruments within hedge accounting				
Hedging interest rate risk				
Interest rate swap	14,174	50,233	5,587	69,993
Hedging currency risk				
Currency forwards/Cross-currency swaps				
Currency forwards/Cross-currency swaps in CNY	5,708	10,032	62	15,802
Currency forwards/Cross-currency swaps in GBP	12,743	7,067	–	19,810
Currency forwards/Cross-currency swaps in USD	12,383	21,008	1,000	34,391
Currency forwards/Cross-currency swaps in CHF	2,790	8,726	60	11,576
Currency forwards/Cross-currency swaps in other currencies	19,346	18,877	86	38,309
Currency options				
Currency options in USD	1,264	1,174	–	2,437
Currency options in CNY	4,733	1,906	–	6,639
Currency options in CHF	1,274	2,462	–	3,736
Currency options in other currencies	583	836	–	1,419
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	1,174	872	–	2,046
Hedging commodity price risk				
Commodity forwards/swaps aluminium	146	87	–	234
Commodity forwards/swaps copper	43	102	–	145
Commodity forwards/swaps other	44	8	–	52
Notional amount of other derivatives				
Hedging interest rate risk				
Interest rate swap	21,553	37,648	17,178	76,379
Hedging currency risk				
Currency forwards/Cross-currency swaps				
Currency forwards/Cross-currency swaps in USD	10,370	8,605	218	19,193
Currency forwards/Cross-currency swaps in other currencies	16,184	3,095	0	19,279
Currency options				
Currency options in CNY	5,529	–	–	5,529
Currency options in other currencies	4,087	511	–	4,598
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	2,298	12,293	3,406	17,997
Hedging commodity price risk				
Commodity forwards/swaps aluminium	1,263	2,535	–	3,798
Commodity forwards/swaps copper	489	1,257	–	1,746
Commodity forwards/swaps nickel	1,021	2,564	218	3,803
Commodity forwards/swaps other	522	126	–	648

NOTIONAL AMOUNT OF DERIVATIVES IN 2022

€ million	REMAINING TERM up to one year	within one to five years	more than five years	TOTAL NOTIONAL AMOUNT Dec. 31, 2022
Notional amount of hedging instruments within hedge accounting				
Hedging interest rate risk				
Interest rate swap	13,674	52,876	6,991	73,541
Hedging currency risk				
Currency forwards/Cross-currency swaps				
Currency forwards/Cross-currency swaps in CNY	7,654	12,682	120	20,456
Currency forwards/Cross-currency swaps in GBP	12,106	9,679	–	21,785
Currency forwards/Cross-currency swaps in USD	12,210	22,833	2,314	37,357
Currency forwards/Cross-currency swaps in other currencies	18,904	25,381	–	44,284
Currency options				
Currency options in USD	3,484	2,772	–	6,256
Currency options in CNY	7,005	8,689	–	15,694
Currency options in other currencies	1,736	3,656	–	5,392
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	773	804	–	1,577
Notional amount of other derivatives				
Hedging interest rate risk				
Interest rate swap	17,835	36,775	16,380	70,991
Hedging currency risk				
Currency forwards/Cross-currency swaps				
Currency forwards/Cross-currency swaps in USD	9,060	7,431	165	16,656
Currency forwards/Cross-currency swaps in other currencies	16,430	2,511	0	18,941
Currency options				
Currency options in USD	3,549	644	–	4,193
Currency options in other currencies	280	212	–	492
Combined interest rate and currency risk hedging				
Cross-currency interest rate swaps	5,231	8,717	3,945	17,892
Hedging commodity price risk				
Commodity forwards/swaps aluminium	979	2,390	–	3,369
Commodity forwards/swaps copper	416	651	–	1,067
Commodity forwards/swaps nickel	840	2,048	165	3,052
Commodity forwards/swaps other	380	153	–	533

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 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 €19.9 billion (previous year: €17.9 billion). The notional volume with a remaining maturity of more than one year was €4.2 billion (previous year: €4.2 billion) and relates primarily to options in connection with the acquisition of Europcar.

Also in connection with fund investments, the Group held credit default swaps with a notional amount of €32.2 billion (previous year: €17.5 billion).

Existing cash flow hedges in the notional amount of €5.2 billion (previous year: €2.0 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 2.93% 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 1.16; EUR/GBP at 0.88; EUR/CNY at 7.39.

The average hedging prices used in commodity price hedging were USD 2,332.15/tonne for aluminum and USD 8,359.11/tonne for copper.

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	AUD	CAD	CHF	CNY	CZK	GBP	JPY	SEK	USD
Interest rate for six months	3.6832	4.3613	4.9060	1.5800	2.3769	6.1629	5.1350	0.0176	4.1596	5.1613
Interest rate for one year	3.2078	4.2061	4.5750	1.3900	2.3105	6.3621	4.7450	0.0713	3.7939	4.7871
Interest rate for five years	2.1805	3.9280	3.1720	1.0675	2.5700	3.5350	3.3822	0.4500	2.3870	3.5555
Interest rate for ten years	2.2735	4.1830	3.1250	1.1700	2.7700	3.4950	3.3000	0.8438	2.3530	3.4831

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.

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 9.0% 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 18.0% is anchored in the company's strategy. 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 12.3% in the reporting period, which is above the minimum rate of return on invested capital of 9.0%. Given the current cost of capital of 8.5%, this results in a positive value contribution of €4,727 million.

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	2023	2022[3]
Automotive Division[1]		
Operating result after tax	15,218	14,080
Invested capital (average)	123,887	117,402
Return on investment (ROI) in %	**12.3**	**12.0**
Cost of capital in %	8.5	8.3
Opportunity cost of invested capital	10,491	9,701
Value contribution[2]	**4,727**	**4,379**
Financial Services Division		
Earnings before tax	3,775	5,595
Average equity	42,991	39,773
Return on equity before tax in %	**8.8**	**14.1**
Equity ratio in %	**14.8**	**16.1**

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 the consulting firm Stern Value Management.
3 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

38. Contingent liabilities

€ million	Dec. 31, 2023	Dec. 31, 2022
Liabilities under guarantees	548	521
Liabilities under warranty contracts	65	73
Assets pledged as security for third-party liabilities	8	11
Other contingent liabilities	9,771	10,000
	10,392	**10,604**

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 €4.0 billion (previous year: €4.2 billion), of which €3.8 billion (previous year: €3.6 billion) was attributable to investor lawsuits in Germany. 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 €0.6 billion for potential liabilities resulting from the risk of tax proceedings instituted by the Brazilian tax authorities against Volkswagen Truck & Bus (formerly: MAN Latin America).

Since 2016, the U.S. National Highway Traffic Safety Administration (NHTSA) has announced further extensions of the recalls of various models from a variety of 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 ongoing.

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 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 *Kraftfahrt-Bundesamt* (KBA – German 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.

A comparable challenge results from the tension between divergent national and international statutory or regulatory requirements regarding obligations to transfer information or documents, on the one hand, and privacy mandates under national and international data protection law on the other. Volkswagen is advised by outside law firms on these issues so as to preclude compliance violations as far as possible despite the sometimes unclear state of the law.

Litigation may furthermore result from demands for more extensive climate protection measures or from allegedly incomplete disclosures regarding the impact of climate change. The response of the Volkswagen Group to this risk includes, among other things, certification of its self-imposed decarbonization targets through independent and internationally respected organizations and systematic alignment of its non-financial reporting with the requirements of the law and the capital markets.

Risks may also result from actions for infringement of intellectual property, including infringement of patents, brands, or other third-party rights, particularly in Germany, before the Unified Patent Court and in the United States. If Volkswagen is alleged or determined to have violated third-party intellectual property rights, it may for instance 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.

Unless otherwise explicitly stated, the amounts disclosed for the litigation being reported on refer only to the respective principal claim. Ancillary claims, such as for interest and litigation expense, are generally not considered.

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 type EA 189 diesel engines and that this engine type had been installed in roughly eleven million vehicles worldwide. 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. This software function was developed and implemented from 2006 on without knowledge at the level of the Board of Management. Members of the Board of Management did not learn of the development and implementation of this software function until the summer of 2015.

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 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 (CARB), 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 and AUDI AG has development responsibility for the six- and eight-cylinder 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.

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 KBA determined that implementation of the technical measures would not result in any adverse changes in fuel consumption, CO_2 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 continues to anticipate 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 updates in the vehicles of a large number of affected customers. KBA approval is still expected for the small number of software updates that are still pending.

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 January 2021, the criminal proceedings regarding alleged market manipulation relating to capital market disclosure obligations in connection with the diesel issue were terminated by the Braunschweig Regional Court provisionally as regards the former Chair of the Board of Management and definitively as regards the corresponding regulatory offense proceeding against Volkswagen AG. Pursuant to a motion filed by the Braunschweig Office of the Public Prosecutor, the Braunschweig Regional Court reopened the proceedings against the former Chair of the Board of Management in December 2023. This case will now move forward; the Braunschweig Regional Court has as yet set no date for commencement of the trial.

In September 2020, the Braunschweig Regional Court allowed the indictment of the same former Chair of the Board of Management of Volkswagen AG to proceed on charges that include fraud in connection with the diesel issue involving type EA 189 engines. The proceedings against this former Chair of the Board of Management of Volkswagen AG have since been severed from the other cases. The trial of the other defendants began in September 2021.

The Braunschweig Office of the Public Prosecutor conducted investigations on suspicion of fraud in connection with type EA 288 engines. The proceedings against the accused employees and against Volkswagen AG were terminated in late 2022 and early 2023, definitively against payment of a sum set by the court in the case of three of the accused persons and provisionally as regards four others.

In June 2020, the Munich II Regional Court accepted the substantially unchanged indictment of the Munich II Office of the Public Prosecutor, which also named a former Chair 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 and 4.2 l TDI engines. The trial before the Munich II Regional Court concluded in June 2023; the former Chair of the Board of Management of AUDI AG and the other two defendants were sentenced to prison terms, the enforcement of which was in each case suspended subject to probation. The conditions of probation include the payment of sums set by the court. The judgment is not yet final. All three defendants have filed appeals on issues of law. The Office of the Public Prosecutor has likewise appealed the judgment against one of the defendants. In April 2023, the Munich II Regional Court had previously terminated the proceedings against an additional former defendant against payment of a sum set by the court.

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. The Munich II Regional Court has not yet decided whether to accept the indictment.

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.

In judgments rendered in July and November 2022, the European Court of Justice (ECJ) ruled that a so-called thermal window (i.e. a temperature-dependent exhaust gas recirculation) in the range of 15°C and 33°C outside temperature represents a defeat device. In this context, the ECJ developed a new, unwritten criterion according to which a thermal window, even if it serves to prevent sudden and extraordinary damage, is impermissible if it is active "for most of the year under real driving conditions prevalent in the territory of the European Union." The KBA commenced formal administrative proceedings relating to certain first and second generation type EA 896 engines that were installed in certain older vehicle models as well as to individual vehicle models with type EA 189 engines. In July and October 2023, the KBA issued two administrative rulings against AUDI AG in which it ruled that the originally incorporated thermal window version failed to meet the ECJ's new vehicle engineering criterion in some of the affected vehicles. AUDI AG has appealed the rulings, and they are therefore not final. The KBA issued corresponding administrative rulings against Porsche AG in December 2023 and against Volkswagen AG in January 2024. Porsche AG and Volkswagen AG have appealed the rulings. The Volkswagen Group had previously already begun rolling out software updates that modify the thermal window in accordance with the ECJ's new vehicle engineering criterion and will continue to do so.

In a trial level decision rendered in late February 2023, the Schleswig Administrative Court upheld a lawsuit brought by *Deutsche Umwelthilfe* (DUH – Environmental Action Germany) against the KBA and invalidated the notice of approval for a software update for certain older Golf Plus model vehicles to the extent this notice classified the thermal window feature, the altitude correction feature, and the taxi switch feature as permissible deactivation devices (defeat devices). Altitude correction refers to altitude-dependent exhaust gas recirculation. The taxi switch modifies exhaust gas recirculation when a vehicle with a running engine stands motionless for a certain period of time. Volkswagen AG is involved in the litigation as an interested party summoned. In late April 2023, Volkswagen AG and the KBA filed appeals against the judgment of the Schleswig Administrative Court. This decision is thus not legally final. DUH has filed two additional lawsuits with the Schleswig Administrative Court. The first action contests the notices of approval for further Audi and Porsche brand vehicles equipped with type EA 189 engines as well as with selected V-TDI engines; the second action is directed against all Group diesel vehicles with the Euro-5 and Euro-6b/c exhaust emission standard. In the first action, the Schleswig Administrative Court issued a judgment in January 2024 that extended its initial February 2023 decision to additional vehicles with type EA 189 engines and invalidated the KBA's notices of approval for these vehicles. The court granted both leave to appeal (on points of fact and law) and to leap-frog appeal (on points of law). This decision is thus not legally final.

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 %.

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 were pending in the reporting year against Volkswagen AG and other Volkswagen Group companies in a number of countries including Belgium, Brazil, England and Wales, France, Germany, Italy, the Netherlands, Portugal, and South Africa. These actions asserted alleged rights to damages and other relief. The pending actions included in particular the following:

Pending in Belgium is a class action filed by the Belgian consumer organization *Test Aankoop VZW* seeking repayment of the purchase price or damages in the alternative; an opt-out mechanism has been held to apply to this action. 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. In July 2023, a trial level judgment was rendered in this class action by which Volkswagen AG was ordered to pay 5% of the purchase price, or 5% of the difference between the purchase price and the resale price, if a consumer had purchased a vehicle with a type EA 189 engine between September 1, 2014 and September 22, 2015, had not installed the software update, and was able to produce the relevant evidentiary documentation. The judgment is not yet final.

