

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 help 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 these systems with regard to 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). Structuring the RMS/ICS in accordance with the COSO frame-

work for enterprise risk management ensures that potential risk areas are covered in full. In the reporting period, Volkswagen again took an approach to risk management that combines aspects of the ICS and the compliance management system (CMS). Uniform Group principles are used as the basis for managing risks in a standardised manner. Opportunities are not recorded.

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

The open approach to dealing with risks in the Company and the quarterly reporting on the current risk situation were focal points in the reporting period in addition to the ad hoc and annual risk assessment. We continued to reinforce the internal control system in the area of product compliance in 2017. This includes the implementation of what are known as the Golden Rules in the areas of control unit software development, emission classification and escalation management. These rules represent minimum requirements in the organization, processes and tools & systems categories. They serve to shore up governance and compliance.

Another key element of the RMS/ICS at Volkswagen is the three lines of defense model, a basic element required, among other bodies, 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 and reporting systemic and current risks using Group-wide processes

In addition to the ongoing operational risk management, the Group Risk Management 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 Governance, Risk & Compliance (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 2017.

In addition to the ad hoc and annual risk assessment, the Board of Management also receives quarterly risk reports. Similar to the annual standard GRC process, the assessment takes risk-minimizing control measures into account (net assessment). All Group brands are included in this process along with Volkswagen Financial Services AG and Volkswagen Bank GmbH.

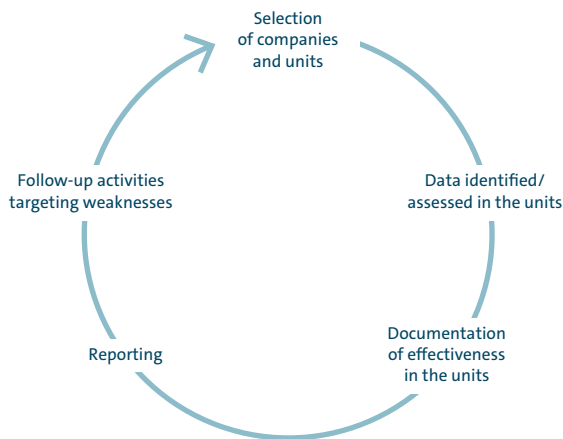
Information on relevant systemic and current risks is regularly reported to the Group Board of Management and the Audit Committee of the Supervisory Board of Volkswagen AG.

The Group Board of Management Committee for Risk Management was set up in the reporting period. The new committee has the following tasks, among others:

- › to further increase transparency in relation to significant risks to the Group and their management,
- › to explain specific issues where these constitute a significant risk to the Group,
- › to make recommendations on the further development of the RMS/ICS,
- › to support the open approach to dealing with risks and promote an open risk culture.

In the past, the Scania brand was not yet included in the Volkswagen Group's risk management system due to various provisions of Swedish company law. Scania has been integrated into quarterly risk reporting since 2016. From 2018, it will also be gradually included in the standard GRC process. Risk management and risk assessment are integral parts of Scania's corporate management. Risk areas at Scania are evaluated by the brand's Controlling department and reflected in the financial reporting.

ANNUAL STANDARD GOVERNANCE, RISK AND COMPLIANCE PROCESS

**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.

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 ascertained that the risks identified were presented and communicated accurately. The risk early warning system meets the requirements of the KonTraG.

In addition, scheduled examinations as part of the audit of the annual financial statements are conducted at companies in the Financial Services Division. As a credit institution, Volkswagen Bank GmbH, including its subsidiaries, is subject to supervision by the European Central Bank, while Volkswagen Leasing GmbH as a financial services institution

and Volkswagen Versicherung AG as an insurance company are subject to supervision by the relevant division of the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin – the German Federal Financial Supervisory Authority). As part of the scheduled supervisory process and unscheduled audits, the competent supervisory authority assesses whether the requirements, strategies, processes and mechanisms ensure solid risk management and solid risk cover. Furthermore, the Prüfungsverband deutscher Banken (Auditing Association of German Banks) audits Volkswagen Bank GmbH from time to time.

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 as well as its subsidiaries 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, other 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 significant 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 increasing number of partnerships generates both opportunities as well as risks.

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 opportunities 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 service measures, recalls and customer-related measures as well as for legal risks, but also for residual value risks.

Further significant financial liabilities may emerge due to existing estimation risks particularly from legal risks, such as criminal, administrative and civil proceedings, technical solutions, lower market prices, repurchase obligations and customer-related measures.

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.

Additional information about the litigation can be found on pages 93 and 178 to 185 of this annual report.

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 advanced economies and emerging markets. The worldwide transition from an expansionary monetary policy into a more restrictive one also presents risks for the macroeconomic environment. Moreover, uncertainty is 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. An aggravation of the situation in East Asia could put further strain on the global economy. The same applies to armed conflicts, terrorist activities and the spread of infectious diseases, which may prompt unexpected, short-term responses from the markets.

On the whole, we do not anticipate a global recession next year. Due to the risk factors mentioned, however, a decline in global economic growth or a period of below-average growth rates is possible.

