Notes to the Consolidated Financial Statements

of the Volkswagen Group as of December 31, 2016

Basis of presentation

Volkswagen AG is domiciled in Wolfsburg, Germany, and entered in the commercial register at the Braunschweig Local Court under No. HRB100484. 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 2016 in compliance with the International Financial Reporting Standards (IFRSs), as adopted by the European Union. We have complied with all the IFRSs adopted by the EU and required to be applied.

The accounting policies applied in the previous year were retained, with the exception of the changes due to the new or amended standards.

In addition, we have complied with all the provisions of German commercial law that we are also required to apply, as well as with the German Corporate Governance Code. For information on notices and disclosures of changes regarding the ownership of voting rights in Volkswagen AG in accordance with the Wertpapierhandelsgesetz (WpHG – German Securities Trading Act), please refer to the annual financial statements of Volkswagen AG.

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 above-mentioned 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 present fairly 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 24, 2017. 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 2016.

A number of amendments to International Financial Reporting Standards resulting from the Annual Improvements Project 2012 and the Annual Improvements Project 2014 became effective on January 1, 2016. Among others, these amendments included changes to IFRS 3, IFRS 7, IFRS 8, IFRS 13 and IAS 24. The changes to IFRS 8 Operating Segments added a requirement to describe the criteria used to aggregate the operating segments. The segment disclosure requirements have therefore been clarified. Additional disclosure requirements have been included in IFRS 7 in relation to the derecognition of financial instruments. These changes mainly entail clarifications in relation to ABS transactions.

Changes to IAS 19 also had to be applied from January 1, 2016 onward. These changes relate to the accounting treatment of employee pension contributions. In the Volkswagen Group, employee contributions in which the amount is independent of the number of years of service (fixed percentage of salary) will be deducted from the service cost in the year the contributions are made.

The amendments to IAS 16 and IAS 38 clarified that, with effect from January 1, 2016, revenue-based methods for measuring depreciation and amortization are not generally permitted.

Furthermore, IAS 1 made clarifications and amendments for IFRS reporting with effect from January 1, 2016. The amendments also specified that disclosures are only required in the consolidated financial statements if the content is material.

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

New and amended IFRSs not applied

In its 2016 consolidated financial statements, Volkswagen AG did not apply the following accounting pronouncements that have already been adopted by the IASB, 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 2	Classification and Measurement of Share-based Payment Transactions	June 20, 2016	January 1, 2018	No	None
IFRS 4	Insurance Contracts: Application of IFRS 9 for insurers	September 12, 2016	January 1, 2018	No	None
IFRS 9	Financial instruments	July 24, 2014	January 1, 2018	Yes	Detailed descriptions after the tabular overview
IFRS 10 and IAS 28	Consolidated Financial Statements and Investments in Associates and Joint Ventures: Sales or Contributions of Assets between an Investor and its Associate/Joint Venture	September 11, 2014	Deferred[2]	–	None
IFRS 15	Revenue from Contracts with Customers	May 28, 2014	January 1, 2018[3]	Yes	Detailed descriptions after the tabular overview
	Clarifications of IFRS 15 – Revenue from Contracts with Customers	April 12, 2016	January 1, 2018	No	Additional transitional expedients, otherwise no material impact
IFRS 16	Leases	January 13, 2016	January 1, 2019	No	Detailed descriptions after the tabular overview
IAS 7	Statement of Cash Flows: Disclosure Initiative	January 29, 2016	January 1, 2017	No	Preparation of a reconciliation statement for liabilities from financing activities
IAS 12	Income Taxes: Recognition of Deferred Tax Assets for Unrealized Losses	January 19, 2016	January 1, 2017	No	No material impact

IAS 40	Transfers of Investment Property	December 8, 2016	January 1, 2018	No	No material impact
	Annual Improvements to International Financial Reporting Standards 2016[4]	December 8, 2016	January 1, 2018[5]	No	No material impact
IFRIC 22	Foreign Currency Transactions and Advance Consideration	December 8, 2016	January 1, 2018	No	Translation of advance payments denominated in foreign currency into the functional currency at the spot rate on the day of payment

1 Effective date from Volkswagen AG's perspective.
2 The IASB decided on December 15, 2015 to defer the effective date indefinitely.
3 Deferred until January 1, 2018 (IASB decision of September 11, 2015).
4 Minor amendments to a number of IFRSs (IFRS 1, IFRS 12, IAS 28).
5 This relates to the effective date of the amendments to IFRS 1 and IAS 28; the effective date for the IFRS 12 is January 1, 2017.

IFRS 9 – FINANCIAL INSTRUMENTS

IFRS 9 "Financial Instruments" changes the accounting requirements for classifying and measuring financial assets, for impairment of financial assets, and for hedge accounting.

Financial assets are classified and measured on the basis of the entity's business model and the characteristics of the financial asset's cash flows. A financial asset is initially measured either "at amortized cost", "at fair value through other comprehensive income", or "at fair value through profit or loss". The Volkswagen Group does not expect IFRS 9 to result in material changes in the updated classification of its financial assets. The classification of financial liabilities under IFRS 9 is largely unchanged compared with the current accounting requirements of IAS 39.

The basis for measuring impairment losses and recognizing loss allowances will switch from an incurred loss model to an expected credit loss model. We expect that this change in the requirements will tend to increase the amount of recognized loss allowances. This expectation is based, first, on the requirement to recognize a loss allowance on the basis of expected credit losses in the first 12 months in the case of financial assets not classified as non-performing and whose credit risk has not increased significantly since initial recognition. It is based, second, on the assessment that for financial assets for which there has been a signify-cant increase in credit risk since initial recognition, loss allowances must be recognized on the basis of the entire remaining life of the contractual asset.

In the case of hedge accounting, IFRS 9 contains both extended designation options and the need to implement more complex measurement methods. In addition, IFRS 9 also eliminates the quantitative limits for effectiveness testing.

IFRS 9 will have a particularly significant impact on the entity's reclassification practice. Depending on market trends, there is an expectation that operating profit or loss will be affected by hedging transactions to a greater extent.

This will also result in far more extensive disclosures.

IFRS 15 – REVENUE FROM CONTRACTS WITH CUSTOMERS

IFRS 15 revises the accounting requirements governing revenue recognition. The Volkswagen Group expects that the changes resulting from IFRS 15 will lead to minor shifts in the recognition of revenue from warranty and licensing agreements for construction contracts. No significant changes over and above this are expected, in particular in the case of multiple-element arrangements. The Volkswagen Group plans to apply the modified retrospective transitional method under which the cumulative effect of initially applying IFRS 15 will be recognized as an adjustment to the opening balance of equity in 2018.

This will also result in far more extensive disclosures.

IFRS 16 – LEASES

IFRS 16 changes the accounting for leases. The main objective of IFRS 16 is to recognize all leases. It establishes that lessees are no longer required to classify their leases as either finance leases or operating leases. In the future, they will instead be required to recognize a right-of-use asset and a lease liability for all leases in the statement of financial position. Exceptions will only be made for short-term leases and leases of low-value assets. During the lease term, the right-of-use asset must be depreciated and the lease liability adjusted using an effective interest method and taking the lease payments into account. The new lessee accounting model will therefore tend to increase noncurrent assets and noncurrent liabilities. In the income statement this change is expected to improve the operating result and reduce the financial result. It will also lead to far more extensive disclosures. Lessor accounting essentially follows the current guidance of IAS 17. In the future, lessors will continue to classify their leases as finance leases or operating leases on the basis of the risks and rewards incidental to ownership of the leased asset.

Key events

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 vehicles with Volkswagen Group diesel engines. Volkswagen admitted to irregularities in this context. In its ad hoc release dated September 22, 2015, the Volkswagen Group announced that noticeable discrepancies between the figures achieved in testing and in actual road use had been identified in around eleven million vehicles worldwide with certain diesel engines.

On November 2, 2015, the EPA issued another "Notice of Violation" alleging that irregularities had also been discovered in the software installed in vehicles with type V6 3.0 l TDI diesel engines. Audi has confirmed that at least three auxiliary emission control devices (AECDs) were not disclosed in the course of the US approval documentation of vehicles with six-cylinder V6 3.0 l TDI diesel engines.

Consequently, the Volkswagen Group has recognized expenses directly related to the diesel issue in 2015 in the total amount of €16.2 billion in operating result. This primarily entailed recognizing provisions for field activities (service measures and recalls) and for repurchases in the amount of €7.8 billion, as well as €7.0 billion for legal risks.

Additional expenses of €6.4 billion were recognized in fiscal year 2016 in connection with the diesel issue. These additions resulted from an increase in expenses attributable to legal risks amounting to €5.1 billion, higher warranty costs amounting to €0.4 billion, specific sales programs amounting to €0.5 billion, impairment losses on inventories amounting to €0.3 billion and impairment losses on intangible assets and property, plant and equipment amounting to €0.3 billion, which are offset by impairment reversals of noncurrent and current lease assets in the amount of €0.1 billion. The impairment losses recognized on noncurrent assets resulted primarily from the lower value in use of various products in the Passenger Cars segment due to expected declines in volumes. In addition, provisions of €0.3 billion were recognized for the investments totaling USD 2.0 billion over 10 years in zero emissions vehicle infrastructure as well as corresponding access and awareness initiatives for these technologies to which the Volkswagen Group had committed itself in the settlement agreements. Unutilized provisions for legal risks and sales-related measures amounting to a total of €0.5 billion had an offsetting effect. The Volkswagen Group has started entering into exchange rate hedges relating to the outstanding obligations denominated in foreign currencies. The translation at the reporting date of provisions denominated in foreign currencies resulted in expenses of €0.2 billion after hedging.

In addition, expenses were recognized for restructuring measures in the trucks and passenger car business in South America (€0.3 billion) and in the Power Engineering segment (€0.2 billion). Provisions of €0.4 billion were recognized for the antitrust proceedings that the European Commission opened in 2011 against European truck manufacturers including MAN and Scania. Additional provisions amounting to €0.3 billion were recognized in the reporting period in connection with the replacement of potentially faulty airbags, manufactured and supplied by Takata, imposed by the competent authorities.

Further information on the litigation in connection with the diesel issue as well as the antitrust proceedings and the replacement of airbags manufactured and supplied by Takata can be found in the “Litigation” and “Contingent liabilities” sections.

Based on current information, fiscal year 2014 is not affected by the effects of the diesel issue. In the months after the International Council on Clean Transportation (ICCT) study was published in May 2014, the test set-ups on which the ICCT study was based were repeated in house at Volkswagen and the unusually high NO_x emissions confirmed. The US environmental authority of California – the California Air Resources Board (CARB) – was informed of this result, and at the same time the offer was made to recalibrate the type EA 189 diesel engines as part of a service measure that was already planned in the USA. This measure was evaluated and adopted by the Ausschuss für Produktsicherheit (APS – product safety committee), which includes, among others, employees from the technical development, quality assurance, sales, production, logistics, procurement and legal departments, as part of the existing processes within the Volkswagen Group. The APS thus plays a central role in the internal control system at Volkswagen AG. There are currently no findings to confirm that an unlawful “defeat device software” under US law was reported by the APS as the cause of the discrepancies to the persons responsible for preparing the 2014 annual and consolidated financial statements. Instead, at the time that the annual and consolidated financial statements were being prepared, this group of people remained under the impression that the issue could be solved with comparatively little effort as part of a field measure. By the summer of 2015, however, it was reliably recognized that the cause of the discrepancies was a software modification, that would qualify as a “defeat device” as defined by US environmental law. This culminated in the disclosure of the US “defeat device” to EPA and CARB on September 3, 2015. According to the assessment at that time of the members of the Board of Management dealing with the matter, the scope of the costs expected as a result by the Volkswagen Group (recall costs, retrofitting costs and financial penalties) was basically not dissimilar to that of previous cases in which other vehicle manufacturers were involved, and therefore appeared to be controllable overall with a view to the business activities of the Volkswagen Group. This appraisal by Volkswagen AG was based on the assessment of a law firm brought in in the USA for approval issues, according to which similar cases in the past were resolved amicably with the US authorities. Publication of a “Notice of Violation” by the EPA on September 18, 2015, which came as a surprise to the Company, on the facts and possible financial consequences, then presented the situation in a completely different light.

Also, the publications released by the reporting date, as well as the continued investigations and interviews in connection with the diesel issue, did not provide the Group Board of Management with any new reliable findings or assessments regarding the underlying facts and the assessment of the associated risks (e.g. investor lawsuits).

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. This is the case if Volkswagen AG obtains power over the potential subsidiaries directly or indirectly from voting rights or similar rights, is exposed, or has rights to, positive or negative variable returns from its involvement with the subsidiaries, and is able to influence those returns. In the case of the structured entities consolidated in the Volkswagen Group, Volkswagen is able to direct the material relevant activities remaining after the change in the structure even if it is not invested in the structured entity concerned and is thus able to influence the variable returns from its involvement. 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. Consolidation of subsidiaries begins at the first date on which control exists, and ends when such control no longer exists.

Subsidiaries whose business is dormant or of low volume and that are 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 were 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:

	2016	2015
Volkswagen AG and consolidated subsidiaries		
Germany	149	155
Abroad	919	885
Subsidiaries carried at cost		
Germany	74	63
Abroad	251	287
Associates, joint ventures and other equity investments		
Germany	47	45
Abroad	70	69
	1,510	**1,504**

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.volkswagenag.com/ir by clicking on “Further mandatory Publications” under the heading “Mandatory Publications”.

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

- Audi Berlin GmbH, Berlin
- Audi Frankfurt GmbH, Frankfurt am Main
- Audi Hamburg GmbH, Hamburg
- Audi Hannover GmbH, Hanover
- Audi Leipzig GmbH, Leipzig
- Audi Stuttgart GmbH, Stuttgart
- Autostadt GmbH, Wolfsburg
- AutoVision GmbH, Wolfsburg
- Bugatti Engineering GmbH, Wolfsburg

- Dr. Ing. h.c. F. Porsche AG, Stuttgart
- Haberl Beteiligungs-GmbH, Munich
- Karosseriewerk Porsche GmbH & Co. KG, Stuttgart
- MAHAG GmbH, Munich
- Porsche Connect GmbH, Stuttgart
- Porsche Consulting GmbH, Bietigheim-Bissingen
- Porsche Deutschland GmbH, Bietigheim-Bissingen
- Porsche Dienstleistungs GmbH, Stuttgart
- Porsche Engineering Group GmbH, Weissach
- Porsche Engineering Services GmbH, Bietigheim-Bissingen
- Porsche Financial Services GmbH & Co. KG, Bietigheim-Bissingen
- Porsche Financial Services GmbH, Bietigheim-Bissingen
- Porsche Holding Stuttgart GmbH, Stuttgart
- Porsche Leipzig GmbH, Leipzig
- Porsche Lizenz- und Handelsgesellschaft mbH & Co. KG, Ludwigsburg
- Porsche Logistik GmbH, Stuttgart
- Porsche Niederlassung Berlin GmbH, Berlin
- Porsche Niederlassung Berlin-Potsdam GmbH, Kleinmachnow
- Porsche Niederlassung Hamburg GmbH, Hamburg
- Porsche Niederlassung Leipzig GmbH, Leipzig
- Porsche Niederlassung Stuttgart GmbH, Stuttgart
- Porsche Nordamerika Holding GmbH, Ludwigsburg
- Porsche Siebte Vermögensverwaltung GmbH, Wolfsburg
- Porsche Zentrum Hoppegarten GmbH, Stuttgart
- Raffay Versicherungsdienst GmbH, Hamburg
- SKODA AUTO Deutschland GmbH, Weiterstadt
- VfL Wolfsburg-Fußball GmbH, Wolfsburg
- VGRD GmbH, Wolfsburg
- 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 Region Hannover GmbH, Hanover
- Volkswagen Automobile Rhein-Neckar GmbH, Mannheim
- Volkswagen Automobile Stuttgart GmbH, Stuttgart
- Volkswagen Gebrauchtfahrzeughandels und Service GmbH, Langenhagen
- Volkswagen Group Real Estate GmbH & Co. KG, Wolfsburg
- Volkswagen Immobilien GmbH, Wolfsburg
- Volkswagen Konzernlogistik GmbH & Co. OHG, Wolfsburg
- Volkswagen New Mobility GmbH, Wolfsburg
- Volkswagen Original Teile Logistik GmbH & Co. KG, Baunatal
- Volkswagen Osnabrück GmbH, Osnabrück
- Volkswagen R GmbH, Wolfsburg
- Volkswagen Sachsen GmbH, Zwickau
- Volkswagen Truck & Bus GmbH, Braunschweig
- Volkswagen Vertriebsbetreuungsgesellschaft mbH, Chemnitz
- Volkswagen Zubehör GmbH, Dreieich

CONSOLIDATED SUBSIDIARIES

The changes in the consolidated Group are shown in the following table:

Number	Germany	Abroad
Initially consolidated		
of which: subsidiaries previously carried at cost	3	52
of which: newly acquired subsidiaries	0	1
of which: newly formed subsidiaries	0	6
Deconsolidated		
of which: mergers	4	13
of which: liquidations	5	7
of which: sales/other	0	5

The initial inclusion 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 Sinotruk (Hong Kong) Ltd., Hongkong, China (Sinotruk), Bertrandt AG, Ehningen (Bertrandt) and There Holding B.V., Rijswijk, the Netherlands (There Holding) were material at the reporting date.

Sinotruk

Sinotruk is one of the largest truck manufacturers in the Chinese market. There is an agreement in place between Group companies and Sinotruk regarding a long-term strategic partnership, under which the Group participates in the local market. In addition to the partnership with Sinotruk in the volume segment, exports of MAN vehicles to China are also helping to expand access to the small, but fast-growing premium truck market. Sinotruk's principal place of business is in Hongkong, China.

As of December 31, 2016, the quoted market price of the shares in Sinotruk amounted to €466 million (previous year: €251 million).

Bertrandt

Bertrandt is an engineering partner to companies in the automotive and aviation industry. Its portfolio of services ranges from developing individual components through complex modules to end-to-end solutions. Bertrandt's principal place of business is in Ehningen.

As of December 31, 2016, the quoted market price of the shares in Bertrandt amounted to €284 million (previous year: €327 million).

There Holding

The Audi Group, the BMW Group and Daimler AG each hold a 33.3% interest in There Holding B.V., Rijswijk, the Netherlands, which was formed in 2015. Effective December 4, 2015, There Holding B.V. acquired all shares in the HERE Group through a wholly owned subsidiary, There Acquisition B.V., Rijswijk, the Netherlands, for a purchase price of €2,593 million. HERE develops and sells high-resolution maps with real-time location information. The purchase price was financed largely by way of capital contributions at There Holding B.V. Audi's share of it amounts to €668 million. The remainder of the purchase price was financed through bank loans at There Acquisition B.V. There Acquisition B.V. was renamed HERE International B.V. on January 29, 2016.

There Holding B.V. is an associate that is accounted for using the equity method. The identification of hidden reserves and liabilities was completed in the first quarter of 2016. In view of the timing of this, and also for reasons of materiality, There Holding was not included as of December 31, 2015 on the basis of the Group's share of profit or loss.

In December 2016, There Holding B.V. signed contracts to sell a total of 25% of its shares in HERE International B.V. A 15% share was acquired by Intel Holdings B.V. The sale of 15% of these shares to Intel Holdings B.V. was completed in January 2017. The remaining 10% was sold to a Chinese consortium consisting of NavInfo Co. Ltd., Tencent Holdings Ltd. and GIC Private Ltd. It is expected that this transaction will be completed in the first half of 2017, after it has been approved by the competent authorities.

Navistar

Volkswagen Truck & Bus GmbH, a wholly owned subsidiary of Volkswagen AG, and US-based commercial vehicles manufacturer Navistar International Corporation, Lisle, USA, announced on September 6, 2016 that they had entered into a far-reaching alliance. This includes framework agreements for a strategic technology and supply cooperation, as well as a procurement joint venture. Additionally, Volkswagen Truck & Bus will acquire a 16.6% equity interest in Navistar by subscribing for a capital increase. The share price amounts to USD 15.76 and the total purchase price comes to USD 0.3 billion. The closing of the transaction and hence the implementation of the strategic alliance is subject to certain regulatory approvals and other customary closing conditions. The closing of the share acquisition by Volkswagen Truck & Bus is further subject to the finalization of the agreement governing the procurement joint venture and of the first contract under the technology and supply cooperation. The transaction is expected to close in the first quarter of 2017.

SUMMARIZED FINANCIAL INFORMATION ON MATERIAL ASSOCIATES ON A 100% BASIS:

€ million	Sinotruk[1]	Bertrandt[2]	There Holding[3]
2016			
Equity interest (%)	25	29	33
Noncurrent assets	2,075	603	2,802
Current assets	4,034	492	592
Noncurrent liabilities	123	340	1,044
Current liabilities	3,029	168	518
Net assets	2,956	587	1,832
Sales revenue	4,116	992	1,240
Post-tax profit or loss from continuing operations	46	28	–167
Post-tax profit or loss from discontinued operations	–	–	–
Other comprehensive income	11	–1	–4
Total comprehensive income	57	27	–171
Dividends received	2	7	–
2015			
Equity interest (%)	25	29	33
Noncurrent assets	2,299	604	3,115
Current assets	4,472	341	365
Noncurrent liabilities	484	155	1,093
Current liabilities	3,204	205	384
Net assets	3,083	585	2,003
Sales revenue	4,079	935	–
Post-tax profit or loss from continuing operations	64	15	–
Post-tax profit or loss from discontinued operations	–	–	–
Other comprehensive income	–2	0	–
Total comprehensive income	62	15	–
Dividends received	5	7	–

1 Balance sheet amounts refer to the June 30 reporting date and income statement amounts refer to the period from July 1 to June 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.
3 Due to the first-time inclusion of the HERE Group in December 2015, the income statement disclosures for the current fiscal year relate to the period from December 5, 2015 to December 31, 2016. The information relating to the balance sheet in the previous year is based on the financial statement information available at the acquisition date of the HERE Group in December 2015.

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

€ million	Sinotruk	Bertrandt	There Holding[1]
2016			
Net assets at January 1	3,083	585	2,003
Profit or loss	46	28	–167
Other comprehensive income	11	–1	–4
Changes in reserves	30	–	–
Foreign exchange differences	–198	–	–
Dividends	–17	–25	–
Net assets at December 31	2,956	587	1,832
Proportionate equity	739	170	611
Consolidation/Goodwill/Others	–411	163	–
Carrying amount of equity-accounted investments	328	333	611
2015			
Net assets at January 1	2,490	592	2,003
Profit or loss	64	15	–
Other comprehensive income	–2	0	–
Changes in reserves	5	2	–
Foreign exchange differences	555	–	–
Dividends	–28	–24	–
Net assets at December 31	3,083	585	2,003
Proportionate equity	771	169	668
Consolidation/Goodwill/Others	–452	163	–
Carrying amount of equity-accounted investments	319	332	668

1 Due to the first-time inclusion of the HERE Group in December 2015, the the reconciliation of the net assets for the current fiscal year relates to the period from December 5, 2015 to December 31, 2016. In the case of the comparative amount presented for There Holding, the net carrying amount of the HERE Group at the acquisition date in the previous year is shown.

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

€ million	2016	2015
Post-tax profit or loss from continuing operations	2	–1
Post-tax profit or loss from discontinued operations	–	–
Other comprehensive income	–1	1
Total comprehensive income	0	0
Carrying amount of equity-accounted investments	277	40

Unrecognized losses relating to investments in associates totaled €5 million (previous year: €3 million). There were no contingent liabilities relating to associates.

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 (formerly: Shanghai-Volkswagen Automotive Company Ltd., Shanghai, China), SAIC-Volkswagen Sales Company Ltd., Shanghai, China (SAIC-Volkswagen Sales Company) and Global Mobility Holding B.V., Amsterdam, the Netherlands (Global Mobility Holding) were material at the reporting date and the prior-year reporting date due to their size.

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.