In Brazil, two consumer protection class actions are pending. In the first class action, which pertains to some 17 thousand Amarok vehicles, the Superior Court of Justice in August 2022 rejected in part the appeal filed by Volkswagen do Brasil against the May 2019 judgment at the first appeals level that had initially reduced the damage liability of Volkswagen do Brasil considerably to around BRL 172 million. Following Volkswagen do Brasil's appeal, the Superior Court of Justice vacated its own prior decision in its entirety. The case was remanded to the lower appellate court for rehearing of certain issues. Volkswagen do Brasil is permitted to introduce new evidence. The judgment is enforceable, but remains non-final. In the second class action, which pertains to roughly 67 thousand later generation Amarok vehicles, the appeal filed by the plaintiff against the October 2021 trial court judgment dismissing its complaint was rejected by the appellate court in June 2023. The plaintiff has appealed this decision to the Superior Court of Justice.

financialright GmbH originally filed consolidated actions before various German courts asserting roughly 45 thousand claims assigned to it by customers in Germany, Slovenia, and Switzerland against Volkswagen Group companies; the *Bundesgerichtshof* (BGH – Federal Court of Justice) has since affirmed the permissibility of *financialright GmbH's* business model. Following the withdrawal of numerous motions for relief, approximately 9 thousand claims are currently still pending. Provisions were recognized to account for the possibility that objectively valuable claims may again be raised in or out of court.

Actions were filed in late 2021 in courts in England and Wales against Volkswagen AG, Volkswagen Financial Services (UK) Limited, and other Volkswagen Group companies in connection with certain diesel vehicles leased or sold in England, Wales, and Northern Ireland since 2009 and various other diesel engine types. These actions are in a very early procedural stage. No Group company has as yet been formally served with a complete statement of the grounds of the complaint, and a number of the plaintiffs' claims have yet to be specified in detail.

In France, a class action is pending that was filed by the French consumer organization *Confédération de la Consommation, du Logement et du Cadre de Vie* (CLCV) against Volkswagen Group Automotive Retail France, Volkswagen Group France, and Volkswagen AG for up to 1 million French owners and lessees of vehicles with type EA 189 engines. This is an opt-in class action in which CLCV is primarily seeking rescission without compensation for use of the vehicle or, in the alternative, damages amounting to 20-30% of the purchase price.

In Italy, a trial level judgment in favor of the plaintiffs was rendered by the Venice Regional Court in July 2021 in the class action brought by the consumer association *Altroconsumo* on behalf of Italian customers; the judgment required Volkswagen AG and Volkswagen Group Italia to pay damages to some 63 thousand consumers in an aggregate amount of roughly € 185 million. The judgment was largely overturned pursuant to the appeal filed by Volkswagen AG and Volkswagen Group Italia. Per this decision, the consumers validly registered in the class action will receive merely €300 each.

In the Netherlands, an opt-out class action is pending that was brought by *Stichting Volkswagen Car Claim* seeking declaratory rulings for up to 201 thousand customers. A declaratory judgment partially granting the relief sought was issued in July 2021. In the opinion of the court, Volkswagen AG and the other defendant Group companies acted unlawfully with respect to the original engine management software. The court moreover held that consumers are entitled to a purchase price reduction from the defendant dealerships. No specific payment obligations result from the declaratory judgment. Any individual claims would then have to be established afterwards in separate proceedings. Volkswagen AG and the other defendant Group companies appealed the decision. Furthermore, an opt-out class action lawsuit brought by the Diesel Emissions Justice Foundation (DEJF) seeking monetary damages on behalf of Dutch consumers is also pending; the action involves vehicles with type EA 189 engines, among others. The trial court rendered an interlocutory judgment in March 2022 holding the new class action regime – which permits damage awards in addition to declaratory judgment on the existence of claims – to be inapplicable to the instant lawsuit. The interlocutory judgment further finds that the Amsterdam court lacks jurisdiction to hear lawsuits brought by consumers outside the Netherlands. The DJEF filed what was originally a comprehensive appeal against this judgment, but limited its appeal in the reporting year solely to the issue of the applicability of the new class action regime; hence the court's decision that it lacks jurisdiction to hear lawsuits brought by consumers outside the Netherlands is final and binding. The court suspended further trial level proceedings pending a decision by the appellate court.

In Portugal, a Portuguese consumer organization had filed an opt-out class action potentially affecting up to approximately 70 thousand vehicles with type EA 189 engines. In July 2023, the Supreme Court dismissed the class action as inadmissible because the plaintiff consumer organization lacked standing to sue. The judgment became final in September 2023.

In South Africa, an opt-out class action seeking damages is pending; the action pertains to some 80 thousand vehicles, including 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, roughly 25 thousand individual lawsuits relating to various diesel engine types are currently pending against Volkswagen AG or other Group companies, with the plaintiffs suing for damages or rescission of the contract in most cases.

In 2020, the BGH issued a series of fundamental judgments deciding legal issues of major importance for the litigation still pending with regard to vehicles with type EA 189 engines. The BGH held that buyers who had purchased vehicles prior to public disclosure of the diesel issue could return their vehicles to Volkswagen AG and receive a refund of the purchase price paid, less a deduction for the benefit derived from using the vehicle. However, buyers had no tort-based claim for damages if they purchased their vehicles after the ad hoc announcement of September 22, 2015 or if they raise claims based solely on a temperature-dependent exhaust gas recirculation (so-called thermal window) in the engine. In February 2022, the BGH issued further fundamental judgments concerning vehicles with EA 189 motors affirming that buyers of new vehicles of the Volkswagen brand were entitled to residual damage claims against Volkswagen AG after the knowledge-based limitation period has expired; the BGH had previously held that purchasers of used cars lacked such claims. The BGH held that buyers must return their vehicles in order to claim payment and that such payment was reduced by the benefit derived from using the vehicle and by the dealer profit margin. In an additional fundamental judgment rendered in July 2022 concerning vehicles with EA 189 engines, the BGH held that buyers of new vehicles of other Group brands have no claim for residual damages against Volkswagen AG.

In late June 2023, the BGH handed down judgments in lawsuits against Volkswagen AG and AUDI AG posing the issue as to how the case law of the ECJ on the potential claims of buyers under European type approval law should be implemented in German law. The BGH held that the negligent use of an impermissible defeat device may in principle entitle plaintiffs to differential damages in tort amounting to 5 % to 15 % of their vehicle's purchase price. Whether this claim is given in a particular instance is for the appeals courts to determine. The BGH stated that, when deciding whether a deactivation device was impermissible, it did not matter whether the limits in the NEDC testing procedure would be complied with even when system functioning was modified. The BGH held that liability does not arise where the manufacturer is not at fault, e.g. because the relevant public authority had approved the deactivation device in its specific configuration and taking account of identified combinations of deactivation devices, or would have done so upon request. Where a claim for differential damages exists in principle, the buyer must furthermore accept an offset for the benefit derived from using the vehicle and for the vehicle's value to the extent these exceed the vehicle's diminished value. An implemented software update may also potentially mitigate damages.

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. Given the early stage of the proceedings, it is in some 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.

Almost all investor lawsuits are now pending before the Braunschweig Regional Court or the Braunschweig Higher 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 in Braunschweig to the Higher Regional Court in Braunschweig for binding declaratory rulings pursuant to the *Kapitalanleger-Musterverfahrensgesetz* (KapMuG – German Capital Investor Model Declaratory Judgment Act). The investor lawsuits pending against Volkswagen AG in Germany 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. The Braunschweig Higher Regional Court issued several notification rulings stating its position on certain legal issues of fundamental importance for the litigation. In July 2023, the Braunschweig Higher Regional Court issued an order for the taking of evidence including the examination of numerous persons as well as the production and consultation of documents and records. The mandated taking of evidence focuses initially on whether the Board of Management of Volkswagen AG or individual members thereof and/or individual members of Volkswagen AG's Ad Hoc Disclosure Clearing Office (the persons with ad hoc disclosure responsibility in the court's view) had or, as Volkswagen AG's state of knowledge indicates, lacked knowledge of the installation of deactivation devices prohibited under US law in Volkswagen AG vehicles, as well as on the conceptions of these persons regarding the potential share price impact of the information that each respectively possessed. Volkswagen AG has the burden of proof on some issues. The taking of testimony commenced in September 2023. To date, none of the witnesses examined has testified to having personal knowledge or to knowledge on the part of persons with ad hoc disclosure responsibility. Several witnesses invoked a privilege against giving testimony. In some cases (not as to persons with ad hoc disclosure responsibility), the Braunschweig Higher Regional Court affirmed a comprehensive right to refuse to testify. The implications of the refusal to testify given Volkswagen AG's burden of proof cannot be assessed abstractly. Pursuant to § 286 of the Code of Civil Procedure, the Braunschweig Higher Regional Court must decide at its discretion and conviction, taking account of the entire content of the hearings and the results of the evidence taken.

Further investor lawsuits are pending before the Stuttgart Regional Court against Volkswagen AG, in some cases along with Porsche SE as joint and several debtor. An additional investor action for model declaratory judgment was filed with 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, was appointed model case plaintiff. The Stuttgart Higher Regional Court rendered a model declaratory judgment in late March 2023. Based on the determinations made in the model declaratory judgment and the current substantive status of the underlying actions, all of the suspended investor lawsuits against Porsche SE would in effect have to be dismissed. The model declaratory judgment is not yet final. The model case plaintiff, several interested parties summoned, and Porsche SE petitioned the BGH for review on points of law. Volkswagen AG joined the proceedings as a third-party supporting the petition for review of Porsche SE.

Excluding the United States and Canada, claims in connection with the diesel issue totaling roughly €9.2 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. To date, claims in the high triple-digit-millions range have been withdrawn or finally and conclusively dismissed. 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, and various government agencies in the United States and Canada.

In November 2023, Volkswagen reached a settlement agreement resolving the environmental claims brought by the Attorney General of the State of Texas and various Texas municipalities against Volkswagen AG, Volkswagen Group of America, Inc., and certain affiliates. The settlement agreement became final in January 2024 after it was approved by the court. In November 2023, Volkswagen also finalized a settlement agreement resolving the environmental claims brought by two municipalities (Hillsborough County/Florida and Salt Lake County/Utah) against Volkswagen Group of America, Inc. and certain affiliates.

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 dismissed, among other things, all claims against VW Credit, Inc. relating to asset-backed securities. In September 2020, the SEC filed an amended complaint that, among other things, removed the dismissed claims.

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 was supposed 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. Volkswagen AG had filed a constitutional complaint with the German Federal Constitutional Court against this decision, which was originally unappealable as formal matter. Volkswagen AG also filed a constitutional complaint against the subsequent (and likewise formally unappealable) decision by the Higher Regional Court of Celle to appoint a special auditor other than the one initially appointed. Following November 2022 rulings by the Federal Constitutional Court that upheld both of the constitutional complaints and remanded the cases to the Celle Higher Regional Court, the Higher Regional Court directed that extensive evidence be taken in the case concerning the order for a special audit. Proceedings in the case concerning the replacement of the special auditor were suspended until the completion of the taking of evidence. Volkswagen AG had in addition previously filed an action before the Braunschweig Regional Court seeking to enjoin the special auditor from performing the audit as long as he had not furnished sufficient proof of his independence. The Braunschweig Regional Court dismissed the action for injunctive relief in the summer of 2022; Volkswagen AG then appealed this decision to the Braunschweig Higher Regional Court.

A second motion seeking appointment of a special auditor for Volkswagen AG to examine matters relating to the diesel issue was filed with the Regional Court of Hanover. The proceedings in this matter were resumed after initially being stayed pending the decision of the Federal Constitutional Court in the first special audit case.

6. Risk assessment regarding the diesel issue

An amount of around €0.9 billion (previous year: €1.4 billion) has been included in the provisions for litigation and legal risks as of December 31, 2023 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 €4.0 billion (previous year: €4.2 billion), whereby roughly €3.8 billion (previous year: €3.6 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. In late September 2022 the 1st Antitrust Chamber of the Higher Regional Court of Celle issued a model case ruling by which all of the plaintiffs' objects of declaratory judgment were either dismissed or declared to be irrelevant. The legal positions of the model case defendants were thus upheld in their entirety. Two appeals alleging error of law in the model case ruling have been received, one of which is also directed against Volkswagen AG.

In Brazil, the Brazilian tax authorities commenced tax proceedings against Volkswagen Truck & Bus (formerly: MAN Latin America); at issue in these proceedings are the tax consequences of the acquisition structure chosen for Volkswagen Truck & Bus in 2009. In December 2017, an adverse administrative appeal ruling was rendered against Volkswagen Truck & Bus. Volkswagen Truck & Bus 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 Volkswagen Truck & Bus remains the expectation. Should this not occur, a risk of about BRL 3.4 billion could result for the contested period from 2009 onwards; this amount has been included in contingent liabilities in the notes.

After Volkswagen do Brasil had successfully brought an action in the Brazilian courts against what was held to constitute unconstitutional double taxation of vehicles on the part of the Brazilian federal government, Volkswagen do Brasil received a refund of the excess amount paid from the state of Brazil. In December 2023, the Brazilian dealership association *Associação Brasileira Dos Distribuidores Volkswagen* (Assobrav) and individual dealers, among others, filed lawsuits against Volkswagen do Brasil alleging that the dealers were at least partially entitled to the refunded amount. Eight such actions are pending. The lawsuit brought by Assobrav with a provisionally estimated amount in dispute of roughly BRL 2.4 billion is by far the largest of these actions. In January 2024, the court dismissed the dealership association's lawsuit in its entirety. Assobrav can appeal the dismissal; the judgment is not yet final.

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. In a judgment rendered in February 2022, the European General Court (Court of First Instance) rejected in its entirety the appeal filed by Scania in this connection. Scania's April 2022 appeal against this judgment was rejected in full by the European Court of Justice, the court of last resort, in February 2024. 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 for a large number of these legal disputes as they are not expected to result in final damage awards at the highest appeals level. For those actions in which, after re-assessing the risks, the final outcome at the highest appeals level appears more likely than not to result in the payment of damages by MAN or Scania, provisions have been recognized in an amount of €89 million. Contingent liabilities have not been disclosed as their quantification is not currently possible. This applies in particular to the proceedings that are currently in an early stage – including those as to which the process of expert assessment is still in an early stage.

