

# Report on Risks and Opportunities

(CONTAINS THE REPORT IN ACCORDANCE WITH SECTION 289(5) OF THE HGB)

Promptly identifying the risks and opportunities arising from our operating activities and taking a forward-looking approach to managing them is crucial to our Company's long-term success. A comprehensive risk management and internal control system helps the Volkswagen Group deal with risks in a responsible manner.

In this section, we first explain the objective and structure of the Volkswagen Group's risk management system (RMS) and internal control system (ICS) and describe the system relevant for the financial reporting process. We then outline the main risks and opportunities arising in our business activities.

## OBJECTIVE OF THE RISK MANAGEMENT SYSTEM AND INTERNAL CONTROL SYSTEM AT VOLKSWAGEN

Only by promptly identifying, accurately assessing and effectively and efficiently managing the risks and opportunities arising from our business activities can we ensure the Volkswagen Group's sustainable success. The aim of the RMS/ICS is to identify potential risks at an early stage so that suitable countermeasures can be taken to avert the threat of loss to the Company, and any risks that might jeopardize its continued existence can be ruled out.

Assessing the probability and extent of future events and developments is, by its nature, subject to uncertainty. We are therefore aware that even the best RMS cannot foresee all potential risks and even the best ICS can never completely prevent irregular acts.

## STRUCTURE OF THE RISK MANAGEMENT SYSTEM AND INTERNAL CONTROL SYSTEM AT VOLKSWAGEN

The organizational design of the Volkswagen Group's RMS/ICS is based on the internationally recognized COSO framework for enterprise risk management (COSO: Committee of Sponsoring Organizations of the Treadway Commission). In the reporting period, Volkswagen again pursued a holistic, integrated approach that combines a risk management

system, an internal control system and a compliance management system (CMS) within a single management strategy (governance, risk and compliance strategy). Structuring the RMS/ICS in accordance with the COSO framework for enterprise risk management ensures that potential risks are covered in full; opportunities are not recorded. Uniform Group principles are used as the basis for managing risks in a consistent manner.

With this approach we not only fulfil legal requirements, particularly with regard to the financial reporting process, but we are also able to manage significant risks to the Group holistically, i.e. by incorporating both tangible and intangible criteria.

We further enhanced our RMS/ICS in the reporting period. In addition to the ad hoc and annual risk assessment, the Board of Management also receives quarterly risk reports. This additional reporting on the current risk situation raises awareness of risks in the Company and encourages an open approach to dealing with them. We continued to reinforce the internal control system in the area of product compliance in 2016. This includes what are known as the Golden Rules, which we describe in the chapter on the diesel issue on page 96.

Another key element of the RMS/ICS at Volkswagen is the three lines of defense model, a basic element required, among others, by the European Confederation of Institutes of Internal Auditing (ECIIA). In line with this model, the Volkswagen Group's RMS/ICS has three lines of defense that are designed to protect the Company from significant risks occurring.

## THE THREE LINES OF DEFENSE MODEL



## First line of defense: operational risk management

The primary line of defense comprises the operational risk management and internal control systems at the individual Group companies and business units. The RMS/ICS is an integral part of the Volkswagen Group's structure and workflows. Events that may give rise to risk are identified and assessed locally in the divisions and at the investees. Countermeasures are introduced immediately, their effects are assessed and the information is incorporated into the planning in a timely manner. The results of the operational risk management process are incorporated into budget planning and financial control on an ongoing basis. The targets agreed in the budget planning rounds are continually reviewed in revolving planning updates.

At the same time, the results of risk mitigation measures that have already been taken are incorporated into the monthly forecasts on further business development without delay. This means that the Board of Management also has access to an overall picture of the current risk situation via the documented reporting channels during the year.

The minimum requirements for the operational risk management and internal control system are set out for the entire Group in uniform guidelines. These also include a process for the timely reporting of material risks.

## Second line of defense: identifying systemic risks using the regular Governance, Risk and Compliance process

In addition to the ongoing operational risk management, the Group Governance, Risk and Compliance (GRC) department each year sends standardized surveys on the risk situation and the effectiveness of the RMS/ICS to the significant Group companies and units worldwide (regular GRC process). The feedback is used to update the overall picture of the potential risk situation and assess the effectiveness of the system.

Each systemic risk reported is assessed using the expected likelihood of occurrence and various risk criteria (financial and nonfinancial). In addition, the measures taken to manage and control risk are documented at management level. This means that risks are assessed in the context of any risk management measures initiated, i.e. in a net analysis. In addition to strategic, operational and reporting risks, risks arising from potential compliance violations are also integrated into this process. Moreover, the effectiveness of key risk management and control measures is tested and any weaknesses identified in the process are reported and rectified.

All Group companies and units selected from among the entities in the consolidated Group on the basis of materiality and risk criteria were subject to the regular GRC process in fiscal year 2016.

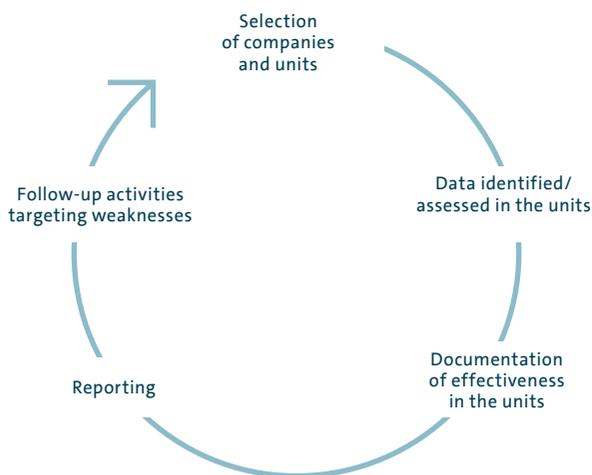
The Scania brand had not yet been included in the Volkswagen Group's risk management system due to various provisions of Swedish company law. Scania was integrated into quarterly risk reporting in 2016. In future, it will also be included in the regular GRC process. According to Scania's corporate governance report, risk management and risk assessment are integral parts of corporate management. Risk areas at Scania are evaluated by the brand's Controlling department and reflected in the financial reporting.

The RMS was expanded in the reporting period to include quarterly risk reporting. The aim is to raise awareness of significant risks currently faced by the Volkswagen Group and to encourage these to be dealt with openly. All Group brands are included in this new process along with Volkswagen Financial Services AG.

## Third line of defense: checks by Group Internal Audit

Group Internal Audit helps the Board of Management to monitor the various divisions and corporate units within the Group. It regularly checks the risk early warning system and the structure and implementation of the RMS/ICS and the CMS as part of its independent audit procedures.

## ANNUAL STANDARD GOVERNANCE, RISK AND COMPLIANCE PROCESS



## RISK EARLY WARNING SYSTEM IN LINE WITH THE KONTRAG

The Company's risk situation is ascertained, assessed and documented in accordance with the requirements of the Gesetz zur Kontrolle und Transparenz im Unternehmensbereich (KonTraG – German Act on Control and Transparency in Business). The requirements for a risk early warning system are met through the elements of the RMS/ICS described above (first and second lines of defense). Independently of this, the external auditors check both the processes and procedures implemented in this respect and the adequacy of the documentation on an annual basis. The plausibility and adequacy of the risk reports are examined on a random basis in detailed interviews with the divisions and companies concerned that also involve the external auditors. The latter assessed our risk early warning system based on this volume of data and established that the risks identified were presented and communicated accurately. The risk early warning system therefore meets the requirements of the KonTraG.