Global Mobility Holding

Through its 50% interest in the joint venture Global Mobility Holding B.V., Amsterdam, the Netherlands (GMH), the Volkswagen Group held a 50% indirect stake in the joint venture's subsidiary, LeasePlan Corporation N.V., Amsterdam, the Netherlands (LeasePlan). GMH's business activity consisted of holding the interest in LeasePlan. LeasePlan is a Dutch financial services group whose core business is leasing and fleet management.

On July 23, 2015, GMH sold its 100% interest in LeasePlan to a consortium of international investors. The final approvals for the sale of LeasePlan to the consortium of investors were issued by the competent authorities in January 2016. Legal transfer of the LeasePlan shares was completed on March 21, 2016.

The total value of the transaction was approximately €3.7 billion plus interest in the amount of €31.5 million. In 2016, this had a positive effect of €2.2 billion on investing activities attributable to operating activities and net liquidity and, taking into account the disposal of equity-accounted investment in GMH, resulted in an income amount of €0.2 billion for the Volkswagen Group, which is reported in the financial result. On completion of the transaction, the existing credit line of €1.3 billion provided by the Volkswagen Group was canceled.

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

€ million	FAW-Volkswagen Automotive Company	SAIC-Volkswagen Automotive Company[1]	Global Mobility Holding[2]	SAIC-Volkswagen Sales Company
2016				
Equity interest (%)	40.0	50.0		30.0
Noncurrent assets	9,341	7,254		517
Current assets	12,962	8,521		3,739
of which: cash, cash equivalents and time deposits	7,073	5,265		212
Noncurrent liabilities	1,774	1,437		22
of which: financial liabilities	–	–		–
Current liabilities	13,063	8,759		3,713
of which: financial liabilities	1	0		–
Net assets	7,466	5,579		520
Sales revenue	40,875	26,064	1,879	30,707
Depreciation and amortization	1,120	1,091	12	4
Interest income	82	40	168	–
Interest expenses	–	4	70	–
Pre-tax profit or loss from continuing operations	5,546	4,589	142	614
Income tax income/expense	1,576	1,127	38	154
Post-tax profit or loss from continuing operations	3,970	3,462	105	460
Post-tax profit or loss from discontinued operations	–	–	–	–
Other comprehensive income	37	21	–20	–
Total comprehensive income	4,007	3,483	85	460
Dividends received	1,634	1,661	–	127
2015				
Equity interest (%)	40.0	50.0	50.0	30.0
Noncurrent assets	7,997	6,345	12,404	486
Current assets	12,674	8,187	9,913	3,341
of which: cash, cash equivalents and time deposits	5,954	4,761	1,722	231
Noncurrent liabilities	1,424	1,471	9,855	10
of which: financial liabilities	–	–	8,757	–
Current liabilities	11,422	7,444	8,535	3,311
of which: financial liabilities	100	27	6,546	–
Net assets	7,825	5,618	3,927	506
Sales revenue	40,462	26,018	8,298	30,035
Depreciation and amortization	1,033	907	56	4
Interest income	64	79	780	14
Interest expenses	–	–	330	–
Pre-tax profit or loss from continuing operations	6,169	4,408	608	600
Income tax income/expense	1,464	850	165	151
Post-tax profit or loss from continuing operations	4,705	3,558	442	449
Post-tax profit or loss from discontinued operations	–	–	–	–
Other comprehensive income	–5	5	16	–
Total comprehensive income	4,700	3,563	458	449
Dividends received	2,170	2,048	114	143

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 GMH transferred the LeasePlan shares to third parties on March 21, 2016 (see further disclosures in this section).

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

€ million	FAW-Volkswagen Automotive Company	SAIC-Volkswagen Automotive Company	Global Mobility Holding	SAIC-Volkswagen Sales Company
2016				
Net assets at January 1	7,825	5,618	3,927	506
Profit or loss	3,970	3,462	105	460
Other comprehensive income	37	21	–20	–
Changes in share capital	–	–	–	–
Changes in reserves	–	–	–	–
Foreign exchange differences	–281	–200	–20	–21
Dividends	–4,085	–3,321	–	–425
Net assets at December 31	7,466	5,579	3,991*	520
Proportionate equity	2,987	2,790	1,996	156
Consolidation/Goodwill/Others	–339	–415	–1,996	–
Carrying amount of equity-accounted investments	2,647	2,375	–	156
2015				
Net assets at January 1	7,956	5,603	3,697	497
Profit or loss	4,705	3,558	442	449
Other comprehensive income	–5	5	16	–
Changes in share capital	377	–	–	–
Changes in reserves	–377	–	–	–
Foreign exchange differences	594	548	–	38
Dividends	–5,425	–4,096	–228	–478
Net assets at December 31	7,825	5,618	3,927	506
Proportionate equity	3,130	2,809	1,964	152
Consolidation/Goodwill/Others	–212	–55	–13	–
Carrying amount of equity-accounted investments	2,918	2,754	1,950	152

* As of March 21, 2016.

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

€ million	2016	2015
Post-tax profit or loss from continuing operations	304	292
Post-tax profit or loss from discontinued operations	–	–
Other comprehensive income	3	10
Total comprehensive income	307	301
Carrying amount of equity-accounted investments	1,890	1,772

There were no unrecognized losses relating to interests in joint ventures. Contingent liabilities relating to joint ventures amounted to €183 million (previous year: €121 million). Cash funds of €173 million (previous year: €72 million) were deposited as collateral for asset-backed securities transactions and are therefore not available to the Volkswagen Group.

OTHER EQUITY INVESTMENTS

On August 29, 2015, an arbitration ruling was delivered to the parties in the proceedings between Suzuki Motor Corporation and Volkswagen AG. It found that Volkswagen had acted in accordance with the agreement. The arbitration court also confirmed that Suzuki was in breach of contract and, on the merits of this case, acknowledged that Volkswagen had a claim to damages. In addition, the arbitration court established that the parties had the right to give regular notice to terminate the cooperation agreement. It said that Suzuki had exercised this right, ending the partnership. According to the court, the agreements had to be interpreted in such a way that Volkswagen had to sell its equity investment in Suzuki on termination of the partnership. Volkswagen consequently sold its 19.9% equity investment in Suzuki to Suzuki on September 17, 2015 at the quoted market price of €3.1 billion. The sale of the shares generated income in the amount of €1.5 billion in the third quarter of the previous year.

In February 2016, Volkswagen and Suzuki agreed a settlement regarding the claims for damages brought by Volkswagen.

Consolidation methods

The assets and liabilities of the German and foreign companies included in the consolidated financial statements are recognized in accordance with the uniform accounting policies used within the Volkswagen Group. In the case of companies accounted for using the equity method, the same accounting policies are applied to determine the proportionate equity, based on the most recent audited annual financial statements of each company.

In the case of subsidiaries consolidated for the first time, assets and liabilities are measured at their fair value at the date of acquisition. Their carrying amounts are adjusted in subsequent years. Goodwill arises when the purchase price of the investment exceeds the fair value of identifiable net assets. Goodwill is tested for impairment once a year to determine whether its carrying amount is recoverable. If the carrying amount of goodwill is higher than the recoverable amount, an impairment loss must be recognized. If this is not the case, there is no change in the carrying amount of goodwill compared with the previous year. If the purchase price of the investment is less than the identifiable net assets, the difference is recognized in the income statement in the year of acquisition. Goodwill is accounted for at the subsidiaries in the functional currency of those subsidiaries. Any difference that arises from the acquisition of additional shares of an already consolidated subsidiary is taken directly to equity. Unless otherwise stated, the proportionate equity directly attributable to noncontrolling interests is determined at the acquisition date as the share of the fair value of the assets (excluding goodwill) and liabilities attributable to them. Contingent consideration is measured at fair value at the acquisition date. Subsequent changes in the fair value of contingent consideration do not generally result in the adjustment of the acquisition-date measurement. Acquisition-related costs that are not equity transaction costs are not added to the purchase price, but instead recognized as expenses in the period in which they are incurred.

The consolidation process involves adjusting the items in the separate financial statements of the parent and its subsidiaries and presenting them as if they were those of a single economic entity. Intragroup assets, liabilities, equity, income, expenses and cash flows are eliminated in full. Intercompany profits or losses are eliminated in Group inventories and noncurrent assets. Deferred taxes are recognized for consolidation adjustments, and deferred tax assets and liabilities are offset where taxes are levied by the same tax authority and relate to the same tax period.

Currency translation

Transactions in foreign currencies are translated in the single-entity financial statements of Volkswagen AG and its consolidated subsidiaries at the rates prevailing at the transaction date. Foreign currency monetary items are recorded in the balance sheet using the middle rate at the closing date. Foreign exchange gains and losses are recognized in the income statement. This does not apply to foreign exchange differences from loans receivable that represent part of a net investment in a foreign operation. The financial statements of foreign companies are translated into euros using the functional currency concept, under which asset and liability items are translated at the closing rate. With the exception of income and expenses recognized directly in equity, equity is translated at historical rates. The resulting foreign exchange differences are recognized in other comprehensive income until disposal of the subsidiary concerned, and are presented as a separate item in equity.

Income statement items are translated into euros at weighted average rates.

The rates applied are presented in the following table:

		BALANCE SHEET MIDDLE RATE ON DECEMBER 31		INCOME STATEMENT AVERAGE RATE	
	€1 =	2016	2015	2016	2015
Argentina	ARS	16.80096	14.13514	16.33207	10.26074
Australia	AUD	1.46150	1.48970	1.48880	1.47648
Brazil	BRL	3.43720	4.31170	3.86217	3.69160
Canada	CAD	1.42280	1.51160	1.46659	1.41760
Czech Republic	CZK	27.02400	27.02300	27.03433	27.28500
India	INR	71.65500	72.02150	74.37058	71.17522
Japan	JPY	123.50000	131.07000	120.31663	134.28651
Mexico	MXN	21.84800	18.91450	20.66535	17.59984
People's Republic of China	CNY	7.33320	7.06080	7.35067	6.97300
Poland	PLN	4.41530	4.26390	4.36416	4.18278
Republic of Korea	KRW	1,269.11000	1,280.78000	1,284.79543	1,255.74059
Russia	RUB	64.67550	80.67360	74.23443	68.00684
South Africa	ZAR	14.48480	16.95300	16.28336	14.15280
Sweden	SEK	9.56720	9.18950	9.46712	9.35448
United Kingdom	GBP	0.85850	0.73395	0.81897	0.72600
USA	USD	1.05600	1.08870	1.10675	1.10963

Accounting policies

MEASUREMENT PRINCIPLES

With certain exceptions such as financial instruments at fair value through profit or loss, available-for-sale financial assets and provisions for pensions and other post-employment benefits, items in the Volkswagen Group are accounted for under the historical cost convention. The methods used to measure the individual items are explained in more detail below.

INTANGIBLE ASSETS

Purchased intangible assets are recognized at cost and amortized over their useful life using the straight-line method. This relates in particular to software, which is amortized over three years.

In accordance with IAS 38, research costs are recognized as expenses when incurred.

Development costs for future series products and other internally generated intangible assets are capitalized at cost, provided manufacture of the products is likely to bring the Volkswagen Group an economic benefit. If the criteria for recognition as assets are not met, the expenses are recognized in the income statement in the year in which they are incurred.

Capitalized development costs include all direct and indirect costs that are directly attributable to the development process. The costs are amortized using the straight-line method from the start of production over the expected life cycle of the models or powertrains developed – generally between two and ten years.

Amortization recognized during the year is allocated to the relevant functions 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. The Volkswagen Group generally applies the higher of value in use and fair value less costs to sell of the relevant cash-generating unit (brands or products) to determine the recoverable amount of goodwill and indefinite-lived intangible assets. Measurement of value in use is based on management's current planning. 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, market shares and the profitability of the products. The planning for the Financial Services segment is likewise prepared on the basis of these expectations, and also reflects the relevant market penetration rates and 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 planning period generally covers five years. For information on the assumptions applied to the detailed planning period, please refer to the Report on Expected Developments, which is part of the Management Report. For subsequent years, plausible assumptions are made regarding future trends. The planning assumptions are adapted to reflect the current state of knowledge.

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	2016	2015
Passenger Cars segment	5.4%	6.5%
Commercial Vehicles segment	6.5%	7.7%
Power Engineering segment	7.7%	9.2%

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 are taken into account. The composition of the peer groups used to determine beta factors is continuously reviewed and adjusted if necessary.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is carried at cost less depreciation and – where necessary – write-downs for impairment. Investment grants are generally deducted from cost. Cost is determined on the basis of the direct and indirect costs that are directly attributable. Special tools are reported under other equipment, operating and office equipment. Property, plant and equipment is depreciated using the straight-line method over its estimated useful life. The useful lives of items of property, plant and equipment are reviewed on a regular basis and adjusted if required.

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 tools	3 to 15 years

Impairment losses on property, plant and equipment are recognized in accordance with IAS 36 where the recoverable amount of the asset concerned has fallen below the carrying amount. Recoverable amount is the higher of value in use and fair value less costs to sell. Value in use is determined using the principles described for intangible assets. The discount rates for product-specific tools and investments are the same as the discount rates for capitalized development costs given above for each segment. If the reasons for impairments recognized in previous years no longer apply, the impairment losses are reversed up to a maximum of the amount that would have been determined if no impairment loss had been recognized.

In accordance with the principle of substance over form, assets that have been formally transferred to third parties under a sale and leaseback transaction including a repurchase option also continue to be accounted for as separate assets.

Where leased items of property, plant and equipment are used, the criteria for classification as a finance lease as set out in IAS 17 are met if all material risks and rewards incidental to ownership have been transferred to the Group company concerned. In such cases, the assets concerned are recognized at fair value or at the present value of the minimum lease payments (if lower) and depreciated using the straight-line method over the asset's useful life, or over the term of the lease if this is shorter. The payment obligations arising from the future lease payments are discounted and recorded as a liability in the balance sheet.

Where Group companies are the lessees of assets under operating leases, i.e. if not all material risks and rewards are transferred, lease and rental payments are recorded directly as expenses in profit or loss.

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. Impairment losses identified as a result of an impairment test in accordance with IAS 36 are recognized and the future depreciation rate is adjusted. 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 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 internally, such as historical experience and current sales data.

INVESTMENT PROPERTY

Real estate and buildings held in order to obtain rental income (investment property) are carried at amortized cost; 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 must be disclosed in the notes if it is carried at amortized cost. 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 that are directly attributable to the acquisition of qualifying assets on or after January 1, 2009 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 or sale.

EQUITY-ACCOUNTED INVESTMENTS

The cost of equity-accounted investments is adjusted to reflect the share of increases or reductions in equity at the associates and joint ventures after the acquisition that is attributable to the Volkswagen Group, as well as any effects from purchase price allocation. Additionally, the investment is tested for impairment if there are indications of impairment and written down to the lower recoverable amount if necessary. The recoverable amount is determined using the principles described for indefinite-lived intangible assets. If the reason for impairment ceases to apply at a later date, the impairment loss is reversed to the carrying amount that would have been determined had no impairment loss been recognized.

FINANCIAL INSTRUMENTS

Financial instruments are contracts that give rise to a financial asset of one company and a financial liability or an equity instrument of another. 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.

IAS 39 classifies financial assets into the following categories:
- financial assets at fair value through profit or loss;
- held-to-maturity financial assets;
- loans and receivables; and
- available-for-sale financial assets.

Financial liabilities are classified into the following categories:
- financial liabilities at fair value through profit or loss; and
- financial liabilities measured at amortized cost.

We recognize financial instruments at amortized cost or at fair value.

The amortized cost of a financial asset or liability is the amount:
- at which a financial asset or liability is measured at initial recognition;
- minus any principal repayments;
- minus any write-down for impairment or uncollectibility;
- plus or minus the cumulative amortization of any difference between the original amount and the amount repayable at maturity (premium, discount), amortized using the effective interest method over the term of the financial asset or liability.

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

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.

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

Financial assets and financial liabilities are generally presented at their gross amounts and only offset if the Volkswagen Group currently has a legally enforceable right to set off the amounts and intends to settle on a net basis.

Subsidiaries, associates and joint ventures that are not consolidated for reasons of materiality do not fall within the scope of IAS 39 and IFRS 7. Other equity investments that are required by IAS 39.46(c) to be measured at cost, net of any impairment losses to be recognized, are presented as "measured at fair value".

LOANS AND RECEIVABLES AND FINANCIAL LIABILITIES

Loans, receivables and liabilities, as well as held-to-maturity financial assets, are measured at amortized cost, unless hedged. Specifically, these relate to:
- receivables from financing business;
- trade receivables and payables;

- other receivables and financial assets and liabilities;
- financial liabilities; and
- cash, cash equivalents and time deposits.

AVAILABLE-FOR-SALE FINANCIAL ASSETS

Available-for-sale financial assets are either allocated specifically to this category or are financial assets that cannot be assigned to any other category.

Available-for-sale financial assets (debt instruments) are carried at fair value. Changes in fair value are recognized directly in equity, net of deferred taxes. Prolonged changes in the fair value of debt instruments (impairment losses, foreign exchange gains and losses, interest calculated using the effective interest method) are recognized in profit or loss.

Other equity investments (shares representing an ownership interest of less than 20% as a rule) are also classified as available-for-sale financial assets. They are recognized at cost in the consolidated financial statements if there is no active market for those shares and fair values cannot be reliably ascertained without undue cost or effort. The lower present value of the estimated future cash flows is recognized if there are indications of impairment. There is currently no intention to sell these financial assets. Foreign exchange gains and losses attributable to equity instruments are recognized in other comprehensive income.

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 criteria for the application of hedge accounting are that the hedging relationship between the hedged item and the hedging instrument is clearly documented and that the hedge is highly effective.

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 carrying amount 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. Several risk portions of hedged items are grouped into a portfolio if appropriate. In the case of a fair value portfolio hedge, the changes in fair value are accounted for in the same way as for a fair value hedge of an individual underlying. Gains or losses from the remeasurement of hedging instruments and hedged items are recognized in profit or loss. In the case of hedges of future cash flows (cash flow hedges), the hedging instruments are also measured at fair value. Gains or losses from remeasurement of the effective portion of the derivative are initially recognized in the reserve for cash flow hedges directly in equity, and are only recognized in the income statement when the hedged item is recognized in profit or loss; the ineffective portion of a cash flow hedge is recognized immediately in profit or loss.

Derivatives used by the Volkswagen Group for financial management purposes to hedge against interest rate, foreign currency, commodity, or price risks, but that do not meet the strict hedge accounting criteria of IAS 39, are classified as financial assets or liabilities at fair value through profit or loss (also referred to below as derivatives not included in hedging relationships). 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 primarily to the interest component of currency forwards used to hedge sales revenue, commodity futures and currency forwards relating to commodity futures. Gains and losses from the remeasurement and settlement of financial instruments at fair value through profit or loss are reported in the financial result.

RECEIVABLES FROM FINANCE LEASES

Where a Group company is the lessor – generally of vehicles – a receivable in the amount of the net investment in the lease is recognized in the case of finance leases, in other words where substantially all the risks and rewards are transferred to the lessee.

OTHER RECEIVABLES AND FINANCIAL ASSETS

Other receivables and financial assets (except for derivatives) are recognized at amortized cost.

IMPAIRMENT LOSSES ON FINANCIAL INSTRUMENTS

Default risk on loans and receivables in the financial services business is accounted for by recognizing specific valuation allowances and portfolio-based valuation allowances.

More specifically, in the case of significant individual receivables (e.g. dealer finance receivables and fleet customer business receivables) specific valuation allowances are recognized in accordance with Group-wide standards in the amount of the incurred loss. A potential impairment is assumed in the case of a number of situations such as delayed payment over a certain period, 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.

Portfolio-based valuation allowances are recognized by grouping together insignificant receivables and significant individual receivables for which there is no indication of impairment into homogeneous portfolios on the basis of comparable credit risk features and allocating them by risk class. As long as no definite information is available as to which receivables are in default, average historical default probabilities for the portfolio concerned are used to calculate the amount of the valuation allowances.

As a matter of principle, specific valuation allowances are recognized on receivables outside the Financial Services segment.

Valuation allowances on receivables are regularly recognized in separate allowance accounts.

An impairment loss is recognized on available-for-sale financial assets if there is objective evidence of permanent impairment. In the case of equity instruments, evidence of impairment is taken to exist, among other things, if the fair value decreases below cost significantly (by more than 20%) or the decrease is prolonged (by more than 10% of the average market prices over one year). If impairment is identified, the cumulative loss is recognized in the reserve and charged to profit and loss. In the case of equity instruments, reversals of impairment losses are taken directly to equity. Impairment losses are recognized on debt instruments if a decrease in the future cash flows of the financial asset is expected. An increase in the risk-free interest rate or an increase in credit risk premiums is not in itself evidence of impairment.

DEFERRED TAXES

Deferred tax assets are generally recognized for tax-deductible temporary differences between the tax base of assets and their carrying amounts in the consolidated balance sheet, as well as on tax loss carryforwards and tax credits provided it is probable that they can be used in future periods. Deferred tax liabilities are generally recognized for all taxable temporary differences between the tax base of liabilities and their carrying amounts in the consolidated balance sheet.

Deferred tax liabilities and assets are recognized in the amount of the expected tax liability or tax benefit, as appropriate, in subsequent fiscal years, based on the expected enacted tax rate at the time of realization. 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 valuation 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.

Deferred tax assets and deferred tax liabilities are offset where taxes are levied by the same taxation authority and relate to the same tax period.

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. Cost is determined on the basis of the direct and indirect costs that are directly attributable. Borrowing costs are not capitalized. The measurement of same or similar inventories is generally based on the weighted average cost method.

NONCURRENT ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS

Under IFRS 5, noncurrent assets or groups of assets and liabilities (disposal groups) are classified as held for sale if their carrying amounts will be recovered principally through a sale transaction rather than through continuing use. Such assets are carried at the lower of their carrying amount and fair value less costs to sell, and are presented separately in current assets and liabilities in the balance sheet.

Discontinued operations are components of an entity that have either been disposed of or are classified as held for sale. The assets and liabilities of operations that are held for sale represent disposal groups that must be measured and reported using the same principles as noncurrent assets held for sale. The income and expenses from discontinued operations are presented in the income statement as profit or loss from discontinued operations below the profit or loss from continuing operations. Corresponding disposal gains or losses are contained in the profit or loss from discontinued operations. The prior-year figures in the income statement are adjusted accordingly.

PENSION PROVISIONS

The actuarial valuation of pension provisions is based on the projected unit credit method stipulated by IAS 19 for defined benefit plans. The valuation is not only based on pension payments and vested entitlements known at the balance sheet date, but also reflects future salary and pension trends, as well as experience-based staff turnover rates. Remeasurements are recognized in retained earnings in other comprehensive income, net of deferred taxes.

PROVISIONS FOR TAXES

Tax provisions contain obligations resulting from current taxes. Deferred taxes are presented in separate items of the balance sheet and income statement. Provisions are recognized for potential tax risks on the basis of the best estimate of the liability.

OTHER PROVISIONS

In accordance with IAS 37, provisions are recognized where a present obligation exists to third parties as a result of a past event, where a future outflow of resources is probable and where a reliable estimate of that outflow can be made.

Provisions not resulting in an outflow of resources in the year immediately following are recognized at their settlement value discounted to the balance sheet date. Discounting is based on market interest rates. An average discount rate of 0.04% (previous year: 0.45%) was used in the eurozone. The settlement value also reflects cost increases expected at the balance sheet date.

Provisions are not offset against claims for reimbursement.

We recognize insurance contracts that form part of the insurance business in accordance with IFRS 4. Reinsurance acceptances are accounted for without any time delay in the year in which they arise. Provisions are generally recognized based on the cedants' contractual duties. Estimation techniques based on assumptions about future changes in claims are used to calculate the claims provision. Other technical provisions relate to the provision for cancellations.

The share of the provisions attributable to reinsurers is calculated in accordance with the contractual agreements with the retrocessionaries and reported under other assets.

CONTINGENT LIABILITIES

If the criteria for recognizing a provision are not met, but the outflow of financial resources is not improbable, such obligations are disclosed in the notes to the consolidated financial statements (see the "Contingent liabilities" section). Contingent liabilities are only recognized if the obligations are more certain, i.e. the outflow of financial resources has become probable and their amount can be reliably estimated.