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 risks 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. These markets harbor considerable potential; however, 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

2017. 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. In Europe, there is a risk that some municipalities and cities will impose a driving ban on diesel vehicles in order to comply with emission limits. Also, 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. These arise from faster growth in the emerging markets where vehicle densities are currently 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. Competitive pressures are likely to remain high in the future. Individual 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 spread widely around the world, 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 2017. 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 greatest potential for growth and market opportunities for the Volkswagen Group.

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 due to the need for individual mobility, albeit at a slower pace than in the past. 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 2017. 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 2017 fell short of the strong previous year. In 2018, the market volume will probably again be lower than in the reporting period. In the USA, Volkswagen Group of America is systematically pursuing our strategy of becoming a full-fledged volume supplier. An engine plant and the further development of production capacity will allow the Group to better serve the market in the North America region. We are also pressing forward with additional products tailored specifically to the US market.

Brazil

The economic environment eased in the reporting period and the volume of demand in the vehicle market recovered perceptibly compared with the weak previous year. We anticipate a continued upturn in demand in 2018. 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 Virtus.

Russia

Russia has the potential to grow into one of the largest automotive markets in the world. Volumes in the Russian vehicle market in 2017 were up on the previous year and we are forecasting a further recovery in 2018. However, the heavy reliance on the currently low oil and gas income, a substantial fall in real incomes, high vehicle prices as a result of the weak currency, the political crisis and the related sanctions imposed by the EU and the USA continue to impact the development of demand. 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, the higher demand for touristic offers such as cruises, and the growing energy needs 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 already 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 – if necessary – structural adjustments. In the Turbomachinery Business Area, for example, as a consequence of weak demand, industry-wide overcapacity and price pressure in 2017, we implemented sweeping structural adjustments at all major production facilities in Europe to make the business area more competitive.

Research and development risk

The automotive industry is undergoing a radical transformation process. Multinational corporations like Volkswagen are facing major challenges in the areas of customer/market, technological advances and legislation. Key aspects are the implementation of increasingly stringent emission and consumption regulations, taking new test procedures and test cycles (e.g. WLTP) into account, as well as compliance with approval processes (homologation), which are becoming increasingly more complex and time-consuming and may vary by country.

The economic success and competitiveness of the Volkswagen Group depend on how successful we are in promptly tailoring our portfolio of products and services to the changing conditions in time. Due to the intensity of the competition and the speed of technological development, identifying relevant trends at an early stage and reacting accordingly is crucial.

We therefore conduct trend analyses, customer surveys and scouting activities among other things and examine the relevance of the results for our customers. We counter the risk that it may not be possible to develop modules, vehicles or services 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.

Modular toolkit strategy

We are continuously expanding our successful modular toolkits, focusing on future customer requirements, legal requirements and infrastructural requirements.

The Modular Transverse Toolkit (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, ensuring a uniform system in the front of the car. Based on the synergies achieved, we are able to cut both development costs and the necessary one-time expenses and manufacturing times. 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.

We are currently transferring this principle of standardization with maximum flexibility to the Modular Electrification Toolkit (MEB), a concept developed for all-electric drives. The synergy effects and efficiency gains achieved from the modular toolkit strategy will give us the opportunity to bring e-mobility into mass production manufacturing worldwide from 2020 with the use of the first MEB-based vehicle.

Opportunities and risks from partnerships

As part of our future program TOGETHER – Strategy 2025, we are stepping up our efforts to forge collaborations, both for the transformation of our core business and for the establish-

ment of the new mobility solutions business. By entering into partnerships at a local level, we aim to identify regional customer needs more precisely, establish competitive cost structures and develop and offer market-driven products. Going forward, we will concentrate to a greater extent than previously on partnerships, acquisitions and venture capital investments. This will enable us to generate maximum value for the Group and its brands and to expand our expertise, particularly in new areas of business.

Volkswagen owns a large number of patents and other industrial property rights and copyrights. Partnerships can lead to patent and licensing infringements and thus to the unauthorized disclosure of company-specific expertise. Volkswagen monitors the sales markets and will also protect its expertise with legal action if necessary.

Procurement risks and opportunities

Current trends in the automotive industry such as e-mobility and automated driving are resulting in an increased need for financing among suppliers. The Volkswagen Group's procurement risk management system assesses suppliers before they are commissioned to perform projects. Among other things, the procurement function considers the risk of 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 ongoing 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. Consistently good financing opportunities and the attractive interest rates provided suppliers with favorable conditions. In the Russian and South American markets, demand grew for the first time in years, providing the possibility of stabilization after several years of consolidation of the supplier base.

In spite of this, the number of crises and insolvencies among suppliers worldwide increased in 2017. Specialists in restructuring and supply reliability are coordinating the measures to be taken on a Group-wide basis to safeguard production in a timely and sustainable manner.

The current trends in the automotive industry will also affect the availability of special raw materials, which are principally used in electrified vehicles. The raw material and demand trend was assessed last year to enable steps to be taken in a timely manner whenever bottlenecks arise.

Rising material prices, especially for steel, and shifts in the product mix towards petrol engines present challenges that must be overcome in conjunction with suppliers.