In July 2021, the European Commission assessed a fine totaling roughly € 502 million against Volkswagen AG, AUDI AG, and Dr. Ing. h.c. F. Porsche AG pursuant to a settlement decision. Volkswagen declined to file an appeal, hence the decision became final in 2021. The subject matter scope of the decision is limited to the cooperation of German automobile manufacturers on individual technical questions in connection with the development and introduction of SCR (selective catalytic reduction) systems 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. Following the European Commission's July 2021 administrative fine decision, several class actions were filed in the United Kingdom beginning in late 2021 against Volkswagen AG, among others. Service of the complaints is expected in the course of 2024. Neither provisions nor contingent liabilities have been stated as a realistic estimate of risk exposure is not possible at the present stage of the proceedings. After analyzing potential violations based on the facts of the EU case, the Korean competition authority KFTC issued its administrative fine decision in April 2023. No fine was imposed on Volkswagen AG, and Porsche AG is not affected by the decision. A fine equaling just under €3 million was assessed against AUDI AG. AUDI AG and Volkswagen AG have appealed the decision to the relevant court in Seoul/Korea. The Turkish competition authorities, who investigated similar matters, issued a final decision in January 2022 in which they determined anticompetitive behavior to allegedly exist, but found that it had no effect on Türkiye, for which reason they refrained from imposing fines on the German automakers. The written grounds of the final decision are not yet available. Volkswagen AG, AUDI AG, and Porsche AG have filed appeals. Based on comparable matters, the Chinese competition authority has instituted proceedings against Volkswagen AG, AUDI AG, and Porsche AG, among others, and issued requests for information.

In March 2022, the European Commission and the Competition and Markets Authority (CMA), the English antitrust authorities, searched the premises of various automotive manufacturers and automotive industry organizations and/or served them with formal requests for information. In the Volkswagen Group, the investigation affects Volkswagen Group UK, which was searched by the CMA, and Volkswagen AG, which has received a Group-wide information request from the European Commission. The investigation relates to European, Japanese, and Korean manufacturers as well as national organizations operating in such countries and the European organization European Automobile Manufacturers' Association (ACEA), which are suspected of having agreed from 2001/2002 to the initiation of the proceedings to avoid paying for the services of recycling companies that dispose of end-of-life vehicles (ELV) (specifically passenger cars and vans up to 3.75 tons). Also alleged is an agreement to refrain from competitive use of ELV issues, that is, not to publicize relevant recycling data (recyclates, recyclability, recovery) for competitive purposes. The violation under investigation is alleged to have taken place in particular in the "ACEA" Working Group Recycling and related sub-groups thereof. Volkswagen AG is responding to the European Commission's information requests. Volkswagen Group UK is cooperating with the CMA. In this matter, CMA furthermore issued requests for information to Volkswagen AG. In July 2022, Volkswagen AG filed an action for judicial review challenging the CMA's requests for information in particular because Volkswagen AG believes that they exceed the CMA's jurisdiction. In February 2023, the court granted the claim. The CMA appealed this judgment in April 2023, and in January 2024 the appellate court ruled in the CMA's favor. Volkswagen AG is considering whether to appeal this decision. Concurrent therewith, Volkswagen AG continues to examine the possibilities for reasonable cooperation with the CMA.

In addition, a few national and international authorities 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.

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. A large number of the issues have already been completed.

In November 2021, three claimants accompanied by Greenpeace filed a lawsuit against Volkswagen AG before the Braunschweig Regional Court. Among other things, the action sought to compel Volkswagen to initially reduce in stages and by 2029 completely cease its production and placement into the stream of commerce of vehicles with internal combustion engines as well as to reduce greenhouse gas emissions from development, production, and marketing (including third party vehicle use). The lawsuit further sought to compel Volkswagen to exercise influence over Group companies, subsidiaries, and joint ventures so as to cause them to fulfill these demands as well. In February 2023, the Braunschweig Regional Court dismissed the action as unfounded. In addition, another action with similar requests for relief and by and large the same rationale has been filed against Volkswagen AG by an organic farmer with the support of Greenpeace before the Detmold Regional Court. This action was likewise dismissed as unfounded by the Detmold Regional Court in February 2023. The plaintiffs filed appeals against the judgments dismissing their complaints (appeals filed in March 2023 with the Braunschweig Higher Regional Court and in April 2023 with the Hamm Higher Regional Court).

In Russia, Automobile Plant GAZ LLC (GAZ) had initially filed several judicial proceedings against Volkswagen AG and others in the reporting year alleging damage claims totaling around RUB 44 billion. In this connection, GAZ applied for and in some cases initially obtained protective measures relating to the shares in Volkswagen Group Rus OOO (VGR) as well as to the movable and immovable property of VGR; the courts have since either rejected or vacated these measures. GAZ had appealed these decisions rejecting or vacating protective measures relative to the movable and immovable property of VGR; these appeals have since been finally and conclusively rejected. In May 2023, Volkswagen AG completed the sale of its shares in VGR and its local subsidiaries to Art-Finance LLC; thereby transferring title to the shares in VGR and its local subsidiaries to the buyer upon registration of the transaction. VGR was renamed AGR LLC in June 2023. In fulfillment of a court-confirmed settlement, GAZ has since withdrawn its complaint in the first lawsuit, thus terminating these proceedings. Volkswagen AG continues to defend the remaining second lawsuit, in which it is the sole defendant and alleged claims of approximately RUB 28.5 billion are at stake.

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 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 2024	PAYABLE 2025 - 2028	PAYABLE from 2029	TOTAL Dec. 31, 2023
Purchase commitments in respect of				
property, plant and equipment	9,932	1,750	4	11,686
intangible assets	1,117	117	1	1,235
investment property	13	–	–	13
Obligations from loan commitments and irrevocable credit commitments	11,267	152	24	11,443
Obligations from leasing and rental contracts	502	295	186	983
Miscellaneous other financial obligations	6,816	4,782	1,282	12,880
	29,648	**7,097**	**1,497**	**38,241**

€ million	PAYABLE 2023	PAYABLE 2024 - 2027	PAYABLE from 2028	TOTAL Dec. 31, 2022
Purchase commitments in respect of				
property, plant and equipment	8,024	2,167	1	10,191
intangible assets	2,405	240	–	2,645
investment property	16	–	–	16
Obligations from loan commitments and irrevocable credit commitments	12,329	98	14	12,441
Obligations from leasing and rental contracts	350	278	135	762
Miscellaneous other financial obligations	4,302	3,407	1,609	9,318
	27,426	**6,190**	**1,758**	**35,375**

In addition to the other financial obligations shown in the table, purchase commitments exist for inventories with a short turnover period, which arise primarily from the Master Collaboration Agreement with Ford Motor Company for the joint development of vans and mid-sized pickups for the global market. Furthermore, there are long-term purchase obligations under battery purchase agreements with Northvolt Group companies.

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, EY GmbH & Co. KG Wirtschaftsprüfungsgesellschaft.

€ million	2023	2022
Financial statement audit services	35	26
Other assurance services	2	6
Tax advisory services	–	0
Other services	1	2
	38	**34**

The financial statement audit services mainly 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 related primarily to advisory services in connection with the implementation of CSRD reporting requirements.

42. Personnel expenses

€ million	2023	2022
Wages and salaries	40,642	37,529
Social security, post-employment and other employee benefit costs	9,113	9,473
	49,755	**47,002**

43. Average number of employees during the year

	2023	2022
Performance-related wage-earners	261,731	263,053
Salaried staff	330,284	318,016
	592,016	**581,069**
of which in the passive phase of partial retirement	12,358	12,144
Vocational trainees	15,803	15,622
	607,818	**596,691**
Employees of Chinese joint ventures	71,007	72,585
	678,825	**669,275**

44. Events after the balance sheet date

There were no events with a significant effect on net assets, financial position and results of operations after December 31, 2023.

45. Remuneration based on performance shares

Performance share plan on the basis of Volkswagen preferred shares

The Supervisory Board resolved on March 3, 2023 to amend the remuneration system, effective January 1, 2023, in particular to accommodate demands by investors to give long-term variable remuneration a higher weighting. To this end, the relative share of the fixed remuneration components was reduced and the relative share of the long-term variable remuneration was increased. Moreover, the option to agree a special bonus with a future effect was removed to reinforce the pay-for-performance principle and implement investor demands. The maximum target achievement values for the annual bonus and the performance share plan and their respective maximum payment amounts were also increased in order to adequately reward higher levels of target achievement. In this process, the maximum remuneration and the cash remuneration cap were likewise raised to accommodate current market conditions. The Annual General Meeting approved the amended remuneration system on May 10, 2023 with 98.82% of the votes cast.

A four-year performance period applies to members of the Board of Management. Penalty and clawback rules apply at the same time: if there is relevant misconduct during the assessment period, payments under the performance share plan can be reduced or demanded back.

Board of Management members appointed before December 14, 2020 and whose service contract has not yet been renewed are still subject to a three-year performance period. In these cases, penalty and clawback rules will likewise only apply on renewal of their contracts.

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. The performance period for beneficiaries below Board of Management level is three years. 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.

Each performance period of the performance share plan has a term of three or four 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- or four-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. For all beneficiaries, the payment amount under the performance share plan is limited to 200% (Board of Management from 2023: 250%).

BOARD OF MANAGEMENT AND TOP MANAGEMENT

		Dec. 31, 2023	Dec. 31, 2022
Total expense of the reporting period	€ million	144	136
Carrying amount of the obligation	€ million	254	181
Intrinsic value of the obligation	€ million	145	69
Fair value on granting date	€ million	110	101
Granted performance shares	Shares	2,362,443	2,006,851
of which granted during the reporting period	Shares	943,003	684,317

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 €714 million (previous year: €688 million) on which target achievement of 100% is based. As of December 31, 2023, the total carrying amount of the obligation, which corresponded to the intrinsic value of the liabilities, was €986 million (previous year: €841 million). A total expense of €998 million (previous year: €886 million) was recognized for this commitment in the reporting period.

Other performance share plans

Group companies also have their own performance share plans, which are largely based on Volkswagen AG's performance share plan.

The performance share plan of Porsche AG is different in that the level of target achievement is determined on the basis of the annual earnings and share price performance of Porsche preferred shares. For Board of Management members and top management, the performance share plan is applied with a forward-looking four-year horizon. For members of management, the performance share plan is generally applied with a four-year term and a forward-looking horizon of one year.

For the performance share plan of the TRATON Group, the level of target achievement is determined on the basis of the annual earnings and share price performance of Traton shares. For the members of the Board of Management and of the brand boards of management of the TRATON Group who are not members of the Board of Management of TRATON SE as defined under stock corporation law, and for members of management at Navistar, the performance share plan is applied with a forward-looking horizon of three or four years. For members of management and selected beneficiaries below the TRATON Group's management, the performance share plan is generally applied with a four-year term and a forward-looking horizon of one year.

As of December 31, 2023, the total carrying amount of the obligation was €131 million (previous year: €36 million) and the intrinsic value of the liabilities was €92 million (previous year: €24 million). A total expense of €119 million (previous year: €31 million) was recognized in the reporting period.

46. Related party disclosures in accordance with IAS 24

Related parties as defined by IAS 24 are natural persons and entities on which Volkswagen AG can exercise significant influence, or which have the ability to 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 the 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.

According to a notification dated January 8, 2024, the State of Lower Saxony and Hannoversche Beteiligungsgesellschaft Niedersachsen mbH, Hanover, held 20.00% of the voting rights of Volkswagen AG on December 31, 2023. 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).

Contribution of Porsche SE's holding company operating business

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 GmbH Group that existed prior to the contribution and were entered into on the basis of the Comprehensive Agreement and its related implementation agreements:

- 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 GmbH, 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 GmbH, Porsche AG and their legal predecessors and subsidiaries relating to tax assessment periods up to July 31, 2009. Based on the results of the substantively completed external tax audit for the assessment periods 2006 to 2009, a compensation claim from Volkswagen AG of around €0.2 billion arose for Porsche SE, which was recognized under other operating expenses in the consolidated financial statements in the third quarter of 2023. The claim was settled in the fourth quarter of 2023. The claim has been audited on the basis of the corresponding provisions in the tax clause of the contribution agreement and its merits and amount have been confirmed by external auditors.

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 GmbH 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 GmbH (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 GmbH, 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 GmbH 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 GmbH 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 the subsidiaries it contributed as part of the business contribution as well as Porsche Holding Stuttgart GmbH, 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 GmbH , 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 options on the shares of Porsche Holding Stuttgart GmbH that continued to be held by Porsche SE until the contribution. Volkswagen AG therefore indemnifies Porsche SE against half of such taxes that the company incurs.
> 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.

As part of the IPO of Porsche AG and the sale of ordinary shares to Porsche SE in fiscal year 2022, Porsche SE and Volkswagen AG also entered, among other arrangements, into a "procedural and amendment agreement and agreement to amend the Comprehensive Agreement". The latter led to amendments to some provisions, including those on appointments to governing bodies of Porsche AG, contained in the Comprehensive Agreement.

IPO of Porsche AG

On September 28, 2022, Volkswagen placed 25% of the preferred shares (including additional allocations) of its subsidiary Porsche AG with investors. These preferred shares have been traded on the stock exchange since the day after the placement. Since the end of the stabilization period on October 11, 2022, the free float of the preferred shares has been 24.2% of the preferred share capital of Porsche AG. The basis for the IPO was a comprehensive agreement to enter into a number of contracts between Volkswagen and Porsche SE. In this context, the two parties agreed that Porsche SE would acquire 25% of the ordinary shares plus one ordinary share of Porsche AG from Volkswagen. The sale of these ordinary shares in Porsche AG by Porsche SE is subject to restrictions until 2027.

Under the share purchase agreement, Volkswagen AG as warrantor provided several warranties to Porsche SE, which essentially put Porsche SE in the same position as buyers of the preferred shares sold under the IPO. In addition, Volkswagen AG assumes a small number of other standard market guarantees, most of them limited to positive knowledge of Volkswagen AG.

The resolution of the extraordinary General Meeting of Volkswagen AG on December 16, 2022 gave rise to the obligation to pay a special dividend and led to a total obligation to the shareholders of Volkswagen AG amounting to €9.6 billion as of December 31, 2022. Out of the total, an amount of €3.1 billion was attributable to Porsche SE.

Volkswagen AG and Porsche SE agreed to offset the obligation to pay a special dividend to Porsche SE against Volkswagen AG's claim to the payment of the purchase price still outstanding for the second tranche of ordinary shares. In the consolidated financial statements as of December 31, 2022, the purchase price receivable and the dividend liability were therefore presented on a net basis. Upon payment of the special dividend on January 9, 2023, the netting process was completed.