In addition, the Financial Services Division is subject both to scheduled examinations as part of the audit of the annual financial statements and to also unscheduled audits, in particular by the Banking Supervision Committee of the European Central Bank (ECB SSM, Single Supervisory Mechanism) and by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin – the German Federal Financial Supervisory Authority) within the meaning of section 44 of the Kreditwesengesetz (KWG – German Banking Act), as well as examinations by the Prüfungsverband deutscher Banken (Auditing Association of German Banks).

Monitoring the effectiveness of the risk management system and the internal control system

To ensure its effectiveness, the RMS/ICS is regularly optimized as part of our continuous monitoring and improvement processes. In the process, equal consideration is given to both internal and external requirements. External experts assist in the continuous enhancement of our RMS/ICS on a case-by-case basis. The results culminate in both regular and event-driven reporting to the Board of Management and Supervisory Board of Volkswagen AG.

## THE RISK MANAGEMENT AND INTEGRATED INTERNAL CONTROL SYSTEM IN THE CONTEXT OF THE FINANCIAL REPORTING PROCESS

The accounting-related part of the RMS/ICS that is relevant for the financial statements of Volkswagen AG and the Volkswagen Group comprises measures that are intended to ensure the complete, accurate and timely transmission of the information required for the preparation of the financial statements of Volkswagen AG, the consolidated financial statements and the combined Group management report. These measures are designed to minimize the risk of material misstatement in the accounts and in the external reporting.

## Main features of the risk management and integrated internal control system relevant for the financial reporting process

The Volkswagen Group's accounting is essentially organized along decentralized lines. For the most part, accounting duties are performed by the consolidated companies themselves or entrusted to the Group's shared service centers. In principle, the audited financial statements of Volkswagen AG and its subsidiaries prepared in accordance with IFRSs and the Volkswagen IFRS accounting manual are transmitted to the Group in encrypted form. A standard market product is used for encryption.

The Volkswagen IFRS accounting manual, which has been prepared using external expert opinions in certain cases, ensures the application of uniform accounting policies based on the requirements applicable to the parent. In particular, it includes more detailed guidance on the application of legal requirements and industry-specific issues. Components of the reporting packages required to be prepared by the Group companies are also set out in detail there and requirements established for the presentation and settlement of intragroup transactions and the balance reconciliation process that builds on this.

Control activities at Group level include analyzing and, if necessary, adjusting the data reported in the financial statements presented by the subsidiaries, taking into account the reports submitted by the auditors and the outcome of the meetings on the financial statements with representatives of the individual companies. These discussions address both the reasonableness of the single-entity financial statements and specific significant issues at the subsidiaries. Alongside reasonableness reviews, control mechanisms applied during the preparation of the single-entity and consolidated financial statements of Volkswagen AG include the clear delineation of areas of responsibility and the application of the dual control principle.

The Group management report is prepared – in accordance with the applicable requirements and regulations – centrally but with the involvement of and in consultation with the Group units and companies.

In addition, the accounting-related internal control system is independently reviewed by Group Internal Audit in Germany and abroad.

#### Integrated consolidation and planning system

The Volkswagen consolidation and corporate management system (VoKUs) enables the Volkswagen Group to consolidate and analyze both Financial Reporting's backward-looking data and Controlling's budget data. VoKUs offers centralized master data management, uniform reporting, an authorization concept and maximum flexibility with regard to changes to the legal environment, providing a future-proof technical platform that benefits Group Financial Reporting and Group Controlling in equal measure. To verify data consistency, VoKUs has a multi-level validation system that primarily checks content plausibility between the balance sheet, the income statement and the notes.

#### RISKS AND OPPORTUNITIES

In this section, we outline the risks and opportunities that arise in the course of our business activities. We have grouped them into categories. Unless explicitly mentioned, there were no material changes to the specific risks and opportunities compared with the previous year.

The diesel issue gives rise to its own risks for the Volkswagen Group and also has an impact on existing risks. These are described under the respective risk category.

We use competitive and environmental analyses and market studies to identify not only risks but also opportu-

nities with a positive impact on the design of our products, the efficiency with which they are produced, their success in the market and our cost structure. Where they can be assessed, risks and opportunities that we expect to occur are already reflected in our medium-term planning and our forecast. The following therefore reports on internal and external developments as risks and opportunities that may result in a negative or positive deviation from our forecast.

#### Risks from the diesel issue

The Volkswagen Group has recognized provisions arising from the diesel issue, in particular for the upcoming service campaigns, recalls and customer-related measures as well as for legal risks, but also for residual value risks.

Due to existing estimation risks particularly from legal risks, criminal and administrative proceedings, higher expenses for technical solutions, lower market prices, repurchase obligations and customer-related measures, further significant financial liabilities may emerge.

Demand may decrease – possibly exacerbated by a loss of reputation or insufficient communication. Other potential consequences include lower margins in the new and used car businesses and a temporary increase in funds tied up in working capital.

The funding needed to cover the risks may lead to assets having to be sold due to the situation and equivalent proceeds for them not being achieved as a result.

As a result of the diesel issue the ability to use refinancing instruments may possibly be restricted or precluded for the Volkswagen Group. A downgrade of the Company's rating could adversely affect the terms associated with the Volkswagen Group's borrowings.

We are cooperating with all the responsible authorities to clarify these matters completely and transparently.

#### Macroeconomic risks and opportunities

We believe that the risks to continued global economic growth arise primarily from turbulence in the financial markets, protectionist tendencies and structural deficits, which pose a threat to the performance of individual industrialized nations and emerging economies. In the southern part of the eurozone, a sustained economic recovery is being hindered by the situation of some financial institutions whose ability to withstand a crisis is still not assured. Risks are also associated with the effects of the UK's planned withdrawal from the EU. Persistently high private- and public-

sector debt in many places is also clouding the outlook for growth and may cause markets to respond negatively. Declines in growth in key countries and regions often have an immediate impact on the state of the global economy and therefore pose a central risk.

The economic development of some emerging economies is being hampered primarily by dependence on energy and commodity prices, capital inflows and socio-political tensions. Corruption, inadequate government structures and a lack of legal certainty also pose risks.

Geopolitical tensions and conflicts are a further major risk to the performance of individual economies and regions. As the global economy becomes increasingly interconnected, it is also vulnerable to local developments. Any escalation of the conflicts in Eastern Europe, the Middle East, or Africa, for example, could cause upheaval on the global energy and commodity markets and exacerbate migration trends. The same applies to armed conflicts, terrorist activities, or the spread of infectious diseases, which may prompt unexpected, short-term responses from the markets.

Overall, we consider the probability of a global recession to be low. Due to the risk factors mentioned, however, the possibility of a decline in global economic growth or a period of below-average growth rates cannot be ruled out.