LIABILITIES

Noncurrent liabilities are recorded at amortized cost in the balance sheet. Differences between historical cost and the repayment amount are amortized using the effective interest method.

Liabilities to members of partnerships from puttable shares are recognized in the income statement at the present value of the redemption amount at the balance sheet date.

Liabilities under finance leases are carried at the present value of the lease payments.

Current liabilities are recognized at their repayment or settlement value.

REVENUE AND EXPENSE RECOGNITION

Sales revenue, interest and commission income from financial services and other operating income are recognized only when the relevant service has been rendered or the goods have been delivered, that is, when the risk has passed to the customer, the amount of sales revenue can be reliably determined and settlement of the amount can be assumed. Revenue is reported net of sales allowances (discounts, rebates, or customer bonuses). Sales revenue from financing and lease agreements is recognized using the effective interest method. If non-interest-bearing or low-interest vehicle financing arrangements are agreed, sales revenue is reduced by the interest benefits granted. Customer financing and finance lease income is determined using the effective interest method and recognized under sales revenue. Sales revenue from extended warranties or maintenance agreements is recognized when deliveries take place or services are rendered. In the case of prepayments, deferred income is recognized proportionately by reference to the costs expected to be incurred, based on experience. Revenue is recognized on a straight-line basis if there is insufficient experience. If the expected costs exceed the accrued sales revenue, a loss is recognized from these agreements.

If a contract comprises several separately identifiable components (multiple-element arrangements), these components are recognized separately in accordance with the principles outlined above.

Income from assets for which a Group company has a buy-back 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 as income ratably 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.

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.

Construction contracts are recognized using the percentage of completion (PoC) method, under which revenue and cost of sales are recognized by reference to the stage of completion at the end of the reporting period, based on the contract revenue agreed with the customer and the expected contract costs. 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). In certain cases, in particular those involving innovative, complex contracts, the stage of completion is measured using contractually agreed milestones (milestone method). If the outcome of a construction contract cannot yet be estimated reliably, contract revenue is recognized only in the amount of the contract costs incurred to date (zero profit method). In the balance sheet, contract components whose revenue is recognized using the percentage of completion method are reported as trade receivables, net of prepayments received. Expected losses from construction contracts are recognized immediately in full as expenses by recognizing impairment losses on recognized contract assets, and additionally by recognizing provisions for amounts in excess of the impairment losses.

Dividend income is recognized on the date when the dividend is legally approved.

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. If the Group becomes entitled to a grant subsequently, the amount of the grant attributable to prior periods is recognized in profit or loss.

Government grants related to income, i.e. that compensate the Group for expenses incurred, are recognized in profit or loss for the period in 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 tools) 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. In addition, 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 on the accounting policies for 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 past experience taking into account current market data as well as rating categories and scoring information. In the case of financial services receivables, both specific and portfolio-based valuation allowances are recognized. The more detailed balance sheet disclosures on IFRS 7 (Financial Instruments) contain an overview of these specific and portfolio-based valuation 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 past 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. Remeasurements are recognized in other comprehensive income and 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 means that additional amounts must frequently be recognized for provisions, or that unused provisions are reversed. Reversals of provisions are recognized as other operating income, whereas expenses relating to the recognition of provisions are allocated directly to the 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. This requires assumptions to be made about the nature and extent of future guarantee and ex gratia claims. Assumptions were made in respect of the warranty provisions recognized in connection with the diesel issues. These depend on the series, model year and country concerned and relate in particular to the effort, material costs and hourly wage rates involved, or to vehicle values in the case of repurchases. They are based on qualified estimates, which are based in turn on external data, and also reflect additional information available internally, such as values derived from past experience. An overview of other provisions can be found in the “Noncurrent and current other provisions” section. Further information on the legal proceedings and on the legal risks associated with the diesel issue can be found in the “Litigation” section. The put options and compensation rights of free float shareholders recognized within liabilities depend in particular on the outcome of the MAN award proceedings. The liability was based on estimates of the length of the award proceedings and the amount of the put options and compensation rights. The length was estimated based on the fact that proceedings take seven years on average. The amount of the put options and compensation rights of MAN’s free float shareholders is derived from the cash settlement in accordance with section 305 of the Aktiengesetz (AktG – German Stock Corporation Act). The cash settlement payable was adjusted in the previous year due to the ruling by the Munich Regional Court.

Government grants are recognized based on an assessment as to whether there is reasonable assurance that the Group companies will fulfill the attached conditions and the grants will 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 past experience and are reviewed regularly. Where estimates are modified the residual useful life is adjusted and an impairment loss is recognized, if necessary.

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. Our 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.

The moderate global economic growth slowed to 2.5% in fiscal year 2016. Our planning assumes that the global economy will grow at a rather stronger pace in 2017 than it did in the previous year. As a result, from today’s perspective, we are not expecting material adjustments in the following fiscal year in the carrying amounts of the assets and liabilities reported in the consolidated balance sheet.

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, Commercial Vehicles, Power Engineering and Financial Services.

The activities of the Passenger Cars segment cover the development of vehicles and engines, the production and sale of passenger cars, and the corresponding genuine parts business. Given the high degree of technological and economic interlinking in the production network of the individual brands, the Passenger Cars reporting segment combines the Volkswagen Group's individual car brands to a single reportable segment. Furthermore, there is a collaboration within key areas such as procurement, research and development or treasury.

The Commercial Vehicles segment primarily comprises the development, production and sale of light commercial vehicles, trucks and buses, the corresponding genuine parts business and related services. Just as in the case of the car brands, there is a collaboration within the areas procurement, development and sale. The aim is to achieve other forms of interlinking.

The activities of the Power Engineering segment consist of the development and production of large-bore diesel engines, turbo compressors, industrial turbines and chemical reactor systems, as well as the production of gear units, propulsion components and testing systems.

The activities of the Financial Services segment comprise dealer and customer financing, leasing, banking and insurance activities, fleet management and mobility services. In this segment, combinations occur especially while taking into account the comparability of the type of services as well as the regulatory situation permits.

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 the segment reporting, the share of the profits or losses of joint ventures is contained in the share of profits and losses 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 under finance 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 2015

€ million	Passenger Cars	Commercial Vehicles	Power Engineering	Financial Services	Total segments	Reconciliation	Volkswagen Group
Sales revenue from external customers	158,533	24,382	3,769	26,416	213,100	192	213,292
Intersegment sales revenue	16,170	6,063	6	2,940	25,180	–25,180	–
Total sales revenue	174,703	30,445	3,775	29,357	238,279	–24,987	213,292
Depreciation and amortization	10,389	2,162	360	5,543	18,455	–136	18,319
Impairment losses	635	38	10	636	1,319	38	1,357
Reversal of impairment losses	16	1	–	3	20	1	21
Segment profit or loss (operating profit or loss)	–4,874	586	123	2,236	–1,929	–2,139	–4,069
Share of profits and losses of equity-accounted investments	4,129	10	6	21	4,166	221	4,387
Net interest income and other financial result	–1,273	–565	–10	75	–1,773	153	–1,620
Equity-accounted investments	8,032	397	–	525	8,954	1,950	10,904
Investments in intangible assets, property, plant and equipment, and investment property	15,085	2,426	198	476	18,185	50	18,234

REPORTING SEGMENTS 2016

€ million	Passenger Cars	Commercial Vehicles	Power Engineering	Financial Services	Total segments	Reconciliation	Volkswagen Group
Sales revenue from external customers	160,461	25,385	3,590	27,884	217,320	–54	217,267
Intersegment sales revenue	17,354	6,695	3	3,367	27,418	–27,418	–
Total sales revenue	177,815	32,080	3,593	31,251	244,739	–27,472	217,267
Depreciation and amortization	10,846	2,293	368	6,224	19,731	–159	19,572
Impairment losses	886	126	3	491	1,506	–137	1,368
Reversal of impairment losses	152	0	–	92	245	–139	106
Segment profit or loss (operating profit or loss)	5,235	718	–217	2,435	8,171	–1,068	7,103
Share of profits and losses of equity-accounted investments	3,147	25	–	64	3,236	261	3,497
Net interest income and other financial result	–1,674	–379	–8	–91	–2,152	–1,157	–3,308
Equity-accounted investments	7,349	418	–	849	8,616	–	8,616
Investments in intangible assets, property, plant and equipment, and investment property	15,891	2,433	194	357	18,875	27	18,902

RECONCILIATION

€ million	2016	2015
Segment sales revenue	**244,739**	**238,279**
Unallocated activities	749	984
Group financing	42	43
Consolidation	–28,263	–26,014
Group sales revenue	**217,267**	**213,292**
Segment profit or loss (operating profit or loss)	**8,171**	**–1,929**
Unallocated activities	86	161
Group financing	22	49
Consolidation	–1,176	–2,349
Operating result	**7,103**	**–4,069**
Financial result	**189**	**2,767**
Consolidated result before tax	**7,292**	**–1,301**

BY REGION 2015

€ million	Germany	Europe/Other markets*	North America	South America	Asia-Pacific	Total
Sales revenue from external customers	42,248	90,287	35,384	10,148	35,225	213,292
Intangible assets, property, plant and equipment, lease assets and investment property	81,711	34,824	22,595	2,658	3,207	144,994

* Excluding Germany.

BY REGION 2016

€ million	Germany	Europe/Other markets*	North America	South America	Asia-Pacific	Total
Sales revenue from external customers	43,634	94,445	35,454	7,973	35,761	217,267
Intangible assets, property, plant and equipment, lease assets and investment property	84,525	40,717	23,958	3,320	3,064	155,583

* Excluding Germany.

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

Income statement disclosures

1. Sales revenue

STRUCTURE OF GROUP SALES REVENUE

€ million	2016	2015
Vehicles*	137,293	138,903
Genuine parts	15,220	14,625
Used vehicles and third-party products*	13,324	12,193
Engines, powertrains and parts deliveries	9,770	8,763
Power Engineering	3,590	3,769
Motorcycles	589	564
Leasing business	22,306	20,085
Interest and similar income	6,695	6,755
Other sales revenue	8,481	7,635
	217,267	**213,292**

* Prior-year figures adjusted.

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 license revenue, among other things.

Sales revenue from construction contracts amounted to €1,069 million (previous year: €1,206 million) and mainly related to the Power Engineering segment.

To ensure that sales revenue from company vehicles is presented consistently, sales revenue from vehicles was reclassified to sales revenue from used vehicles and third-party products. Prior-year figures have been adjusted accordingly.

2. Cost of sales

Cost of sales includes interest expenses of €1,930 million (previous year: €1,868 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 €1,369 million (previous year: €1,391 million). The impairment losses amounting to a total of €883 million recognized during the reporting period on intangible assets and items of property, plant and equipment result in particular from lower values in use of various products in the Passenger Cars segment, from market and exchange rate risks, and in particular from expected declines in volumes. The impairment losses on lease assets in the amount of €486 million (including €31 million reported in current lease assets), which are attributable predominantly to the Financial Services segment, are based on constantly updated internal and external information that is factored into the forecast residual values of the vehicles.

Government grants related to income amounted to €435 million in the fiscal year (previous year: €409 million) and were generally allocated to the functions.

3. Distribution expenses

Distribution expenses amounting to €22,700 million (previous year: €23,515 million) 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. Please refer to the “Key events” section for information on the sales-related measures taken in connection with the diesel issue.

4. Administrative expenses

The administrative expenses of €7,336 million (previous year: €7,197 million) mainly include nonstaff overheads and personnel costs, as well as depreciation and amortization applicable to the administrative function.

5. Other operating income

€ million	2016	2015
Income from reversal of valuation allowances on receivables and other assets	847	737
Income from reversal of provisions and accruals	3,738	2,871
Income from foreign currency hedging derivatives	1,739	1,560
Income from foreign exchange gains	2,842	3,859
Income from sale of promotional material	440	427
Income from cost allocations	1,222	1,308
Income from investment property	14	10
Gains on asset disposals and the reversal of impairment losses	363	188
Miscellaneous other operating income	1,843	1,945
	13,049	**12,905**

The increase in income from the reversal of provisions and accrued liabilities mainly results from unutilized provisions for legal risks and sales-related measures in connection with the diesel issue. 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.

6. Other operating expenses

€ million	2016	2015
Valuation allowances on receivables and other assets	1,787	1,674
Losses from foreign currency hedging derivatives	2,964	5,083
Foreign exchange losses	3,077	3,260
Expenses from cost allocations	542	695
Expenses for termination agreements	424	502
Losses on disposal of noncurrent assets	144	106
Miscellaneous other operating expenses	7,970	8,853
	16,907	**20,171**

Miscellaneous other operating expenses include litigation expenses of €5.1 billion (previous year: €7.0 billion) in connection with the diesel issue as well as provisions of €0.4 billion for the antitrust proceedings that the European Commission opened against European truck manufacturers including MAN and Scania. The expenses for termination agreements result primarily from the restructuring expenses for the South American market and at MAN. In addition, the changes in the currency hedging derivatives are due to the exchange rate changes between the trade price and the price on realization; this applies in particular to the US dollar, the Chinese renminbi and sterling.

7. Share of profits and losses of equity-accounted investments

€ million	2016	2015
Share of profits of equity-accounted investments	3,563	4,417
of which: from joint ventures	(3,534)	(4,389)
of which: from associates	(29)	(28)
Share of losses of equity-accounted investments	66	30
of which: from joint ventures	–	(19)
of which: from associates	(66)	(11)
	3,497	**4,387**

8. Finance costs

€ million	2016	2015
Other interest and similar expenses	1,330	1,272
Interest cost included in lease payments	29	22
Interest expenses	**1,359**	**1,294**
Realized expenses of loan receivables and payables in foreign currency	**810**	**333**
Net interest on the net defined benefit liability	731	690
Interest cost on other liabilities	347	77
Interest cost on liabilities	**1,078**	**767**
Finance costs	**3,247**	**2,393**

The recognized foreign currency expenses presented in the “Other interest and similar expenses” item in previous years are presented separately in fiscal year 2016. The prior-year amounts have been reclassified accordingly.

9. Other financial result

€ million	2016	2015
Income from profit and loss transfer agreements	33	29
Cost of loss absorption	24	18
Other income from equity investments	110	1,594
Other expenses from equity investments	155	181
Income from marketable securities and loans*	–35	148
Realized income of loan receivables and payables in foreign currency	882	198
Other interest and similar income	642	780
Gains and losses from remeasurement and impairment of financial instruments	–303	–1,173
Gains and losses from fair value changes of derivatives not included in hedge accounting	–1,148	–637
Gains and losses from fair value changes of derivatives included in hedge accounting	–63	34
Other financial result	**–61**	**773**

* Including disposal gains/losses.

The recognized foreign currency income presented in the “Other interest and similar income” item in previous years is presented separately in fiscal year 2016. The prior-year amounts have been reclassified accordingly.

The decrease in other income from equity investments is primarily due to the sale of the equity interest in Suzuki in the previous year. The change in gains and losses from remeasurement and impairment of financial instruments is largely the result of changes in the exchange rates for receivables and liabilities denominated in foreign currency and, in the previous year, negative remeasurement effects connected with put options and compensation rights granted to noncontrolling interest shareholders. Please see the section entitled “Put options and compensation rights granted to noncontrolling interest shareholders”.

10. Income tax income/expense

COMPONENTS OF TAX INCOME AND EXPENSE

€ million	2016	2015
Current tax expense, Germany	885	812
Current tax expense, abroad	2,388	2,047
Current income tax expense	**3,273**	**2,859**
of which prior-period income (–)/expense (+)	(188)	(142)
Deferred tax income (–)/expense (+), Germany	–736	–2,075
Deferred tax income (–)/expense (+), abroad	–625	–725
Deferred tax income (–)/expense (+)	**–1,361**	**–2,800**
Income tax income/expense	**1,912**	**59**

The statutory corporation tax rate in Germany for the 2016 assessment period was 15%. Including trade tax and the solidarity surcharge, this resulted in an aggregate tax rate of 29.9% (previous year: 29.8%).

A tax rate of 29.9% (previous year: 29.8%) was used to measure deferred taxes in the German consolidated tax group.

The local income tax rates applied for companies outside Germany vary between 0% and 45%. 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 2016 of €146 million (previous year: €302 million).

Previously unused tax loss carryforwards amounted to €17,686 million (previous year: €18,407 million). Tax loss carryforwards amounting to €11,494 million (previous year: €12,663 million) can be used indefinitely, while €4,237 million (previous year: €4,120 million) must be used within the next ten years. There are additional tax loss carryforwards amounting to €1,956 million (previous year: €1,624 million) that can be used within a period of 15 or 20 years. Tax loss carryforwards of €6,380 million (previous year: €10,478 million) were estimated not to be usable overall. Of these, €276 million (previous year: €398 million) will expire within five years, €2,341 million (previous year: €3,169 million) within 6 to 20 years and €38 million (previous year: €131 million) after more than 20 years. Tax loss carryforwards of €3,725 million (previous year: €6,779 million) that are estimated not to be usable will not expire.

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 €135 million (previous year: €50 million). Deferred tax expense was reduced by €211 million (previous year: €110 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 €297 million (previous year: €68 million). Deferred tax income resulting from the reversal of a write-down of deferred tax assets amounts to €304 million (previous year: €212 million).

Tax credits granted by various countries amounted to €756 million (previous year: €800 million).

No deferred tax assets were recognized for deductible temporary differences of €1,533 million (previous year: €1,643 million) and for tax credits of €353 million (previous year: €439 million) that would expire in the next 20 years, or for tax credits of €65 million (previous year: €14 million) that will not expire.

In accordance with IAS 12.39, deferred tax liabilities of €326 million (previous year: €193 million) for temporary differences and undistributed profits of Volkswagen AG subsidiaries were not recognized because control exists.

Due to the change in the statutory provisions in Germany, a refund claim for corporation tax was recognized as a current tax asset for the first time in fiscal year 2006. The present value of the refund claim was €134 million (previous year: €259 million) at the balance sheet date.

Deferred tax expense resulting from changes in tax rates amounted to €120 million at Group level (previous year: €2 million income).

Deferred taxes in respect of temporary differences and tax loss carryforwards of €9,890 million (previous year: €8,466 million) were recognized without being offset by deferred tax liabilities in the same amount. The deferred tax assets of companies within the German tax group were recognized due to positive results in the past and are 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.

€5,486 million (previous year: €5,320 million) of the deferred taxes recognized in the balance sheet was credited to equity and relates to other comprehensive income. €3 million (previous year: €2 million) of this figure is attributable to noncontrolling interests. There were effects from capital transactions with noncontrolling interest shareholders in the prior-year period. Changes in deferred taxes classified by balance sheet item are presented in the statement of comprehensive income.

In the previous year, tax effects of €11 million resulting from equity transaction costs were recognized in equity.

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, 2016**	Dec. 31, 2015	**Dec. 31, 2016**	Dec. 31, 2015
Intangible assets	302	306	9,884	9,570
Property, plant and equipment, and lease assets	4,387	3,946	8,315	7,152
Noncurrent financial assets	26	24	24	23
Inventories	2,223	1,882	792	744
Receivables and other assets (including Financial Services Division)	2,107	1,577	7,273	7,188
Other current assets	2,768	3,029	92	148
Pension provisions	6,776	5,121	22	31
Liabilities and other provisions	10,746	11,532	2,750	2,241
Valuation allowances on deferred tax assets from temporary differences	–368	–330	–	–
Temporary differences, net of valuation allowances	28,967	27,087	29,152	27,097
Tax loss carryforwards, net of valuation allowances	3,365	2,455	–	–
Tax credits, net of valuation allowances	337	347	–	–
Value before consolidation and offset	**32,670**	**29,889**	**29,152**	**27,097**
of which noncurrent	(21,736)	(19,050)	(23,681)	(22,062)
Offset	25,198	24,110	25,198	24,110
Consolidation	2,284	2,248	791	1,446
Amount recognized	**9,756**	**8,026**	**4,745**	**4,433**

In accordance with IAS 12, deferred tax assets and liabilities are offset if, and only if, they relate to income taxes levied by the same taxation authority and relate to the same tax period.

The tax expense reported for 2016 of €1,912 million (previous year: €59 million) was €268 million lower (previous year: €447 million higher) than the expected tax expense of €2,180 million that would have resulted from application of a tax rate for the Group of 29.9% (previous year: 29.8%) to the earnings before tax of the Group.

RECONCILIATION OF EXPECTED TO EFFECTIVE INCOME TAX

€ million	2016	2015
Earnings before tax	7,292	–1,301
Expected income tax income (–) / expense (+) (tax rate 29.9%; previous year: 29.8%)	**2,180**	**–388**
Reconciliation:		
Effect of different tax rates outside Germany	–446	–386
Proportion of taxation relating to:		
tax-exempt income	–1,226	–1,976
expenses not deductible for tax purposes	409	2,155
effects of loss carryforwards and tax credits	35	155
permanent differences	12	43
Tax credits	–137	–84
Prior-period tax expense	234	46
Effect of tax rate changes	139	–2
Nondeductible withholding tax	437	439
Other taxation changes	275	57
Effective income tax expense	**1,912**	**59**

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 the basic and diluted number of shares is identical, basic earnings per share also correspond to diluted earnings per share. Article 27(2) No. 1 of the Articles of Association of Volkswagen AG sets out that, even in the event of a deficit, a preferred dividend of €0.11 per preferred share must be paid out in the subsequent fiscal years based on the cumulative arrangement if no dividend is paid for the year under review; consequently, this must be factored into the calculation of earnings per share for the current fiscal year. The dividend proposal that is based on Volkswagen AG's net income for the year under the German Commercial Code is not relevant for the calculation of earnings per share in accordance with IAS 33. The distribution of further dividends in accordance with Article 27(2) Nos. 2 and 3 of the Articles of Association of Volkswagen AG, whereby, in the case of a full distribution, the dividend paid for each preferred share is €0.06 higher than that paid for each ordinary share, is only included in the calculation of earnings per share if there is a profit after tax attributable to the shareholders of Volkswagen AG.

In 2012 and 2013, Volkswagen AG placed two mandatory convertible notes with identical features and an aggregate principal amount of €3.7 billion via a subsidiary, the Volkswagen Finance N.V. Amsterdam (issuer). These notes matured on November 9, 2015. The terms and conditions of the notes provided for early conversion options and the exercise of such options in the prior-year period resulted in the creation of 27,091 new preferred shares. Under the note terms and conditions, the mandatory convertible notes were required to be settled by issuing new preferred shares no later than at maturity. On the maturity date (November 9, 2015), the outstanding volume of the two notes was converted by the issuer as required under the terms and conditions, resulting in the creation of 25,536,876 new preferred shares.

Quantity	ORDINARY 2016	ORDINARY 2015	PREFERRED 2016	PREFERRED 2015
Weighted average number of shares outstanding – basic	295,089,818	295,089,818	206,205,445	206,205,445
Weighted average number of shares outstanding – diluted	295,089,818	295,089,818	206,205,445	206,205,445

€ million	2016	2015
Earnings after tax	5,379	–1,361
Noncontrolling interests	10	10
Earnings attributable to Volkswagen AG hybrid capital investors	225	212
Earnings attributable to Volkswagen AG shareholders	5,144	–1,582
Basic earnings attributable to ordinary shares	3,021	–945
Diluted earnings attributable to ordinary shares	3,021	–945
Basic earnings attributable to preferred shares	2,123	–637
Diluted earnings attributable to preferred shares	2,123	–637

€	2016	2015
Basic earnings per ordinary share	10.24	–3.20
Diluted earnings per ordinary share	10.24	–3.20
Basic earnings per preferred share	10.30	–3.09
Diluted earnings per preferred share	10.30	–3.09

Additional Income Statement Disclosures in accordance with IAS 23 (Borrowing Costs)

Capitalized borrowing costs amounted to €83 million (previous year: €78 million) and related mainly to capitalized development costs. An average cost of debt of 1.5% (previous year: 1.8%) was used as a basis for capitalization in the Volkswagen Group.

Additional Income Statement Disclosures in accordance with IFRS 7 (Financial Instruments)

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 and
> financial instruments not falling within the scope of IFRS 7.

Financial instruments not falling within the scope of IFRS 7 include in particular investments in associates and joint ventures accounted for using the equity method.