In connection with the IPO of Porsche AG, Volkswagen AG had also assumed obligations for dividend distributions of Porsche AG in 2022. The corresponding dividend of the same amount was resolved at the Annual General Meeting of Porsche AG on June 28, 2023 and paid on July 3, 2023. €114 million of this dividend was attributable to Porsche SE.

Volkswagen AG and Porsche SE have agreed in connection with the IPO and sale of ordinary shares to Porsche SE that representatives of Porsche SE will have a significant presence on the Supervisory Board of Porsche AG. Ultimate decision rights of the shareholder representatives determined by Volkswagen on the Supervisory Board with regard to the ability to direct the relevant activities at Porsche AG within the meaning of IFRS 10 will ensure continued control by Volkswagen AG.

For more detailed information, please refer to the disclosures provided in the consolidated financial statements as of December 31, 2022.

Other related party disclosures in accordance with IAS 24

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:

	SUPPLIES AND SERVICES RENDERED		SUPPLIES AND SERVICES RECEIVED	
€ million	2023	2022	2023	2022
Porsche SE and its majority interests	4	4	0	0
Supervisory Board members	2	1[1]	4	1
Board of Management members	1	0	0	0
Unconsolidated subsidiaries	1,401	1,123	2,138	1,707
Joint ventures and their majority interests	17,355	16,284	1,573	897
Associates and their majority interests	422	326	3,086	2,582
Pension plans	2	1	3	4
Other related parties	0	0	1	1
State of Lower Saxony, its majority interests and joint ventures	10	15	4	5

1 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

	RECEIVABLES FROM		LIABILITIES (INCLUDING OBLIGATIONS) TO	
€ million	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2023	Dec. 31, 2022[2]
Porsche SE and its majority interests	0	1	0	136
Supervisory Board members	0	0	187	276
Board of Management members	0	0	66	54
Unconsolidated subsidiaries	1,780	1,326[1]	2,332	1,865
Joint ventures and their majority interests	15,687	13,965[1]	4,864	2,740
Associates and their majority interests	775	614[1]	8,647	1,096
Pension plans	2	1	0	0
Other related parties	0	0	13	52
State of Lower Saxony, its majority interests and joint ventures	1	255	1	1,127

1 Prior-year figures adjusted.
2 Prior-year figures adjusted (see disclosures on IFRS 17 in the "Effects of new and amended IFRSs" section).

The tables above do not contain the dividend payments (net of withholding tax) of €2,450 million (previous year: €2,781 million) received from joint ventures and associates. The tables likewise do not contain the dividends of €1,529 million paid to Porsche SE (previous year: dividends paid or offset of €4,231 million) or the dividend of €1,638 million (previous year: €443 million) paid to the State of Lower Saxony.

The changes in supplies and services rendered to and received from joint ventures and their majority interests relate primarily to supplies to and from the Chinese joint ventures. The changes in supplies and services received from members of the Supervisory Board relate primarily to higher interest payments on direct bank deposits due to higher interest rates.

Receivables from joint ventures are primarily attributable to loans granted in an amount of €12,068 million (previous year adjusted: €10,310 million) as well as trade receivables in an amount of €3,234 million (previous year adjusted: €3,451 million). Receivables from non-consolidated subsidiaries also result primarily from loans granted in an amount of €1,266 million (previous year adjusted: €713 million) as well as trade receivables in an amount of €199 million (previous year adjusted: €219 million).

In addition to the liabilities to associates and their majority interests, there are long-term purchase obligations under battery purchase agreements with Northvolt Group companies.

In the previous year, liabilities to Porsche SE had included Volkswagen AG's special dividend, after netting against the purchase price receivable for the second tranche of ordinary shares of €22 million, and the obligation arising from Porsche AG's dividend of €114 million. In the previous year, liabilities to the State of Lower Saxony had included Volkswagen AG's special dividend of €1,125 million. As of December 31, 2023, there were no dividend liabilities or obligations to Porsche SE or the State of Lower Saxony.

Outstanding related party receivables include doubtful receivables on which impairment losses of €26 million (previous year: €49 million) were recognized. This incurred expenses of €14 million (previous year: €40 million) in fiscal year 2023. The change is primarily attributable to a loan granted to a joint venture.

In addition, the Volkswagen Group has furnished guarantees to external banks on behalf of related parties in the amount of €150 million (previous year: €296 million).

In the fiscal year, the Volkswagen Group made capital contributions of €1,456 million (previous year: €2,854 million) at related parties.

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 related parties that were invested at standard market terms and conditions at Volkswagen Group companies.

Obligations to members of the Board of Management include balances outstanding on the annual bonus, the fair values of performance shares granted to the members of the Board of Management and pension provisions of €59.8 million (previous year: €50.0 million).

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:

€	2023	2022
Short-term benefits	39,794,902	44,535,627
Benefits based on performance shares and virtual shares	19,064,922	16,482,035
Post-employment benefits (service cost only)	5,382,815	9,475,563
Termination benefits	10,408,232	36,802,931
	74,650,871	**107,296,157**

Employee representatives on the Supervisory Board who are employed by the company continue to be entitled to a regular salary under their contract. This applies accordingly to the representative of senior executives on the Supervisory Board.

The post-employment benefits relate to additions to pension provisions for current members of the Board of Management. The termination benefits relate to the commitments made to Mr. Duesmann in connection with his departure from the Board of Management on August 31, 2023 (previous year: departure of Mr. Diess, Ms. Wortmann and Mr. Aksel).

47. Notices and disclosure of changes regarding the ownership of voting rights in Volkswagen AG in accordance with the Wertpapierhandelsgesetz (WpHG – German Securities Trading Act)

Porsche

1) Porsche Automobil Holding SE, Stuttgart, Germany has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in Volkswagen Aktiengesellschaft, Wolfsburg, Germany, exceeded the threshold of 50% on January 5, 2009 and amounted to 50.76% (149,696,680 voting rights) at this date.

2) The following persons notified us in accordance with article 21, section 1 of the WpHG that their share of the voting rights in Volkswagen Aktiengesellschaft in each case exceeded the threshold of 50% on January 5, 2009 and in each case amounted to 50.76% (149,696,680 voting rights) at this date. All of the above-mentioned 149,696,680 voting rights are attributable to each of the persons making the notification in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG. The voting rights attributed to the persons making the notifications are held via subsidiaries within the meaning of article 22, section 3 of the WpHG, whose attributed share of the voting rights amounts to 3% or more and whose names are given in brackets:

Mag. Josef Ahorner, Austria
(Ferdinand Porsche Privatstiftung, Salzburg/Austria; Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Mag. Louise Kiesling, Austria
(Ferdinand Porsche Privatstiftung, Salzburg/Austria; Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Prof. Ferdinand Alexander Porsche, Austria
(Ferdinand Porsche Privatstiftung, Salzburg/Austria; Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Dr. Oliver Porsche, Austria
(Ferdinand Porsche Privatstiftung, Salzburg/Austria; Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Kai Alexander Porsche, Austria
(Ferdinand Porsche Privatstiftung, Salzburg/Austria; Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Mark Philipp Porsche, Austria
(Ferdinand Porsche Privatstiftung, Salzburg/Austria; Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Gerhard Anton Porsche, Austria
(Ferdinand Porsche Privatstiftung, Salzburg/Austria; Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Ing. Hans-Peter Porsche, Austria
(Familie Porsche Privatstiftung, Salzburg/Austria; Familie Porsche Holding GmbH, Salzburg/Austria; Ing. Hans-Peter Porsche GmbH, Salzburg/Austria; Hans-Peter Porsche GmbH, Grünwald/Germany; Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Peter Daniell Porsche, Austria
(Familie Porsche Privatstiftung, Salzburg/Austria; Familie Porsche Holding GmbH, Salzburg/Austria; Ing. Hans-Peter Porsche GmbH, Salzburg/Austria; Hans-Peter Porsche GmbH, Grünwald/Germany; Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Dr. Wolfgang Porsche, Germany
(Familie Porsche Privatstiftung, Salzburg/Austria; Familie Porsche Holding GmbH, Salzburg/Austria; Ing. Hans-Peter Porsche GmbH, Salzburg/Austria; Hans-Peter Porsche GmbH, Grünwald/Germany; Wolfgang Porsche GmbH, Grünwald/Germany; Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Ferdinand Porsche Privatstiftung, Salzburg/Austria
(Ferdinand Porsche Holding GmbH, Salzburg/Austria; Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Familie Porsche Privatstiftung, Salzburg/Austria
(Familie Porsche Holding GmbH, Salzburg/Austria; Ing. Hans-Peter Porsche GmbH, Salzburg/Austria; Hans-Peter Porsche GmbH, Grünwald/Germany; Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Ferdinand Porsche Holding GmbH, Salzburg/Austria
(Louise Daxer-Piëch GmbH, Salzburg/Austria; Louise Daxer-Piech GmbH, Grünwald/Germany; Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria; Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Gerhard Anton Porsche GmbH, Salzburg/Austria; Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Familie Porsche Holding GmbH, Salzburg/Austria
(Ing. Hans-Peter Porsche GmbH, Salzburg/Austria; Hans-Peter Porsche GmbH, Grünwald/Germany; Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Louise Daxer-Piëch GmbH, Salzburg/Austria
(Louise Daxer-Piech GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany),

Prof. Ferdinand Alexander Porsche GmbH, Salzburg/Austria
(Ferdinand Alexander Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/ Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Gerhard Anton Porsche GmbH, Salzburg/Austria
(Gerhard Porsche GmbH, Grünwald/Germany; Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Louise Daxer-Piech GmbH, Grünwald/Germany
(Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/ Germany),

Ferdinand Alexander Porsche GmbH, Grünwald/Germany
(Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/ Germany),

Gerhard Porsche GmbH, Grünwald/Germany
(Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Ing. Hans-Peter Porsche GmbH, Salzburg/Austria
(Hans-Peter Porsche GmbH, Grünwald/Germany; Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Hans-Peter Porsche GmbH, Grünwald/Germany
(Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Wolfgang Porsche GmbH, Grünwald/Germany
(Familie Porsche Beteiligung GmbH, Grünwald/Germany; Porsche Automobil Holding SE, Stuttgart/Germany),

Familien Porsche-Daxer-Piech Beteiligung GmbH, Grünwald/Germany
(Porsche Automobil Holding SE, Stuttgart/Germany),

Familie Porsche Beteiligung GmbH, Grünwald/Germany
(Porsche Automobil Holding SE, Stuttgart/Germany),

Porsche GmbH, Stuttgart/Germany
(Porsche Automobil Holding SE, Stuttgart/Germany),

Dr. Hans Michel Piëch, Austria
(Porsche Automobil Holding SE, Stuttgart/Germany; Hans Michel Piech GmbH, Grünwald/Germany; Dr. Hans Michel Piëch GmbH, Salzburg/Austria),

Dr. Hans Michel Piëch GmbH, Salzburg/Austria
(Porsche Automobil Holding SE, Stuttgart/Germany; Hans Michel Piech GmbH, Grünwald/Germany),

Hans Michel Piech GmbH, Grünwald/Germany
(Porsche Automobil Holding SE, Stuttgart/Germany),

Dipl.-Ing. Dr. h.c. Ferdinand Piëch, Austria
(Porsche Automobil Holding SE, Stuttgart/Germany; Ferdinand Piech GmbH, Grünwald/Germany; Dipl.-Ing. Dr. h.c. Ferdinand Piëch GmbH, Salzburg/Austria; Ferdinand Karl Alpha Privatstiftung, Vienna/Austria),

Ferdinand Karl Alpha Privatstiftung, Vienna/Austria
(Porsche Automobil Holding SE, Stuttgart/Germany; Ferdinand Piech GmbH, Grünwald/Germany; Dipl.-Ing. Dr. h.c. Ferdinand Piëch GmbH, Salzburg/Austria),

Dipl.-Ing. Dr. h.c. Ferdinand Piëch GmbH, Salzburg/Austria
(Porsche Automobil Holding SE, Stuttgart/Germany; Ferdinand Piech GmbH, Grünwald/Germany),

Ferdinand Piech GmbH, Grünwald/Germany
(Porsche Automobil Holding SE, Stuttgart/Germany).

3) Porsche Holding Gesellschaft m.b.H., Salzburg/Austria, and Porsche GmbH, Salzburg/Austria, notified us in accordance with article 21, section 1 of the WpHG that their share of the voting rights in Volkswagen Aktiengesellschaft in each case exceeded the threshold of 50% on January 5, 2009 and in each case amounted to 53.13% (156,702,015 voting rights) at this date.

All the above-mentioned 156,702,015 voting rights are attributable to Porsche Holding Gesellschaft m.b.H. in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG. The companies via which the voting rights are actually held and whose attributed share of the voting rights amounts to 3% or more are:
– Porsche GmbH, Salzburg/Austria;
– Porsche GmbH, Stuttgart/Germany;
– Porsche Automobil Holding SE, Stuttgart/Germany.

Of the above-mentioned 156,702,015 voting rights, 50.76% of the voting rights (149,696,753 voting rights) are attributable to Porsche GmbH, Salzburg/Austria, in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG. The companies via which the voting rights are actually held and whose attributed share of the voting rights amounts to 3% or more are:
– Porsche GmbH, Stuttgart/Germany;
– Porsche Automobil Holding SE, Stuttgart/Germany.

4) Porsche Wolfgang 1. Beteiligungs GmbH & Co. KG, Stuttgart, Germany has notified us in accordance with article 21, section 1 of the WpHG that its (indirect) share of the voting rights in Volkswagen Aktiengesellschaft, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on September 29, 2010 and amounted to 50.74% of the voting rights (149,696,680 voting rights) at this date.

Of this figure, 50.74% of the voting rights (149,696,680 voting rights) are attributable to Porsche Wolfgang 1. Beteiligungs GmbH & Co. KG in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Porsche Wolfgang 1. Beteiligungs GmbH & Co. KG are held via the following enterprises controlled by it, whose share of the voting rights in Volkswagen Aktiengesellschaft amounts to 3% or more in each case: Wolfgang Porsche GmbH, Grünwald, Familie Porsche Beteiligung GmbH, Grünwald, Porsche Automobil Holding SE, Stuttgart.

These voting rights were not reached by exercise of purchase rights resulting from financial instruments according to article 25, section 1, sentence 1 of the WpHG.

5) On August 12, 2013, LK Holding GmbH, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on August 10, 2013 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date.

Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to LK Holding GmbH in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to LK Holding GmbH are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case: Porsche Automobil Holding SE, Stuttgart; Familien Porsche-Kiesling Beteiligung GmbH, Grünwald; Louise Daxer-Piech GmbH, Grünwald.

6) On September 11, 2013, Ahorner Alpha Beteiligungs GmbH, Grünwald, Germany, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on September 11, 2013 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date. Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to Ahorner Alpha Beteiligungs GmbH in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Ahorner Alpha Beteiligungs GmbH are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case: Porsche Automobil Holding SE, Stuttgart.

7) On September 11, 2013, Ahorner Beta Beteiligungs GmbH, Grünwald, Germany, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on September 11, 2013 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date. Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to Ahorner Beta Beteiligungs GmbH in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Ahorner Beta Beteiligungs GmbH are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case: Ahorner Alpha Beteiligungs GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

8) On September 11, 2013, Louise Daxer-Piech GmbH, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on September 11, 2013 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date. Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to Louise Daxer-Piech GmbH in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Louise Daxer-Piech GmbH are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case: Ahorner Beta Beteiligungs GmbH, Grünwald; Ahorner Alpha Beteiligungs GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

9) On September 11, 2013, Ahorner Holding GmbH, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on September 11, 2013 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date. Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to Ahorner Holding GmbH in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Ahorner Holding GmbH are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case: Louise Daxer-Piech GmbH, Salzburg, Austria; Ahorner Beta Beteiligungs GmbH, Grünwald; Ahorner Alpha Beteiligungs GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

10) On December 16, 2014, Porsche Wolfgang 1. Beteiligungsverwaltungs GmbH, Stuttgart, Germany, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, fell below the thresholds of 50%, 30%, 25%, 20%, 15%, 10%, 5% and 3% of the voting rights on December 15, 2014 and amounted to 0% of the voting rights (0 voting rights) at this date.

11) On December 17, 2014, Dr. Wolfgang Porsche Holding GmbH, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on December 15, 2014 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date. Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to Dr. Wolfgang Porsche Holding GmbH in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Dr. Wolfgang Porsche Holding GmbH are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case: Wolfgang Porsche GmbH, Grünwald; Familie Porsche Beteiligung GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

12) On July 15, 2015, the following persons in each case have notified us in accordance with article 21, section 1 of the WpHG that their share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on July 14, 2015 and in each case amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date:

– Dipl.-Design. Stephanie Porsche-Schröder, Austria,
– Dr. Dr. Christian Porsche, Austria,
– Ferdinand Rudolf Wolfgang Porsche, Austria

Of this figure, in each case 50.73% of the voting rights (149,696,681 voting rights) are attributable to each of the above-mentioned notifying persons in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG. The voting rights attributed to the notifying persons in each case are held via the following enterprises controlled by the notifying persons, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case:

Dr. Wolfgang Porsche Holding GmbH, Salzburg; Wolfgang Porsche GmbH, Grünwald; Ferdinand Porsche Familien-Privatstiftung, Salzburg; Familie Porsche Holding GmbH, Salzburg; Ing. Hans-Peter Porsche GmbH, Salzburg; Hans-Peter Porsche GmbH, Grünwald; Ferdinand Porsche Holding GmbH, Salzburg; Prof. Ferdinand Alexander Porsche GmbH, Salzburg; Ferdinand Alexander Porsche GmbH, Grünwald; Gerhard Anton Porsche GmbH, Salzburg; Gerhard Porsche GmbH, Grünwald; LK Holding GmbH, Salzburg; Louise Kiesling GmbH, Grünwald; Familie Porsche Beteiligung GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

13) On July 15, 2015, Familie Porsche Privatstiftung, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, fell below the thresholds of 50%, 30%, 25%, 20%, 15%, 10%, 5% and 3% of the voting rights on July 14, 2015 and amounted to 0% of the voting rights (0 voting rights) at this date.

14) On July 15, 2015, Ferdinand Porsche Privatstiftung, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, fell below the thresholds of 50%, 30%, 25%, 20%, 15%, 10%, 5% and 3% of the voting rights on July 14, 2015 and amounted to 0% of the voting rights (0 voting rights) at this date.

15) On July 15, 2015, Ferdinand Porsche Familien-Privatstiftung, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on July 14, 2015 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date. Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to Ferdinand Porsche Familien-Privatstiftung in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Ferdinand Porsche Familien-Privatstiftung are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case:

Familie Porsche Holding GmbH, Salzburg; Ing. Hans-Peter Porsche GmbH, Salzburg; Hans-Peter Porsche GmbH, Grünwald; Ferdinand Porsche Holding GmbH, Salzburg; Prof. Ferdinand Alexander Porsche GmbH, Salzburg; Ferdinand Alexander Porsche GmbH, Grünwald; Gerhard Anton Porsche GmbH, Salzburg; Gerhard Porsche GmbH, Grünwald; LK Holding GmbH, Salzburg; Louise Kiesling GmbH, Grünwald; Familie Porsche Beteiligung GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

16) On July 20, 2015, the following persons in each case have notified us in accordance with article 21, section 1 of the WpHG that their share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on July 14, 2015 and in each case amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date:

– Dr. Geraldine Porsche, Austria,
– Diana Porsche, Austria,
– Felix Alexander Porsche, Germany.

Of this figure, in each case 50.73% of the voting rights (149,696,681 voting rights) are attributable to each of the above-mentioned notifying persons in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG. The voting rights attributed to the notifying persons in each case are held via the following enterprises controlled by the notifying persons, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case:

Ferdinand Porsche Familien-Privatstiftung, Salzburg; Familie Porsche Holding GmbH, Salzburg; Ing. Hans-Peter Porsche GmbH, Salzburg; Hans-Peter Porsche GmbH, Grünwald; Ferdinand Porsche Holding GmbH, Salzburg; Prof. Ferdinand Alexander Porsche GmbH, Salzburg; Ferdinand Alexander Porsche GmbH, Grünwald; Gerhard Anton Porsche GmbH, Salzburg; Gerhard Porsche GmbH, Grünwald; LK Holding GmbH, Salzburg; Louise Kiesling GmbH, Grünwald; Familie Porsche Beteiligung GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

17) On August 4, 2015, Ferdinand Porsche Familien- Holding GmbH, Salzburg, Austria, has notified us in accordance with article 21, section 1 of the WpHG that its share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, Germany, exceeded the thresholds of 3%, 5%, 10%, 15%, 20%, 25%, 30% and 50% of the voting rights on July 31, 2015 and amounted to 50.73% of the voting rights (149,696,681 voting rights) at this date. Of this figure, 50.73% of the voting rights (149,696,681 voting rights) are attributable to Ferdinand Porsche Familien- Holding GmbH in accordance with article 22, section 1, sentence 1 no. 1 of the WpHG.

The voting rights attributed to Ferdinand Porsche Familien- Holding GmbH are held via the following enterprises controlled by it, whose share of the voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT amounts to 3% or more in each case: Hans-Peter Porsche GmbH, Grünwald; Ferdinand Alexander Porsche GmbH, Grünwald; Gerhard Porsche GmbH, Grünwald; Louise Kiesling GmbH, Grünwald; Familie Porsche Beteiligung GmbH, Grünwald; Porsche Automobil Holding SE, Stuttgart.

18) Release according to article 26, section 1 of the WpHG of June 3, 2016

1. Details of issuer
VOLKSWAGEN AKTIENGESELLSCHAFT, Berliner Ring 2, 38440 Wolfsburg, Germany

2. Reason for notification
☐ Acquisition/disposal of shares with voting rights
☒ Acquisition/disposal of instruments
☐ Change of breakdown of voting rights
☐ Other reason:

3. Details of person subject to the notification obligation

Name:	City and country of registered office:
Dr. Dr. Christian Porsche, Dipl.- Design. Stephanie Porsche-Schröder, Ferdinand Rudolf Wolfgang Porsche, Felix Alexander Porsche	

4. Names of shareholder(s) holding directly 3% or more voting rights, if different from 3.
Porsche Automobil Holding SE

5. Date on which treshold was crossed or reached
June 1, 2016

6. Total positions

	% of voting rights attached to shares (total of 7.a.)	% of voting rights through instruments (total of 7.b.1. + 7.b.2.)	total of both in % (7.a. + 7.b.)	total number of voting rights of issuer
Resulting situation	52.22%	52.22%	52.22%	295089818
Previous notification	50.73%	n/a%	0.00%	

7. Notified details of the resulting situation a. Voting rights attached to shares (articles 21, 22 WpHG)				
ISIN	absolute		in %	
	direct (article 21 WpHG)	indirect (article 22 WpHG)	direct (article 21 WpHG)	indirect (article 22 WpHG)
DE0007664005	0	154093681	0%	52,22%
Total	154093681		**52.22 %**	

b.1. Instruments according to article 25, section 1, no. 1 WpHG				
Type of instrument	Expiration or maturity date	Exercise or conversion period	Voting rights absolute	Voting rights in %
				%
		Total		**%**

b.2. Instruments according to article 25, section 1, no. 2 WpHG					
Type of instrument	Expiration or maturity date	Exercise or conversion period	Cash or physical settlement	Voting rights absolute	Voting rights in %
Contribution Agreement	n/a	n/a	physical	154093681	52.22%
			Total	**154093681**	**52.22%**

8. Information in relation to the person subject to the notification obligation

☐ Person subject to the notification obligation (3.) is not controlled and does itself not control any other undertaking(s) holding directly or indirectly an interest in the (underlying) issuer (1.).

☒ Full chain of controlled undertakings starting with the ultimate controlling natural person or legal entity:

Name	% of voting rights (if at least held 3% or more)	% of voting rights through instruments (if at least held 5% or more)	Total of both (if at least held 5% or more)
Dr. Dr. Christian Porsche, Dipl.-Design. Stephanie Porsche-Schröder, Ferdinand Rudolf Wolfgang Porsche, Felix Alexander Porsche	%	%	%
Familie WP Holding GmbH	%	52.22%	52.22%
Dr. Dr. Christian Porsche, Dipl.-Design. Stephanie Porsche-Schröder, Ferdinand Rudolf Wolfgang Porsche, Felix Alexander Porsche	%	%	%
Dr. Wolfgang Porsche Holding GmbH	%	%	%
Ferdinand Alexander Porsche GmbH	%	%	%
Familie Porsche Beteiligung GmbH	%	%	%
Porsche Automobil Holding SE	52.22%	%	52.22%
Dr. Dr. Christian Porsche, Dipl.-Design. Stephanie Porsche-Schröder, Ferdinand Rudolf Wolfgang Porsche, Felix Alexander Porsche	%	%	%
Ferdinand Porsche Familien-Privatstiftung	%	%	%
Ferdinand Porsche Familien- Holding GmbH	%	%	%
Ferdinand Alexander Porsche GmbH	%	%	%
Familie Porsche Beteiligung GmbH	%	%	%
Porsche Automobil Holding SE	52.22%	%	52.22%

9. In case of proxy voting according to article 22, section 3 WpHG (only possible when attributable according to article 22, section 1, sentence 1 no. 6 of the WpHG) Date of general meeting: Holding position after general meeting: % (equals voting rights)

19) Release according to article 26, section 1 of the WpHG of June 3, 2016

1. Details of issuer VOLKSWAGEN AKTIENGESELLSCHAFT, Berliner Ring 2, 38440 Wolfsburg, Germany

2. Reason for notification ☐ Acquisition/disposal of shares with voting rights ☒ Acquisition/disposal of instruments ☐ Change of breakdown of voting rights ☐ Other reason:

3. Details of person subject to the notification obligation	
Name: Mr. Dr. Wolfgang Porsche	City and country of registered office:

4. Names of shareholder(s) holding directly 3% or more voting rights, if different from 3. Porsche Automobil Holding SE

5. Date on which treshold was crossed or reached June 1, 2016

6. Total positions

	% of voting rights attached to shares (total of 7.a.)	% of voting rights through instru-ments (total of 7.b.1. + 7.b.2.)	total of both in % (7.a. + 7.b.)	total number of voting rights of issuer
Resulting situation	52.22%	52.22%	52.22%	295089818
Previous notification	50.76%	n/a %	0.00%	

7. Notified details of the resulting situation a. Voting rights attached to shares (articles 21, 22 WpHG)				
ISIN	absolute		in %	
	direct (article 21 WpHG)	indirect (article 22 WpHG)	direct (article 21 WpHG)	indirect (article 22 WpHG)
DE0007664005	0	154093681	0%	52.22%
Total	**154093681**			**52.22%**

b.1. Instruments according to article 25, section 1, no. 1 WpHG				
Type of instrument	Expiration or maturity date	Exercise or conversion period	Voting rights absolute	Voting rights in %
				%
		Total		**%**

b.2. Instruments according to article 25, section 1, no. 2 WpHG					
Type of instrument	Expiration or maturity date	Exercise or conversion period	Cash or physical settlement	Voting rights absolute	Voting rights in %
Contribution Agreement	n/a	n/a	physical	154093681	52.22%
			Total	**154093681**	**52.22%**

8. Information in relation to the person subject to the notification obligation

☐ Person subject to the notification obligation (3.) is not controlled and does itself not control any other undertaking(s) holding directly or indirectly an interest in the (underlying) issuer (1.).