The macroeconomic environment may also give rise to opportunities for the Volkswagen Group if actual developments differ in a positive way from expected developments.

#### Sector-specific risk and market opportunities

The growth markets of Asia, South America, and Central and Eastern Europe are particularly important to the Volkswagen Group in terms of the global trend in demand for passenger cars and commercial vehicles. Although these markets harbor considerable potential, the underlying conditions in some countries in these regions make it difficult to increase unit sales figures there. Some have high customs barriers or minimum local content requirements for production, for example. The political crisis and its economic consequences again inhibited market development in Russia in fiscal year 2016. In South America, structural deficits continued to have a negative impact. Restrictions on vehicle registrations could enter into force in further Chinese metropolitan areas in the future. Additionally, a global economic slowdown could negatively impact consumer confidence. Furthermore, we cannot entirely rule out the possibility of freight deliveries being shifted from trucks to other means of transport, and of demand for the Group's commercial vehicles falling as a result.

At the same time, wherever the economic and regulatory situation permits, there are opportunities above and beyond current projections resulting from faster growth in the emerging markets where vehicle densities are still low. The demand that built up in individual established markets during the crisis could also bring a more marked recovery in these markets if the economic environment eases more quickly than expected. Price pressure in established automotive markets due to high market saturation is a particular challenge for the Volkswagen Group as a supplier of volume and premium models. As the global economy is still under strain, competitive pressures are likely to remain high in the future. Some manufacturers may respond by offering incentives in order to meet their sales targets, putting the entire sector under additional pressure, particularly in Western Europe, the USA and China.

Western Europe is one of our main sales markets. A drop in prices due to the economic climate triggered by falling demand in this region would have a particularly strong impact on the Company's earnings. We counter this risk with a clear, customer-oriented and innovative product and pricing policy. Outside Western Europe, delivery volumes are widely spread worldwide, with the Chinese market accounting for a large share. In numerous existing and developing markets, we either already have a strong presence or are working hard to build one. Moreover, strategic partnerships are helping us to increase our presence in these countries and regions and cater to requirements there.

Economic performance varied from region to region in fiscal year 2016. While the situation in Western Europe stabilized further, China remained on its growth trajectory and the US economy continued to expand, market conditions in Eastern Europe and South America remained under strain. The resulting challenges for our trading and sales companies, such as efficient inventory management and a profitable dealer network, are considerable and are being met by appropriate measures on their part. However, financing business activities through bank loans remains difficult. Our financial services companies offer dealers financing on attractive terms with the aim of strengthening their business models and reducing operational risk. We have installed a comprehensive liquidity risk management system so that we can promptly counteract any liquidity bottlenecks at the dealers' end that could hinder smooth business operations.

We continue to approve loans for vehicle finance on the basis of the same cautious principles applied in the past, taking into account the regulatory requirements of section 25a(1) of the Kreditwesengesetz (KWG – German Banking Act).

Volkswagen may be exposed to increased competition in aftermarkets for two reasons in particular: firstly, because of the provisions of the block exemption regulations, which have applied to after-sales services since June 2010, and, secondly, because of the amendments included in EU Regulation 566/2011 of June 8, 2011 regarding access by independent market participants to technical information.

In addition, the European Commission is currently evaluating the market with regard to existing design protection. If the proposed abolition of design protection for visible replacement parts were to be approved, this could adversely affect the Volkswagen Group's genuine parts business.

The automotive industry faces a process of transformation with far-reaching changes. Electric drives, connected vehicles and autonomous driving are associated with both opportunities and risks for our sales. In particular, more rapidly evolving customer requirements, swift implementation of legislative initiatives and the market entry of new competitors from outside the industry will require changed products, a faster pace of innovation and adjustments to business models.

Below, we outline the market opportunities for the Volkswagen Group. We see the greatest potential for growth in the markets of the Asia-Pacific region and in North America.

#### China

China, the largest market in the Asia-Pacific region, continued to grow in the reporting period. The Chinese demand for vehicles will continue to rise in the coming years, albeit at a slower pace than in the past, due to the need for individual mobility. Demand will also shift from the large coastal cities to the interior of the country. In order to leverage the considerable opportunities offered by the Chinese market – also with regard to e-mobility – and to defend our strong market position in China over the long term, we are continuously expanding our product range to include models that have been specially developed for this market. We are further extending our production capacity in this growing market through additional production facilities.

#### India

The political and economic situation in India further stabilized in 2016. The vehicle markets continued their recovery. We expect this trend to continue. Against this backdrop, the Group is currently consolidating its activities, as India remains an important strategic future market for the Group.

#### USA

The volume of the US vehicle market in 2016 marginally exceeded that of the strong previous year. For 2017, we expect the market to fall slightly below the 2016 level. In the USA, Volkswagen Group of America is systematically pursuing our strategy of becoming a full-fledged volume supplier. An engine plant and the development of additional production capacity in the North America region will allow the Group to better serve the market in the future. We are also pressing forward with additional products tailored specifically to the US market. Our success here will largely depend on how transparently, thoroughly and quickly we deal with the diesel issue and restore customer confidence.

#### Brazil

The economic environment remained weak in the reporting period and the volume of demand on the vehicle market fell once again. The ongoing recession, coupled with high unemployment, falling real incomes and restrictive lending policies, prevented the hoped-for recovery. In 2017, we expect the vehicle market to stabilize slightly above its 2016 level. The growing number of automobile manufacturers with local production has resulted in a sharp increase in price pressure and competition. The Brazilian market plays a key role for the Volkswagen Group. To strengthen our competitive position here, we offer vehicles that have been specially developed for this market and are locally produced, such as the Gol and the Fox.

#### Russia

Russia has the potential to grow into one of the largest automotive markets in the world. However, the heavy reliance on oil revenues that are lower than in the past, a substantial fall in real incomes, and high vehicle prices as a result of the weak currency led to a decline in the market as a whole in 2016. Demand for vehicles also continued to be impacted by the political crisis and the related sanctions imposed by the EU and the USA. The market remains strategically important to the Volkswagen Group, which is why we are working intensively there.

#### The Middle East

Despite economic and political instability, the Middle East region offers growth opportunities. We are leveraging the potential for growth with a range of vehicles that has been specifically tailored to this market, but do not have our own production facilities.

#### Power Engineering

The underlying trends in the global economy such as sustained growth and a greater international division of labor are set to continue, as are the resulting increase in global transport routes and volumes, a growing demand for energy and the required forces for innovation in relation to global climate policy.

We are working systematically to leverage these market opportunities across the world. In the medium term, significant potential can be leveraged by enhancing the after-sales business through the introduction of new products and the expansion of our service network. Going forward, stricter requirements with respect to reliability, the availability of the plants that are already in operation, the increase in environmental compatibility and efficient operation, together with the large number of engines and plants, will provide the basis for growth.