Quality problems may necessitate technical intervention 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 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. Supply risks are identified without delay in the procurement function through early warning systems and mitigated immediately by applying appropriate measures.

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

Monitoring of the antitrust investigations into suppliers by Risk Management on grounds of price-fixing agreements was expanded further in 2017. The effects on Volkswagen are being systematically reviewed.

Production risk

Volatile developments in the global automotive markets, accidents at suppliers, storms and earthquakes caused production volumes of some vehicle models to fluctuate at some plants. In specific markets, we also recorded a change in incoming orders: the number of orders for diesel vehicles fell, while orders for petrol engines rose. We address such fluctuations using tried-and-tested tools, such as flexible working time models. The 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 by, among other measures, 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 such as 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, where financially viable, ensure that they are covered by insurance policies.

The range of our models is growing, while at the same time product life cycles 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, that involves 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 technical solutions. In addition, we are pressing ahead with the systematic clarification of 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 historical lows, however, and exhibited positive growth rates. We are countering the 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 CO₂ emissions – as already exist 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. Key factors for commercial vehicle customers are total cost of ownership, vehicle reliability and the service provided. In addition, customers are increasingly interested in additional services such as freight optimization and fleet utilization, which we offer in the commercial vehicle segment through the newly established digital brand RIO, for example.

MAN Power Engineering's two-stroke engines are produced exclusively by licensees, particularly in South Korea, China and Japan. On account of volatile demand in new ship construction, there is excess capacity in the market for marine engines, which may result in a decline in license revenues and bad debt losses. Due to changes in the competitive environment, especially in China, there is also the risk of losing market share. We address these risks by constantly monitoring the markets, working closely with all licensees and introducing new technologies.

Dependence on fleet customer business

The fleet customer business is generally more stable than the business with retail customers; in 2017, it continued 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. The fact that the market share in Europe remained constant shows that fleet customers still have confidence in the Group.

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 particularly important when malfunctions do occur to identify the cause and eliminate the malfunctions 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, Group Quality Management contributes to fulfilling customer expectations and consequently to boosting 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 predict the impact of regulations or official measures. 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 or 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 Volkswagen Group to remain flexible, even with a fluctuating order situation – 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 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 indispensable prerequisites for the success of the Volkswagen Group. Our end-to-end human resources development strategy gives all employees attractive training and development opportunities, with particular emphasis being placed on strengthening professional skills 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. By systematically increasing our attractiveness as an employer, we gain talented people in the future-critical areas of IT, design and social media. We have also established a base of senior experts in the Group. With this instrument, 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 departing staff are not directly replaced by 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 exist in relation to the three protection goals of confidentiality, integrity and availability, and comprise in particular unauthorized access to, modification of and extraction of sensitive electronic corporate data as well as limited systems availability as a consequence of downtime and disasters.

We address the risk of unauthorized access to, modification of, or extraction of corporate data with IT security technologies (e.g. firewall and intrusion prevention systems) and a multiple-authentication procedure. Additionally, we increase 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 thus help to successfully defeat them using the latest tools. 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.

The high standards we set for the quality of our products also apply to the way in which we handle our customers' and employees' data. In particular, the digital services for mobility services must be secured. Our guiding principles are data security, transparency and 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 CO₂ 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 important components of the European climate protection policy and therefore form the key regulatory framework for product design and marketing by all vehicle manufacturers selling in the European market.

The average CO₂ emissions of manufacturers' new European passenger car fleets have not been allowed to exceed 130 g CO₂/km since 2012. Compliance with this requirement was introduced in phases; since 2015 the entire fleet has to meet this limit. Regulation (EU) 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 CO₂/km from 2021 onwards; in 2020, this emissions limit will already apply to 95% of the fleet.

The EU's CO₂ 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 CO₂ emissions of new vehicle registrations in Europe may not exceed 175 g CO₂/km. From 2020 onwards, the limit under Regulation (EU) No 253/2014, which was adopted in 2014, is 147 g CO₂/km.

In the fourth quarter of 2017, the European Commission published a regulatory proposal for the CO₂ regime after 2020. A reduction for the European passenger car and light commercial vehicle fleets of 15% from 2025 and 30% from 2030 are the targets currently proposed. The starting point is the fleet value in 2021. The bill is expected to be voted on conclusively at the end of 2018. Policymakers are already discussing reduction targets for the transport sector for the period to 2050, such as the 60% reduction in greenhouse gas emissions compared to 1990 levels cited in the EU White Paper on transport published in March 2011. These long-term targets can only be achieved through a high proportion of electric vehicles.

At the same time, regulations governing fleet fuel consumption are also being developed or introduced outside the EU28, for example in Brazil, Canada, China, India, Japan,

Mexico, Saudi Arabia, South Korea, Switzerland, Taiwan and the USA. 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 an average 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. In addition to this legislation on fleet consumption, China will impose a so called “new energy vehicle quota” in the future. This means that from 2019 onwards, battery-powered vehicles, plug-in hybrids and fuel cell vehicles will have to account for a certain proportion of a manufacturer’s new passenger car fleet. Due to the extension of greenhouse gas legislation in the USA (the law was signed in 2012), uniform fuel consumption and greenhouse gas standards will continue to apply in all federal states in the period from 2017 to 2025.