NET GAINS OR LOSSES FROM FINANCIAL INSTRUMENTS BY IAS 39 MEASUREMENT CATEGORY

€ million	2016	2015
Financial instruments at fair value through profit or loss	–1,203	–700
Loans and receivables	4,109	5,317
Available-for-sale financial assets	–39	1,554
Financial liabilities measured at amortized cost	–3,480	–4,514
	–613	**1,657**

Net gains and losses from financial assets and liabilities at fair value through profit or loss are 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 available-for-sale financial assets primarily comprise income and expenses from marketable securities including disposal gains/losses, impairment losses on investments and currency translation effects.

Net gains and losses from loans and receivables and from financial liabilities carried at amortized cost comprise interest income and expenses in accordance with the effective interest method under IAS 39, including currency translation effects. Interest also includes interest income and expenses from the lending business of the financial services operations.

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

€ million	2016	2015
Interest income	5,401	5,540
Interest expenses	3,534	3,802
	1,867	**1,738**

IMPAIRMENT LOSSES ON FINANCIAL ASSETS BY CLASS

€ million	2016	2015
Measured at fair value	18	4
Measured at amortized cost	1,707	1,552
	1,725	**1,557**

Impairment losses relate to write-downs of financial assets, such as valuation allowances on receivables and marketable securities. Interest income on impaired financial assets amounted to €48 million in the fiscal year (previous year: €50 million).

In fiscal year 2016, €3 million (previous year: €3 million) was recognized as an expense and €67 million (previous year: €52 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.

Balance sheet disclosures

12. Intangible assets

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2015

€ 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, 2015	**17,045**	**23,577**	**6,428**	**21,409**	**8,292**	**76,752**
Foreign exchange differences	16	64	–27	52	–189	–85
Changes in consolidated Group	–	5	–	–	43	48
Additions	–	–	4,043	978	506	5,526
Transfers	–	–	–3,652	3,652	16	17
Disposals	–	–	11	2,410	138	2,559
Balance at Dec. 31, 2015	**17,062**	**23,646**	**6,781**	**23,681**	**8,529**	**79,699**
Amortization and impairment						
Balance at Jan. 1, 2015	**79**	**0**	**14**	**12,085**	**4,639**	**16,818**
Foreign exchange differences	–7	0	0	39	–83	–50
Changes in consolidated Group	–	–	–	–	14	14
Additions to cumulative amortization	4	–	–	3,098	989	4,091
Additions to cumulative impairment losses	–	–	31	133	21	186
Transfers	–	–	–8	8	–2	–2
Disposals	–	–	–	2,396	105	2,501
Reversal of impairment losses	–	–	–	1	–	1
Balance at Dec. 31, 2015	**76**	**–**	**37**	**12,968**	**5,472**	**18,553**
Carrying amount at Dec. 31, 2015	**16,986**	**23,646**	**6,744**	**10,713**	**3,058**	**61,147**

CHANGES IN INTANGIBLE ASSETS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2016

€ 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, 2016	**17,062**	**23,646**	**6,781**	**23,681**	**8,529**	**79,699**
Foreign exchange differences	–37	–86	–12	–90	137	–89
Changes in consolidated Group	–	9	–	–	29	37
Additions	–	–	4,857	893	385	6,135
Transfers	–	–	–4,324	4,324	12	12
Disposals	–	10	17	1,442	456	1,925
Balance at Dec. 31, 2016	**17,024**	**23,559**	**7,285**	**27,366**	**8,637**	**83,870**
Amortization and impairment						
Balance at Jan. 1, 2016	**76**	**–**	**37**	**12,968**	**5,472**	**18,553**
Foreign exchange differences	5	0	0	–80	84	9
Changes in consolidated Group	–	–	–	–	7	7
Additions to cumulative amortization	3	–	–	3,278	906	4,187
Additions to cumulative impairment losses	–	10	16	293	55	375
Transfers	–	–	0	–	–3	–3
Disposals	–	10	14	1,419	412	1,855
Reversal of impairment losses	–	–	–	1	0	1
Balance at Dec. 31, 2016	**84**	**0**	**39**	**15,040**	**6,109**	**21,271**
Carrying amount at Dec. 31, 2016	**16,941**	**23,558**	**7,246**	**12,326**	**2,527**	**62,599**

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	2016	2015
Brand names by operating segment		
Porsche	13,823	13,823
Scania Vehicles and Services	1,017	1,059
MAN Truck & Bus	1,127	1,127
MAN Diesel & Turbo	415	415
Ducati	404	404
Other	155	158
	16,941	**16,986**
Goodwill by operating segment		
Porsche	18,825	18,825
Scania Vehicles and Services	2,947	3,044
MAN Truck & Bus	608	607
MAN Diesel & Turbo	249	250
Ducati	290	290
ŠKODA	150	150
Porsche Holding Salzburg	197	197
Other	293	284
	23,558	**23,646**

The impairment test for recognized goodwill is based on value in use. Recoverability is not affected by a variation in the growth forecast with respect to the perpetual annuity or in the discount rate of +/–0.5 percentage points.

Research and development costs developed as follows:

€ million	2016	2015	%
Total research and development costs	13,672	13,612	0.4
of which: capitalized development costs	5,750	5,021	14.5
Capitalization ratio in %	42.1	36.9	–
Amortization of capitalized development costs	3,587	3,263	10.0
Research and development costs recognized in profit or loss	**11,509**	**11,853**	**–2.9**

13. Property, plant and equipment

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2015

€ 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, 2015	**28,489**	**37,873**	**53,922**	**6,607**	**126,890**
Foreign exchange differences	35	22	56	113	226
Changes in consolidated Group	129	37	44	0	210
Additions	992	1,777	4,283	5,748	12,800
Transfers	1,565	1,746	1,383	–4,713	–18
Disposals	173	1,620	1,446	38	3,277
Balance at Dec. 31, 2015	**31,036**	**39,836**	**58,243**	**7,717**	**136,832**
Depreciation and impairment					
Balance at Jan. 1, 2015	**11,906**	**26,779**	**42,000**	**36**	**80,721**
Foreign exchange differences	12	29	35	–6	69
Changes in consolidated Group	44	33	38	–	115
Additions to cumulative depreciation	948	2,691	4,539	–	8,178
Additions to cumulative impairment losses	6	107	382	58	553
Transfers	–1	71	–65	–1	3
Disposals	125	1,561	1,284	0	2,970
Reversal of impairment losses	0	1	1	7	10
Balance at Dec. 31, 2015	**12,789**	**28,148**	**45,645**	**79**	**86,661**
Carrying amount at Dec. 31, 2015	**18,247**	**11,688**	**12,597**	**7,638**	**50,171**
of which assets leased under finance leases Carrying amount at Dec. 31, 2015	345	12	36	–	393

Future finance lease payments due, and their present values, are shown in the following table:

€ million	2016	2017 – 2020	from 2021	Total
Finance lease payments	60	240	408	707
Interest component of finance lease payments	20	67	149	236
Carrying amount of liabilites	**40**	**173**	**258**	**471**

CHANGES IN PROPERTY, PLANT AND EQUIPMENT IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2016

€ 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, 2016	**31,036**	**39,836**	**58,243**	**7,717**	**136,832**
Foreign exchange differences	228	429	498	51	1,206
Changes in consolidated Group	42	26	30	1	98
Additions	742	1,843	5,150	5,025	12,760
Transfers	1,639	2,296	1,879	–5,758	55
Disposals	154	1,076	1,203	28	2,461
Balance at Dec. 31, 2016	**33,534**	**43,353**	**64,595**	**7,008**	**148,490**
Depreciation and impairment					
Balance at Jan. 1, 2016	**12,789**	**28,148**	**45,645**	**79**	**86,661**
Foreign exchange differences	90	305	397	5	796
Changes in consolidated Group	6	14	16	–	36
Additions to cumulative depreciation	1,000	2,918	4,707	–	8,625
Additions to cumulative impairment losses	67	143	291	8	508
Transfers	17	21	15	–46	7
Disposals	81	1,011	1,071	0	2,164
Reversal of impairment losses	–	7	0	7	13
Balance at Dec. 31, 2016	**13,887**	**30,531**	**49,999**	**39**	**94,456**
Carrying amount at Dec. 31, 2016	**19,647**	**12,822**	**14,596**	**6,969**	**54,033**
of which assets leased under finance leases Carrying amount at Dec. 31, 2016	318	9	45	–	372

Options to purchase buildings and plant leased under the terms of finance leases exist in most cases, and are also expected to be exercised.

Future finance lease payments due, and their present values, are shown in the following table:

€ million	2017	2018 – 2021	from 2022	Total
Finance lease payments	79	306	480	865
Interest component of finance lease payments	26	100	200	326
Carrying amount of liabilites	**53**	**206**	**279**	**539**

For assets leased under operating leases, payments recognized in the income statement amounted to €1,498 million (previous year: €1,463 million). With respect to internally used assets, €1,320 million (previous year: €1,306 million) of this figure is attributable to minimum lease payments and €60 million (previous year: €51 million) to contingent lease payments. The payments of €118 million (previous year: €106 million) under subleases primarily relate to minimum lease payments.

Government grants of €218 million (previous year: €120 million) were deducted from the cost of property, plant and equipment and noncash benefits received amounting to €12 million (previous year: €18 million) were not capitalized as the cost of assets.

Real property liens of €762 million (previous year: €657 million) are pledged as collateral for financial liabilities related to land and buildings.

14. Lease assets and investment property

CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2015

€ million	Leasing assets	Investment property	Total
Cost Balance at Jan. 1, 2015	**36,780**	**736**	**37,516**
Foreign exchange differences	1,750	23	1,773
Changes in consolidated Group	10	1	11
Additions	18,265	15	18,280
Transfers	0	2	2
Disposals	11,687	16	11,702
Balance at Dec. 31, 2015	**45,118**	**761**	**45,879**
Depreciation and impairment Balance at Jan. 1, 2015	**9,195**	**251**	**9,446**
Foreign exchange differences	411	4	415
Changes in consolidated Group	3	1	4
Additions to cumulative depreciation	6,035	15	6,050
Additions to cumulative impairment losses	619	–	619
Transfers	0	–1	–1
Disposals	4,315	5	4,321
Reversal of impairment losses	3	8	10
Balance at Dec. 31, 2015	**11,945**	**257**	**12,202**
Carrying amount at Dec. 31, 2015	**33,173**	**504**	**33,677**

The following payments from noncancelable leases and rental agreements were expected to be received over the coming years:

€ million	2016	2017 – 2020	from 2021	Total
Lease payments	3,722	4,398	42	8,162

CHANGES IN LEASE ASSETS AND INVESTMENT PROPERTY IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2016

€ million	Leasing assets	Investment property	Total
Cost Balance at Jan. 1, 2016	**45,118**	**761**	**45,879**
Foreign exchange differences	321	12	333
Changes in consolidated Group	64	66	130
Additions	20,628	33	20,661
Transfers	3	–70	–67
Disposals	14,652	21	14,673
Balance at Dec. 31, 2016	**51,483**	**780**	**52,262**
Depreciation and impairment Balance at Jan. 1, 2016	**11,945**	**257**	**12,202**
Foreign exchange differences	74	2	76
Changes in consolidated Group	15	1	16
Additions to cumulative depreciation	6,743	17	6,760
Additions to cumulative impairment losses	455	0	455
Transfers	0	–4	–4
Disposals	6,097	4	6,101
Reversal of impairment losses	92	–	92
Balance at Dec. 31, 2016	**13,044**	**268**	**13,312**
Carrying amount at Dec. 31, 2016	**38,439**	**512**	**38,950**

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 €1,150 million (previous year: €927 million). Fair value is estimated using an investment method based on internal calculations (Level 3 of the fair value hierarchy). Operating expenses of €46 million (previous year: €50 million) were incurred for the maintenance of investment property in use. Expenses of €1 million (previous year: €1 million) were incurred for unused investment property.

The following payments from noncancelable leases and rental agreements are expected to be received over the coming years:

€ million	2017	2018 – 2021	from 2022	Total
Lease payments	3,649	4,759	56	8,464

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, 2015

€ million	Equity-accounted investments	Other equity investments	Total
Gross carrying amount at Jan. 1, 2015	**9,955**	**4,014**	**13,968**
Foreign exchange differences	187	9	197
Changes in consolidated Group	–	–67	–67
Additions	740	253	993
Transfers	44	–44	–
Disposals	36	3,174	3,210
Changes recognized in profit or loss	4,386	–	4,386
Dividends	–4,683	–	–4,683
Other changes recognized in other comprehensive income	392	342	733
Balance at Dec. 31, 2015	**10,985**	**1,333**	**12,318**
Impairment losses Balance at Jan. 1, 2015	**80**	**331**	**411**
Foreign exchange differences	1	–2	–2
Changes in consolidated Group	–	–3	–3
Additions	–	38	38
Transfers	–	–	–
Disposals	–	4	4
Reversal of impairment losses	–	0	0
Balance at Dec. 31, 2015	**81**	**358**	**439**
Carrying amount at Dec. 31, 2015	**10,904**	**974**	**11,878**

CHANGES IN EQUITY-ACCOUNTED INVESTMENTS AND OTHER EQUITY INVESTMENTS IN THE PERIOD JANUARY 1 TO DECEMBER 31, 2016

€ million	Equity-accounted investments	Other equity investments	Total
Gross carrying amount at Jan. 1, 2016	**10,985**	**1,333**	**12,318**
Foreign exchange differences	–100	–1	–101
Changes in consolidated Group	–11	–103	–114
Additions	525	191	716
Transfers	–	–	–
Disposals	2,193	3	2,197
Changes recognized in profit or loss	3,250	–	3,250
Dividends	–3,598	–	–3,598
Other changes recognized in other comprehensive income	–131	–	–131
Balance at Dec. 31, 2016	**8,727**	**1,417**	**10,143**
Impairment losses Balance at Jan. 1, 2016	**81**	**358**	**439**
Foreign exchange differences	–1	1	0
Changes in consolidated Group	–	–57	–57
Additions	30	120	150
Transfers	–	–	–
Disposals	–	1	1
Reversal of impairment losses	–	0	0
Balance at Dec. 31, 2016	**110**	**420**	**531**
Carrying amount at Dec. 31, 2016	**8,616**	**996**	**9,613**

Equity-accounted investments include joint ventures in the amount of €7,068 million (previous year: €9,546 million) and associates in the amount of €1,548 million (previous year: €1,358 million).

The additions of equity-accounted investments are mainly attributable to the acquisition of the investment in Gett in the amount of €0.3 billion (previous year: There Holding) and to the measurement of the shares in GMH at the selling price in the amount of €0.2 billion. The disposals in the current year are connected with the divestment of LeasePlan by GMH. In the previous year, the disposals of other equity investments were mainly the result of the sale of the Suzuki shares. Further details can be found in the disclosures in the section entitled "Basis of consolidation".

Of the other changes recognized in other comprehensive income, €–132 million (previous year: €391 million) is attributable to joint ventures and €1 million (previous year: €1 million) to associates. They are mainly the result of foreign exchange differences in the amount of €–156 million (previous year: €393 million), pension plan remeasurements in the amount of €–1 million (previous year: €–8 million) and losses on the fair value measurement of cash flow hedges in the amount of €33 million (previous year: €6 million).

16. Noncurrent and current financial services receivables

€ million	CARRYING AMOUNT			FAIR VALUE	CARRYING AMOUNT			FAIR VALUE
	Current	Noncurrent	Dec. 31, 2016	Dec. 31, 2016	Current	Noncurrent	Dec. 31, 2015	Dec. 31, 2015
Receivables from financing business								
Customer financing	22,921	47,863	70,784	73,507	21,991	44,985	66,976	68,452
Dealer financing	15,531	2,108	17,639	17,626	14,738	1,832	16,570	16,539
Direct banking	254	2	256	256	212	2	214	214
	38,707	**49,973**	**88,680**	**91,389**	**36,941**	**46,819**	**83,760**	**85,205**
Receivables from operating leases	197	–	197	197	273	–	273	273
Receivables from finance leases	10,769	18,429	29,198	29,342	9,674	16,365	26,040	26,041
	49,673	**68,402**	**118,075**	**120,929**	**46,888**	**63,185**	**110,073**	**111,518**

The receivables from customer financing and finance leases contained in financial services receivables of €118.1 billion (previous year: €110.1 billion) decreased by €7 million (previous year: €18 million) as a result of a fair value adjustment from portfolio hedging.

The receivables from customer and dealer financing are secured by vehicles or real property liens. Of the receivables, €251 million (previous year: €– million) was furnished as collateral for financial liabilities and contingent liabilities.

The receivables from dealer financing include €51 million (previous year: €45 million) receivable from unconsolidated affiliated companies.

The receivables from finance leases – almost entirely in respect of vehicles – were or are expected to generate the following cash flows as of December 31, 2015 and December 31, 2016:

€ million	2016	2017 – 2020	from 2021	Total
Future payments from finance lease receivables	10,320	17,184	135	27,639
Unearned finance income from finance leases (discounting)	–646	–949	–4	–1,600
Present value of minimum lease payments outstanding at the reporting date	**9,674**	**16,234**	**131**	**26,040**

€ million	2017	2018 – 2021	from 2022	Total
Future payments from finance lease receivables	11,438	19,316	137	30,891
Unearned finance income from finance leases (discounting)	–670	–1,014	–11	–1,695
Present value of minimum lease payments outstanding at the reporting date	**10,768**	**18,302**	**126**	**29,196**

Accumulated valuation allowances for uncollectible minimum lease payments receivable amount to €94 million (previous year: €90 million).

17. Noncurrent and current other financial assets

€ million	Carrying amount			Carrying amount		
	Current	Noncurrent	Dec. 31, 2016	Current	Noncurrent	Dec. 31, 2015
Positive fair value of derivatives	2,317	3,274	5,591	2,081	2,246	4,326
Marketable securities	–	46	46	–	1,387	1,387
Receivables from loans, bonds, profit participation rights (excluding interest)	5,352	2,338	7,690	4,286	2,169	6,455
Miscellaneous financial assets	4,175	2,598	6,773	3,677	928	4,604
	11,844	**8,256**	**20,099**	**10,043**	**6,730**	**16,773**

Other financial assets include receivables from related parties of €6,928 million (previous year: €6,010 million). Other financial assets and noncurrent marketable securities amounting to €1,870 million (previous year: €1,897 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, the miscellaneous financial assets include cash and cash equivalents that serve as collateral (mainly under asset-backed securities transactions).

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

€ million	Dec. 31, 2016	Dec. 31, 2015
Transactions for hedging		
foreign currency risk from assets using fair value hedges	239	310
foreign currency risk from liabilities using fair value hedges	186	190
interest rate risk using fair value hedges	592	681
interest rate risk using cash flow hedges	65	19
foreign currency and price risk from future cash flows (cash flow hedges)	3,032	1,735
Hedging transactions	**4,114**	**2,936**
Assets related to derivatives not included in hedging relationships	1,477	1,391
	5,591	**4,326**

The positive fair value of transactions for hedging price risk from future cash flows (cash flow hedges) amounted to €36 million (previous year: €0 million).

Positive fair values of €1 million (previous year: €1 million) were recognized from transactions for hedging interest rate risk (fair value hedges) used in portfolio hedges.

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

18. Noncurrent and current other receivables

€ million	Carrying amount Current	Carrying amount Noncurrent	Dec. 31, 2016	Carrying amount Current	Carrying amount Noncurrent	Dec. 31, 2015
Other recoverable income taxes	4,037	841	4,878	3,930	259	4,189
Miscellaneous receivables	1,093	1,169	2,261	1,438	1,081	2,518
	5,130	**2,009**	**7,139**	**5,367**	**1,340**	**6,707**

Miscellaneous receivables include assets to fund post-employment benefits in the amount of €46 million (previous year: €71 million). This item also includes the share of the technical provisions attributable to reinsurers amounting to €73 million (previous year: €78 million).

Current other receivables are predominantly non-interest-bearing.

19. Tax assets

€ million	Carrying amount Current	Carrying amount Noncurrent	Dec. 31, 2016	Carrying amount Current	Carrying amount Noncurrent	Dec. 31, 2015
Deferred tax assets	–	9,756	9,756	–	8,026	8,026
Tax receivables	1,126	392	1,518	1,029	395	1,424
	1,126	**10,148**	**11,274**	**1,029**	**8,421**	**9,451**

€6,294 million (previous year: €6,239 million) of the deferred tax assets are due within one year.

20. Inventories

€ million	Dec. 31, 2016	Dec. 31, 2015
Raw materials, consumables and supplies	4,396	4,021
Work in progress	4,408	3,927
Finished goods and purchased merchandise	25,719	23,083
Current lease assets	4,276	3,861
Prepayments	178	156
	38,978	**35,048**

At the same time as the relevant revenue was recognized, inventories in the amount of €166 billion (previous year: €162 billion) were included in cost of sales. Valuation allowances recognized as expenses in the reporting period amounted to €1,310 million (previous year: €932 million). Vehicles amounting to €263 million (previous year: €230 million) were assigned as collateral for partial retirement obligations.

21. Trade receivables

€ million	Dec. 31, 2016	Dec. 31, 2015
Trade receivables from		
third parties	9,110	8,570
unconsolidated subsidiaries	179	265
joint ventures	2,847	2,253
associates	47	40
other investees and investors	4	5
	12,187	**11,132**

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

The trade receivables include receivables from construction contracts accounted for using the percentage of completion (PoC) method. These are calculated as follows:

€ million	Dec. 31, 2016	Dec. 31, 2015
Contract costs and proportionate contract profit/loss of construction contracts	955	1,236
Progress billings	–91	–41
Exchange rate effects	2	–4
PoC receivables, gross	**865**	**1,191**
Prepayments received	–652	–969
PoC receivables, net	**213**	**222**

Other payments received on account of construction contracts in the amount of €225 million (previous year: €344 million), for which no construction costs have yet been incurred, are recognized under other liabilities.

22. Marketable securities

The marketable securities serve to safeguard liquidity. Marketable securities are quoted, mainly short-term fixed-income securities and shares allocated to the available-for-sale financial assets category.

23. Cash, cash equivalents and time deposits

€ million	Dec. 31, 2016	Dec. 31, 2015
Bank balances	19,093	20,656
Checks, cash-in-hand, bills and call deposits	171	216
	19,265	**20,871**

Bank balances are held at various banks in different currencies and include time deposits, for example.

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 April 19, 2012 resolved to create authorized capital of up to €110 million, expiring on April 18, 2017, for the issue of new ordinary bearer shares or preferred shares based. After deducting preferred shares that have already been issued, only €83 million of authorized capital remains. In 2014, Volkswagen AG recorded a cash inflow of €2,000 million from the capital increase, less transaction costs of €20 million.

The Annual General Meeting on April 22, 2010 resolved to create contingent capital in the amount of up to €102 million expiring on April 21, 2015 that could be used to issue up to €5 billion in bonds with warrants and/or convertible bonds.

To date, Volkswagen has used this contingent capital as follows:

- In November 2012, via a subsidiary, Volkswagen International Finance N.V. Amsterdam, the Netherlands (issuer), Volkswagen AG placed a €2.5 billion mandatory convertible note that entitled and obliged holders to subscribe for Volkswagen preferred shares. The preemptive rights of existing shareholders were disapplied. The convertible note bore a coupon of 5.50% and matured on November 9, 2015.
- In June 2013, Volkswagen placed another €1.2 billion mandatory convertible note to supplement the mandatory convertible note issued in November 2012. The features of this mandatory convertible note corresponded to those of the mandatory convertible note issued in November 2012. It was issued at a price of 105.64% of the principal amount. Additionally, accrued interest (€1 million) was received and deferred. This mandatory convertible note also matured on November 9, 2015.

The convertible notes were settled by issuing new preferred shares no later than at maturity. The issuer was entitled to convert the mandatory convertible notes at any time at the minimum conversion price. The note terms and conditions also provided for early conversion options. This voluntary conversion right was exercised in the previous year. In 2015, a further 27,091 preferred shares were created through exercise of the voluntary conversion right. At the maturity date, November 9, 2015, the remaining amount of both notes was converted by the issuer as required. A further 25,536,876 new preferred shares were created and the underlying principal amount of each bond was €100,000 and the final conversion price €144.50. In this context, it was necessary to reclassify the principal amount of €65 million from the capital reserves to subscribed capital.