As part of the capital goods industry, the Power Engineering Business Area is affected by fluctuations in the investment climate. Even minor changes in growth rates or growth forecasts, resulting from geopolitical uncertainties or volatile commodities and foreign exchange markets, for example, can lead to significant changes in demand or the cancellation of existing orders. The measures we use to counter the considerable economic risks include flexible production concepts and cost flexibility by means of temporary employment, working time accounts and short-time work, and – where necessary – structural adjustments.

#### Research and development risk

We conduct trend analyses, customer surveys and scouting activities so as to reflect our customers' requirements during product development as well as possible. In this way, we identify trends at an early stage and examine their relevance for our customers in good time.

We counter the risk that it may not be possible to develop products or modules within the specified timeframe, to the required quality standards, or in line with cost specifications by continuously and systematically monitoring the progress of all projects and analyzing third-party industrial property rights, increasingly including in relation to communication technologies. We regularly compare this progress with the project's original targets; in the event of variances, we introduce appropriate countermeasures in good time. Our end-to-end project organization supports effective cooperation among all areas involved in the process, ensuring that specific requirements are incorporated into the development process as early as possible and that their implementation is planned in good time. This is why we implemented a product line organization in the Volkswagen Passenger Cars, Audi,

ŠKODA and SEAT brands in 2016 modeled on that of Porsche, to increasingly promote an entrepreneurial mindset and approach.

#### Opportunities arising from the Modular Transverse Toolkit

The Modular Transverse Toolkit (MQB) and the Modular Production Toolkit (MPB) enable us to cut both development costs and the necessary one-time expenses and manufacturing times, as well as making usage possible over several vehicle generations. The toolkits also allow us to produce different models from different brands in various quantities, using the same system in a single plant. This means that our capacities can be used with greater flexibility throughout the entire Group, enabling us to achieve efficiency gains.

In addition to conventional petrol and diesel engines, the MQB also affords us the opportunity to integrate alternative drivetrains, such as natural gas, hybrid, or electric drives. Previously, individual, vehicle-specific adaptations were necessary for each model. The MQB has created an extremely flexible vehicle architecture that permits dimensions determined by the concept – such as the wheelbase, track width, wheel size and seat position – to be harmonized throughout the Group and utilized flexibly. Other dimensions, for example the distance between the pedals and the middle of the front wheels, are always the same and ensure a uniform system in the front of the car, enabling synergies to be achieved.

#### Procurement risks and opportunities

The trend in procurement is to bundle contracts to a greater extent and to ensure worldwide availability of uniform components. This is resulting in an increased need for financing and further consolidation in the supply industry. The Volkswagen Group's procurement risk management system therefore assesses suppliers before they are commissioned to perform projects. Among other things, the procurement function considers the risk of there being insufficient competition if it concentrates on a few financially strong suppliers when awarding contracts.

The procurement risk management system continuously and globally monitors the financial situation of our suppliers and takes targeted measures to avoid supply bottlenecks.

The positive economic trend in Europe, North America and China strengthened our supplier base at an overall good level of capacity utilization and good margin situation. Financing offered on attractive terms and low interest rates provided suppliers with favorable conditions. This reduced the number of insolvencies among our suppliers.

Consolidation of the supplier base continued at the same time, fueled by the globalization of regional suppliers, especially from China, as well as the trends toward e-mobility

and increasing connectivity between the vehicle and its equipment. The political and economic tensions in Russia and South America led to capacity adjustments by suppliers and to a concentration in the supplier base.

Quality problems may necessitate technical measures involving a considerable financial outlay where costs cannot be passed on to the supplier or can only be passed on to a limited extent. It is not possible at the present time to rule out a potential further increase in the recalls of a range of models produced by various manufacturers in which certain airbags manufactured by Takata were installed. This could also affect Volkswagen Group models.

In addition to financial difficulties, supply risks may, for example, arise as a result of fires or accidents at suppliers. The supplier risks are automatically identified without delay in the procurement function through early warning systems and mitigated immediately by applying inferred measures.

Additional measures were taken to safeguard supply and avert future assembly line stoppages caused by suspensions of deliveries.

#### Production risk

Volatile developments in the global automotive markets, accidents at suppliers, storms and earthquakes, as well as the emissions issue caused production volumes of several vehicle models to fluctuate at some plants. We address such fluctuations using tried-and-tested tools, such as flexible working time models. The technical design of the production network enables us to respond dynamically to varying changes in demand at the sites. "Turntable concepts" even out capacity utilization between production facilities. At multibrand sites, volatile demand can also be smoothed across brands.

Short-term changes in customer demand for specific equipment features in our products and the decreasing predictability of demand may lead to supply bottlenecks. We minimize this risk, among other things, by continuously comparing our available resources against future demand scenarios. If we identify bottlenecks in the supply of materials, we can introduce countermeasures far enough in advance.

Production capacity is planned several years in advance for each vehicle project on the basis of expected sales trends. These are subject to market changes and generally entail a degree of uncertainty. If forecasts are too optimistic, there is a risk that capacity will not be fully utilized. However, forecasts that are too pessimistic pose a risk of undercapacity, as a

result of which it may not be possible to meet customer demand.

Particular events beyond our control such as natural disasters or other events, for example fires, explosions or the leakage of substances hazardous to health and/or the environment, may adversely affect production to a significant extent. As a consequence, bottlenecks or even outages may occur, thus preventing the planned volume of production from being achieved. We address such risks with, among other things, fire protection measures and hazardous goods management and cover them – where financially viable – using insurance.

The range of our models is growing, while at the same time product lifecycles are becoming shorter; the number of new vehicle start-ups at our sites worldwide is therefore increasing. The processes and technical systems we use for this are complex and there is thus a risk that vehicle deliveries may be delayed. We address this risk by drawing on experience of past start-ups and, identifying weaknesses at an early stage, so as to ensure that production volumes and quality standards are met during our new vehicle start-ups throughout the Group.

In order to prevent downtime in general, lost output, rejects and reworking, we use the TPM (Total Productive Maintenance) method at our production facilities. TPM is a continuous process involving the entire workforce. Round-the-clock maintenance of the technical facilities means that they are always operational and guaranteed to function reliably.

#### Risks arising from long-term production

In the case of large projects, risks may arise that are often only identified in the course of the project. They may result in particular from contract drafting errors, miscosting, post-contract changes in economic and technical conditions, weaknesses in project management, or poor performance by subcontractors. In particular, omissions or errors made at the start of a project are usually difficult to compensate for or correct and often entail substantial additional expenses.

We endeavor to identify these risks at an even earlier stage and to take appropriate measures to eliminate or minimize them before they occur by constantly optimizing the project control process across all project phases and by using a lessons learned process and regular project reviews. We can thus further reduce risk, particularly during the bidding and planning phase for large upcoming projects.

#### Risks arising from changes in demand

As a result of the diesel issue, the Volkswagen Group may experience decreases in demand, possibly exacerbated by media reports. When dealing with the issue, our highest priority is to provide customers with solutions, both from a technical perspective and in financial matters. In addition, we are pressing ahead with the systematic clarification of the misconduct in the Company.