The increased regulation of fleet-based CO₂ emissions and fuel consumption makes it necessary to use the latest mobility technologies in all key markets worldwide. At the same time, electrified and purely 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 financial penalties. Volkswagen continues to regard diesel technology as an important element in the fulfillment of CO₂ emissions targets.

EU legislation allows excess emissions and emission shortfalls to be offset between vehicle models within a fleet of new vehicles. Furthermore, the EU permits some flexibility in fulfilling the emissions targets, for example:

- Emission pools may be formed
- Relief opportunities may be provided for additional innovative technologies contained in the vehicle 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 depends crucially on its technological and financial capabilities, which are reflected in, among other things, our drivetrain and fuel strategy (see page 137).

In the EU, a new, more time-consuming test procedure – the Worldwide Harmonized Light-Duty Vehicles Test Procedure (WLTP) – for determining pollutant and CO₂ emissions as well as fuel consumption in passenger cars and light

commercial vehicles has applied to new vehicle types since September 2017 and will apply to all new vehicles from September 2018.

The Real Driving Emissions (RDE) regulation for passenger cars and light commercial vehicles is also one of the main European regulations. The fourth package of legislation is currently being elaborated. New, uniform limits for nitrogen oxide and particulate emissions in real road traffic have applied to new vehicle types across the EU since September 2017. This makes the RDE test procedure fundamentally different from the Euro 6 standard still in force, which stipulates that the limits on the chassis dynamometer are authoritative. The RDE regulation is intended primarily to improve air quality in urban areas and areas close to traffic. It leads 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 proposal for follow-up regulation (REDII) contains higher quotas for advanced biofuels and is currently being discussed in the competent EU bodies
- 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 CO₂ 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 CO₂ emissions are having a similar steering effect; many EU member states have already incorporated CO₂ elements into their rules on vehicle taxation.

There is particular momentum in the debate on the introduction of driving bans for diesel vehicles in Germany. This was triggered by the failure of some municipalities and cities to comply with the limits for nitrogen dioxide (NO₂) emissions. In many places, lawsuits have been filed arguing that only driving bans for diesel vehicles will bring about the

necessary short-term reduction in NO₂ emissions. The debates mentioned above have already caused sales of diesel vehicles to decline.

Local driving bans are already in place in a number of countries, though these mainly affect older vehicles. One such example are regulations in Belgium that successively bar older vehicles from larger cities. With a view to the future, large urban areas such as Paris and London are discussing banning vehicles with combustion engines.

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. Alongside the CO₂ legislation for passenger cars and light commercial vehicles, the EU is preparing more comprehensive regulation of CO₂ 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 has worked 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 CO₂ 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 CO₂ certification of heavy commercial vehicles and regulations on the reporting and monitoring of CO₂ figures was presented in May 2017; the legislation for the declaration of CO₂ figures for heavy commercial vehicles came into effect in January 2018. A CO₂ declaration will be compulsory for selected vehicle categories from 2019 (initially long-haul and regional distribution vehicles, later also buses and other segments), with the captured data first 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 CO₂ standards for heavy commercial vehicles by the end of its term of office in 2019. The European Commission is currently working on the specific embodiment of such standards and has collected data from manufacturers to define a starting point and mandatory reduction targets for the future. An initial legislative proposal on CO₂ standards for heavy commercial vehicles is expected in May 2018.

Manufacturers of heavy commercial vehicles are urging the adoption of a system for quantifying CO₂ 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 CO₂-efficient commercial vehicles and as a result decrease CO₂ emissions.

As part of its efforts to reduce the CO₂ emissions of heavy commercial vehicles, the European Commission has also amended 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 CO₂ emissions and improving transport safety. However, it is not just the vehicles themselves that affect future CO₂ emissions; individual components also play an important role, such as reduced rolling resistance tires or the aerodynamic trim of the trailer, as do driving behavior, alternative fuels including the required filling stations, 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 CO₂ 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 on a certified road network.

Networking and 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 CO₂ emissions. Automated driving also presents considerable potential for more sustainable organization of goods transport in road traffic, for example through platooning, in which the driver of the first truck in a convoy of networked, partially self-driving trucks specifies the direction and speed. Driving in the slipstream of other trucks on motorways allows fuel consumption to be reduced considerably. However, platooning requires changes in the legal framework and establishment of the necessary infrastructure.

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 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 USA/Canada that will be subject to special environmental regulations. Expansion to further regions such as the Mediterranean or Japan is already being planned; other regions such as the Black Sea, Alaska, Australia or South Korea are also in discussion. In addition, emission limits also apply, for example, under Regulation (EU) 2016/1628 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. These are currently being revised. 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 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.

Already 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). The certificates will be directed into a market stability reserve, to be established 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. Furthermore, the European Commission is planning further modifications in emissions trading when the fourth trading period begins (from 2021) that may lead to a tightening of the system and thus to price increases in the certificates.