Following the voluntary and mandatory conversion of mandatory convertible notes in the previous year, the subscribed capital is composed of 295,089,818 no-par value ordinary shares and 206,205,445 no-par value preferred shares, and amounts to €1,283 million (December 31, 2015: €1,283 million).

The Annual General Meeting on May 5, 2015 resolved to create authorized capital of up to €179 million, expiring on May 4, 2020, to issue new preferred bearer shares.

In March 2015, Volkswagen AG placed unsecured subordinated hybrid notes with an aggregate principal amount of €2.5 billion via a subsidiary, Volkswagen International Finance N.V. Amsterdam, the Netherlands (VIF). The perpetual hybrid notes were issued in two tranches and can be called by VIF. The first call date for the first tranche (€1.1 billion and a coupon of 2.50%) is after seven years, and the first call date for the second tranche (€1.4 billion and a coupon of 3.50%) is after 15 years. Interest may be accumulated depending on whether a dividend is paid to Volkswagen AG shareholders. Under IAS 32, the hybrid notes 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, net of income taxes.

CHANGE IN ORDINARY AND PREFERRED SHARES AND SUBSCRIBED CAPITAL

	SHARES		€	
	2016	2015	**2016**	2015
Balance at January 1	**501,295,263**	**475,731,296**	**1,283,315,873**	**1,217,872,118**
Capital increase	–	–	–	–
Conversion of mandatory convertible notes	–	25,563,967	–	65,443,756
Balance at December 31	**501,295,263**	**501,295,263**	**1,283,315,873**	**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. As the mandatory convertible notes that had been issued were converted in fiscal year 2015, an amount of €65,443,756 was reclassified from the capital reserves to subscribed capital (see also the section entitled “Earnings per share”). No amounts were withdrawn from the capital reserves.

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, net retained profits of €1,402 million are eligible for distribution following the transfer of €1,399 million to the revenue reserves. The Board of Management and Supervisory Board will propose to the Annual General Meeting that a total dividend of €1,015 million, i.e. €2.00 per ordinary share and €2.06 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.

A dividend of €0.11 per ordinary share and €0.17 per preferred share was distributed in fiscal year 2016.

NONCONTROLLING INTERESTS

As of December 31, 2016, total noncontrolling interests amounted to €221 million (previous year: €210 million). The noncontrolling interests in equity are attributable primarily to shareholders of RENK AG and AUDI AG and are immaterial individually and in the aggregate.

25. Noncurrent and current financial liabilities

The details of noncurrent and current financial liabilities are presented in the following table:

	CARRYING AMOUNT			CARRYING AMOUNT		
€ million	Current	Noncurrent	Dec. 31, 2016	Current	Noncurrent	Dec. 31, 2015
Bonds	18,831	33,191	52,022	19,891	42,454	62,346
Commercial paper and notes	23,173	18,004	41,178	10,428	16,369	26,797
Liabilities to banks	14,180	10,816	24,996	16,018	11,101	27,119
Deposits business	31,019	2,759	33,779	25,357	1,141	26,498
Loans and miscellaneous liabilities	1,204	1,102	2,306	578	1,795	2,373
Bills of exchange	–	–	–	–	–	–
Finance lease liabilities	53	486	539	40	431	471
	88,461	**66,358**	**154,819**	**72,313**	**73,292**	**145,604**

26. Noncurrent and current other financial liabilities

	CARRYING AMOUNT			CARRYING AMOUNT		
€ million	Current	Noncurrent	Dec. 31, 2016	Current	Noncurrent	Dec. 31, 2015
Negative fair values of derivative financial instruments	3,428	2,630	6,058	4,799	3,905	8,703
Interest payable	581	48	630	668	70	739
Miscellaneous financial liabilities	5,428	1,810	7,239	4,883	1,926	6,809
	9,438	**4,488**	**13,926**	**10,350**	**5,901**	**16,251**

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

€ million	Dec. 31, 2016	Dec. 31, 2015
Transactions for hedging		
foreign currency risk from assets using fair value hedges	74	71
foreign currency risk from liabilities using fair value hedges	286	106
interest rate risk using fair value hedges	147	71
interest rate risk using cash flow hedges	11	16
foreign currency and price risk from future cash flows (cash flow hedges)	4,135	6,970
Hedging transactions	**4,652**	**7,234**
Liabilities related to derivatives not included in hedging relationships	1,406	1,469
	6,058	**8,703**

The negative fair value of transactions for hedging price risk from future cash flows (cash flow hedges) amounted to €21 million (previous year: €166 million).

Negative fair values of €85 million (previous year: €44 million) were recognized from transactions for hedging interest rate risk (fair value hedges) used 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

	CARRYING AMOUNT			CARRYING AMOUNT		
€ million	Current	Noncurrent	Dec. 31, 2016	Current	Noncurrent	Dec. 31, 2015
Payments received on account of orders	4,042	572	4,614	3,994	150	4,144
Liabilities relating to						
other taxes	2,611	204	2,815	1,973	435	2,408
social security	536	35	571	486	29	515
wages and salaries	4,495	750	5,245	4,293	663	4,956
Miscellaneous liabilities	3,777	4,103	7,880	3,267	3,628	6,896
	15,461	**5,664**	**21,125**	**14,014**	**4,905**	**18,919**

28. Tax liabilities

€ million	CARRYING AMOUNT Current	Noncurrent	Dec. 31, 2016	CARRYING AMOUNT Current	Noncurrent	Dec. 31, 2015
Deferred tax liabilities	–	4,745	4,745	–	4,433	4,433
Provisions for taxes	1,301	3,556	4,857	1,301	3,940	5,241
Tax payables	500	–	500	330	–	330
	1,801	**8,301**	**10,102**	**1,630**	**8,373**	**10,004**

€328 million (€369 million) of the deferred tax liabilities are due 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 2016, they amounted to a total of €2,084 million (previous year: €1,978 million) in the Volkswagen Group. Of this figure, contributions to the compulsory state pension system in Germany amounted to €1,552 million (previous year: €1,500 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 as well as from changes in assumptions. 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, the Netherlands and Japan. 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 €25 million for fiscal year 2017.

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 and other post-employment benefits. These post-employment benefit provisions take into account the expected long-term rise in the cost of healthcare. In fiscal year 2016, €19 million (previous year: €19 million) was recognized as an expense for health care costs. The related carrying amount as of December 31, 2016 was €232 million (previous year: €222 million).

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

€ million	Dec. 31, 2016	Dec. 31, 2015
Present value of funded obligations	15,104	12,098
Fair value of plan assets	10,749	9,769
Funded status (net)	4,355	2,329
Present value of unfunded obligations	28,585	25,118
Amount not recognized as an asset because of the ceiling in IAS 19	26	17
Net liability recognized in the balance sheet	**32,967**	**27,464**
of which provisions for pensions	33,012	27,535
of which other assets	46	71

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 above-mentioned 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 2005 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 2005 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	
%	2016	2015	2016	2015
Discount rate at December 31	1.79	2.70	3.82	4.36
Payroll trend	3.46	3.42	3.32	3.27
Pension trend	1.50	1.70	2.44	2.46
Employee turnover rate	1.13	1.01	3.63	3.80
Annual increase in healthcare costs	–	–	4.88	5.03

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 10+ Corporates 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	2016	2015
Net liability recognized in the balance sheet at January 1	**27,464**	**29,731**
Current service cost	1,066	1,104
Net interest expense	729	688
Actuarial gains (–)/losses (+) arising from changes in demographic assumptions	17	–23
Actuarial gains (–)/losses (+) arising from changes in financial assumptions	5,862	–2,904
Actuarial gains (–)/losses (+) arising from experience adjustments	–283	190
Income/expenses from plan assets not included in interest income	349	–164
Change in amount not recognized as an asset because of the ceiling in IAS 19	–4	–7
Employer contributions to plan assets	680	654
Employee contributions to plan assets	–7	–6
Pension payments from company assets	833	808
Past service cost (including plan curtailments)	–24	9
Gains (–) or losses (+) arising from plan settlements	4	2
Changes in consolidated Group	0	1
Other changes	–42	–15
Foreign exchange differences from foreign plans	25	–34
Net liability recognized in the balance sheet at December 31	**32,967**	**27,464**

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	2016	2015
Present value of obligations at January 1	**37,215**	**38,939**
Current service cost	1,066	1,104
Interest cost	1,075	996
Actuarial gains(–)/losses (+) arising from changes in demographic assumptions	17	–23
Actuarial gains(–)/losses (+) arising from changes in financial assumptions	5,862	–2,904
Actuarial gains(–)/losses (+) arising from experience adjustments	–283	190
Employee contributions to plan assets	31	33
Pension payments from company assets	833	808
Pension payments from plan assets	308	292
Past service cost (including plan curtailments)	–24	9
Gains (–) or losses (+) arising from plan settlements	–64	–4
Changes in consolidated Group	0	2
Other changes	–4	–8
Foreign exchange differences from foreign plans	–62	–19
Present value of obligations at December 31	**43,689**	**37,215**

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

Present value of defined benefit obligation if		DEC. 31, 2016 € million	DEC. 31, 2016 Change in percent	DEC. 31, 2015 € million	DEC. 31, 2015 Change in percent
Discount rate	is 0.5 percentage points higher	39,761	–8.99	34,103	–8.36
	is 0.5 percentage points lower	48,249	10.44	40,787	9.60
Pension trend	is 0.5 percentage points higher	45,985	5.25	39,081	5.01
	is 0.5 percentage points lower	41,601	–4.78	35,444	–4.76
Payroll trend	is 0.5 percentage points higher	44,297	1.39	37,693	1.28
	is 0.5 percentage points lower	43,145	–1.25	36,772	–1.19
Longevity	increases by one year	44,986	2.97	38,242	2.76

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 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 20 years (previous year: 19 years).

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

€ million	2016	2015
Active members with pension entitlements	25,622	21,148
Members with vested entitlements who have left the Company	2,222	1,754
Pensioners	15,846	14,314
	43,689	**37,215**

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	2016	2015
Payments due within the next fiscal year	1,126	1,098
Payments due between two and five years	4,801	4,420
Payments due in more than five years	37,762	31,697
	43,689	**37,215**

Changes in plan assets are shown in the following table:

€ million	2016	2015
Fair value of plan assets at January 1	**9,769**	**9,224**
Interest income on plan assets determined using the discount rate	346	308
Income/expenses from plan assets not included in interest income	349	–164
Employer contributions to plan assets	680	654
Employee contributions to plan assets	25	27
Pension payments from plan assets	308	292
Gains (+) or losses (–) arising from plan settlements	68	5
Changes in consolidated Group	–	1
Other changes	38	7
Foreign exchange differences from foreign plans	–82	10
Fair value of plan assets at December 31	**10,749**	**9,769**

The investment of the plan assets to cover future pension obligations resulted in income in the amount of €695 million (previous year: €144 million).

Employer contributions to plan assets are expected to amount to €594 million (€599 million) in the next fiscal year.

Plan assets are invested in the following asset classes:

	DEC. 31, 2016			DEC. 31, 2015		
€ million	Quoted prices in active markets	No quoted prices in active markets	Total	Quoted prices in active markets	No quoted prices in active markets	Total
Cash and cash equivalents	269	–	269	289	–	289
Equity instruments	360	–	360	313	–	313
Debt instruments	1,658	0	1,659	1,513	0	1,513
Direct investments in real estate	2	107	109	2	96	98
Derivatives	–15	–	–15	–19	–	–19
Equity funds	1,531	43	1,574	1,424	50	1,475
Bond funds	5,310	108	5,418	4,682	99	4,781
Real estate funds	192	–	192	257	–	257
Other funds	591	2	593	496	2	499
Other instruments	32	559	591	24	540	564

48.1% (previous year: 47.0%) of the plan assets are invested in German assets, 26.7% (previous year: 29.1%) in other European assets and 25.2% (previous year: 24.0%) in assets in other regions.

Plan assets include €19 million (previous year: €15 million) invested in Volkswagen Group assets and €9 million (previous year: €8 million) in Volkswagen Group debt instruments.

The following amounts were recognized in the income statement:

€ million	2016	2015
Current service cost	1,066	1,104
Net interest on the net defined benefit liability	731	690
Past service cost (including plan curtailments)	–24	9
Gains (–) or losses (+) arising from plan settlements	4	2
Net income (–) and expenses (+) recognized in profit or loss	**1,777**	**1,804**

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

30. Noncurrent and current other provisions

€ million	Obligations arising from sales	Employee expenses	Litigation and legal risks	Miscellaneous provisions	Total
Balance at Jan. 1, 2015	**20,539**	**4,091**	**1,306**	**7,049**	**32,986**
Foreign exchange differences	214	–19	–143	32	83
Changes in consolidated Group	0	0	0	1	2
Utilized	7,517	1,429	236	1,901	11,082
Additions/New provisions	19,270	1,668	7,697	2,747	31,382
Unwinding of discount/effect of change in discount rate	5	–22	4	4	–9
Reversals	1,185	142	219	858	2,404
Balance at Dec. 31, 2015	**31,326**	**4,148**	**8,409**	**7,075**	**50,958**
of which current	17,075	1,733	2,073	4,908	25,788
of which noncurrent	14,251	2,415	6,336	2,168	25,170
Balance at Jan. 1, 2016	**31,326**	**4,148**	**8,409**	**7,075**	**50,958**
Foreign exchange differences	174	35	93	100	402
Changes in consolidated Group	23	1	3	124	151
Utilized	9,265	1,344	1,583	2,103	14,295
Additions/New provisions	12,180	1,736	5,605	3,419	22,939
Unwinding of discount/effect of change in discount rate	123	196	–84	3	238
Reversals	1,533	227	726	713	3,199
Balance at Dec. 31, 2016	**33,027**	**4,546**	**11,717**	**7,904**	**57,193**
of which current	19,521	1,900	8,624	5,666	35,711
of which noncurrent	13,506	2,646	3,092	2,238	21,482

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.

The change in the provisions for litigation and legal risks is largely the result of provisions recognized to protect against the currently known legal risks related to the diesel issue, including suitable expenses for defense and legal advice, as well as provisions for the antitrust proceedings that the European Commission opened in 2011 against European truck manufacturers including MAN and Scania. These are subject to what are in part considerable estimation risks because the comprehensive and extensive investigations are still at an early stage, the factors involved are so complex, and the discussions with the authorities are still ongoing. In addition, the provisions for litigation and legal risks contain amounts relating 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. The increase results from provisions of €0.3 billion recognized for the investments totaling USD 2.0 billion over 10 years in zero emissions vehicle infrastructure as well as corresponding access and awareness initiatives for these technologies to which the Volkswagen Group had committed itself in the settlement agreements.

Miscellaneous provisions additionally include provisions amounting to €490 million (previous year: €459 million) relating to the insurance business.

31. Put options and compensation rights granted to noncontrolling interest shareholders

This balance sheet item consists primarily of the present value of the cash settlement in accordance with section 305 of the Aktiengesetz (AktG – German Stock Corporation Act) offered to MAN shareholders in connection with the control and profit and loss transfer agreement, including the basic interest rate in accordance with section 247 of the Bürgerliches Gesetzbuch (BGB – German Civil Code) assumed until the end of the award proceedings. The Annual General Meeting of MAN SE approved the conclusion of a control and profit and loss transfer agreement between MAN SE and Volkswagen Truck & Bus GmbH, a subsidiary of Volkswagen AG, in June 2013. The agreement sets out that the noncontrolling interest shareholders of MAN SE are entitled to either a cash settlement in accordance with section 305 of the AktG amounting to €80.89 per tendered ordinary or preferred share, or cash compensation in accordance with section 304 of the AktG in the amount of €3.07 per ordinary or preferred share (after corporate taxes, before the shareholder's individual tax liability) for each full fiscal year. In July 2013, award proceedings were instituted to review the appropriateness of the cash settlement set out in the agreement in accordance with section 305 of the AktG and the cash compensation in accordance with section 304 of the AktG. In July 2015, the Munich Regional Court ruled in the first instance that the amount of the cash settlement payable to the noncontrolling interest shareholders of MAN should be increased from €80.89 to €90.29; at the same time, the amount of the cash compensation was confirmed. The ruling is not yet legally effective, and both parties to the proceedings have since appealed. Volkswagen continues to maintain that the results of the valuation are correct. The appropriateness of the valuation was confirmed by the audit firms and by the court-appointed auditor of the agreement. As a precaution, the measurement was adjusted to the higher settlement payable, resulting in an expense of €437 million in 2015, which was recognized in the other financial result.

32. Trade payables

€ million	Dec. 31, 2016	Dec. 31, 2015
Trade payables to		
third parties	22,311	20,051
unconsolidated subsidiaries	182	165
joint ventures	157	82
associates	141	156
other investees and investors	3	7
	22,794	**20,460**

Additional balance sheet disclosures in accordance with IFRS 7 (Financial Instruments)

CARRYING AMOUNT OF FINANCIAL INSTRUMENTS BY IAS 39 MEASUREMENT CATEGORY

€ million	Dec. 31, 2016	Dec. 31, 2015
Financial assets at fair value through profit or loss	990	1,881
Loans and receivables	134,623	128,198
Available-for-sale financial assets	17,707	15,219
Financial liabilities at fair value through profit or loss	2,358	2,399
Financial liabilities measured at amortized cost	188,791	177,074

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS

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

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

Financial instruments measured at fair value also include shares in partnerships and corporations. There is no active market for these instruments. Since the future cash flows cannot be reliably determined, fair value cannot be determined using measurement models. The shares in these companies are carried at cost.

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2015

	MEASURED AT FAIR VALUE	MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT WITHIN SCOPE OF IFRS 7	BALANCE SHEET ITEM AT DEC. 31, 2015
€ million	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	–	–	–	–	10,904	10,904
Other equity investments	211	–	–	–	763	974
Financial services receivables	–	63,185	64,630	–	–	63,185
Other financial assets	996	4,484	4,492	1,249	–	6,730
Current assets						
Trade receivables	–	11,132	11,132	–	–	11,132
Financial services receivables	–	46,888	46,888	–	–	46,888
Other financial assets	885	7,963	7,963	1,196	–	10,043
Marketable securities	15,007	–	–	–	–	15,007
Cash, cash equivalents and time deposits	–	20,871	20,871	–	–	20,871
Noncurrent liabilities						
Noncurrent financial liabilities	–	73,292	73,844	–	–	73,292
Other noncurrent financial liabilities	1,325	1,996	1,998	2,580	–	5,901
Current liabilities						
Put options and compensation rights granted to noncontrolling interest shareholders	–	3,933	3,783	–	–	3,933
Current financial liabilities	–	72,313	72,313	–	–	72,313
Trade payables	–	20,460	20,460	–	–	20,460
Other current financial liabilities	1,074	5,551	5,551	3,725	–	10,350

RECONCILIATION OF BALANCE SHEET ITEMS TO CLASSES OF FINANCIAL INSTRUMENTS AS OF DECEMBER 31, 2016

€ million	MEASURED AT FAIR VALUE	MEASURED AT AMORTIZED COST		DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING	NOT WITHIN SCOPE OF IFRS 7	BALANCE SHEET ITEM AT DEC. 31, 2016
	Carrying amount	Carrying amount	Fair value	Carrying amount	Carrying amount	
Noncurrent assets						
Equity-accounted investments	–	–	–	–	8,616	8,616
Other equity investments	187	–	–	–	809	996
Financial services receivables	–	68,402	70,766	–	–	68,402
Other financial assets	251	4,982	5,008	3,023	–	8,256
Current assets						
Trade receivables	–	12,187	12,187	–	–	12,187
Financial services receivables	–	49,673	49,673	–	–	49,673
Other financial assets	740	9,527	9,527	1,577	–	11,844
Marketable securities	17,520	–	–	–	–	17,520
Cash, cash equivalents and time deposits	–	19,265	19,265	–	–	19,265
Noncurrent liabilities						
Noncurrent financial liabilities	–	66,358	66,932	–	–	66,358
Other noncurrent financial liabilities	885	1,859	1,863	1,745	–	4,488
Current liabilities						
Put options and compensation rights granted to noncontrolling interest shareholders	–	3,849	3,861	–	–	3,849
Current financial liabilities	–	88,461	88,461	–	–	88,461
Trade payables	–	22,794	22,794	–	–	22,794
Other current financial liabilities	1,473	6,010	6,010	1,956	–	9,438

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 on “Accounting policies”. The fair value of put options and compensation rights granted to noncontrolling interest shareholders is calculated using a present value model based on the cash settlement determined by the Munich Regional Court in the award proceedings, including cash compensation, as well as the minimum statutory interest rate and a risk-adjusted discount rate for a matching maturity. For further information, please see section entitled "Put options and compensation rights granted to noncontrolling interest shareholders”. 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. Financial services receivables are allocated to Level 3 because their fair value was measured using inputs that are not observable in an active market.

The following table contains 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, 2015	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	211	117	–	94
Other financial assets	996	–	976	20
Current assets				
Other financial assets	885	–	879	6
Marketable securities	15,007	15,007	–	–
Noncurrent liabilities				
Other noncurrent financial liabilities	1,325	–	1,142	183
Current liabilities				
Other current financial liabilities	1,074	–	1,006	68

* Prior-year figures adjusted.

€ million	Dec. 31, 2016	Level 1	Level 2	Level 3
Noncurrent assets				
Other equity investments	187	76	–	111
Other financial assets	251	–	216	34
Current assets				
Other financial assets	740	–	734	6
Marketable securities	17,520	17,520	–	–
Noncurrent liabilities				
Other noncurrent financial liabilities	885	–	722	163
Current liabilities				
Other current financial liabilities	1,473	–	1,406	67

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

€ million	Dec. 31, 2015	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	111,518	–	–	111,518
Trade receivables	11,132	–	10,975	157
Other financial assets	12,455	677	6,203	5,576
Cash, cash equivalents and time deposits	20,871	20,467	405	–
Fair value of financial assets measured at amortized cost	**155,977**	**21,144**	**17,583**	**117,251**
Fair value of financial liabilities measured at amortized cost				
Put options and compensation rights granted to noncontrolling interest shareholders	3,783	–	–	3,783
Trade payables	20,460	–	20,460	–
Financial liabilities	146,156	23,675	122,420	61
Other financial liabilities	7,550	269	7,185	95
Fair value of financial liabilities measured at amortized cost	**177,949**	**23,944**	**150,066**	**3,940**

€ million	Dec. 31, 2016	Level 1	Level 2	Level 3
Fair value of financial assets measured at amortized cost				
Financial services receivables	120,438	–	–	120,438
Trade receivables	12,187	–	11,977	210
Other financial assets	14,535	550	6,695	7,289
Cash, cash equivalents and time deposits	19,265	18,838	426	–
Fair value of financial assets measured at amortized cost	**166,915**	**19,389**	**19,099**	**128,427**
Fair value of financial liabilities measured at amortized cost				
Put options and compensation rights granted to noncontrolling interest shareholders	3,861	–	–	3,861
Trade payables	22,794	–	22,794	–
Financial liabilities	155,394	39,391	114,198	1,804
Other financial liabilities	7,873	537	7,159	177
Fair value of financial liabilities measured at amortized cost	**189,921**	**39,928**	**144,151**	**5,842**

DERIVATIVE FINANCIAL INSTRUMENTS WITHIN HEDGE ACCOUNTING BY LEVEL

€ million	Dec. 31, 2015	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	1,249	–	1,249	–
Current assets				
Other financial assets	1,196	–	1,196	–
Noncurrent liabilities				
Other noncurrent financial liabilities	2,580	–	2,573	7
Current liabilities				
Other current financial liabilities	3,725	–	3,725	–

€ million	Dec. 31, 2016	Level 1	Level 2	Level 3
Noncurrent assets				
Other financial assets	3,023	–	3,019	4
Current assets				
Other financial assets	1,577	–	1,577	–
Noncurrent liabilities				
Other noncurrent financial liabilities	1,745	–	1,745	0
Current liabilities				
Other current financial liabilities	1,956	–	1,956	–

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. Fair values in Level 2, for example of derivatives, are measured on the basis of observable 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. Level 3 fair values are calculated using valuation techniques that incorporate inputs that are not observable in active markets. In the Volkswagen Group, long-term commodity futures are allocated to Level 3 because the prices available on the market must be extrapolated for measurement purposes. This is done on the basis of observable inputs obtained for the different commodities through pricing services. Options on equity instruments and residual value protection models 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.