Consumer demand is shaped not only by real factors such as disposable income, but also by psychological factors that cannot be planned for. Unexpected buyer reluctance, possibly further exacerbated by press reports, could stem from households' worries about the future economic situation, for example. This is particularly the case in saturated automotive markets such as Western Europe, where demand could drop as a result of owners holding on to their vehicles for longer. In the reporting period, it became evident that the effects of the eurozone debt crisis have not yet been overcome. Some automotive markets, particularly in Southern Europe, were able to further recover from their record lows, however, and exhibited positive growth rates. We are countering this buyer reluctance with our attractive range of models and systematic customer orientation.

A combination of buyer reluctance as a result of the crisis and increases in some vehicle taxes based on CO<sub>2</sub> emissions – as is already the case in some European countries – is driving a shift in demand towards smaller segments and engines in individual markets. We counter the risk that such a shift will negatively impact the Volkswagen Group's earnings by constantly developing new, fuel-efficient vehicles and alternative drive technologies, based on our drivetrain and fuel strategy.

Automotive markets around the world are exposed to risks from government intervention such as tax increases, which curb private consumption or from protectionist tendencies.

Commercial vehicles are capital goods: even minor changes in growth rates or growth forecasts can significantly affect transport requirements and thus demand. The production fluctuations arising as a result require a high degree of flexibility from manufacturers. Although production volumes are significantly lower, the complexity of the trucks and buses range in fact significantly exceeds the already very high complexity of the passenger cars' range. The priorities for commercial vehicle customers are total cost of ownership, vehicle reliability and the service provided.

MAN Power Engineering's two-stroke engines are produced exclusively by licensees, particularly in South Korea,

China and Japan. Due to volatile demand in new ship construction and heavy investment by some licensees, there is excess capacity in the market for marine engines, resulting in risks ranging from a decline in license revenues through to bad debt losses. There is also a risk that market share will be lost as a result of Chinese state-owned licensees merging with competitors. We address these risks by constantly monitoring the markets and working closely together with all licensees. This also includes receivables management in order to safeguard our license revenues.

#### Dependence on fleet customer business

The fleet customer business is generally more stable than the business with retail customers. The clarification of the CO<sub>2</sub> issue and implementation of technical solutions for the diesel issue helped to ensure that there were no significant declines in volumes for the Volkswagen Group's fleet customer business in 2016. Only the Volkswagen Passenger Cars brand in Europe saw slight losses. The shrinking market in Brazil led to a fall in volume in that country.

The fleet customer business continues to be characterized by increasing concentration and internationalization. The Volkswagen Group is well positioned with its broad portfolio of products and drive systems, as well as its target-group-focused customer care. There is no concentration of default risks at individual fleet customers or markets.

#### Quality risk

Right from the product development stage, we aim to identify and rectify quality problems at the earliest possible point, so as to avoid delays to the start of production. As we are using an increasing number of modular components as part of our modular toolkit strategy, it is very important when defects do occur to identify the cause and eliminate the defect as quickly as possible. We further optimized the processes with which we can prevent these defects at our brands and improved our organizational processes during the reporting period so that we are able to counter the associated risks more effectively.

Increasing technical complexity and the use of the toolkit system in the Group mean that the need for high-grade supplier components of impeccable quality is rising. To ensure the continuity of production, it is also extremely important that our own plants and our suppliers deliver components on time. We ensure long-term quality and supply capability from the very start of the supply chain using a risk management system that we first tested internally and then introduced among suppliers. In this way, Quality Assurance helps to

fulfill customer expectations and consequently to boost our Company's reputation, sales figures and earnings.

Assuring quality is of fundamental importance especially in the Brazilian, Russian, Indian and Chinese markets, for which we develop dedicated vehicles and where local manufacturers and suppliers have been established, particularly as it may be very difficult to estimate regulatory or official decisions. We continuously analyze the conditions specific to each market and adapt quality requirements to them. We counter the local risks we identify by continuously developing measures and implementing them locally, thereby effectively preventing quality defects from arising.

Vehicle registration and operation criteria are defined and monitored by national and, in some cases, international authorities. Some countries also have special – and in some cases new – rules aimed at protecting customers in their dealings with vehicle manufacturers. With our established and revised quality assurance processes, we ensure that the Volkswagen Group brands and their products fulfill all applicable requirements and that local authorities receive timely notification of all issues requiring reporting. By doing so, we reduce the risk of customer complaints and other negative consequences.

#### Personnel Risk

We counter economic risks as well as changes in the market and competitive situation with a range of instruments that help the Group to remain flexible, even with fluctuating order intake – whether orders decline or demand for our products increases. These include time accounts which are filled when overtime is necessary and reduced through time off in quiet periods, enabling our factories to adjust their capacity to the production volume and to “breathe” with measures such as extra shifts, closure days and flexible shift models. The use of temporary workers also allows us to plan more flexibly. All of these measures help the Volkswagen Group to generally maintain a stable permanent workforce even when orders fluctuate.

The technical expertise and individual commitment of employees are essential prerequisites for the success of the Volkswagen Group. Our strategic, end-to-end human resources development strategy gives all employees attractive training and development opportunities, with particular emphasis being placed on increasing technical expertise in the Company's different vocational groups. By boosting our training programs, particularly at our international locations,

we are able to adequately address the challenges of technological change.

We are continuously expanding our recruitment tools. Our systematic talent relationship management, for example, enables us to make contact with talented candidates from strategically relevant target groups at an early stage and to build a long-term relationship between them and the Group.

In addition to the standard dual vocational training, programs such as our StIP integrated degree and traineeship scheme ensure a pipeline of highly qualified and motivated employees. We counter the risk that knowledge will be lost as a result of employee fluctuation and retirement with intensive, department-specific training. We have also established a base of senior experts in the Group. With this additional measure, we use the valuable knowledge of our experienced specialists who have retired from Volkswagen. Organizing efficient knowledge hubs – for example the academies dedicated to the various vocational groups under the umbrella of the Volkswagen Group Academy – is becoming increasingly important, particularly where retiring staff are not directly replaced by young specialists. Volkswagen is working on knowledge relays to ensure experience is passed on even when the chain of succession is broken.

#### IT Risk

At Volkswagen, a global company geared towards further growth, the information technology (IT) used in all divisions Group-wide is assuming an increasingly important role. IT risks include unauthorized access to and extraction of sensitive electronic corporate data as well as limited systems availability as a consequence of downtime or disasters.

We address the risk of unauthorized access to or extraction of corporate data with IT security technologies (e.g. fire-wall and intrusion prevention systems) and a dual authentication procedure. We achieve additional protection by restricting the allocation of access rights to systems and information and by keeping backup copies of critical data resources. We use technical resources that have been tried and tested in the market, adhering to standards applicable throughout the Company. Redundant IT infrastructures protect us against risks that occur in the event of a systems failure or natural or other disaster.

One of our focuses is on continuously enhancing our security measures. The current IT security program, for example, is built on structured rights management, optimization of IT infrastructure, application security and the IT

security command center. The role of the latter is to detect cyber-attacks at an early stage and help to successfully defeat them using the latest hardware and software. The command center is staffed around the clock in three regions (Europe, America, Asia). Volkswagen complements these technical measures with consistent awareness raising and training for all employees.