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 corresponding pilot projects are running in China, for example, although they have not so far affected the Volkswagen Group. The Chinese government officially implemented a national emissions trading system at the end of 2017. Initially, the impact will only be on the energy generation sector; a gradual expansion is being planned.

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 governmental proceedings in Germany and abroad. 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 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 authorities 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 was taken out for these risks. For the identifiable and measurable risks, provisions considered appropriate were recognized and information about contingent liabilities disclosed. As some risks cannot be assessed or can only be assessed to a limited extent, the possibility of loss

or damage not being covered by the insured amounts and provisions cannot be ruled out. This particularly applies to legal risk assessment regarding the diesel issue.

Diesel issue

On September 18, 2015, the US Environmental Protection Agency (EPA) publicly announced in a "Notice of Violation" that irregularities in relation to nitrogen oxide (NO_x) emissions had been discovered in emissions tests on certain vehicles of Volkswagen Group with type 2.0 l diesel engines in the USA. It was alleged that Volkswagen had installed undisclosed engine management software installed in 2009 to 2015 model year 2.0 l diesel engines to circumvent NO_x emissions testing regulations in the USA in order to comply with certification requirements. The California Air Resources Board (CARB), a unit of the US environmental authority of California, announced its own enforcement investigation into this matter.

In this context, Volkswagen AG 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 type EA 189 diesel engines. The vast majority of these engines were type EA 189 Euro 5 engines.

On November 2, 2015, the EPA issued a "Notice of Violation" alleging that irregularities had also been discovered in the software installed in US vehicles with type V6 3.0 l diesel engines. CARB also issued a letter announcing its own enforcement investigation into this matter. AUDI AG 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 were affected in the USA and Canada, where regulations governing NO_x emissions limits for vehicles are stricter than those in other parts of the world.

Numerous court and governmental proceedings were subsequently initiated in the USA and the rest of the world. During the reporting period, we succeeded in ending most significant court and governmental proceedings in the USA by concluding settlement agreements. This includes, in particular, settlements with the US Department of Justice (DOJ). Outside the USA, we also reached agreements with regard to the implementation of the technical measures with numerous authorities.

The Supervisory Board of Volkswagen AG formed a special committee that coordinates the activities relating to the diesel issue for the Supervisory Board.

The global law firm Jones Day was instructed by Volkswagen AG to carry out an extensive investigation of the diesel issue in light of the DOJ's and the Braunschweig public prosecutor's criminal investigations as well as other investigations and proceedings which were expected. Jones Day was instructed by Volkswagen AG to present factual evidence to the DOJ. To resolve US criminal law charges, Volkswagen AG and the DOJ entered into a Plea Agreement, which includes a Statement of Facts containing a summary of the factual allegations which the DOJ considered relevant to the settlement with Volkswagen AG. The Statement of Facts is based in part on Jones Day's factual findings as well as the evidence identified by the DOJ itself.

Jones Day has completed the work required to assist Volkswagen AG in assessing the criminal charges in the USA with respect to the diesel issue. However, work in respect of the legal proceedings which are still pending in the USA and the rest of the world is ongoing and will require considerable efforts and a considerable period of time. In connection with this work, Volkswagen AG is being advised by a number of external law firms.

Furthermore, in September 2015, Volkswagen AG filed a criminal complaint in Germany against unknown persons as did AUDI AG. Volkswagen AG and AUDI AG are cooperating with all responsible authorities in the scope of reviewing the incidents.

Potential consequences for Volkswagen's results of operations, financial position and net assets could emerge primarily in the following legal areas:

1. Coordination with the authorities on technical measures
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 the diesel vehicles that had been issued with vehicle type approval by the KBA from among the eleven million vehicles affected with type EA 189 engines. 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 corresponded to the proposals presented in advance by Volkswagen. Depending on the technical complexity of the concerned 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 measures cover software and in some cases hardware modifications, depending on the series and model year. The technical measures for all vehicles in the European Union have since been approved without exception. The KBA ascertained for all clusters (groups of vehicles) that implementation of the technical measures would not bring about any adverse changes in fuel consumption figures, CO₂ emissions figures, engine power, maximum torque and noise emissions. Once the modifications have been made, the vehicles will thus also continue to comply with the legal requirements and the emission standards applicable in each case. The technical measures for all affected vehicles with type EA 189 engines in the European Union were approved without exception, and implemented in most cases.

In some countries outside the EU – among others South Korea, Taiwan and Turkey – national type approval is based on prior recognition of the EC/ECE type approval; the technical measures must therefore be approved by the national authorities. With the exception of South Korea and Chile, we were able to conclude this approval process in all countries. There, the majority of approvals were likewise granted; in relation to the pending approvals, Volkswagen is in close contact with the authorities.

In addition, there is an intensive exchange of information with the authorities in the USA and Canada, where Volkswagen's proposed modifications in relation to the four-cylinder and the six-cylinder diesel engines also have to be approved. Due to NO_x limits that are considerably stricter than in the EU and the rest of the world, it is a greater technical challenge here to refit the vehicles so that the emission standards defined in the settlement agreements for these vehicles can be achieved.