☒ Full chain of controlled undertakings starting with the ultimate controlling natural person or legal entity:

Name	% of voting rights (if at least held 3% or more)	% of voting rights through instruments (if at least held 5% or more)	Total of both (if at least held 5% or more)
Dr. Wolfgang Porsche	%	%	%
Familie WP Holding GmbH	%	52.22%	52.22%
Dr. Wolfgang Porsche	%	%	%
Dr. Wolfgang Porsche Holding GmbH	%	%	%
Ferdinand Alexander Porsche GmbH	%	%	%
Familie Porsche Beteiligung GmbH	%	%	%
Porsche Automobil Holding SE	52.22%	%	52.22%
Dr. Wolfgang Porsche	%	%	%
Ferdinand Porsche Familien-Privatstiftung	%	%	%
Ferdinand Porsche Familien- Holding GmbH	%	%	%
Ferdinand Alexander Porsche GmbH	%	%	%
Familie Porsche Beteiligung GmbH	%	%	%
Porsche Automobil Holding SE	52.22%	%	52.22%

9. In case of proxy voting according to article 22, section 3 WpHG
(only possible when attributable according to article 22, section 1, sentence 1 no. 6 of the WpHG)
Date of general meeting:
Holding position after general meeting: % (equals voting rights)

20) Release according to article 26, section 1 of the WpHG of June 17, 2016

1. Details of issuer
VOLKSWAGEN AKTIENGESELLSCHAFT, Berliner Ring 2, 38440 Wolfsburg, Germany

2. Reason for notification
☐ Acquisition/disposal of shares with voting rights
☒ Acquisition/disposal of instruments
☐ Change of breakdown of voting rights
☒ Other reason: Group notification due to intra group restructuring

3. Details of person subject to the notification obligation	
Name:	City and country of registered office:
Dr. Wolfgang Porsche, Dr. Dr. Christian Porsche, Dipl.-Design. Stephanie Porsche-Schröder, Ferdinand Rudolf Wolfgang Porsche, Felix Alexander Porsche	

4. Names of shareholder(s) holding directly 3% or more voting rights, if different from 3.
Porsche Automobil Holding SE

5. Date on which treshold was crossed or reached
June 15, 2016

6. Total positions

	% of voting rights attached to shares (total of 7.a.)	% of voting rights through instruments (total of 7.b.1. + 7.b.2.)	total of both in % (7.a. + 7.b.)	total number of voting rights of issuer
Resulting situation	52.22%	0.00%	52.22%	295089818
Previous notifcation	52.22%	52.22%	52.22%	

7. . Notified details of the resulting situation a. Voting rights attached to shares (articles 21, 22 WpHG)				
ISIN	absolute		in %	
	direct (article 21 WpHG)	indirect (article 22 WpHG)	direct (article 21 WpHG)	indirect (article 22 WpHG)
DE0007664005	0	154093681	0%	52.22%
Total		**154093681**		**52.22%**

b.1. Instruments according to article 25, section 1, no. 1 WpHG				
Type of instrument	Expiration or maturity date	Exercise or conversion period	Voting rights absolute	Voting rights in %
				%
		Total		**%**

b.2. Instruments according to article 25, section 1, no. 2 WpHG					
Type of instrument	Expiration or maturity date	Exercise or conversion period	Cash or physical settlement	Voting rights absolute	Voting rights in %
					%
			Total		**%**

8. Information in relation to the person subject to the notification obligation

☐ Person subject to the notification obligation (3.) is not controlled and does itself not control any other undertaking(s) holding directly or indirectly an interest in the (underlying) issuer (1.).

☒ Full chain of controlled undertakings starting with the ultimate controlling natural person or legal entity:

Name	% of voting rights (if at least held 3% or more)	% of voting rights through instruments (if at least held 5% or more)	Total of both (if at least held 5% or more)
Dr. Wolfgang Porsche, Dr. Dr. Christian Porsche, Dipl.-Design. Stephanie Porsche-Schröder, Ferdinand Rudolf Wolfgang Porsche, Felix Alexander Porsche	%	%	%
Familie WP Holding GmbH	%	%	%
Dr. Wolfgang Porsche Holding GmbH	%	%	%
Ferdinand Alexander Porsche GmbH	%	%	%
Familie Porsche Beteiligung GmbH	%	%	%
Porsche Automobil Holding SE	52.22%	%	52.22%
Dr. Wolfgang Porsche, Dr. Dr. Christian Porsche, Dipl.-Design. Stephanie Porsche-Schröder, Ferdinand Rudolf Wolfgang Porsche, Felix Alexander Porsche	%	%	%
Ferdinand Porsche Familien-Privatstiftung	%	%	%
Ferdinand Porsche Familien- Holding-GmbH	%	%	%
Ferdinand Alexander Porsche GmbH	%	%	%
Familie Porsche Beteiligung GmbH	%	%	%
Porsche Automobil Holding SE	52.22%	%	52.22%

9. In case of proxy voting according to article 22, section 3 WpHG
(only possible when attributable according to article 22, section 1, sentence 1 no. 6 of the WpHG)
Date of general meeting:
Holding position after general meeting: % (equals voting rights)

21) Release according to article 26, section 1 of the WpHG of November 10, 2017

1. Details of issuer
VOLKSWAGEN AKTIENGESELLSCHAFT, Berliner Ring 2, 38440 Wolfsburg, Germany

2. Reason for notification
☐ Acquisition/disposal of shares with voting rights
☐ Acquisition/disposal of instruments
☐ Change of breakdown of voting rights
☒ Other reason: Disposal of subsidiary

3. Details of person subject to the notification obligation	
Name:	City and country of registered office:
Mr Hon.-Prof. Dr. techn. h.c. Dipl.-Ing. ETH Ferdinand Karl Piëch, Date of birth: April 17, 1937	

4. Names of shareholder(s) holding directly 3% or more voting rights, if different from 3.

5. Date on which treshold was crossed or reached
November 8, 2017

6. Total positions

	% of voting rights attached to shares (total of 7.a.)	% of voting rights through instruments (total of 7.b.1. + 7.b.2.)	total of both in % (7.a. + 7.b.)	total number of voting rights of issuer
Resulting situation	0.00%	0.00%	0.00%	295089818
Previous notification	50.76%	n/a%	n/a%	

7. Notified details of the resulting situation **a. Voting rights attached to shares (articles 21, 22 WpHG)**				
ISIN	absolute		in %	
	direct (article 21 WpHG)	indirect (article 22 WpHG)	direct (article 21 WpHG)	indirect (article 22 WpHG)
	0	0	0.00%	0.00%
Total	**0**		**0.00%**	

b.1. Instruments according to article 25, section 1, no. 1 WpHG				
Type of instrument	Expiration or maturity date	Exercise or conversion period	Voting rights absolute	Voting rights in %
				%
		Total		**%**

b.2. Instruments according to article 25, section 1, no. 2 WpHG					
Type of instrument	Expira-tion or maturity date	Exercise or conversion pe-riod	Cash or physical settlement	Voting rights absolute	Voting rights in %
					%
			Total		**%**

8. Information in relation to the person subject to the notification obligation

☒ Person subject to the notification obligation (3.) is not controlled and does itself not control any other undertaking(s) holding directly or indirectly an interest in the (underlying) issuer (1.).

☐ Full chain of controlled undertakings starting with the ultimate controlling natural person or legal entity

Name	% of voting rights (if at least held 3% or more)	% of voting rights through instruments (if at least held 5% or more)	Total of both (if at least held 5% or more)

9. In case of proxy voting according to article 22, section 3 WpHG
(only possible when attributable according to article 22, section 1, sentence 1 no. 6 of the WpHG)
Date of general meeting:
Holding position after general meeting: % (equals voting rights)

10. Other explanatory remarks:
This voting rights notification is made with releasing effect also for Dipl.Ing. Dr. h.c. Ferdinand K. Piech GmbH, Salzburg, and Ferdinand Karl Alpha Privatstiftung, Salzburg. Due to the sale and transfer of the participation in Auto 2015 Beteiligungs GmbH by Dipl.-Ing. Dr. h.c. Ferdinand K. Piech GmbH, Salzburg, voting rights in VOLKSWAGEN AKTIENGESELLSCHAFT are also no longer attributed to Dipl.-Ing. Dr. h.c. Ferdinand K. Piech GmbH, Salzburg, and Ferdinand Karl Alpha Privatstiftung, Salzburg.

Qatar

We have received the following notification:

(1) Pursuant to article 21, section 1 of the WpHG we hereby notify for and on behalf of the State of Qatar, acting by and through the Qatar Investment Authority, Doha, Qatar, that its indirect voting rights in Volkswagen Aktiengesellschaft

(a) exceeded the threshold of 10% on December 17, 2009 and amounted to 13.71% of the voting rights of Volkswagen Aktiengesellschaft (40,440,274 voting rights) as per this date

(i) 6.93% (20,429,274 voting rights) of which have been obtained by the exercise by Qatar Holding LLC of financial instruments within the meaning of article 25, section 1, sentence 1 of the WpHG on that date granting the right to acquire shares in Volkswagen Aktiengesellschaft, and

(ii) all of which are attributed to the State of Qatar pursuant to article 22, section 1, sentence 1 no. 1 of the WpHG.

(b) exceeded the threshold of 15% on December 18, 2009 and amounted to 17.00% of the voting rights of Volkswagen Aktiengesellschaft (50,149,012 voting rights) as per this date

(i) 3.29% (9,708,738 voting rights) of which have been obtained by the exercise by Qatar Holding LLC of financial instruments within the meaning of article 25, section 1, sentence 1 of the WpHG on that date granting the right to acquire shares in Volkswagen Aktiengesellschaft, and

(ii) all of which are attributed to the State of Qatar pursuant to article 22, section 1, sentence 1 no. 1 of the WpHG.

Voting rights that are attributed to the State of Qatar pursuant to lit. (a) and (b) above are held via the following entities which are controlled by it and whose attributed proportion of voting rights in Volkswagen Aktiengesellschaft amount to 3% each or more:

(aa) Qatar Investment Authority, Doha, Qatar;
(bb) Qatar Holding LLC, Doha, Qatar;
(cc) Qatar Holding Luxembourg II S.à.r.l., Luxembourg, Luxembourg;
(dd) Qatar Holding Netherlands B.V., Amsterdam, The Netherlands.

(2) Pursuant to article 21, section 1 of the WpHG we hereby notify for and on behalf of the Qatar Investment Authority, Doha, Qatar, that its indirect voting rights in Volkswagen Aktiengesellschaft

(a) exceeded the threshold of 10% on December 17, 2009 and amounted to 13.71% of the voting rights of Volkswagen Aktiengesellschaft (40,440,274 voting rights) as per this date

(i) 6.93% (20,429,274 voting rights) of which have been obtained by the exercise by Qatar Holding LLC of financial instruments within the meaning of article 25, section 1, sentence 1 of the WpHG on that date granting the right to acquire shares in Volkswagen Aktiengesellschaft, and

(ii) all of which are attributed to the Qatar Investment Authority pursuant to article 22, section 1, sentence 1 no. 1 of the WpHG.

(b) exceeded the threshold of 15% on December 18, 2009 and amounted to 17.00% of the voting rights of Volkswagen Aktiengesellschaft (50,149,012 voting rights) as per this date

(i) 3.29% (9,708,738 voting rights) of which have been obtained by the exercise by Qatar Holding LLC of financial instruments within the meaning of article 25, section 1, sentence 1 of the WpHG on that date granting the right to acquire shares in Volkswagen Aktiengesellschaft, and

(ii) all of which are attributed to the Qatar Investment Authority pursuant to article 22, section 1, sentence 1 no. 1 of the WpHG.

Voting rights that are attributed to the Qatar Investment Authority pursuant to lit. (a) and (b) above are held via the entities as set forth in (1) (bb) through (dd) which are controlled by it and whose attributed proportion of voting rights in Volkswagen Aktiengesellschaft amount to 3% each or more.

(3) Pursuant to article 21, section 1 of the WpHG we hereby notify for and behalf of Qatar Holding LLC, Doha, Qatar, that its direct and indirect voting rights in Volkswagen Aktiengesellschaft

(a) exceeded the threshold of 10% on December 17, 2009 and amounted to 13.71% of the voting rights of Volkswagen Aktiengesellschaft (40,440,274 voting rights) as per this date

(i) 6.93% (20,429,274 voting rights) of which have been obtained by the exercise of financial instruments within the meaning of article 25, section 1, sentence 1 of the WpHG on that date granting the right to acquire shares in Volkswagen Aktiengesellschaft, and

(ii) 6.78% (20,011,000 voting rights) of which are attributed to Qatar Holding LLC pursuant to article 22, section 1, sentence 1 no. 1 of the WpHG.

(b) exceeded the threshold of 15% on December 18, 2009 and amounted to 17.00% of the voting rights of Volkswagen Aktiengesellschaft (50,149,012 voting rights) as per this date

(i) 3.29% (9,708,738 voting rights) of which have been obtained by the exercise of financial instruments within the meaning of article 25, section 1, sentence 1 of the WpHG on that date granting the right to acquire shares in Volkswagen Aktiengesellschaft, and

(ii) 6.78% (20,011,000 voting rights) of which are attributed to Qatar Holding LLC pursuant to article 22, section 1, sentence 1 no. 1 of the WpHG.

Voting rights that are attributed to Qatar Holding LLC pursuant to lit. (a) and (b) above are held via the entities as set forth in (1) (cc) through (dd) which are controlled by it and whose attributed proportion of voting rights in Volkswagen Aktiengesellschaft amount to 3% each or more.

We have received the following notification:

(1) Pursuant to article 21, section 1 of the WpHG we hereby notify for and on behalf of Qatar Holding Luxembourg II S.à.r.l., Luxembourg, Luxembourg, that its indirect voting rights in Volkswagen Aktiengesellschaft exceeded the thresholds of 10% and 15% on December 18, 2009 and amounted to 17.00% of the voting rights of Volkswagen Aktiengesellschaft (50,149,012 voting rights) as per this date, all of which are attributed to Qatar Holding Luxembourg II S.à.r.l. pursuant to article 22, section 1, sentence 1 no.1 of the WpHG.

Voting rights that are attributed to Qatar Holding Luxembourg II S.à.r.l. are held via the following entities which are controlled by it and whose attributed proportion of voting rights in Volkswagen Aktiengesellschaft amount to 3% each or more:
(a) Qatar Holding Netherlands B.V., Amsterdam, The Netherlands;
(b) Qatar Holding Germany GmbH, Frankfurt am Main, Germany.

(2) Pursuant to article 21, section 1 of the WpHG we hereby notify for and on behalf of Qatar Holding Netherlands B.V., Amsterdam, The Netherlands, that its indirect voting rights in Volkswagen Aktiengesellschaft exceeded the thresholds of 10% and 15% on December 18, 2009 and amounted to 17.00% of the voting rights of Volkswagen Aktiengesellschaft (50,149,012 voting rights) as per this date, all of which are attributed to Qatar Holding Luxembourg II S.à.r.l. pursuant to article 22, section 1, sentence 1 no. 1 of the WpHG

Voting rights that are attributed to Qatar Holding Netherlands B.V. are held via the entity as set forth in (1) (b) which is controlled by it and whose attributed proportion of voting rights in Volkswagen Aktiengesellschaft amounts to 3% or more.