Volkswagen AG, Allianz SE, BASF SE and Bayer AG jointly founded the German cybersecurity organization (Deutsche Cyber-Sicherheitsorganisation GmbH – DCSO) in 2015. The company aims to serve as a competence center, accumulate specialist knowledge on cybersecurity and become the preferred service provider in this field to German business. DCSO conducts security audits and certifies key suppliers and technologies in order to help German businesses detect and defend against cyber-attacks and to predict them in future. It is hoped that close exchange of information with the Federal Ministry of the Interior and the Federal Office for Information Security will aid the compilation of an anonymized status report on national cybersecurity. Small and medium-sized enterprises – including many of our suppliers – can obtain security services offered by DCSO, which they would otherwise be unable to afford. Volkswagen also benefits from this, as it makes our supply chain more secure.

The high standards we set for the quality of our products also apply to the way in which we handle our customers' data. Our guiding principles are data security and transparency as well as informational self-determination.

#### Environmental protection regulations

The specific emission limits for all new passenger car and light commercial vehicle fleets for brands and groups in the EU for the period up to 2019 are set out in Regulation (EC) No 443/2009 on CO<sub>2</sub> emissions from passenger cars and Regulation (EU) No 510/2011 on light commercial vehicles of up to 3.5 tonnes, which came into effect in April 2009 and June 2011 respectively. These regulations are an important component of European climate protection legislation and therefore form the key regulatory framework for product design and marketing by all vehicle manufacturers operating in the European market.

The average CO<sub>2</sub> emissions of manufacturers' new European passenger car fleets have not been allowed to exceed 130 g CO<sub>2</sub>/km since 2012. Compliance with this requirement was introduced in phases; from 2015 the entire fleet had to meet this limit. Regulation (EC) No 333/2014, which was adopted in 2014, states that the average emissions of European passenger car fleets may be no higher than just 95 g CO<sub>2</sub>/km from 2021 onwards; in 2020, this emissions limit will already apply to 95% of the fleet.

The EU's CO<sub>2</sub> regulation for light commercial vehicles requires limits to be met from 2014 onwards, with targets being phased in over the period to 2017. Under this regulation, the average CO<sub>2</sub> emissions of new vehicle registrations in Europe may not exceed 175 g CO<sub>2</sub>/km, a target required to be met by 75% of the fleet in 2015 and 80% of the fleet in 2016. From 2020 onwards, the limit under EU Regulation No 253/2014, which was adopted in 2014, is 147 g CO<sub>2</sub>/km.

The European Commission intends to publish a regulatory proposal for the CO<sub>2</sub> regime after 2020 in the second half of 2017. Policymakers are already discussing reduction targets for the transport sector for the period to 2050, such as the 60% reduction in greenhouse gas emissions from 1990 levels cited in the EU White Paper on transport published in March 2011. It will only be possible to meet these long-term goals by making additional, extensive use of nonfossil sources of energy, in particular in the form of renewable electricity.

At the same time, regulations governing fleet fuel consumption are also being developed or introduced outside the EU28, for example in India, Japan, Canada, Mexico, Saudi Arabia, Switzerland, South Korea and Taiwan. Brazil has introduced a fleet efficiency target as part of a voluntary program for granting a tax advantage. To achieve a 30% tax advantage in this country, vehicle manufacturers are required to achieve, among other things, average fleet efficiency of around 1.82 megajoules/km by 2017. The fuel consumption regulations in China, which set a fleet target of 6.9 liters/100 km for the period 2012–2015 (Phase III), were continued into Phase IV for the period 2016–2020, with a target of 5.0 liters/100 km at the end of this period. Preparations for legislation up to 2025 (Phase V) have begun. Due to the extension of greenhouse gas legislation in the USA, uniform fuel consumption and greenhouse gas standards will continue to apply in all federal states in the period from 2017 to 2025. The law was signed by the US president in mid-2012.

The increased regulation of fleet-based CO<sub>2</sub> emissions and fuel consumption makes it necessary to use the latest mobility technologies in all key markets worldwide. Electrified and pure-play electric drives will also become increasingly common. The Volkswagen Group closely coordinates technology and product planning with its brands so as to avoid breaches of fleet fuel consumption limits, since these would entail severe sanctions. Volkswagen continues to regard diesel technology as an important element in the fulfillment of CO<sub>2</sub> emissions targets.

EU legislation permits some flexibility in fulfilling the emissions targets, for example:

- > Excess emissions and emission shortfalls may be offset between vehicle models within a fleet of new vehicles
- > Emission pools may be formed
- > Relief may be provided in the form of credits that are granted for additional innovative technologies contained in the vehicle and that apply outside the test cycle (eco-innovations)
- > Special rules are in place for small series producers and niche manufacturers
- > Particularly efficient vehicles qualify for super-credits.

Whether the Group meets its fleet targets, however, depends crucially on its technological and financial capabilities, which are reflected, among other things, in our drivetrain and fuel strategy (see page 144).

In the EU, a new test procedure for determining pollutant and CO<sub>2</sub> emissions as well as fuel consumption in passenger cars and light commercial vehicles known as the Worldwide Harmonized Light-Duty Vehicles Test Procedure (WLTP) will be applied to new vehicle types from fall 2017 and to all new vehicles from fall 2018.

A further important European regulation pertains to Real Driving Emissions (RDE) for passenger cars and light commercial vehicles. The packages of legislation are currently being elaborated; uniform limits for nitrogen oxide and particulate emissions will then apply across the EU from September 2017. These limits must be complied with in real road traffic, making the RDE test procedure fundamentally different from the Euro 6 standard still in force, which stipulates that the limits are compulsory on the test bed. The RDE regulation is intended primarily to improve air quality in urban areas and areas close to traffic. It will lead to stricter requirements for exhaust gas aftertreatment in passenger cars and light commercial vehicles.

The other main EU regulations affecting the automotive industry include:

- > EU Directive 2007/46/EC establishing a framework for the approval of motor vehicles
- > EU Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles (Green Procurement Directive)
- > EU Directive 2006/40/EC relating to emissions from air-conditioning systems in motor vehicles
- > The Car Labeling Directive 1999/94/EC
- > The Fuel Quality Directive (FQD) 2009/30/EC updating the fuel quality specifications and introducing energy efficiency specifications for fuel production
- > The Renewable Energy Directive (RED) 2009/28/EC introducing sustainability criteria

- > The revised Energy Taxation Directive 2003/96/EC updating the minimum tax rates for all energy products and power.

The implementation of the above-mentioned directives by the EU member states serves to support the CO<sub>2</sub> regulations in Europe. These are aimed not only at vehicle manufacturers, but also at other sectors such as the mineral oil industry. Vehicle taxes based on CO<sub>2</sub> emissions are having a similar steering effect; many EU member states have already incorporated CO<sub>2</sub> elements into their rules on vehicle taxation.