For many months, AUDI AG has been intensively checking all diesel concepts for possible discrepancies and retrofit potentials. A systematic review process for all engine and gear variants has been underway since 2016.

On June 14, 2017, based on a technical error in the parameterization of the transmission software for a limited number of specific Audi A7/A8 models that AUDI AG itself discovered and reported to the KBA, the KBA issued an order under which a correction proposed by AUDI AG will be submitted. The technical error lies in the fact that, in the cases concerned, by way of exception a specific function that is standard in all other vehicle concepts is not implemented in actual road use. In Europe, this affects around 24,800 units of certain Audi A7/A8 models. The KBA has not categorized this error as an unlawful defeat device.

On July 21, 2017, AUDI AG offered a software-based retrofit program for up to 850,000 vehicles with V6 and V8 TDI engines meeting the Euro 5 and Euro 6 emission standards in Europe and other markets except the USA and Canada. The measure will mainly serve to further improve the vehicles' emissions in real driving conditions in inner city areas beyond the legal requirements. This was done in close cooperation with the authorities, which were provided with detailed reports, especially the German Federal Ministry of Transport and the KBA. The retrofit package comprises voluntary measures and, to a small extent, measures directed by the authorities; these are measures taken within the scope of a recall, which were proposed by AUDI AG itself, reported to the KBA and taken up and ordered by the latter. The voluntary tests have already reached an advanced stage, but have not yet been completed. The measures adopted and mandated by the KBA involved the recall of different diesel vehicles with a V6 or V8 engine meeting the Euro 6 emission standard, for which the KBA categorized certain emission strategies as an unlawful defeat device. From July 2017 to January 2018, the measures proposed by AUDI AG were adopted and mandated in various decisions by the KBA on vehicle models with V6 and V8 TDI engines.

Currently, AUDI AG assumes that the total costs of the software-based retrofit program including the amount based on recalls will be manageable and has recognized corresponding balance-sheet risk provisions. Should additional measures become necessary as a result of the investigations by AUDI AG and the consultations with the KBA, AUDI AG will quickly implement these as part of the retrofit program in the interest of customers.

2. 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 and Munich, 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 offices in Braunschweig and Munich are 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 of a sanction in the majority of these proceedings is less than 50%. Contingent liabilities have therefore been disclosed in cases where they can be assessed and for which the likelihood of a sanction was deemed not lower than 10%.

3. 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). Furthermore, in a number of markets it is possible that consumer and/or environmental organizations will apply for an injunction or assert claims for a declaratory judgment or for damages.

In the context of the diesel issue, various lawsuits are currently pending against Volkswagen AG and other Volkswagen Group companies at present.

There are pending class action proceedings and lawsuits brought by consumer and/or environmental associations against Volkswagen AG and other companies of the Volkswagen Group in various countries such as Argentina, Australia, Belgium, Brazil, China, the Czech Republic, Israel, Italy, Mexico, the Netherlands, Poland, Portugal, Switzerland, Taiwan and the United Kingdom. The class action proceedings are lawsuits aimed among other things at asserting damages or, as is the case in the Netherlands, at a declaratory judgment that customers are entitled to damages. With the exception of Brazil, where there has already been a non-binding judgment in the first instance, the amount of these damages cannot yet be quantified more precisely 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 class action proceedings.

In South Korea, various mass proceedings are pending (in some of these individual lawsuits several hundred litigants have been aggregated). These lawsuits have been 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. On May 12, 2017, one first-instance judgment was delivered in these proceedings in South Korea during the fiscal year, in which the court completely dismissed an action filed to assert criminal damages over pollution. The judgment has since become binding.

Contingent liabilities have been disclosed for pending class action and mass 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, there are around 9,500 individual lawsuits. In Italy, Austria and Spain, lawsuits numbering in the low three-digit range and in France and Ireland individual lawsuits in the two-digit range are pending against Volkswagen AG and other companies of the Volkswagen Group, most of which are aimed at asserting damages or rescinding the purchase contract.

In addition, on November 29, 2017, Volkswagen AG was served with an action brought by financialright GmbH asserting the rights assigned to it by a total of approximately 15,000 customers in Germany. This action seeks the payment of around €350 million in return for restitution of the vehicles.

In Switzerland, a claim for damages was brought against Volkswagen AG in December 2017 from the assigned rights of some 6,000 customers; the stated amount in dispute is approximately 30 million Swiss francs.

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.

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

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

The vast majority of these investor lawsuits are currently pending 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 – KapMuG). 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 (model case proceedings). 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 questions of law and fact in the model case proceedings will be binding for all pending cases in the stayed lawsuits.

At the District Court in Stuttgart, further investor lawsuits have been filed against Volkswagen AG, in some cases along with Porsche SE as joint and several debtors. On December 6, 2017, the District Court in Stuttgart issued an order for reference to the Higher Regional Court in Stuttgart in relation to procedural issues, particularly for clarification of jurisdiction. On account of the diesel issue, model case proceedings against Porsche SE are also pending before the Higher Regional Court in Stuttgart.