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, 2015	**178**	**249**
Foreign exchange differences	7	0
Total comprehensive income	0	157
recognized in profit or loss	–1	144
recognized in other comprehensive income	0	13
Additions (purchases)	–53	–
Sales and settlements	–12	–99
Transfers into Level 2	0	–56
Balance at Dec. 31, 2015	**119**	**251**
Total gains or losses recognized in profit or loss	**–1**	**–144**
Net other operating expense/income	–	–
of which attributable to assets/liabilities held at the reporting date	–	–
Financial result	–1	–144
of which attributable to assets/liabilities held at the reporting date	–1	–98

* Prior-year figures adjusted.

€ million	Financial assets measured at fair value	Financial liabilities measured at fair value
Balance at Jan. 1, 2016	**119**	**251**
Foreign exchange differences	0	0
Total comprehensive income	24	97
recognized in profit or loss	17	100
recognized in other comprehensive income	7	–3
Additions (purchases)	23	–
Sales and settlements	–9	–89
Transfers into Level 2	–6	–30
Balance at Dec. 31, 2016	**152**	**230**
Total gains or losses recognized in profit or loss	**17**	**–100**
Net other operating expense/income	–	–
of which attributable to assets/liabilities held at the reporting date	–	–
Financial result	17	–100
of which attributable to assets/liabilities held at the reporting date	14	–74

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

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

If commodity prices for commodity futures classified as Level 3 had been 10% higher (lower) as of December 31, 2016, earnings after tax would have been €6 million (previous year: €6 million) higher (lower) and equity would have been €3 million (previous year: €2 million) higher (lower).

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 had been 10% higher, earnings after tax would have been €1 million (previous year: €1 million) higher. If the assumed enterprise values had been 10% lower, earnings after tax would have been €1 million (previous year: €1 million) lower.

Residual value risks result from hedging agreements with dealers 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 for the used cars covered by the residual value protection model had been 10% higher as of December 31, 2016, earnings after tax would have been €249 million higher. If the prices for the used cars covered by the residual value protection model had been 10% lower as of December 31, 2016, earnings after tax would have been €249 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, 2015
Derivatives	4,326	–	4,326	–2,201	–123	2,002
Financial services receivables	110,396	–323	110,073	–	–16	110,057
Trade receivables	11,243	–111	11,132	0	–231	10,901
Marketable securities	15,007	–	15,007	–	–	15,007
Cash, cash equivalents and time deposits	20,871	–	20,871	–	–	20,871
Other financial assets	12,670	–11	12,658	–	–	12,658

				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, 2016
Derivatives	5,591	–	5,591	–3,425	–175	1,990
Financial services receivables	118,470	–395	118,075	–	–65	118,010
Trade receivables	12,188	–2	12,187	0	–7	12,179
Marketable securities	17,520	–	17,520	–	–	17,520
Cash, cash equivalents and time deposits	19,265	–	19,265	–	–	19,265
Other financial assets	14,709	–14	14,695	0	–	14,695

€ million	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2015
				Financial instruments	Collateral pledged	
Put options and compensation rights granted to noncontrolling interest shareholders	3,933	–	3,933	–	–	3,933
Derivatives	8,703	–	8,703	–2,178	–12	6,514
Financial liabilities	145,604	–	145,604	–	–3,587	142,018
Trade payables	20,571	–111	20,460	0	–	20,460
Other financial liabilities	7,882	–335	7,547	–	–	7,547

€ million	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the balance sheet	Net amounts of financial liabilities presented in the balance sheet	AMOUNTS THAT ARE NOT SET OFF IN THE BALANCE SHEET		Net amount at Dec. 31, 2016
				Financial instruments	Collateral pledged	
Put options and compensation rights granted to noncontrolling interest shareholders	3,849	–	3,849	–	–	3,849
Derivatives	6,058	–	6,058	–3,427	–24	2,607
Financial liabilities	154,819	–	154,819	–	–3,041	151,778
Trade payables	22,796	–2	22,794	0	–	22,794
Other financial liabilities	8,278	–409	7,869	–	–	7,869

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.

CHANGES IN CREDIT RISK VALUATION ALLOWANCES ON FINANCIAL ASSETS

€ million	Specific valuation allowances	Portfolio-based valuation allowances	2016	Specific valuation allowances	Portfolio-based valuation allowances	2015
Balance at Jan. 1	**2,142**	**1,970**	**4,112**	**2,269**	**1,665**	**3,933**
Exchange rate and other changes	90	–12	78	–115	–6	–121
Changes in consolidated Group	–25	0	–25	–19	–4	–23
Additions	663	727	1,390	702	628	1,330
Utilization	429	–	429	356	–	356
Reversals	404	453	857	362	290	652
Reclassification	56	–56	0	23	–23	0
Balance at Dec. 31	**2,092**	**2,175**	**4,268**	**2,142**	**1,970**	**4,112**

The valuation allowances mainly relate to the credit risks associated with receivables from the financial services business.

ASSET-BACKED SECURITIES TRANSACTIONS

Asset-backed securities transactions with financial assets amounting to €24,191 million (previous year: €23,245 million) 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 €26,184 million (previous year: €26,415 million). Collateral of €43,847 million (previous year: €34,717 million) 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, as well as the proportion of vehicles financed within the Group.

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 9% or 10%, as appropriate, 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, 2016, the fair value of the assigned receivables still recognized in the balance sheet was €27,856 million (previous year: €25,161 million). The fair value of the related liabilities was €24,424 million (previous year: €23,000 million) at that reporting date.

The Volkswagen Financial Services AG Group is contractually obliged under certain conditions to transfer funds to the structured entities that are included in its consolidated 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.

Other disclosures

33. Cash flow statement

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

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

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

Financing activities include outflows of funds from dividend payments and redemption of bonds, inflows from the capital increases and issuance of bonds, and changes in other financial liabilities. Please refer to the “Equity” section for information on the inflows from the issuance of hybrid capital in March 2015 in the amount of €2,457 million 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 noncash transactions and are therefore eliminated.

In 2016, cash flows from operating activities include interest received amounting to €6,364 million (previous year: €6,619 million) and interest paid amounting to €2,716 million (previous year: €2,440 million). Cash flows from operating activities also include dividend payments received from joint ventures and associates of €3,613 million (previous year: €4,704 million).

Dividends amounting to €68 million (previous year: €2,294 million) were paid to Volkswagen AG shareholders.

€ million	Dec. 31, 2016	Dec. 31, 2015
Cash, cash equivalents and time deposits as reported in the balance sheet	19,265	20,871
Time deposits	–431	–410
Cash and cash equivalents as reported in the cash flow statement	18,833	20,462

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

34. 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 control of risks from the financial instruments it itself administers. The main functions of the MAN and PHS subgroups are included in Group Treasury's operational risk management and control for risks relating to financial instruments, while the Scania subgroup is only included to a limited extent. Subgroups have their own risk management structures. The Executive Committee for Liquidity and Foreign Currency 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.

For more information, please see the management report on page 199-200.

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 in the amount of €77,465 million (previous year: €74,115 million). The collateral held relates solely to financial assets carried at amortized cost and mainly serves to secure 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. The risk arising from nonderivative financial instruments is also accounted for by recognizing bad debt losses. Significant cash and capital investments, as well as derivatives, are only entered into with national and international banks. Risk is additionally limited by a limit system based primarily on the equity base of the counterparties concerned and on credit assessments by international rating agencies. Financial guarantees issued also give rise to credit and default risk. The maximum potential credit and default risk is calculated from the amount Volkswagen would have to pay if claims were to be asserted under the guarantees. The corresponding amounts are presented in the Liquidity risk section.

There were no material concentrations of risk at individual counterparties or counterparty groups in the past fiscal year due to the global allocation of the Group's business activities and the resulting diversification. There was hardly any 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 13.0% at the end of 2016 compared with 9.7% at the end of 2015. 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.

CREDIT AND DEFAULT RISK RELATING TO FINANCIAL ASSETS BY GROSS CARRYING AMOUNT

€ million	Neither past due nor impaired	Past due and not impaired	Impaired	Dec. 31, 2016	Neither past due nor impaired	Past due and not impaired	Impaired	Dec. 31, 2015
Measured at amortized cost								
Financial services receivables	115,747	3,001	3,003	121,751	108,171	2,442	2,881	113,493
Trade receivables	9,421	2,596	607	12,624	8,508	2,503	554	11,565
Other receivables	14,391	110	162	14,663	12,368	59	279	12,705
	139,559	**5,706**	**3,772**	**149,037**	**129,047**	**5,003**	**3,713**	**137,764**

There are no past due financial instruments measured at fair value in the Volkswagen Group. In fiscal year 2016, marketable securities measured at fair value with a cost of €83 million (previous year: €15 million) were individually impaired. In addition, portfolio-based impairment losses are recognized in respect of the financial services receivables presented above that are not past due and not individually impaired, as well as of the financial services receivables presented above that are past due and not individually impaired.

CREDIT RATING OF THE GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS THAT ARE NEITHER PAST DUE NOR IMPAIRED

€ million	Risk class 1	Risk class 2	Dec. 31, 2016	Risk class 1	Risk class 2	Dec. 31, 2015
Measured at amortized cost						
Financial services receivables	99,153	16,595	115,747	91,651	16,520	108,171
Trade receivables	9,284	137	9,421	8,333	175	8,508
Other receivables	14,238	153	14,391	12,185	183	12,368
Measured at fair value	22,021	–	22,021	18,118	–	18,118
	144,694	**16,885**	**161,580**	**130,288**	**16,878**	**147,166**

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

MATURITY ANALYSIS OF THE GROSS CARRYING AMOUNTS OF FINANCIAL ASSETS THAT ARE PAST DUE AND NOT IMPAIRED

€ million	PAST DUE BY up to 30 days	PAST DUE BY 30 to 90 days	PAST DUE BY more than 90 days	GROSS CARRYING AMOUNT Dec. 31, 2015
Measured at amortized cost				
Financial services receivables	1,777	637	28	2,442
Trade receivables	1,234	671	598	2,503
Other receivables	27	10	22	59
Measured at fair value	–	–	–	–
	3,039	**1,317**	**648**	**5,003**

€ million	PAST DUE BY up to 30 days	PAST DUE BY 30 to 90 days	PAST DUE BY more than 90 days	GROSS CARRYING AMOUNT Dec. 31, 2016
Measured at amortized cost				
Financial services receivables	2,205	788	8	3,001
Trade receivables	1,080	720	795	2,596
Other receivables	49	36	24	110
Measured at fair value	–	–	–	–
	3,334	**1,544**	**828**	**5,706**

Collateral that was accepted for financial assets in the current fiscal year was recognized in the balance sheet in the amount of €120 million (previous year: €90 million). This mainly relates to vehicles.

3. LIQUIDITY RISK

The solvency and liquidity of the Volkswagen Group are ensured at all times by rolling liquidity planning, a liquidity reserve in the form of cash, confirmed credit lines and the issuance of securities on the international money and capital markets. The volume of confirmed credit lines was maintained at a high level through the extension of a syndicated credit line in the amount of €20 billion.

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

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

MATURITY ANALYSIS OF UNDISCOUNTED CASH FLOWS FROM FINANCIAL INSTRUMENTS

	REMAINING CONTRACTUAL MATURITIES				REMAINING CONTRACTUAL MATURITIES			
€ million	under one year	within one to five years	over five years	**2016**	under one year	within one to five years	over five years	2015
Put options and compensation rights granted to noncontrolling interest shareholders	3,382	–	–	3,382	3,406	–	–	3,406
Financial liabilities	90,044	60,603	10,955	161,602	74,217	66,347	13,377	153,941
Trade payables	22,788	6	–	22,794	20,456	4	–	20,460
Other financial liabilities	6,009	1,789	83	7,880	5,550	1,940	69	7,560
Derivatives	77,294	59,007	119	136,420	77,686	73,684	10	151,380
	199,517	**121,405**	**11,157**	**332,079**	**181,316**	**141,976**	**13,456**	**336,747**

When calculating cash outflows related to put options and compensation rights, it was assumed that shares would be tendered at the earliest possible repayment date.

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

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

As of December 31, 2016, the maximum potential liability under financial guarantees amounted to €173 million (previous year: €1,638 million). Financial guarantees are assumed to be due immediately in all cases. The decrease is mainly attributable to the elimination of the pledge of claims under certificates of deposit with Bankhaus Metzler amounting to €1.3 billion to secure a loan granted to Fleet Investments B.V. by Bankhaus Metzler (see disclosures on the basis of consolidation/joint ventures).

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 or eliminate such risk by means of hedging. All necessary hedging transactions with the exception of the Scania, MAN and Porsche Holding GmbH (Salzburg) subgroups are executed or coordinated centrally by Group Treasury. There were no significant risk concentrations in the past fiscal year.

The following table shows the gains and losses on hedges:

€ million	2016	2015
Hedging instruments used in fair value hedges	670	779
Hedged items used in fair value hedges	–739	–700
Ineffective portion of cash flow hedges	6	–46

The ineffective portion of cash flow hedges represents the income and expenses from changes in the fair value of hedging instruments that exceed the changes in the fair value of the hedged items but that are documented to be within the permitted range of 80% to 125% overall when measuring effectiveness. Such income or expenses are recognized directly in the financial result.

In 2016, €1,222 million (previous year: €3,864 million), in both cases reducing earnings, was transferred from the cash flow hedge reserve to the other operating result, €10 million (previous year: €3 million), in both cases reducing earnings, was transferred to the financial result, and €90 million (previous year: €90 million) was transferred to cost of sales, reducing earnings.

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

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

4.2.1 Foreign currency risk

Foreign currency risk in the Volkswagen Group (excluding Volkswagen Financial Services) is attributable to investments, financing measures and operating activities. Currency forwards, currency options, currency swaps and cross-currency swaps are used to limit foreign currency risk. These transactions relate to the exchange rate hedging of all 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 2016 as part of foreign currency risk management were primarily in Argentine pesos, Australian dollars, Brazilian real, sterling, Chinese renminbi, Hong Kong dollars, Indian rupees, Japanese yen, Canadian dollars, Mexican pesos, Norwegian kroner, Polish zloty, Russian rubles, Swedish kronor, Swiss francs, Singapore dollars, South African rand, South Korean won, Taiwan dollars, Czech koruna, Hungarian forints and US dollars.

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

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

The following table shows the sensitivities of the main currencies in the portfolio as of December 31, 2016.

	Dec. 31, 2016		Dec. 31, 2015	
€ million	**+10%**	**–10%**	**+10%**	**–10%**
Exchange rate				
EUR/USD				
Hedging reserve	1,929	–2,294	1,969	–2,160
Profit/loss after tax	–338	649	135	5
EUR/GBP				
Hedging reserve	1,202	–1,189	1,849	–1,850
Profit/loss after tax	–58	51	–46	48
EUR/CNY				
Hedging reserve	665	–662	1,015	–1,071
Profit/loss after tax	6	25	69	–21
EUR/CHF				
Hedging reserve	380	–375	439	–442
Profit/loss after tax	–9	2	–4	6
EUR/JPY				
Hedging reserve	318	–318	248	–241
Profit/loss after tax	–7	7	1	–7
EUR/CAD				
Hedging reserve	145	–154	110	–101
Profit/loss after tax	–54	63	9	–16
EUR/AUD				
Hedging reserve	178	–182	92	–92
Profit/loss after tax	–23	26	–1	1
EUR/PLN				
Hedging reserve	–107	108	–47	47
Profit/loss after tax	–21	21	–4	4
EUR/SEK				
Hedging reserve	91	–89	112	–113
Profit/loss after tax	–24	23	–78	78
GBP/USD				
Hedging reserve	106	–106	62	–62
Profit/loss after tax	2	–2	–1	1
CZK/GBP				
Hedging reserve	106	–106	170	–170
Profit/loss after tax	0	0	1	–1
BRL/USD				
Hedging reserve	–20	20	–1	1
Profit/loss after tax	82	–82	77	–77
EUR/KRW				
Hedging reserve	77	–82	158	–161
Profit/loss after tax	–8	13	–27	31
EUR/CZK				
Hedging reserve	31	–31	41	–41
Profit/loss after tax	–43	43	3	–3

4.2.2 Interest rate risk

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

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

If market interest rates had been 100 bps higher as of December 31, 2016, equity would have been €60 million (previous year: €71 million) lower. If market interest rates had been 100 bps lower as of December 31, 2016, equity would have been €60 million (previous year: €69 million) higher.

If market interest rates had been 100 bps higher as of December 31, 2016, earnings after tax would have been €10 million (previous year: €81 million) higher. If market interest rates had been 100 bps lower as of December 31, 2016, earnings after tax would have been €24 million (previous year: €95 million) lower.

4.2.3 Commodity price risk

Commodity price risk in the Volkswagen Group (excluding Volkswagen Financial Services) primarily results from price fluctuations and the availability of nonferrous metals and precious metals, as well as of coal, CO_2 certificates and rubber. Forward transactions and swaps are entered into to limit these risks.

Hedge accounting in accordance with IAS 39 was applied in some cases to the hedging of commodity risk associated with aluminum and coal.

Commodity price risk within the meaning of IFRS 7 is presented using sensitivity analyses. These show the effect on earnings after tax and equity of changes in risk variables in the form of commodity prices.

If the commodity prices of the hedged nonferrous metals, coal and rubber had been 10% higher (lower) as of December 31, 2016, earnings after tax would have been €82 million (previous year: €75 million) higher (lower).

If the commodity prices of the hedges included in hedge accounting had been 10% higher (lower) as of December 31, 2016, equity would have been €48 million (previous year: €41 million) higher (lower).

4.2.4 Equity and bond price risk

The Spezialfonds (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, we counter the risks arising from the special funds by ensuring a broad diversification of products, issuers and regional markets when investing funds, as stipulated by our Investment Guidelines. In addition, we use exchange rate hedges in the form of futures contracts 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, 2016, equity would have been €4 million (previous year: €53 million) higher. If share prices had been 10% lower as of December 31, 2016, equity would have been €28 million (previous year: €61 million) lower.

4.3 Market risk at Volkswagen Financial Services

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

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

As of December 31, 2016, the value at risk was €95 million (previous year: €179 million) for interest rate risk and €199 million (previous year: €196 million) for foreign currency risk.

The entire value at risk for interest rate and foreign currency risk at the Volkswagen Financial Services subgroup was €197 million (previous year: €245 million).

5. METHODS FOR MONITORING HEDGE EFFECTIVENESS

In the Volkswagen Group, hedge effectiveness is assessed prospectively using the critical terms match method and using statistical methods in the form of a regression analysis. Retrospective analysis of effectiveness uses effectiveness tests in the form of the dollar offset method or a regression analysis.

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.

Where regression analysis is used, the change in value of the hedged item is presented as an independent variable, and that of the hedging instrument as a dependent variable. Hedge relationships are classified as effective if they have sufficient coefficients of determination and slope factors.

NOTIONAL AMOUNT OF DERIVATIVES

€ million	REMAINING TERM under one year	within one to five years	over five years	TOTAL NOTIONAL AMOUNT Dec. 31, 2016	TOTAL NOTIONAL AMOUNT Dec. 31, 2015
Notional amount of hedging instruments used in cash flow hedges:					
Interest rate swaps	3,019	13,851	184	17,054	8,864
Currency forwards	38,057	46,697	–	84,754	102,587
Currency options	8,350	17,731	–	26,081	22,989
Currency swaps	1,976	319	–	2,295	7,353
Cross-currency swaps	785	1,166	–	1,951	1,762
Commodity futures contracts	346	334	–	679	771
Notional amount of other derivatives:					
Interest rate swaps	25,354	41,149	18,109	84,612	85,316
Interest rate option contracts	–	–	–	–	–
Currency forwards	24,216	4,219	1	28,436	25,383
Other currency options	33	12	–	45	45
Currency swaps	10,751	1,456	–	12,207	9,874
Cross-currency swaps	3,612	5,228	–	8,839	8,417
Commodity futures contracts	699	536	–	1,235	1,517

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 signifycantly 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 with a notional amount of €45 million (previous year: €1.4 billion) whose remaining maturity is under one year.

Existing cash flow hedges in the notional amount of €811 million (previous year: €– million) were discontinued because of a reduction in the projections. €5 million (previous year: €– million) was transferred from the cash flow hedge reserve to the financial result, reducing earnings. 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.

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	CHF	CNY	CZK	GBP	JPY	KRW	SEK	USD
Interest rate for six months	–0.2512	–0.5760	3.5311	0.1515	0.3745	0.0237	1.5085	–0.4449	0.9957
Interest rate for one year	–0.2139	–0.5631	3.7798	0.1518	0.4013	0.0232	1.5060	–0.4313	1.1687
Interest rate for five years	0.0740	–0.3210	4.4050	0.5050	0.8657	0.0588	1.6750	0.2580	1.9724
Interest rate for ten years	0.6520	0.1480	4.5550	0.9650	1.2325	0.2100	1.8350	1.0980	2.3460

35. 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 maximize the use of resources in the Automotive Division and to measure the success of this, we have for a number of years been using a value-based management system, with value contribution as an absolute performance measure and return on investment (ROI) as a relative indicator.

Value contribution is defined as the difference between operating profit after tax and the opportunity cost of invested capital. The opportunity cost of capital is calculated by multiplying the market cost of capital by average invested capital. Invested capital is calculated by taking the operating assets reported in the balance sheet (property, plant and equipment, intangible assets, lease assets, inventories and receivables) and deducting non-interest-bearing liabilities (trade payables and payments on account received). Average invested capital is derived from the balance at the beginning and the end of the reporting period. In spite of the charges relating to the special items recognized in the operating result, the Automotive Division disclosed a positive value contribution of €1,775 million in the reporting period which due to the improvement in the operating result before special items and the decrease in the cost of capital was higher than the prior-year figure.

The return on investment (ROI) is defined as the return on invested capital for a particular period based on the operating result after tax. If the return on investment exceeds the market cost of capital, there is an increase in the value of the invested capital and a positive value contribution. In the Group, a minimum required rate of return on invested capital of 9% is defined, which applies to both the business units and the individual products and product lines. Our goal of generating a sustained return on investment of over 15% is anchored in Strategy 2025. The return on investment therefore serves as a consistent target in operational and strategic management and is used to measure target attainment for the Automotive Division, the individual business units, and projects and products. The return on investment achieved for the Automotive Division in the reporting period was 8.2%. Due to the special items recognized in the operating result, this was lower than our minimum required rate of return of 9%, but higher than our current cost of capital of 6.2%.

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 Volkswagen Financial Services, 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	2016	2015
Automotive Division[1]		
Operating result after tax	7,419	–203
Invested capital (average)	91,020	84,289
Return on investment (RoI) in %	**8.2**	**–0.2**
Cost of capital in %	6	7
Opportunity cost of invested capital	5,643	5,732
Value contribution[2]	**1,775**	**–5,935**
Financial Services Division		
Earnings before tax	2,408	2,333
Average equity	22,342	19,140
Return on equity before tax in %	**10.8**	**12.2**
Equity ratio in %	**12.5**	**11.9**

1 Including proportionate inclusion of the Chinese joint ventures and allocation of consolidation adjustments between the Automotive and Financial Services Divisions; excluding effects on earnings and assets from purchase price allocation.
2 The value contribution corresponds to the Economic Value Added (EVA®). EVA® is a registered trademark of Stern Stewart & Co.