Heavy commercial vehicles first put into operation from 2014 onwards are already subject to the stricter emission requirements of the Euro 6 standard in accordance with Regulation (EU) No 582/2011. At the same time as the CO<sub>2</sub> legislation for passenger cars and light commercial vehicles, the EU is also preparing more comprehensive regulation of CO<sub>2</sub> emissions in heavy commercial vehicles. Simply setting an overarching limit for these vehicles – such as that in place for passenger cars and light commercial vehicles – would require an extremely complex set of rules because of the wide range of variants. For this reason, the European Commission is working with independent scientific institutions and the European Automobile Manufacturers' Association (ACEA), to prepare a simulation-based method called the Vehicle Energy Consumption Calculation Tool (VECTO). This can be used to determine the CO<sub>2</sub> emissions of heavy commercial vehicles of over 7.5 tonnes based on their typical use (short-haul, regional, distribution and long-haul trips, service on construction sites and as municipal vehicles, city buses, intercity buses and coaches). A legislative proposal for the CO<sub>2</sub> certification of heavy commercial vehicles and regulations on the reporting and monitoring of CO<sub>2</sub> figures are expected in the first half of 2017. A compulsory CO<sub>2</sub> declaration is expected for selected vehicle categories, probably from 2018 (initially long-haul and regional distribution vehicles, later also buses and other segments), with the captured data initially being used to enable the customer to compare information, and for certification and monitoring purposes. Further vehicle categories are likely to be included as time progresses. As part of its strategy to decarbonize transport, the European Commission has also announced that it will be presenting a proposal regarding the introduction of CO<sub>2</sub> standards for heavy commercial vehicles by the end of 2019. A public consultation that constitutes the basis for further regulatory measures ended in the fall of 2016. The European Commission placed particular emphasis on the role of the public sector in procuring low-emission or zero-emission vehicles, for example city buses.

Manufacturers of heavy commercial vehicles are urging the adoption of a system for quantifying CO<sub>2</sub> figures that

looks at the vehicle as a whole and not simply at the engine or the tractor, and thus also includes the trailers and bodywork. This transparency should increase competition for more fuel-efficient and thus more CO<sub>2</sub>-efficient commercial vehicles and as a result decrease CO<sub>2</sub> emissions.

As part of its efforts to reduce the CO<sub>2</sub> emissions of heavy commercial vehicles, the European Commission has also adjusted the provisions regarding the maximum permissible dimensions and weights of trucks (Directive 1996/53/EC, the Weights and Dimensions Directive) and revised them through EU Directive 2015/719. According to these, cabs with a rounded shape and air conduction devices at the rear of the vehicle will make it possible to improve aerodynamics in future. At the same time, the driver's field of vision is to be extended by increasing the length of the cab in order to improve safety. In addition, the legislators increased the overall weight permitted for vehicles with alternative drive technologies by up to one tonne. The specific technical requirements for the development of aerodynamic and safe cabs are currently being examined.

The European commercial vehicles industry supports the goals of reducing CO<sub>2</sub> emissions and improving transport safety. However, it is not just the vehicles themselves that affect future CO<sub>2</sub> emissions; individual components also play an important role, such as reduced rolling resistance tires and the aerodynamic trim of the trailer, and so do driving behavior, alternative fuels, transport infrastructure and transport conditions. As part of a field trial that took place up to the end of 2016, longer and heavier vehicles that can decrease fuel consumption and thus CO<sub>2</sub> emissions by up to 25% according to scientific studies by the Federal Highway Research Institute, were also driving on German roads. Since the beginning of 2017, these longer vehicles have been used in regular operations in a certified road network. Digitalizing the transport system will also eliminate existing inefficiencies such as inadequate utilization of available load capacities, empty trips or unnetworked route planning: vehicles that move in networked, intermodal transport systems in which flows of traffic are optimized through the use of artificial intelligence save fuel and hence reduce CO<sub>2</sub> emissions.

In the Power Engineering segment, the International Maritime Organization (IMO) has introduced the International Convention for the Prevention of Pollution from Ships (MARine POLLution – MARPOL), with which limits on emissions from marine engines will be lowered in phases. A significant reduction of the sulfur content in marine fuel has been confirmed with effect from January 1, 2020. In addition, the IMO has decided on a number of emission control areas in Europe and in the United States/Canada that will be subject to special environmental regulations. Expansion to other regions such as the Mediterranean or Japan is already being

planned; further regions such as the Black Sea, Alaska, Australia or South Korea are also in discussion. In addition, emission limits also apply, for example, under EU Directive 1997/68/EC and in accordance with the regulations of the US Environmental Protection Agency (EPA). As regards stationary equipment, there are a number of national rules in place worldwide that limit permitted emissions. On December 18, 2008, the World Bank Group set limits for gas and diesel engines in its “Environmental, Health, and Safety Guidelines for Thermal Power Plants”, which are required to be applied if individual countries have adopted no national requirements of their own, or ones that are less strict than those of the World Bank Group. In addition, the United Nations adopted the Convention on Long-range Transboundary Air Pollution back in 1979, setting limits on total emissions as well as nitrogen oxide for the signatory states (including all EU states, other countries in Eastern Europe, the USA and Canada). Enhancements to the product portfolio in the Power Engineering segment focus on improving the efficiency of the equipment and systems.

The allocation method for emissions certificates changed fundamentally when the third emissions trading period (2013–2020) began. As a general rule, all emission allowances for power generators have been sold at auction since 2013. For the manufacturing industry and certain power generation installations (e.g. combined heat and power installations), a portion of the certificates are allocated free of charge on the basis of benchmarks applicable throughout the EU. The portion of certificates allocated free of charge will gradually decrease as the trading period progresses: the remaining quantities required will have to be bought, and thus paid for, at auction. Furthermore, installation operators can partly fulfill their obligation to hold emission allowances using certificates from climate change projects (Joint Implementation and Clean Development Mechanism projects).

In certain (sub-)sectors of industry, there is a risk that production will be transferred to countries outside Europe due to the amended provisions governing emissions trading, a phenomenon referred to as “carbon leakage”. A consistent quantity of certificates will be allocated to these sectors free of charge for the period from 2013 to 2020 on the basis of the pan-EU benchmarks. The automotive industry was included in the new carbon leakage list that came into effect in 2015. As a result, individual plants at European locations of the Volkswagen Group will receive additional certificates free of charge by the end of the third trading period.

Back in 2013, the European Commission decided to initially withhold a portion of the certificates to be auctioned and not to release them for auction until a later date during the third trading period (backloading). This temporary scarcity of certificates, which could lead to a price increase, will be directed into a market stability reserve, to be estab-

lished in 2018. The reserve will serve to correct any imbalance between the supply of and demand for certificates in emissions trading in the fourth trading period.

In addition to the EU member states, other countries in which the Volkswagen Group has production sites are also considering introducing an emissions trading system. Seven pilot projects are running in China, for example, although they have not so far affected the Volkswagen Group. The Chinese government is planning a national emissions trading system that it says will enter into force as early as 2017. Experts consider this to be unrealistic, however. So far, no detailed information is available on the form the trading system will take.

#### 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<sub>x</sub>) 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<sub>x</sub> 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<sub>x</sub> 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 Kraftfahrt-bundesamt (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 eleven million vehicles 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<sub>x</sub> 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<sub>x</sub>) 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 mis-

statements 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 2.0l and 3.0l 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.