Further investor lawsuits have been filed at various courts in Germany as well as in Austria and the Netherlands. In Austria, the Supreme Court ruled on July 7, 2017 that the investor lawsuits against Volkswagen AG do not fall within the jurisdiction of the Austrian courts. Consequently, all but one of the investor lawsuits that were formerly pending in Austria have been dismissed or withdrawn. The last pending lawsuit has been dismissed at first instance.

Worldwide (excluding USA and Canada), investor lawsuits, judicial applications for dunning procedures and conciliation proceedings, and claims under the KapMuG are currently pending against Volkswagen in connection with the diesel issue, with the claims totaling 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.

5. 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 num-

ber of different fronts relating to the matters described in the EPA's "Notices of Violation".

A large number of putative class action lawsuits by 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 sought statutory penalties under the US Clean Air Act, as well as certain injunctive relief, and was consolidated for pretrial coordination purposes in the California multidistrict litigation.

On January 12, 2016, CARB announced that it intended 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 resolved 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 include buyback or, for leased vehicles, early lease termination, or a free emissions modification of the vehicles, provided that the EPA and CARB approve the modification. Volkswagen will also make additional cash payments to affected current owners or lessees as well as certain former owners or lessees.

Volkswagen also agreed to support environmental programs. The company will pay USD 2.7 billion over three years into an environmental trust, managed by a trustee appointed by the court, to offset excess nitrogen oxide (NO_x) emissions. Volkswagen will also invest a total of USD 2.0 billion over ten

years in zero emissions vehicle infrastructure as well as corresponding access and awareness initiatives.

Volkswagen AG and certain affiliates also entered into a separate Partial Consent Decree with CARB and the California Attorney General resolving certain claims under California unfair competition, false advertising, and consumer protection laws related to both the 2.0l and 3.0l 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 3.0l TDI vehicles. Under the terms of this Consent Decree, Volkswagen agreed to implement a buyback and lease termination program for Generation 1 3.0l TDI vehicles and a free emissions recall and modification program for Generation 2 3.0l TDI vehicles, and to pay USD 225 million into the environmental mitigation trust that has been established pursuant to the First Partial Consent Decree. The Second Partial Consent Decree was lodged with the court on December 20, 2016 and approved on May 17, 2017.

In addition, on December 20, 2016, Volkswagen entered into an additional, concurrent California 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 3.0l 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 with the DOJ and EPA that resolved claims for civil penalties and injunctive relief under the Clean Air Act related to the 2.0l and 3.0l 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 was subject to public comment, was lodged with the court on January 11, 2017 and approved on April 13, 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.

On July 21, 2017, the federal court in the multidistrict litigation in California approved the Third California Partial Consent Decree, in which Volkswagen AG and certain affiliates agreed with the California Attorney General and CARB to pay USD 153.8 million in civil penalties and cost reimbursements. These penalties covered California environmental penalties for both the 2.0l and 3.0l TDI vehicles. An agreement in principle had been reached on January 11, 2017.

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 are ongoing, including in areas relating to securities, financing and tax.

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 resolved 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. On May 11, 2017, the court held a fairness hearing on whether approval should be granted and on May 17, 2017, the court granted final approval of the settlement agreement and the partial stipulated consent order.

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, as well as cash payments. Volkswagen has received approval from the EPA and CARB for emissions-compliant repairs within the time limits set out in the settlement agreement. 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 USA 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.

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 45 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 622 million. Five states did not join these settlements and still have consumer claims outstanding: Arizona, New Mexico, Oklahoma, Vermont and West Virginia. Volkswagen has also reached separate agreements with the attorneys general of eleven US states (Connecticut, Delaware, Maine, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington) to resolve their existing or potential future claims for civil penalties and injunctive relief for alleged violations of environmental laws for a settlement amount of 207 million. The attorneys general of ten other US states (Illinois, Maryland, Minnesota, Missouri, Montana, New Hampshire, New Mexico, Ohio, Tennessee and Texas) and some municipalities have also filed suits in state and federal courts against Volkswagen AG, Volkswagen Group of America, Inc. and certain affiliates, seeking civil penalties and injunctive relief for alleged violations of environmental laws. Illinois, Maryland, Minnesota, Missouri, Montana, New Hampshire, Ohio, Tennessee and Texas 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. The environmental claims of two other states – Alabama and Wyoming – have been dismissed as preempted by federal law. Alabama has appealed this dismissal.