36. Contingent liabilities

€ million	**Dec. 31, 2016**	**Dec. 31, 2015**
Liabilities under guarantees	419	334
Liabilities under warranty contracts	75	77
Assets pledged as security for third-party liabilities	20	20
Other contingent liabilities	6,305	3,069
	6,819	**3,500**

The trust assets and liabilities of the savings and trust entities belonging to the South American subsidiaries not included in the consolidated balance sheet amount to €944 million (previous year: €702 million).
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 increase is due in particular to additional contingent liabilities in conjunction with lawsuits. As a general principle, they do not include any class action lawsuits and criminal investigations/misdemeanor proceedings related to the diesel issue filed outside of the USA and Canada, as well as specific portions of investor lawsuits which meet the definition of a contingent liability but could not, as a rule, be disclosed because it is impossible to measure the amount involved. These proceedings are still at a very early stage, meaning that in a number of cases the plaintiffs have 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.

As permitted by IAS 37.92, in order not to prejudice the outcomes of the proceedings and the interests of the Company, we have not made any further disclosures about estimates in connection with the financial effects of, and disclosures about, uncertainty regarding the timing or amount of contingent liabilities in connection with the diesel issue and investigations by the European Commission. Further information can be found under the section entitled “Litigation”.

On May 5, 2016, the U.S. National Highway Traffic Safety Administration (NHTSA) announced, jointly with the Takata company, a further extension of the recall for various models from different manufacturers containing certain airbags produced by the Takata company. Recalls were also ordered by the local authorities in Canada, Japan and South Korea. The recalls also included models manufactured by the Volkswagen Group. Appropriate provisions have been recognized. Currently, the possibility of further extensions to the recalls that could also affect Volkswagen Group models cannot be ruled out. It is not possible at the moment to provide further disclosures in accordance with IAS 37.86 in relation to this matter because the technical investigations and consultations with the authorities are still being carried out.

37. Litigation

In the course of their operating activities, Volkswagen AG and the companies in which it is directly or indirectly invested become involved in a great number of legal disputes and official proceedings in Germany and internationally. In particular, such legal disputes and other proceedings may occur in relation to suppliers, dealers, customers, employees, or investors. For the companies involved, these may result in payment or other obligations. Above all in cases in particular where US customers assert claims for vehicle defects individually or by way of a class action, highly cost-intensive measures may have to be taken and substantial compensation or punitive damages paid. Corresponding risks also result from US patent infringement proceedings.

Risks may also emerge in connection with the adherence to regulatory requirements. This particularly applies in the case of regulatory vagueness that may be interpreted differently by Volkswagen and the agencies responsible for the respective regulations. In addition, legal risks can arise from the criminal activities of individual persons, which even the best compliance management system can never completely prevent.

Where transparent and economically viable, adequate insurance coverage is taken out for these risks. For the identifiable and measurable risks, provisions considered appropriate are recognized and information about contingent liabilities is disclosed. As some risks cannot be assessed or can only be assessed to a limited extent, the possibility of loss or damage not being covered by the insured amounts and provisions cannot be ruled out. This particularly applies to legal risk assessment regarding the diesel issue.

Diesel Issue

On September 18, 2015, the US Environmental Protection Agency (EPA) publicly announced in a “Notice of Violation” that irregularities in relation to nitrogen oxide (NO_x) emissions had been discovered in emissions tests on certain vehicles with Volkswagen Group diesel engines. It has been alleged that we had used undisclosed engine management software installed in certain four-cylinder diesel engines used in certain 2009 to 2015 model year vehicles to circumvent NO_x emissions testing regulations in the United States of America in order to comply with certification requirements. The US environmental authority of California – the California Air Resources Board (CARB) – announced its own enforcement investigation in this context.

Volkswagen admitted to irregularities in this context. In its ad hoc release dated September 22, 2015, the Volkswagen Group announced that noticeable discrepancies between the figures achieved in testing and in actual road use had been identified in around eleven million vehicles worldwide with certain diesel engines. The vast majority of these engines are Type EA 189 Euro 5 engines. On November 2, 2015, the EPA issued another “Notice of Violation” alleging that irregularities had also been discovered in the software installed in vehicles with type V6 TDI 3.0 l diesel engines. CARB also issued a letter announcing its own enforcement investigation in this context. Audi has confirmed that at least three auxiliary emission control devices were inadequately disclosed in the course of the US approval documentation. Around 113 thousand vehicles from the 2009 to 2016 model years with certain six-cylinder diesel engines are affected in the USA and Canada, where regulations governing NO_x emissions limits for vehicles are stricter than those in other parts of the world.

On January 4, 2016, the US Department of Justice (DOJ), on behalf of the EPA, filed a civil complaint against Volkswagen AG, AUDI AG and other companies of the Volkswagen Group. The claims asserted under civil law are founded on the alleged use of illegal (defeat device) software in violation of the American Clean Air Act. The complaint's allegations relate to both the four-cylinder and the six-cylinder diesel engines. On January 12, 2016, it was announced that CARB intends to seek civil fines for alleged violations of the California Health & Safety Code and various CARB regulations.

In addition to internal inquiries, Volkswagen AG commissioned an external investigation by US law firm Jones Day. This is an independent and comprehensive investigation addressing the diesel issue. The Supervisory Board of Volkswagen AG is ensuring that Jones Day can carry out its clarification work independently. Jones Day is updating the Company and the DOJ on the current results of its investigation on an ongoing basis and supports Volkswagen AG in its cooperation with the judicial authorities.

The Supervisory Board of Volkswagen AG has formed a special committee to coordinate all activities in this context for the Supervisory Board.

Based on decisions dated October 15, 2015, the Kraftfahrtbundesamt (KBA – German Federal Motor Transport Authority) ordered the Volkswagen Passenger Cars, Volkswagen Commercial Vehicles and SEAT brands to recall all of the diesel vehicles that had been issued with vehicle type approval by the KBA from among the 11 million affected. The recall concerns the member states of the European Union (EU28). On December 10, 2015 a similar decision was issued regarding Audi vehicles with the EA 189 engine. The timetable and action plan forming the basis for the recall order correspond to the proposals presented in advance by Volkswagen. Depending on the technical complexity of the remedial actions, this means that the Volkswagen Group has been recalling the affected vehicles, of which there are around 8.5 million in total in the EU28 countries, to the service workshops since January 2016. The remedial actions differ in scope depending on the engine variant. The technical solutions cover software and in some cases hardware modifications, depending on the series and model year. The details of the remedial actions for the Volkswagen Group vehicles falling within its jurisdiction have been agreed in close cooperation with the KBA, which had to approve all fixes in advance. Only the approval of the technical solutions for 14 thousand vehicles is still outstanding.

In fiscal year 2016, the SEAT brand received approvals in principle from its respective type approval authority, the Ministry of Industry in Spain.

The type approval authority for the ŠKODA brand is the Vehicle Certification Agency in the United Kingdom. The approval process for ŠKODA vehicles is still ongoing.

In some countries outside the EU – among others Switzerland, Australia, South Korea, Taiwan and Turkey – national type approval is based on prior recognition of the EC/ECE type approval. We are also in close contact with the authorities in these countries in order to finalize the approval process. In addition, there is an intensive exchange of information with the authorities in the USA and Canada, where Volkswagen's planned actions in relation to the four-cylinder and the six-cylinder diesel engines will also have to be approved. Due to considerably stricter NO_x limits in the USA and Canada, it is a greater technical challenge to refit the vehicles so that all applicable emissions limits can be met.

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)

In addition to the described approval processes with the responsible registration authorities, in some countries criminal investigations/misdemeanor proceedings (for example, by the public prosecutor's office in Braunschweig, Germany) and/or administrative proceedings (for example, by the Bundesanstalt für Finanzdienstleistungsaufsicht BaFin – the German Federal Financial Supervisory Authority) have been opened. The public prosecutor's office in Braunschweig is investigating the core issue of the criminal investigations. Whether this will result in fines for the Company, and if so what their amount might be, is currently subject to estimation risks. According to Volkswagen's estimates so far, the likelihood for the majority of these proceedings to be successful is less than 50%. Contingent liabilities have therefore been disclosed in cases where they can be assessed and for which the likelihood for the imposition of fines was deemed not lower than 10%.

2. Product-related lawsuits worldwide (excluding the USA/Canada)
In principle, it is possible that customers in the affected markets will file civil lawsuits against Volkswagen AG and other Volkswagen Group companies. In addition, it is possible that importers and dealers could assert claims against Volkswagen AG and other Volkswagen Group companies, e.g. through recourse claims. As well as individual lawsuits, class action lawsuits are possible in various jurisdictions (albeit not in Germany).

In this context, various lawsuits are pending against Volkswagen AG and other Volkswagen Group companies at present.

Class action proceedings against Volkswagen AG and other Volkswagen Group companies are pending in various countries such as Argentina, Australia, Belgium, Brazil, Israel, Italy, United Kingdom, Mexico, Poland, Portugal and Taiwan. The class action proceedings are lawsuits aimed among other things at asserting damages. The amount of these damages cannot yet be quantified due to the early stage of the proceedings. Volkswagen does not estimate the litigants' prospect of success to be more than 50% in any of the aforementioned proceedings aimed at monetary relief. In South Korea various mass proceedings are pending (in some of these individual lawsuits several hundred litigants have been aggregated). These lawsuits are filed to assert damages and to rescind the purchase contract including repayment of the purchase price. Due to special circumstances in the market and specific characteristics of the South Korean legal system, Volkswagen estimates the litigants' prospects of success in the South Korean mass proceedings mentioned above to be inherently higher than in other jurisdictions outside the USA and Canada. Contingent liabilities have been disclosed for pending class action proceedings that can be assessed and for which the chance of success was deemed not implausible. Provisions were recognized to a small extent.

Furthermore, individual lawsuits and similar proceedings are pending against Volkswagen AG and other Volkswagen Group companies in numerous countries. In Germany around 1.300 individual law suits, in Italy and Spain law suits in the low three digit range and in France, Ireland and Austria individual lawsuits in the two-digit range are pending, most of which are aimed at asserting damages or rescinding the purchase contract. According to Volkswagen's estimates so far, the litigants' prospect of success is below 50% in the vast majority of the individual lawsuits. Contingent liabilities have therefore been disclosed for those lawsuits that can be assessed and for which the chance of success was deemed not implausible.

It is too early to estimate how many customers will take advantage of the option to file lawsuits in the future, beyond the existing lawsuits, or what their prospects of success will be.

Meanwhile, except for 14 thousand vehicles, the KBA has ascertained for all approved clusters (groups of vehicles) that implementation of the technical solutions would not bring about any unfavorable changes in fuel consumption, engine power, torque and noise emissions. We are now working expeditiously to implement the technical solutions in the field. The implementation of the technical modifications already started in January 2016.

3. Lawsuits filed by investors worldwide (excluding the USA/Canada)
Investors from Germany and abroad have filed claims for damages against Volkswagen AG based on purported losses due to alleged misconduct in capital market communications in connection with the diesel issue.

The vast majority of these investor lawsuits are currently pending at the District Court (Landgericht) in Braunschweig. On August 5, 2016, the District Court in Braunschweig ordered that common questions of law and fact relevant to the lawsuits pending at the District Court in Braunschweig be referred to the Higher

Regional Court (Oberlandesgericht) in Braunschweig for a binding declaratory decision pursuant to the German Act on Model Case Proceedings in Disputes Regarding Capital Market Information (Kapitalanleger-Musterverfahrensgesetz). In this proceeding, common questions of law and fact relevant to these actions shall be adjudicated in a consolidated manner by the Higher Regional Court in Braunschweig. All lawsuits at the District Court in Braunschweig will be stayed pending up until resolution of the common issues, unless they can be dismissed for reasons independent of the common issues that are adjudicated in the model case proceedings. The resolution of the common issues in the model case proceedings will be binding on all pending cases in the stayed lawsuits.

At the District Court in Stuttgart, further lawsuits have been filed against Volkswagen AG and Porsche Automobil Holding SE as joint and several debtors. It is currently unclear whether model case proceedings will be initiated in respect of these lawsuits and whether they will take place at the Higher Regional Court in Stuttgart or referred to the Higher Regional Court in Braunschweig.

Further investor lawsuits have been filed at various courts in Germany as well as in Austria and the Netherlands.

Altogether, Volkswagen has so far been served with investor lawsuits, judicial applications for dunning procedures and conciliation proceedings with claims amounting to approximately € 9 billion. Volkswagen remains of the opinion that it duly complied with its capital market obligations. Therefore, no provisions have been recognized for these investor lawsuits. Insofar as the chance of success was estimated at not lower than 10%, contingent liabilities have been disclosed.

4. Proceedings in the USA/Canada

Following the publication of the EPA's "Notices of Violation," Volkswagen AG and other Volkswagen Group companies have been the subject of intense scrutiny, ongoing investigations (civil and criminal) and civil litigation. Volkswagen AG and other Volkswagen Group companies have received subpoenas and inquiries from state attorneys general and other governmental authorities and are responding to such investigations and inquiries.

In addition, Volkswagen AG and other Volkswagen Group companies in the USA/Canada are facing litigation on a number of different fronts relating to the matters described in the EPA's "Notices of Violation".

A large number of putative class action lawsuits by affected customers and dealers have been filed in US federal courts and consolidated for pretrial coordination purposes in the federal multidistrict litigation proceeding in the State of California.

On January 4, 2016, the DOJ, Civil Division, on behalf of the EPA, initiated a civil complaint against Volkswagen AG, AUDI AG and certain other Volkswagen Group companies. The action seeks statutory penalties under the US Clean Air Act, as well as certain injunctive relief, and has been consolidated for pretrial coordination purposes in the California multidistrict litigation.

On January 12, 2016, CARB announced that it intends to seek civil fines for alleged violations of the California Health & Safety Code and various CARB regulations.

In June 2016, Volkswagen AG, Volkswagen Group of America, Inc. and certain affiliates reached settlement agreements with the DOJ on behalf of the EPA, CARB and the California Attorney General; private plaintiffs represented by a Plaintiffs' Steering Committee (PSC) in the multidistrict litigation pending in California and the U.S. Federal Trade Commission (FTC). These settlement agreements will resolve certain civil claims made in relation to affected diesel vehicles with 2.0 l TDI engines from the Volkswagen Passenger Cars and Audi brands in the USA. Volkswagen AG and certain affiliates also entered into a first partial consent decree with the DOJ, EPA, CARB and the California Attorney General, which was lodged with the court on June 28, 2016. On October 18, 2016, a fairness hearing on whether final approval should be granted was held, and on October 25, 2016, the court granted final approval of the settlement agreements and the partial consent order. A number of class members have filed appeals to an US appellate court from the order approving the settlements.

The settlements provide affected customers with the option of a buyback or, for leased vehicles, early lease termination, or a free emissions modification of the vehicles, provided that EPA and CARB approve the modification. Volkswagen will also make additional cash payments to affected current owners or lessees as well as certain former owners or lessees.

Volkswagen also agreed to support environmental programs. The company will pay USD 2.7 billion over three years into an environmental trust, managed by a trustee appointed by the court, to offset excess nitrogen oxide (NO_x) emissions. Volkswagen will also invest a total of USD 2.0 billion over ten years in zero emissions vehicle infrastructure as well as corresponding access and awareness initiatives.

Volkswagen AG and certain affiliates also entered into a separate partial consent decree with CARB and the California Attorney General resolving certain claims under California unfair competition, false advertising, and consumer protection laws related to both the 2.0-liter and 3.0-liter TDI vehicles, which was lodged with the court on July 7, 2016. Under the terms of the agreement, Volkswagen agreed to pay California USD 86 million. The court entered judgment on the partial consent decree on September 1, 2016 and the USD 86 million payment was made on September 28, 2016.

On December 20, 2016, Volkswagen entered into a second partial consent decree, subject to court approval, with the DOJ, EPA, CARB and the California Attorney General that resolved claims for injunctive relief under the Clean Air Act and California environmental, consumer protection and false advertising laws related to the 3.0-liter TDI vehicles. Under the terms of this consent decree, Volkswagen agreed to implement a buyback and lease termination program for Generation 1 3.0-liter TDI vehicles and a free emissions recall and modification program for Generation 2 3.0-liter TDI vehicles (if the modification program for Generation 2 vehicles is not approved by the EPA and CARB, Volkswagen will be required to offer a buyback and lease termination program for those vehicles); and pay USD 225 million into the environmental mitigation trust that will be established pursuant to the first partial consent decree. The second partial consent decree was lodged with the court on December 20, 2016 and is currently in its notice and comment period.

In addition, on December 20, 2016, Volkswagen entered into an additional, concurrent second partial consent decree, subject to court approval, with CARB and the California Attorney General that resolved claims for injunctive relief under California environmental, consumer protection and false advertising laws related to the 3.0-liter TDI vehicles. Under the terms of this consent decree, Volkswagen agreed to provide additional injunctive relief to California, including the implementation of a “Green City” initiative and the introduction of three new Battery Electric Vehicle (BEV) models in California by 2020, as well as a USD 25 million payment to CARB to support the availability of BEVs in California.

On January 11, 2017, Volkswagen entered into a third partial consent decree, subject to court approval, with the DOJ and EPA that resolved claims for civil penalties and injunctive relief under the Clean Air Act related to the 2.0-liter and 3.0-liter TDI vehicles. Volkswagen agreed to pay USD 1.45 billion (plus any accrued interest) to resolve the civil penalty and injunctive relief claims under the Clean Air Act, as well as the customs claims of the US Customs and Border Protection. Under the third partial consent decree, the injunctive relief includes monitoring, auditing and compliance obligations. This consent decree, which is subject to public comment, was lodged with the court on January 11, 2017. Also on January 11, 2017, Volkswagen entered into a settlement agreement with the DOJ to resolve any claims under the Financial Institutions Reform, Recovery and Enforcement Act of 1989 and agreed to pay USD 50 million (plus any accrued interest), specifically denying any liability and expressly disputing any claims.

The DOJ also opened a criminal investigation focusing on allegations that various federal law criminal offenses were committed. On January 11, 2017, Volkswagen AG agreed to plead guilty to three federal criminal felony counts, and to pay a USD 2.8 billion criminal penalty. Pursuant to the terms of this agreement, Volkswagen will be on probation for three years and will work with an independent monitor for three years. The independent monitor will assess and oversee the company's compliance with the terms of the resolution. This includes overseeing the implementation of measures to further strengthen compliance, reporting and monitoring systems, and an enhanced ethics program. Volkswagen will also continue to cooperate with the DOJ's ongoing investigation of individual employees or former employees who may be responsible for criminal violations.

Moreover, investigations by various US regulatory and government authorities, including in areas relating to securities, financing and tax, are ongoing.

On January 31, 2017, Volkswagen AG, Volkswagen Group of America, Inc. and certain affiliates entered into a settlement agreement with private plaintiffs represented by the PSC in the multidistrict litigation pending in California, and a consent order with the FTC. These agreements will resolve certain civil claims made in relation to affected diesel vehicles with 3.0 l TDI engines from the Volkswagen, Audi and Porsche brands in the USA. On February 14, 2017, the court preliminarily approved the settlement agreement with private plaintiffs and scheduled a fairness hearing on whether final approval should be granted for May 11, 2017. The agreement with the FTC will also be subject to court approval.

Under the settlements, consumers' options and compensation will depend on whether their vehicles are classified as Generation 1 or Generation 2. Generation 1 (model years 2009-2012) consumers will have the option of a buyback, early lease termination, trade-in, or a free emissions modification, provided that EPA and CARB approve the modification. Additionally, Generation 1 owners and lessees, as well as certain former owners and lessees, will be eligible to receive cash payments.

Generation 2 (model years 2013-2016) consumers will receive a free emissions compliant repair to bring the vehicles into compliance with the emissions standards to which they were originally certified – provided that EPA and CARB grant approval – as well as cash payments. If Volkswagen ultimately cannot obtain EPA and CARB approval for emissions compliant repairs within the time limits set out in the settlement agreement, Generation 2 consumers will be offered the options for buyback, lease termination, trade-in or – if approved by EPA and CARB – an emissions modification that reduces the amount of emissions but does not bring the vehicles into compliance with original certification standards, in addition to cash payments. Volkswagen will also make cash payments to certain former Generation 2 owners or lessees.

In September 2016, Volkswagen announced that it had finalized an agreement to resolve the claims of Volkswagen branded franchise dealers in the United States relating to TDI vehicles and other matters asserted concerning the value of the franchise. The settlement agreement includes a cash payment of up to USD 1.208 billion, and additional benefits to resolve alleged past, current, and future claims of losses in franchise value. On January 18, 2017, a fairness hearing on whether final approval should be granted was held, and on January 23, 2017, the court granted final approval of the settlement agreement. Certain members of the class may appeal to an US appellate court the decision to finally approve the settlement; the deadline to do so has not yet expired.

Additionally, in the USA, some putative class actions, some individual customers' lawsuits and some state or municipal claims have been filed in state courts.

Volkswagen reached separate agreements with the attorneys general of 44 US states, the District of Columbia and Puerto Rico, to resolve their existing or potential consumer protection and unfair trade practices claims – in connection with both 2.0 l TDI and 3.0 l TDI vehicles in the USA – for a settlement amount of USD 603 million. Six states did not join these settlements and still have consumer claims outstanding: Arizona, New Jersey, New Mexico, Oklahoma, Vermont and West Virginia. The attorneys general of 18 US states (Alabama, Illinois, Maine, Maryland, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, New Jersey, New Mexico, New York, Ohio, Pennsylvania, Tennessee, Texas, Vermont and Wyoming) and some municipalities have also filed suits in state and federal courts – and the state of Washington has asserted a penalty claim through administrative proceedings – against Volkswagen AG, Volkswagen Group of America, Inc. and certain affiliates, seeking civil penalties and injunctive relief for alleged violations of environmental laws. Alabama, Illinois, Maine, Maryland, Massachusetts, Minnesota, Missouri, Montana, New Hampshire, New York, Ohio, Pennsylvania, Tennessee, Texas, Washington and Wyoming participated in the state settlements described above with respect to consumer protection and unfair trade practices claims, but those settlements did not include claims for environmental penalties. In addition, although it has not yet filed an action, Delaware has entered into an agreement to toll the statute of limitations for its environmental claims through the end of February 2017. Two other states – Oregon and Wisconsin – signed agreements tolling the statute of limitations for their environmental claims through the end of 2016, but they have not requested an extension or filed actions. Another state (Connecticut) has expressed its intention to participate in environmental settlement discussions without filing suit.

In addition to lawsuits described above, for which provisions have been recognized, a putative class action has been filed on behalf of purchasers of Volkswagen AG American Depositary Receipts, alleging a drop in price purportedly resulting from the matters described in the EPA's "Notices of Violation." A putative class action has also been filed on behalf of purchasers of certain USD-denominated Volkswagen bonds, alleging that these bonds were trading at artificially inflated prices due to Volkswagen's alleged misstatements and that the value of these bonds declined after the EPA issued its "Notices of Violation."

These lawsuits have also been consolidated in the federal multidistrict litigation proceeding in the State of California described above. Volkswagen is of the opinion that it duly complied with its capital market obligations. Therefore, no provisions have been recognized. In addition, contingent liabilities have not been disclosed as they currently cannot be measured.

In Canada, civil consumer claims and regulatory investigations have been initiated for vehicles with 2.0 l and 3.0 l engines. On December 19, 2016, Volkswagen AG and other Canadian and US Volkswagen Group companies reached a class action settlement in Canada with consumers relating to 2.0 l diesel vehicles. Also on December 19, 2016, Volkswagen Group Canada agreed with the Commissioner of Competition in Canada to a civil resolution of its regulatory inquiry into consumer protection issues as to those vehicles. Civil consumer claims and the Commissioner's investigation with respect to 3.0 l diesel vehicles remain pending. Also, criminal enforcement related investigations by the federal environmental regulator and quasi-criminal enforcement related investigations by a provincial environmental regulator are ongoing in Canada related to 2.0 l and 3.0 l diesel vehicles. Provisions have been recognized for possible obligations stemming from pending lawsuits in Canada.

5. Risk assessment regarding the diesel issue

To protect against the currently known legal risks, including suitable expenses for defense and legal advice related to the diesel issue, existing information and assessments at the time indicated the need to recognize expenses in the reporting year to the amount of €5.1 billion (previous year: €7.0 billion). Prior-year provisions for legal risks in an amount of €0.4 billion had to be reversed through profit or loss. In addition, in relation to the diesel issue – insofar as these can be adequately measured at this stage – especially the contingent liabilities in conjunction with lawsuits filed by investors to the amount of €3.1 billion (previous year: €1.0 billion) were disclosed in the notes. The provisions recognized, the contingent liabilities disclosed and the other latent legal risks are partially subject to substantial estimation risks given the complexity of the individual factors, the ongoing approval process with the authorities and the fact that the independent and comprehensive investigations have not yet been completed.