(3) Pursuant to article 21, section 1 of the WpHG we hereby notify for and on behalf of Qatar Holding Germany GmbH, Frankfurt am Main, Germany, that its direct voting rights in Volkswagen Aktiengesellschaft exceeded the thresholds of 3%, 5%, 10% and 15% on December 18, 2009 and amounted to 17.00% of the voting rights of Volkswagen Aktiengesellschaft (50,149,012 voting rights) as per this date.

State of Lower Saxony

The State of Lower Saxony notified us on January 8, 2024 that it held a total of 59,022,390 ordinary shares of Volkswagen AG as of December 31, 2023. It held 520 VW ordinary shares directly and 59,021,870 ordinary shares indirectly via Hannoversche Beteiligungsgesellschaft Niedersachsen mbH (HanBG), which is owned by the State of Lower Saxony.

48. German Corporate Governance Code

The Board of Management and Supervisory Board of Volkswagen AG issued the declaration of conformity with the German Corporate Governance Code in accordance with section 161 of the AktG on November 17, 2023. It has been made permanently available to the shareholders of Volkswagen AG on the Company's website at www.volkswagen-group.com/declaration.

In December 2023, the Executive Board and Supervisory Board of TRATON SE also issued their declaration of conformity with the German Corporate Governance Code and made it permanently available to the shareholders at https://ir.traton.com/websites/traton/English/5000/corporate-governance.html.

The Board of Management and Supervisory Board of Dr. Ing. h.c. F. Porsche AG also issued their declaration of conformity with the German Corporate Governance Code in December 2023. It has been made permanently available to shareholders on the company's website at https://investorrelations.porsche.com/en/corporate-governance/.

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

Total remuneration granted to the members of the Board of Management amounted to €51.1 million (previous year: €58.5 million).

Under the performance share plan, a total of 169,465 performance shares (previous year: 133,775) were granted to active members of the Bord of Management for fiscal year 2023; their value at the grant date was €18.8 million (previous year: €19.2 million).

No more advances were granted to members of the Board of Management under the performance share plan in fiscal year 2023. Overall, no advances were deducted from payments under the performance share plan (previous year: €1.4 million) in the fiscal year.

Total remuneration granted to the members of the Supervisory Board amounted to €7.5 million (previous year: €5.3 million).

Pension entitlements and benefits to retired members of the board of management

The former members of the Board of Management and their surviving dependents were granted €10.4 million (previous year: €53.5 million). Pension provisions for this group of individuals amounted to €290.3 million (previous year: €273.3 million).

The individual remuneration of the members of the Board of Management and the Supervisory Board is explained in the remuneration report. A comprehensive assessment of the individual remuneration components can also be found there.

Wolfsburg, February 20, 2024

Volkswagen Aktiengesellschaft
The Board of Management

Responsibility Statement

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the Group management report includes a fair review of the development and performance of the business and the position of the Group, together with a description of the material opportunities and risks associated with the expected development of the Group.

Wolfsburg, February 20, 2024

Volkswagen Aktiengesellschaft
The Board of Management

Oliver Blume	Arno Antlitz	Ralf Brandstätter
Gernot Döllner	Manfred Döss	Gunnar Kilian
Thomas Schäfer	Thomas Schmall-von Westerholt	Hauke Stars

Independent Auditor's Report

On completion of our audit, we issued an unqualified auditor's report dated March 1, 2024 in German language. The following text is a translation of this auditor's report. The German text is authoritative:

To VOLKSWAGEN AKTIENGESELLSCHAFT

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Opinions

We have audited the consolidated financial statements of VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, and its subsidiaries (the Group), which comprise the consolidated income statement and consolidated statement of comprehensive income for the fiscal year from 1 January to 31 December 2023, and the consolidated balance sheet as at 31 December 2023, consolidated statement of changes in equity and consolidated cash flow statement for the fiscal year from 1 January to 31 December 2023, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of VOLKSWAGEN AKTIENGESELLSCHAFT, which is combined with the Company's management report, for the fiscal year from 1 January to 31 December 2023. In accordance with the German legal requirements, we have not audited the content of the parts of the group management report specified in the appendix and the company information stated therein that is provided outside of the annual report and is referenced in the group management report.

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

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2023, and of its financial performance for the fiscal year from 1 January to 31 December 2023, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. We do not express an opinion on the parts of the group management report listed in the appendix.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from 1 January to 31 December 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

1. ACCOUNTING TREATMENT OF THE RISK PROVISIONS FOR THE DIESEL ISSUE

Reasons why the matter was determined to be a key audit matter

Due to indications of irregularities in connection with exhaust gas emissions from diesel engines in certain vehicles of the Volkswagen Group, regulatory authorities in numerous countries (particularly in Europe, the USA and Canada) commenced investigations in the past few years, some of which are still ongoing.

On the basis of its own findings and those of the authorities, the Volkswagen Group implemented various measures, which differed according to the country in some cases and included hardware and software measures, vehicle buybacks and early termination of leases as well as compensation payments to vehicle owners in some instances. The hardware and software measures had largely been completed as of the reporting date. The risk provisions for the diesel issue mainly include provisions for administrative and civil proceedings. Furthermore, there are legal risks from other criminal and administrative proceedings as well as civil actions, particularly by customers and holders of securities.

The provisions recognized as of 31 December 2023 and the contingent liabilities disclosed in the notes to the consolidated financial statements are subject to a significant estimation risk in view of the extensive ongoing criminal and administrative investigations and proceedings, the complexity of the different issues, developments in court rulings and market conditions for used diesel vehicles. Whether provisions need to be recognized or contingent liabilities disclosed for the legal risks from the diesel issue, and in what amount, depends to a large extent on the assessments and assumptions made by the executive directors. As described in the notes to the consolidated financial statements, the executive directors considered in their assessments in particular the fact that, based on the various measures taken and meanwhile largely concluded to resolve the diesel issue, there is still no confirmation that members of the Board of Management were aware of any deliberate manipulation of the engine control unit software prior to the summer of 2015.

In light of the significance of the risk provisions and the extent of the assumptions and scope for judgment by the executive directors, this matter was a key audit matter.

Auditor's response

To assess the recognition and measurement of the provisions for legal risks and the disclosure of contingent liabilities arising from the diesel issue, we considered, in particular, work and opinions by experts engaged by the executive directors of the Volkswagen Group in addition to available official notices and court judgments as part of a risk-based selection of significant transactions. Moreover, with the involvement of our own legal and forensic specialists, we held regular meetings with the Legal department and the external lawyers engaged by the executive directors of the Volkswagen Group to obtain oral explanations about the current developments and reasons leading to the assessments of the ongoing proceedings. We compared confirmations received from external lawyers with the risk assessment by the executive directors. We also regularly reviewed publicly available information, such as media reports, to assess the completeness of the provisions and contingent liabilities.

In addition, we reviewed on a sample basis the input factors (quantity and value) of the provisions and contingent liabilities for individual matters using statements of claims received, settlement agreements and court judgments. With regard to the valuation, we also compared the current assessments by the executive directors with past experience, where observable. For significant additions to provisions, we examined whether they were due to new matters or to changes in the estimation inputs and obtained corresponding evidence. To analyze significant utilizations of the provisions, we obtained an understanding of the procedural controls implemented and examined a sample to determine whether they were based on settlement agreements or court judgments and whether corresponding payments were made.

Our audit procedures did not lead to any reservations relating to the accounting treatment of the risk provisions for the diesel issue.

Reference to related disclosures

The information presented and the statements made in connection with the diesel issue, including the comments on the underlying causes, on when the members of the Board of Management became aware of the issue and on the effects on the accompanying financial statements are contained in the "Key events" and "Accounting policies" sections on "Estimates and assessments by management" and "Balance sheet disclosures," note 30, "Noncurrent and current provisions," note 38, "Contingent liabilities" and note 39, "Litigation" of the notes to the consolidated financial statements and in the "Report on Risks and Opportunities" chapter of the group management report, "Legal risks" section, subsection "Diesel issue."

2. RECOVERABILITY OF GOODWILL AND THE ACQUIRED BRAND NAMES

Reasons why the matter was determined to be a key audit matter

The result of the impairment testing of goodwill and the acquired brand names is highly dependent on the executive directors' estimate of future cash flows and which discount rates they use. The recoverable amount of the cash-generating units is calculated on the basis of their value in use, applying discounted cash flow models.

The ongoing transformation of the core business toward electromobility and digitalization, the transition to autonomous vehicles and growing environmental regulation lead to uncertainties that have to be factored into the estimation of market shares and margins for electric vehicles and the long-term growth rates. These estimates by the executive directors are subject to risk and may be revised in response to changes in environmental regulation and market conditions.

In addition, the executive directors have scope for judgment in determining the cash-generating units for impairment testing, in determining the discount rates used and the long-term growth rates assumed.

In view of the foregoing, the materiality of goodwill and the acquired brand names in relation to total assets, the complexity of the valuation and the judgment exercised during valuation, the impairment testing of goodwill and the acquired brands was a key audit matter.

Auditor's response

During our audit, we involved valuation specialists to assess among other things the methodology used to perform the impairment tests in light of the provisions of IAS 36. We also checked the arithmetical accuracy of the valuation models used.

On the basis of the Volkswagen Group's internal reporting, we assessed for the acquired brands whether the brands represent the lowest level within the Volkswagen Group at which independent cash inflows are generated and whether goodwill is monitored at brand level for internal management purposes.

We analyzed the planning process established in the Volkswagen Group as well as the impairment testing process and tested the operating effectiveness of the controls implemented in each process. In this context, we obtained an understanding of the controls implemented to reconcile the planning of the cash-generating units to the group planning. As a starting point, we compared the Volkswagen Group's five-year operational plan prepared by the executive directors and acknowledged by the Supervisory Board with the forecast figures in the underlying impairment tests. We discussed the key planning assumptions for selected brands to which significant goodwill and acquired brand names are allocated with the executive directors and compared them with past earnings and cash inflows to assess the planning accuracy. We based plausibility testing of the inputs for the impairment tests among other things on a comparison with general and industry-specific market expectations underlying the expected cash inflows. We also investigated the expectations regarding the development of market shares for battery electric vehicles, the effects on the planned investments and their indirect effects on the long-term cash inflows expected by the executive directors.

With respect to the rollforward from the medium-term plan to the long-term forecast, we assessed the plausibility of the assumed growth rates by comparing them with observable data. To assess the discount rates and growth rates applied, we analyzed the inputs used to determine them on the basis of publicly available information and obtained an understanding of the methods used with regard to the relevant requirements of IAS 36.

We also assessed the sensitivity analyses performed by the executive directors in order to estimate any potential impairment risk associated with a reasonably possible change in one of the significant assumptions used in the valuation.

Our procedures did not lead to any reservations relating to the recoverability of goodwill and the acquired brand names.

Reference to related disclosures

With regard to the recognition and measurement policies applied for goodwill and the acquired brand names, refer to the disclosure on intangible assets in the "Accounting policies" section of the notes to the consolidated financial statements. For the related disclosures on judgments by the executive directors and sources of estimation uncertainty as well as the disclosures on goodwill and the acquired brand names, refer to the disclosure in the "Accounting policies" section on "Estimates and assumptions by management" and note 12, "Intangible assets" in the "Balance sheet disclosures" section of the notes to the consolidated financial statements. In the group management report, refer to the "Report on Risks and Opportunities" chapter, "Risks and opportunities" section, subsection "Risks arising from the recoverability of goodwill or brand names and from equity investments."

3. CAPITALIZATION AND RECOVERABILITY OF DEVELOPMENT COSTS

Reasons why the matter was determined to be a key audit matter

Key criteria for capitalizing development costs are the ability to implement the development projects (including their technical feasibility, the intention to complete them and the ability to use them) as well as the realization of an expected future economic benefit. The complexity of research and development projects is mounting in view of the technological transformation of the Volkswagen Group and the resulting new development areas (including high investments in electromobility, software and autonomous driving). Assessments of project feasibility are playing an ever greater role in this connection and entail the use of considerable judgment.

Where capitalized development costs are not yet subject to amortization, they must be tested for impairment as part of the related cash-generating unit at least annually at the level of the brands defined as cash-generating units. The assumption of realizing future economic benefits and the result of testing the recoverability of capitalized development costs during the analyses and impairment tests performed are highly dependent on the executive directors' estimate of future cash flows and which discount rates they use. The recoverable amount of the cash-generating units is calculated on the basis of their value in use, applying discounted cash flow models.

The ongoing transformation of the core business toward electromobility and digitalization, the transition to autonomous vehicles and growing environmental regulation lead to uncertainties that have to be factored into the estimation of market shares and margins for electric vehicles and the long-term growth rates. Growth expectations of the executive directors are subject to risk and may be revised in response to changes in environmental regulation and market conditions.

In addition, the executive directors have scope for judgment in determining the cash-generating units for impairment testing, in determining the discount rates used and the long-term growth rates assumed.

In light of the foregoing, the materiality of the capitalized development costs in relation to total assets, the total amount of research and development costs and the judgment exercised in the valuation process, the capitalization of development costs and the impairment test were a key audit matter.

Auditor’s response

During our audit, we examined the process for identifying the research and development costs, particularly with reference to the criteria for capitalization. In this connection, we carried out analytical audit procedures such as comparisons of project budgets and capitalization rates, inspected documentation on project feasibility and tested process-related controls in some areas. We also assessed the future economic benefit criterion for capitalization based on the assumptions regarding the cash inflows of the cash-generating unit to which the capitalized development work is allocated.

Moreover, we involved valuation specialists to assess among other things the methodology used to determine the relevant cash-generating units and perform the impairment tests in light of the provisions of IAS 36. We also checked the arithmetical accuracy of the valuation models used.

We analyzed the planning process established in the Volkswagen Group and tested the operating effectiveness of the controls implemented therein. As a starting point, we compared the Volkswagen Group’s five-year operational plan prepared by the executive directors and acknowledged by the Supervisory Board with the forecast figures in the underlying impairment tests. We discussed with the executive directors the key planning assumptions for a sample we selected of brands with significant capitalized development costs and compared them with past earnings and cash inflows to assess the planning accuracy. We based plausibility testing of the inputs for the impairment tests among other things on a comparison with general and industry-specific market expectations underlying the expected cash inflows. We also investigated the expectations regarding the development of market shares for battery electric vehicles, the effects on the planned investments and their indirect effects on the long-term cash inflows expected by the executive directors.

