

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 of 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	2017	2016
Passenger Cars segment	5.8%	5.4%
Commercial Vehicles segment	6.8%	6.5%
Power Engineering segment	8.0%	7.7%

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, FINANCIAL LIABILITIES AND HELD-TO-MATURITY FINANCIAL ASSETS

Loans, receivables and financial 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 liabilities 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 assets and 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 INCOME TAXES

Tax provisions contain obligations resulting from current income 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.

SHARE-BASED PAYMENT

The share-based payment consists of phantom shares and performance shares. The obligations arising from the share-based payment are accounted for as cash-settled plans in accordance with IFRS 2. The cash-settled share-based payments are measured at fair value until maturity. Fair value is determined using a recognized valuation technique. The compensation cost is allocated over the vesting period.

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 0.08% (previous year: 0.04%) 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 cedant's 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 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. In addition, assumptions are made about future

resale prices of repurchased vehicles. 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).

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.

Global gross domestic product (GDP) rose by 3.2% (previous year: 2.5%) in 2017. In our forecasts, we assume that global economic growth will weaken slightly in 2018. 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.