Additional important legal cases

ARFB Anlegerschutz UG (haftungsbeschränkt), Berlin, brought an action against Porsche Automobil Holding SE, Stuttgart, Germany, and Volkswagen AG for claims for damages allegedly assigned to it in the amount of approximately €2.26 billion. The plaintiff asserts that these claims are based on alleged breaches by the defendants of legislation to protect the capital markets in connection with Porsche's acquisition of Volkswagen shares in 2008. With its April 2016 ruling, the district court of Hanover submitted numerous goals for discovery to the higher regional court in Celle in an attempt to prompt a model case decision. In all other cases, the claims were thrown out for being inadmissible. In various cases since 2010, investors initiated conciliation proceedings for other alleged damages – including claims against Volkswagen AG – that amounted to approximately €4.6 billion in total and also related to transactions at that time. In each case, Volkswagen rejected the claims asserted and refused to participate in any conciliation proceedings.

In 2011, the European Commission opened antitrust proceedings against European truck manufacturers concerning inappropriate exchange of information during the period 1997–2011 and sent a statement of objections to MAN, Scania and the other truck manufacturers concerned in November 2014. With its settlement decision as of July 19, 2016 the European Commission has fined five European truck manufacturers excluding MAN and Scania. MAN was not fined as the company had informed the EU Commission about the cartel as a key witness. With regard to Scania, the antitrust proceedings will be continued. Scania has decided to fully exercise its rights of defense in the ongoing investigation. A provision of €0.4 billion was recognized in order to cover possible fines. Furthermore, antitrust lawsuits for damages from customers were received. As is the case in any antitrust proceedings, this may result in further lawsuits for damages.

The Annual General Meeting of MAN SE approved the conclusion of a control and profit and loss transfer agreement between MAN SE and Volkswagen Truck & Bus GmbH (formerly Truck & Bus GmbH), a subsidiary of Volkswagen AG, in June 2013. In July 2013, award proceedings were instituted to review the appropriateness of the cash settlement set out in the agreement in accordance with section 305 of the Aktiengesetz (AktG – German Stock Corporation Act) and the cash compensation in accordance with section 304 of the AktG. It is not uncommon for noncontrolling interest shareholders to institute such proceedings. In July 2015, the Munich Regional Court ruled in the first instance that the amount of the cash settlement payable to the noncontrolling interest shareholders of MAN should be increased from €80.89 to €90.29 per share; at the same time, the amount of the cash compensation was confirmed. The assessment of liability for put options and compensation rights granted to noncontrolling interest shareholders was adjusted in 2015. Both applicants and Volkswagen Truck & Bus GmbH have appealed to the Higher Regional Court in Munich. Volkswagen continues to maintain that the results of the valuation are correct. The appropriateness of the valuation was confirmed by the audit firms engaged by the parties and by the court-appointed auditor of the agreement.

Since November 2016, Volkswagen has been responding to information requests from the EPA and CARB related to automatic transmissions in certain vehicles.

Additionally, thirteen putative class actions have been filed against Audi and certain affiliates alleging that defendants concealed the existence of "defeat devices" in Audi brand vehicles with automatic transmissions. A number of these putative class actions have been transferred to the federal multidistrict litigation proceeding in the State of California.

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

38. Other financial obligations

€ million	PAYABLE 2016	PAYABLE 2017 – 2020	PAYABLE from 2021	TOTAL Dec. 31, 2015
Purchase commitments in respect of				
property, plant and equipment	7,214	1,169	–	8,383
intangible assets	1,163	143	–	1,306
investment property	8	–	–	8
Obligations from				
loan commitments to unconsolidated subsidiaries	558	2	–	560
irrevocable credit and lease commitments to customers	4,602	0	94	4,696
long-term leasing and rental contracts	997	2,466	2,444	5,908
Miscellaneous other financial obligations	3,290	1,059	200	4,549

€ million	PAYABLE 2017	PAYABLE 2018 – 2021	PAYABLE from 2022	TOTAL Dec. 31, 2016
Purchase commitments in respect of				
property, plant and equipment	7,170	1,585	–	8,756
intangible assets	1,243	386	–	1,629
investment property	13	–	–	13
Obligations from				
loan commitments to unconsolidated subsidiaries	126	2	–	128
irrevocable credit and lease commitments to customers	4,551	0	44	4,595
long-term leasing and rental contracts	995	2,489	2,261	5,745
Miscellaneous other financial obligations	2,569	1,416	1,072	5,056

Other financial obligations from long-term leasing and rental contracts are partly offset by expected income from subleases of €1,664 million (previous year: €989 million).

The change in miscellaneous other financial obligations is primarily attributable to the elimination of an irrevocable credit commitment in the amount of €1.3 billion to LeasePlan as well as to the investments in zero emissions vehicle infrastructure to which the Volkswagen Group had committed itself in the settlement agreements in connection with the diesel issue and in corresponding access and awareness initiatives for these technologies. Other financial obligations include an amount of €1.6 billion for this purpose. In the previous year, the matter was not included in the table due to the investments having not yet been defined in terms of content and time.

39. Total audit fees of the Group auditors

Under the provisions of the Handelsgesetzbuch (HGB – German Commercial Code), Volkswagen AG is obliged to disclose the total audit fee of the Group auditors in Germany.

€ million	2016	2015
Financial statement audit services	16	15
Other assurance services	7	6
Tax advisory services	0	0
Other services	4	6
	27	**27**

40. Total expense for the period

€ million	2016	2015
Cost of materials		
Cost of raw materials, consumables and supplies, purchased merchandise and services	140,307	143,700
Personnel expenses		
Wages and salaries	29,971	29,301
Social security, post-employment and other employee benefit costs	7,046	6,967
	37,017	**36,268**

41. Average number of employees during the year

	2016	2015
Performance-related wage-earners	236,204	230,720
Salaried staff	292,240	286,125
	528,444	**516,845**
of which in the passive phase of partial retirement	**(5,915)**	**(6,483)**
Vocational trainees	17,962	17,321
	546,406	**534,166**
Employees of Chinese joint ventures	72,940	70,221
	619,346	**604,387**

42. Events after the balance sheet date

There were no significant events after the end of fiscal year 2016.

43. Related party disclosures in accordance with IAS 24

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

Porsche SE reached an agreement with Suzuki Motor Corporation at the end of September 2015 to acquire 1.5% of Volkswagen AG's ordinary shares via an off-market transaction. At 52.2%, 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. As a result, Porsche SE cannot appoint the majority of the members of Volkswagen AG's Supervisory Board for as long as the State of Lower Saxony holds at least 15% of Volkswagen AG's ordinary shares. However, Porsche SE has the power to participate in the operating policy decisions of the Volkswagen Group and is therefore classified as a related party as defined by IAS 24.

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

- Volkswagen AG continues to indemnify Porsche SE against certain financial guarantees issued by Porsche SE to creditors of the companies belonging to the Porsche Holding Stuttgart Group up to the amount of its share in the capital of Porsche Holding Stuttgart, which amounts to 100% since the contribution as of August 1, 2012. Porsche Holding Finance plc, Dublin, Ireland, was contributed to the Volkswagen Group in the course of the transfer of Porsche SE's holding company operating business. The indemnification includes financial guarantees issued by Porsche SE to creditors of Porsche Holding Finance plc in relation to interest payments on and the repayment of bonds in the aggregate amount of €250 million. As part of the contribution of Porsche SE's holding company operating business to Volkswagen AG, Volkswagen AG undertook to assume standard market liability compensation effective August 1, 2012 for guarantees issued to external creditors, whereby it is indemnified internally.
- Volkswagen AG continues to indemnify Porsche SE internally against claims by the Einlagensicherungsfonds (German deposit protection fund) after Porsche SE submitted an indemnification agreement required by the Bundesverband Deutscher Banken (Association of German Banks) to the Einlagensicherungsfonds in August 2009. Volkswagen AG has also undertaken to indemnify the Einlagensicherungsfonds against any losses caused by measures taken by the latter in favor of a bank in which Volkswagen AG holds a majority interest.
- Under certain conditions, Porsche SE continues to indemnify Porsche Holding Stuttgart, Porsche AG and their legal predecessors against tax liabilities 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 pay to Porsche SE any tax benefits or tax refunds of Porsche Holding Stuttgart, Porsche AG and their legal predecessors and subsidiaries for tax assessment periods up to July 31, 2009. Based on the results of the external tax audit for the assessment periods 2006 to 2008 that has now been completed, a compensation obligation running into the low triple-digit millions of euros would arise for Volkswagen AG. New information emerging in the future from the external tax audit that commenced at the end of 2015 for the 2009 assessment period could result in an increase or decrease in the potential compensation obligation.

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

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

- Porsche SE issued various guarantees to Volkswagen AG in the course of the contribution relating to Porsche Holding Stuttgart, Porsche AG and its other transferred investees. Among other things, these relate to the proper issuance of and full payment for shares and capital contributions, and/or to the ownership of the shares of Porsche Holding Stuttgart and Porsche AG.
- Under the terms of the contribution of its holding company operating business, Porsche SE also issued guarantees to Volkswagen AG for other assets transferred and liabilities assumed. In doing so, Porsche SE guarantees that these have not been assigned and are, in principle, free from third-party rights up to the date of completion of the contribution.
- As a general principle, Porsche SE’s liabilities for these guarantees are restricted to the consideration paid by Volkswagen AG.
- Porsche SE indemnifies its contributed subsidiaries, Porsche Holding Stuttgart, Porsche AG and their subsidiaries against 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.
- Porsche SE indemnifies Porsche Holding Stuttgart and Porsche AG against obligations arising from certain legal disputes; this includes the costs of an appropriate legal defense.
- Moreover, Porsche SE indemnifies Volkswagen AG, Porsche Holding Stuttgart, Porsche AG and their subsidiaries against half of the taxes (other than taxes on income) arising at those companies in conjunction with the contribution that would not have been incurred in the event of the exercise of the call option on the shares of Porsche Holding Stuttgart that continued to be held by Porsche SE until the contribution. Volkswagen AG therefore indemnifies Porsche SE against half of such taxes that it incurs. In addition, Porsche Holding Stuttgart is indemnified against half of the land transfer tax and other costs triggered by the merger.
- Additionally, Porsche SE and Porsche AG agreed to allocate any subsequent VAT receivables or liabilities from transactions in the period up to December 31, 2009 to the company entitled to the receivable or incurring the liability.
- A range of information, conduct and cooperation obligations were agreed by Porsche SE and the Volkswagen Group.

According to a notification dated January 2, 2017, the State of Lower Saxony and Hannoversche Beteiligungsgesellschaft mbH, Hanover, held 20.00% of the voting rights of Volkswagen AG on December 31, 2016. 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).

Members of the Board of Management and Supervisory Board of Volkswagen AG are members of supervisory and management boards or shareholders of other companies with which Volkswagen AG has relations in the normal course of business. All transactions with related parties are conducted on an arm's length basis.

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

RELATED PARTIES

€ million	SUPPLIES AND SERVICES RENDERED 2016	SUPPLIES AND SERVICES RENDERED 2015	SUPPLIES AND SERVICES RECEIVED 2016	SUPPLIES AND SERVICES RECEIVED 2015
Porsche SE	12	12	2	5
Supervisory Board members	3	7	5	4
Board of Management members	0	1	0	0
Unconsolidated subsidiaries	890	944	973	886
Joint ventures and their majority interests	13,728	11,785	1,377	1,429
Associates and their majority interests	190	126	912	826
Pension plans	4	3	0	0
Other related parties	0	0	0	0
State of Lower Saxony, its majority interests and joint ventures	6	5	6	2

€ million	RECEIVABLES (INCLUDING COLLATERAL) FROM Dec. 31, 2016	RECEIVABLES (INCLUDING COLLATERAL) FROM Dec. 31, 2015	LIABILITIES (INCLUDING OBLIGATIONS) TO Dec. 31, 2016	LIABILITIES (INCLUDING OBLIGATIONS) TO Dec. 31, 2015
Porsche SE	323	334	1	110
Supervisory Board members	0	0	297	165
Board of Management members	0	0	39	81
Unconsolidated subsidiaries	1,036	1,015	1,188	1,418
Joint ventures and their majority interests	8,808	7,495	1,784	2,343
Associates and their majority interests	53	40	495	518
Pension plans	1	1	8	8
Other related parties	–	–	64	25
State of Lower Saxony, its majority interests and joint ventures	2	0	1	0

The tables above do not contain the dividend payments of €3,613 million (previous year: €4,704 million) received from joint ventures and associates and dividends of €17 million (previous year: €719 million) paid to Porsche SE.

€52 million (previous year: €148 million) of the related party receivables were impaired in the reporting period.

In addition, the Volkswagen Group has furnished guarantees to external banks on behalf of related parties in the amount of €112 million (previous year: €262 million).

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

The supplies and services received from Porsche SE relate mainly to standard market liability compensation for guarantees assumed. The supplies and services rendered to Porsche SE relate mainly to interest income on loans granted.

The receivables from Porsche SE mainly comprise loan receivables.

The decrease in obligations to joint ventures and their majority interests mainly results from the elimination of an irrevocable credit commitment in the amount of €1.3 billion to LeasePlan.

As in the previous year, obligations to members of the Supervisory Board amounting to €297 million (previous year: €165 million) relate primarily to interest-bearing bank balances of Supervisory Board members that were invested at standard market terms and conditions at Volkswagen Group companies.

Obligations to the Board of Management comprise outstanding balances for bonuses payable to Board of Management members and the fair values of the phantom shares held by Board of Management members in the amount of €26 million (previous year: €36 million). This item also includes amounts of €– million (previous year: €39 million) granted on the termination of employment relationships with Board of Management members.

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

€	2016	2015
Short-term benefits	45,456,678	65,404,667
Benefits based on phantom shares	–670,296	–
Post-employment benefits	9,347,409	3,375,923
Termination benefits	–	41,132,431
	54,133,791	**109,913,021**

At its meeting on April 22, 2016, Volkswagen AG's Supervisory Board accepted the offer made by the members of the Board of Management to withhold 30% of the variable remuneration for fiscal year 2015 for the Board of Management members active on the date of the resolution and to make its disposal subject to future share price performance by means of phantom shares. The amount withheld led to the creation of 50,703 phantom preferred shares. In 2015, the resolution was not required to be reflected in the calculation of short-term employee benefits under IFRSs because it was only passed after the fiscal year had ended. In accordance with IFRS 2, starting in 2016 the obligations relating to these phantom shares are accounted for as a cash-settled plan and measured at fair value using a recognized valuation technique. The link between the original bonus (€5.7 million) and future share price performance resulted in a gain of €1.5 million as of April 22, 2016 that reduced the employee benefits based on phantom shares in 2016. Expenses of €0.8 million were recognized because of the share price performance in the period up to December 31, 2016. In accordance with IFRSs, these were disclosed under employee benefits based on phantom shares. The fair value of the obligation to members of the Board of Management as of December 31, 2016 amounts to €5.0 million. If all members of the Board of Management had left as of December 31, 2016, the obligation (intrinsic value) would have amounted to a total of €5.1 million.

Mr. Pötsch's waiver of a portion of his variable remuneration for fiscal year 2015 generated income of €2.3 million that has no impact on the short-term employee benefits for the reporting period. In its meeting on February 24, 2017, the Supervisory Board accepted Mr. Blessing's offer to irrevocably relinquish the top-up amount of €512.5 thousand for fiscal year 2016 to reach the minimum remuneration. Since the waiver was declared after the end of fiscal year 2016, it has no effect on the short-term benefits according to IFRS.

For further details, please refer to our disclosures in the remuneration report, which is part of the management report.

The employee representatives on the Supervisory Board are also entitled to a regular salary as set out in their employment contracts. This is based on the provisions of the Betriebsverfassungsgesetz (BetrVG – German Works Constitution Act) and represents an appropriate remuneration for their functions and activities in the Company. The same also applies to the representative of the senior executives on the Supervisory Board. The members of the Supervisory Board have declared to the Management Board that they waive their claims for all remuneration payments for fiscal year 2016. Such waiver shall apply to the extent that those claims exceed the amount that would be due if the stipulations to be resolved by the General Meeting on May 10, 2017 regarding the remuneration for the Supervisory Board for the current and future fiscal years were applied for fiscal year 2016. Since the waiver was declared after the end of fiscal year 2016, it has no effect on the values shown in the notes.

The post-employment benefits relate to additions to pension provisions for current members of the Board of Management.

The termination benefit commitments in the previous year relate to Mr. Östling, Mr. Winterkorn, Mr. Klingler and Mr. Pötsch.

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

44. German Corporate Governance Code

On November 18, 2016, the Board of Management and Supervisory Board of Volkswagen AG issued their declaration of conformity with the German Corporate Governance Code as required by section 161 of the Aktiengesetz (AktG – German Stock Corporation Act) and made it permanently available to the shareholders of Volkswagen AG on the Company's website at www.volkswagenag.com/ir.
On November 24, 2016, the Board of Management and Supervisory Board of AUDI AG likewise issued their declaration of conformity with the German Corporate Governance Code and made it permanently available to the shareholders at www.audi.com/cgk-declaration.

In December 2016, the Executive Board and Supervisory Board of MAN SE issued their declaration of conformity with the German Corporate Governance Code as required by section 161 of the AktG and made it permanently available to the shareholders at www.corporate.man.eu/en.

The Executive and Supervisory Boards of RENK AG issued a declaration of conformity on December 9, 2016 and made it permanently available to the shareholders at www.renk.biz/corporated-governance.html.

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

€	2016	2015
Board of Management remuneration		
Non-performance-related remuneration	18,093,835	28,288,098
Performance-related remuneration	21,453,778	34,956,362
	39,547,612	**63,244,460**
Supervisory Board remuneration		
Fixed remuneration components	709,346	660,976
Variable remuneration components	4,687,220	35,977
	5,396,565	**696,953**

NON-PERFORMANCE-RELATED REMUNERATION

The non-performance-related remuneration of the Board of Management comprises fixed remuneration and fringe benefits. In addition to the basic level of remuneration, the fixed remuneration also includes differing levels of remuneration for appointments assumed at Group companies. In addition, Ms. Hohmann-Dennhardt received €6.3 million (previous year: Mr. Diess received €5.0 million and Mr. Renschler €11.5 million) to compensate for lost entitlements resulting from a change in employer. The fringe benefits result from the grant of noncash benefits and include in particular the use of operating assets such as company cars and the payment of insurance premiums. Taxes due on these noncash benefits were mainly borne by Volkswagen AG.

PERFORMANCE-RELATED REMUNERATION

The performance-related remuneration comprises a business performance bonus, which relates to business performance in the reporting period and in the preceding year, and, since 2010, a Long-Term Incentive (LTI) plan, which is based on the reporting period and the previous three fiscal years. Members of the Board of Management can also be awarded bonuses that reflect their individual performance.

At its meeting on April 22, 2016, Volkswagen AG's Supervisory Board accepted the offer made by the members of the Board of Management to withhold 30% of the variable remuneration for fiscal year 2015 for the Board of Management members active on the date of the resolution and to make its disposal subject to future share price performance by means of phantom shares. The performance-related remuneration measured in accordance with German GAAP includes the amounts withheld from the active Board of Management members whose disposal is subject to the Company's future share price performance. These are reported at their fair value in 2015 of €4.2 million. Expenses of €0.8 million were recognized because of the share price performance in the period up to December 31, 2016. In accordance with German GAAP, these did not constitute remuneration. Furthermore, Mr. Pötsch's waiver of a portion of his variable remuneration for fiscal year 2015 generated income of €2.3 million that has no impact on the remuneration disclosed for the reporting period. In its meeting on February 24, 2017, the Supervisory Board accepted Mr. Blessing's offer to irrevocably relinquish the topup amount of €512.5 thousand for fiscal year 2016 to reach the minimum remuneration. The waiver lowered the performance-related remuneration according to German GAAP of the current fiscal year.

PENSION ENTITLEMENTS

On December 31, 2016, the pension provisions for members of the Board of Management in accordance with IFRSs amounted to €113.5 million (previous year: €86.6 million). Current pensions are index-linked in accordance with the index-linking of the highest collectively agreed salary insofar as the application of section 16 of the Gesetz zur Verbesserung der betrieblichen Altersversorgung (BetrAVG – German Company Pension Act) does not lead to a larger increase.

Members of the Board of Management were paid interest-free advances in the amount of €– million (previous year: €0.2 million), which will be set off against performance-related remuneration in the following year.

Former members of the Board of Management and their surviving dependents received €11.1 million (previous year: €51.3 million). The figures for the previous year include amounts agreed to be paid to Mr. Östling, Mr. Winterkorn, Mr. Klingler and Mr. Pötsch in connection with their departure from the Board of Management.

Pension provisions in accordance with IFRSs for former members of the Board of Management amounted to €270.0 million (previous year: €242.7 million).

The individual remuneration of the members of the Board of Management and the Supervisory Board is explained in the remuneration report in the management report on page 67. A comprehensive assessment of the individual bonus components of the LTI can also be found there.

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, Febuary 24, 2017

Volkswagen Aktiengesellschaft
The Board of Management

Matthias Müller	Karlheinz Blessing	Herbert Diess
Francisco Javier Garcia Sanz	Jochem Heizmann	Andreas Renschler
Rupert Stadler	Hiltrud Dorothea Werner	Frank Witter

Auditor’s Report

On completion of our audit, we issued the following unqualified auditor’s report dated Febuary 24, 2017. This report was originally prepared in German. In case of ambiguities the German version takes precedence:

Auditor’s Report

We have audited the consolidated financial statements prepared by the VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, comprising income statement and statement of comprehensive income, the balance sheet, the statement of changes in equity, cash flow statement and the notes to the consolidated financial statements, together with the group management report, which is combined with the management report of the VOLKSWAGEN AKTIENGESELLSCHAFT, Wolfsburg, for the business year from January 1 to December 31, 2016. The preparation of the consolidated financial statements and the combined management report in accordance with the IFRSs, as adopted by the EU, and the additional requirements of German commercial law pursuant to § (Article) 315a Abs. (paragraph) 1 HGB ("Handelsgesetzbuch": German Commercial Code) are the responsibility of the parent Company's Board of Management. Our responsibility is to express an opinion on the consolidated financial statements and the combined management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with § 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany) (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the combined management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the combined management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of the entities to be included in consolidation, the accounting and consoledation principles used and significant estimates made by the Company´s Board of Management, as well as evaluating the overall presentation of the consolidated financial statements and the combined management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion based on the findings of our audit the consolidated financial statements comply with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315a Abs. 1 HGB and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these provisions. The combined management report is consistent with the consolidated financial statements, complies with legal requirements, as a whole provides a suitable view of the Group's position and suitably presents the opportunities and risks of future development.

Without qualifying our opinion, we draw attention to the information provided and statements made in section "Key events" of the notes to the consolidated financial statements and in section "Diesel Issue" of the combined management report with regard to the diesel issue, the underlying causes, the involvement of members of the board of management as well as the impact on these financial statements.

Based on the results of the various measures taken to investigate the issue presented so far, which underlie these financial statements, there is no validation that members of the board of management were aware of the deliberate manipulation of engine management software before summer 2015. Nevertheless, should as a result of the ongoing investigation new solid knowledge be obtained showing that members of the board of management were informed earlier, this could eventually have an impact on the annual and consolidated financial statements and on the combined management report for fiscal year 2016 and prior years.

The provisions for warranties and legal risks recorded so far are based on the presented state of knowledge. Due to the inevitable uncertainties associated with the current and expected litigation it cannot be excluded that a future assessment of the risks may be different.

Hanover, February 24, 2017

PricewaterhouseCoopers
Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft

Norbert Winkeljohann
Wirtschaftsprüfer
(German Public Auditor)

Frank Hübner
Wirtschaftsprüfer
(German Public Auditor)