With respect to the rollforward from the medium-term plan to the long-term forecast, we assessed the plausibility of the assumed growth rates by comparing them with observable data. To assess the discount rates and growth rates applied, we analyzed the inputs used to determine them on the basis of publicly available information and obtained an understanding of the methods used with regard to the relevant requirements of IAS 36.

We also assessed the sensitivity analyses performed by the executive directors in order to estimate any potential impairment risk associated with a reasonably possible change in one of the significant assumptions used in the valuation.

Our procedures did not lead to any reservations relating to the recognition and recoverability of the capitalized development costs.

Reference to related disclosures

With regard to the recognition and measurement policies applied for capitalized development costs, refer to the disclosure on intangible assets in the “Accounting policies” section of the notes to the consolidated financial statements. For the related disclosures on judgments by the executive directors and sources of estimation uncertainty as well as the disclosures on capitalized development costs, refer to the disclosures in the “Accounting policies” section on “Estimates and assumptions by management” and note 12, “Intangible assets” in the “Balance sheet disclosures” section of the notes to the consolidated financial statements.

4. COMPLETENESS AND MEASUREMENT OF PROVISIONS FOR WARRANTY OBLIGATIONS

Reasons why the matter was determined to be a key audit matter

Obligations for warranty claims are calculated on the basis of estimated warranty costs and ex gratia arrangements. Where unusual individual technical risks are anticipated, an individual assessment is made whether and, if so, to what extent measures are required to remediate them and provisions need to be recognized.

The amount of provisions for warranty claims is significant overall. Besides the general use of judgment in selecting the valuation methods and assessing the obligations, increasing estimation uncertainty stems from the growing proportion of hybrid and battery electric vehicles entering the market and a lack of experience of their susceptibility to faults. In light of the amount of the provisions and the judgment exercised during valuation, the completeness and measurement of provisions for warranty obligations was a key audit matter.

Auditor's response

With regard to the accounting for the provisions for warranty obligations, we examined the underlying processes for recording previous claims, calculating and valuing the estimated future warranty costs and recognizing the provisions, and tested controls in some areas.

In light of the uncertainty in relation to the estimated future warranty costs, we assessed the underlying valuation assumptions, especially the expected claim rate per vehicle and the cost thereof, using analyses of historical data. Where there was a lack of past experience, we obtained an understanding of the assumptions made by the executive directors and tested their plausibility using historical data for comparable items. Using the calculation bases derived from these historical data, we checked the estimated costs for expected claims per vehicle. To assess the completeness of the provisions, we also reconciled the number of sold vehicles used to recognize the provision with the sales volumes. We obtained an understanding of the method used for calculating the provisions, including the discounting, and reperformed the calculations.

For significant individual technical risks, we assessed the expected incidence of technical faults and the calculation of expected costs per claim/vehicle using documentation on previous claims, inspecting resolutions passed by technical committees and holding discussions with the departments responsible.

Our audit procedures did not lead to any reservations relating to the completeness and valuation of provisions for warranty obligations.

Reference to related disclosures

With regard to the recognition and measurement policies applied in accounting for provisions for warranty obligations, refer to the disclosures in the "Accounting policies" section on "Estimates and assessments by management" and note 30, "Noncurrent and current other provisions" in the "Balance sheet disclosures" section of the notes to the consolidated financial statements.

5. DETERMINATION OF THE EXPECTED RESIDUAL VALUES OF LEASE ASSETS DURING IMPAIRMENT TESTING

Reasons why the matter was determined to be a key audit matter

The lease assets balance sheet item comprises vehicles under operating leases. The recoverability of the lease assets depends in particular on the expected residual value of the leased vehicles after expiration of the contractual term. The expected residual values are reviewed by the Company on a quarterly basis. The forecast residual values are adjusted to include constantly updated internal and external information on residual values, depending on specific local factors and the experiences gained in the marketing of used cars. This requires management to make, in particular, assumptions about vehicle supply and demand in the future, as well as about vehicle price trends.

Minimal changes in the parameters underlying the valuation can lead to significant variation in values. In this light, the determination of the expected residual values of assets leased under operating leases during impairment testing was a key audit matter.

Auditor's response

During our audit, we analyzed the process implemented by the Company for determining and monitoring the residual values to identify any risks of material misstatement and obtained an understanding of the process steps and controls. On this basis, we tested the operating effectiveness of the implemented controls over the determination and monitoring of the expected residual values. To assess the forecasting models used to determine the residual values, we assessed the validation plans on the basis of the respective model designs to determine whether the validation procedures described in the plans allow an assessment of the models' forecast quality. We investigated whether the validation procedures performed according to the validation plans and the backtesting performed led to any indications of model weaknesses or any need to adjust the models. Furthermore, we assessed whether the assumptions underlying the forecasting model and the inputs used for determining the expected residual values were clearly documented. To this end, we obtained evidence for the main inputs and assumptions used for mileage, age and lifecycle phase of the vehicles to determine the residual values and examined them for currentness and transparency. We assessed whether the marketing assumptions used reflect industry-specific and general market expectations as well as, in particular, current marketing results.

Our audit procedures did not lead to any reservations relating to the determination of the expected residual values of the assets leased under operating leases during impairment testing.

Reference to related disclosures

With regard to the recognition and measurement policies applied for lease assets, refer to the disclosure on lease assets in the "Accounting policies" section of the notes to the consolidated financial statements. For the related disclosures on judgments by the executive directors and sources of estimation uncertainty, refer to the disclosures in the "Accounting policies" section on "Estimates and assumptions by management" and note 14, "Lease assets and investment property" in the "Balance sheet disclosures" section of the notes to the consolidated financial statements.

Emphasis of matter paragraph – Immanent risk due to uncertainties regarding the legal conformity of the interpretation of the EU Taxonomy Regulation

We draw attention to the executive directors' comments on the EU Taxonomy disclosures in the "EU Taxonomy" section of the group management report, where it is stated that the EU Taxonomy Regulation and the Delegated Acts adopted thereunder contain wording and terms that are still subject to interpretation uncertainties and for which clarifications have not yet been published in every case. The executive directors describe how they interpreted the EU Taxonomy Regulation and the Delegated Acts adopted thereunder. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties. Our opinion on the group management report is not modified in this respect.

Other information

The Supervisory Board is responsible for the Report of the Supervisory Board. The executive directors and the Supervisory Board are responsible for the declaration pursuant to Sec. 161 AktG ["Aktiengesetz": German Stock Corporation Act] on the German Corporate Governance Code, which is part of the group corporate governance declaration, and for the remuneration report pursuant to Sec. 162 AktG. In all other respects, the executive directors are responsible for the other information. The other information comprises the parts of the annual report listed in the appendix.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

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

RESPONSIBILITIES OF THE EXECUTIVE DIRECTORS AND THE SUPERVISORY BOARD FOR THE CONSOLIDATED FINANCIAL STATEMENTS AND THE GROUP MANAGEMENT REPORT

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

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

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

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

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

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

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

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

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

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

REPORT ON THE ASSURANCE ON THE ELECTRONIC RENDERING OF THE CONSOLIDATED FINANCIAL STATEMENTS AND THE GROUP MANAGEMENT REPORT PREPARED FOR PUBLICATION PURPOSES IN ACCORDANCE WITH SEC. 317 (3A) HGB

Opinion

We have performed assurance work in accordance with Sec. 317 (3a) HGB to obtain reasonable assurance about whether the rendering of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the file VWAG_JFB_Konzern_2023-12-31.zip and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance work extends only to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained within these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the consolidated financial statements and the group management report contained in the file identified above and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format. Beyond this assurance opinion and our audit opinions on the accompanying consolidated financial statements and the accompanying group management report for the fiscal year from 1 January to 31 December 2023 contained in the "Report on the audit of the consolidated financial statements and of the group management report" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

Basis for the opinion

We conducted our assurance work on the rendering of the consolidated financial statements and the group management report contained in the file identified above in accordance with Sec. 317 (3a) HGB and the IDW Assurance Standard: Assurance on the Electronic Rendering of Financial Statements and Management Reports Prepared for Publication Purposes in Accordance with Sec. 317 (3a) HGB (IDW AsS 410 (06.2022)). Our responsibility in accordance therewith is further described in the "Group auditor's responsibilities for the assurance work on the ESEF documents" section. Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibilities of the executive directors and the Supervisory Board for the ESEF documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic rendering of the consolidated financial statements and the group management report in accordance with Sec. 328 (1) Sentence 4 No. 1 HGB and for the tagging of the consolidated financial statements in accordance with Sec. 328 (1) Sentence 4 No. 2 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have determined necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB for the electronic reporting format.

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

Group auditor's responsibilities for the assurance work on the ESEF documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB. We exercise professional judgment and maintain professional skepticism throughout the assurance work. We also:

- Identify and assess the risks of material intentional or unintentional non-compliance with the requirements of Sec. 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e., whether the file containing the ESEF documents meets the requirements of Commission Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, on the technical specification for this file.
- Evaluate whether the ESEF documents enable an XHTML rendering with content equivalent to the audited consolidated financial statements and to the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Arts. 4 and 6 of Commission Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as group auditor by the Annual General Meeting on 10 May 2023. We were engaged by the Supervisory Board on 26 July 2023. We have been the group auditor of VOLKSWAGEN AKTIENGESELLSCHAFT since fiscal year 2020.

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

Other matter – Use of the auditor's report

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the assured ESEF documents. The consolidated financial statements and the group management report converted to the ESEF format – including the versions to be published in the *Unternehmensregister* [German Company Register] – are merely electronic renderings of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the assured ESEF documents made available in electronic form.

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Martin Matischiok.

Appendix to the auditor's report:

1. PARTS OF THE GROUP MANAGEMENT REPORT WHOSE CONTENT IS UNAUDITED

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

- The group corporate governance declaration which is published on the website stated in the group management report and is part of the group management report.
- The disclosures extraneous to management reports contained in the "Report on Risks and Opportunities" chapter in the section entitled "Monitoring the effectiveness of the risk management system and the internal control system."

Disclosures extraneous to management reports are such disclosures that are not required pursuant to Secs. 315, 315a HGB or Secs. 315b to 315d HGB or GAS 20.

2. FURTHER OTHER INFORMATION

The other information comprises the following parts of the annual report, of which we obtained a copy prior to issuing this auditor's report:

- The Group Nonfinancial Report

The other information also comprises other parts to be included in the annual report, of which we obtained a copy prior to issuing this auditor's report, in particular the sections:

- Report of the Supervisory Board
- To our Shareholders
- Divisions
- Group Corporate Governance Declaration
- Remuneration Report
- Responsibility Statement; and
- Additional Information

but not the consolidated financial statements, not the group management report disclosures whose content is audited and not our auditor's report thereon.

3. COMPANY INFORMATION OUTSIDE OF THE ANNUAL REPORT REFERENCED IN THE GROUP MANAGEMENT REPORT

The group management report contains other cross-references to webpages of the Group. We have not audited the content of the information to which these cross-references refer.

Hanover, 1 March 2024

EY GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft

Meyer Wirtschaftsprüfer [German Public Auditor]	Matischiok Wirtschaftsprüfer [German Public Auditor]

Independent Auditor's Report

To VOLKSWAGEN AKTIENGESELLSCHAFT

We have audited the attached remuneration report of VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, prepared to comply with Sec. 162 AktG ["Aktiengesetz": German Stock Corporation Act] for the fiscal year from 1 January to 31 December 2023 and the related disclosures. We have not audited the content of the disclosures on appropriateness and market alignment in section "1. Principles of Board of Management remuneration" of the remuneration report where they go beyond the scope of Sec. 162 AktG.

RESPONSIBILITIES OF THE EXECUTIVE DIRECTORS AND THE SUPERVISORY BOARD

The executive directors and the Supervisory Board of VOLKSWAGEN AKTIENGESELLSCHAFT are responsible for the preparation of the remuneration report and the related disclosures in compliance with the requirements of Sec. 162 AktG. In addition, the executive directors and the Supervisory Board are responsible for such internal control as they determine is necessary to enable the preparation of a remuneration report and the related disclosures that are free from material misstatement, whether due to fraud (i.e., fraudulent financial reporting and misappropriation of assets) or error.

AUDITOR'S RESPONSIBILITY

Our responsibility is to express an opinion on this remuneration report and the related disclosures based on our audit. We conducted our audit in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report and the related disclosures are free from material misstatement, whether due to fraud or error.

An audit involves performing procedures to obtain audit evidence about the amounts in the remuneration report and the related disclosures. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the remuneration report and the related disclosures, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the preparation of the remuneration report and the related disclosures in order to plan and perform audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the accounting policies used and the reasonableness of accounting estimates made by the executive directors and the Supervisory Board, as well as evaluating the overall presentation of the remuneration report and the related disclosures.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

OPINION

In our opinion, on the basis of the knowledge obtained in the audit, the remuneration report for the fiscal year from 1 January to 31 December 2023 and the related disclosures comply, in all material respects, with the financial reporting provisions of Sec. 162 AktG. We do not express an opinion on the content of the abovementioned disclosures of the remuneration report that go beyond the scope of Sec. 162 AktG.

OTHER MATTER – FORMAL AUDIT OF THE REMUNERATION REPORT

The audit of the content of the remuneration report described in this auditor's report comprises the formal audit of the remuneration report required by Sec. 162 (3) AktG and the issue of a report on this audit. As we are issuing an unqualified opinion on the audit of the content of the remuneration report, this also includes the opinion that the disclosures pursuant to Sec. 162 (1) and (2) AktG are made in the remuneration report in all material respects.

LIMITATION OF LIABILITY

The "General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]" as issued by the IDW on 1 January 2017, are applicable to this engagement and also govern our responsibility and liability to third parties in the context of this engagement (www.de.ey.com/general-engagement-terms).

Hanover, 1 March 2024

EY GmbH & Co. KG
Wirtschaftsprüfungsgesellschaft

Matischiok Wirtschaftsprüfer [German Public Auditor]	Hantke Wirtschaftsprüfer [German Public Auditor]