#### Strategies for hedging financial risks

In the course of our business activities, financial risks may arise from changes in interest rates, exchange rates, raw materials prices, or share and fund prices. Management of financial and liquidity risks is the responsibility of the central Group Treasury department, which minimizes these risks using nonderivative and derivative financial instruments. The Board of Management is informed of the current risk situation at regular intervals.

We hedge interest rate risk – where appropriate in combination with currency risk – and risks arising from fluctuations in the value of financial instruments by means of interest rate swaps, cross-currency swaps and other interest rate contracts with generally matching amounts and maturities. This also applies to financing arrangements within the Volkswagen Group.

Foreign currency risk is reduced in particular through natural hedging, i.e. by flexibly adapting our production capacity at our locations around the world, establishing new production facilities in the most important currency regions and also procuring a large percentage of components locally. We hedge the residual foreign currency risk using hedging instruments. These include currency forwards, currency options and cross-currency swaps. We use these transactions to limit the currency risk associated with forecasted cash

flows from operating activities, intragroup financing and liquidity positions in currencies other than the respective functional currency, for example as a result of restrictions on capital movements. The currency forwards and currency options can have a term of up to six years. We thus hedge our principal foreign currency risks, mostly against the euro and 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.

Increased volatility in future cash flows is to be expected from the current uncertainties regarding the effects of the diesel issue on the Volkswagen Group. This could impact the hedging result.

Raw materials purchasing entails risks relating to the availability of raw materials and price trends. We limit these risks mainly by entering into forward transactions and swaps. We have used appropriate contracts to hedge some of our requirements for commodities such as aluminum, lead, coal, copper, platinum, palladium and rhodium over a period of up to seven years. Similar transactions have been entered into for the purpose of supplementing and improving allocations of CO<sub>2</sub> emission certificates.

Pages 291 to 299 of the notes to the consolidated financial statements explain our hedging policy, the hedging rules and the default and liquidity risks, and quantify the hedging transactions mentioned. Additionally, we disclose information on market risk within the meaning of IFRS 7.

#### Risks arising from financial instruments

Channeling excess liquidity into investments and entering into derivatives contracts gives rise to counterparty risk. Partial or complete failure by a counterparty to perform its obligation to pay interest and repay principal, for example, would have a negative impact on the Volkswagen Group's earnings and liquidity. We counter this risk through our counterparty risk management, which we describe in more detail in the section entitled "Principles and Goals of Financial Management" starting on page 122. In addition to counterparty risk, the financial instruments held for hedging purposes hedge balance sheet risks, which we limit by applying hedge accounting.

By diversifying when selecting business partners, we ensure that the impact of a default is limited and the Volkswagen Group remains solvent at all times, even in the event of a default by individual counterparties.

Risks arising from trade receivables and from financial services are explained in more detail in the notes to the consolidated financial statements, starting on page 291.

#### Liquidity risk

We ensure that the Company remains solvent at all times by holding liquidity reserves, through confirmed credit lines and through our money market and capital market programs. We cover the capital requirements of the financial services business mainly by raising funds at matching maturities in the national and international financial markets as well as through customer deposits from the direct banking business.

Projects are financed by, among other things, loans provided by development banks such as the European Investment Bank (EIB), the International Finance Corporation (IFC) and the European Bank for Reconstruction and Development (EBRD), or by national development banks such as Kreditanstalt für Wiederaufbau (KfW) and Banco Nacional de Desenvolvimento Econômico e Social (BNDES). Lines of credit from banks supplement our broadly diversified refinancing structure.

Our ability to use refinancing instruments may possibly be restricted or precluded due to the diesel issue. A downgrade of the Company's rating could also adversely affect the terms associated with the Volkswagen Group's borrowings.

Information on the ratings of Volkswagen AG, Volkswagen Financial Services AG and Volkswagen Bank GmbH can be found on page 117 of this report.

#### Residual value risk in the financial services business

In the financial services business, we agree to buy back selected vehicles at a residual value that is fixed at inception of the contract. Residual values are set at a realistic amount so that we are able to leverage market opportunities. We evaluate the underlying lease contracts at regular intervals and recognize any necessary provisions if we identify any potential risks.

Management of the residual value risk is based on a defined feedback loop ensuring the full assessment, monitoring, management and communication of risks. This

process design ensures not only professional management of residual risks but also that we systematically improve and enhance our handling of residual value risks.

As part of our risk management, we use residual value forecasts to regularly assess the appropriateness of the provisions for risks and the potential for residual value risk – also with a view to the emissions issue. In the process, we compare the contractually agreed residual values with the fair values obtainable. These are determined utilizing data from external service providers and our own marketing data. We do not take account of the upside in residual market values when making provisions for risks.

More information on residual value risk and other risks in the financial services business, such as counterparty, market and liquidity risk, can be found in the 2016 Annual Report of Volkswagen Financial Services AG.

#### Reputational risks

The reputation of the Volkswagen Group and its brands is one of the most important assets and forms the basis for long-term business success. Our policy on issues such as integrity, ethics and sustainability is in the public focus. One of the basic principles of running our business is therefore to pay particular attention to compliance with legal requirements and ethical principles. However, we are aware that misconduct or criminal acts of individuals and the resulting reputational damage can never be fully prevented. In addition, media reactions can have a negative effect on the reputation of the Volkswagen Group and its brands. This impact could be amplified through insufficient communication.

Moreover, the above-described individual risks that may arise in the course of our operating activities may turn into a threat to the Volkswagen Group's reputation.

#### Other factors

Going beyond the risks already outlined, there are other factors that cannot be predicted and whose repercussions are therefore difficult to control. Should these transpire, they could have an adverse effect on the further development of the Volkswagen Group. In particular, these factors include natural disasters, epidemics and terrorist attacks.

#### Overall assessment of the risk and opportunity position

The Volkswagen Group's overall risk and opportunity position results from the specific risks and opportunities shown above. We have put in place a comprehensive risk management system to ensure that these risks are controlled. The most significant risks to the Group may result from a negative trend in unit sales of, and markets for, vehicles and genuine parts, from the failure to develop and produce products in line with demand and from quality problems. Risks relating to the diesel issue still remain for the Volkswagen Group which, when aggregated, are among the most significant risks. Taking into account all the information known to us at present, no risks exist which could pose a threat to the continued existence of significant Group companies or the Volkswagen Group.

This annual report contains forward-looking statements on the business development of the Volkswagen Group. These statements are based on assumptions relating to the development of the economic and legal environment in individual countries and economic regions, and in particular for the automotive industry, which we have made on the basis of the information available to us and which we consider to be realistic at the time of going to press. The estimates given entail a degree of risk, and actual developments may differ from those forecast. Any changes in significant parameters relating to our key sales

markets, or any significant shifts in exchange rates relevant to the Volkswagen Group, will have a corresponding effect on the development of our business. In addition, there may be departures from our expected business development if the assessments of the factors influencing sustainable value enhancement, as well as risks and opportunities, presented in this annual report develop in a way other than we are currently expecting, or if additional risks and opportunities or other factors emerge that affect the development of our business.