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

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

In Canada, civil consumer claims and regulatory investigations have been initiated for vehicles with 2.0 l and 3.0 l TDI 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 regarding its regulatory inquiry into consumer protection issues as to those vehicles. On December 21, 2017, Volkswagen announced an agreement in principle on a proposed consumer settlement in Canada involving 3.0 l diesel vehicles. The court preliminarily approved the settlement agreement on January 12, 2018, and the notice and opt out period began on January 17, 2018. Final approval hearings are scheduled in Quebec and Ontario for April 3 and 5, 2018, respectively. On January 12, 2018, Volkswagen and the Canadian Commissioner of Competition reached a resolution related to civil consumer protection issues relating to 3.0 l diesel vehicles. Also, criminal enforcement-related investigations by the federal environmental regulator and quasi-criminal enforcement-related investigations by a provincial environmental regulator are ongoing in Canada related to 2.0 l and 3.0 l diesel vehicles. On September 15, 2017, a provincial regulator in Canada, the Ontario Ministry of the Environment and Climate Change, charged Volkswagen AG under the province's environmental statute with one count alleging that it caused or permitted the operation of model year 2010–2014 Volkswagen and Audi brand 2.0 l diesel vehicles that did not comply with prescribed emission standards. Following initial court appearances on November 15, 2017 and February 7, 2018, the matter was put over to April 4, 2018 pending ongoing evidence disclosure. No trial date has been set. Provisions have been recognized for possible obligations stemming from pending lawsuits in Canada.

Moreover, in Canada, two securities class actions by investors in Volkswagen AG American Depositary Receipts and shares are pending against Volkswagen AG in the Quebec and Ontario provincial courts. These actions allege misrep-

resentations and omissions in financial reporting issued from 2009–2015 stemming from the diesel issue. The proposed class periods are for residents in the provinces who purchased the relevant securities between March 12, 2009 and September 18, 2015, and held all or some of the acquired securities until after the alleged first corrective disclosures. Discovery has not begun. In both actions, motions for certification were filed. In the Quebec matter, the motion was heard on February 5 and 6, 2018 and the court's decision is on reserve. In the Ontario matter, the motion is scheduled for hearing on July 10 and 11, 2018.

In addition, putative class action and joinder lawsuits by customers, and a certified environmental class action on behalf of residents, remain pending in certain provincial courts in Canada.

An assessment of the underlying situation is not possible at this early stage of those proceedings.

6. Additional proceedings

With its ruling from November 8, 2017, the Higher Regional Court of Celle ordered, upon the request of three US funds, the appointment of a special auditor for Volkswagen AG. The special auditor should examine whether there was a breach of duties on behalf of the members of the Board of Management and Supervisory Board of Volkswagen AG in connection with the diesel issue starting from June 22, 2006 and if this resulted in damages for Volkswagen AG. The ruling from the Higher Regional Court of Celle is formally legally binding. However, Volkswagen AG lodged a constitutional complaint toward the German Federal Constitutional Court regarding the infringement of its constitutionally guaranteed rights. It is currently unclear when the Federal Constitutional Court will reach a decision on this matter.

In addition, the District Court of Hanover has filed a second motion for the appointment of a special auditor for Volkswagen AG, which is also aimed at the examination of transactions in connection with the diesel issue. This proceeding will be suspended until the ruling has been announced by the Federal Constitutional Court.

7. Risk assessment regarding the diesel issue

To protect against the currently known legal risks related to the diesel issue, provisions of approximately €2.0 billion exist as of December 31, 2017 on the basis of existing information and current assessments. Beyond this, appropriate provisions have been recognized for defense and legal advice expenses.

Insofar as these can be adequately measured at this stage, total contingent liabilities in relation to the diesel issue to the aggregate amount of €4.3 billion (previous year: €3.2 billion), of which lawsuits filed by investors account for €3.4 billion (previous year: €3.1 billion), were disclosed in the notes. The provisions recognized for this matter and the contingent liabilities disclosed as well as 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, comprehensive investigations have not yet been completed.

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 in relation to the diesel issue. This is so as to not compromise the results of the proceedings or the interests of the Company.

Additional important legal cases

In 2011, ARFB Anlegerschutz UG (haftungsbeschränkt) brought an action against Volkswagen AG and Porsche Automobil Holding SE for claims for damages for allegedly violating disclosure requirements under capital market law in connection with the acquisition of ordinary shares in Volkswagen AG by Porsche in 2008. The damages currently being sought based on allegedly assigned rights amounted to approximately €2.26 billion plus interest. In April 2016, the District Court in Hanover had formulated numerous objects of declaratory judgment that the cartel senate of the Higher Regional Court in Celle will decide on in model case proceedings under the KapMuG. In the first hearing on October 12, 2017, the senate indicated that it currently does not see claims against Volkswagen AG as justified, both in view of a lack of substantiated evidence and for legal reasons. Some of the desired objects of declaratory judgment on the litigants' side may also be inadmissible, it said. Volkswagen AG sees the statements of the court's senate as confirmation that the claims made against the company have absolutely no basis.

At the time (2010/2011), other investors had also asserted claims – including claims against Volkswagen AG – arising out of the same circumstances in an approximate total amount of €4.6 billion and initiated conciliation proceedings. Volkswagen AG always refused to participate in these conciliation proceedings; since then, these claims have not been pursued further.

In 2011, the European Commission conducted searches at European truck manufacturers on suspicion of an unlawful

exchange of information during the period 1997–2011 and issued a statement of objections to MAN, Scania and the other truck manufacturers concerned in November 2014. With its settlement decision in July 2016, the European Commission fined five European truck manufacturers. MAN's fine was waived in full as the company had informed the European Commission about the irregularities as a key witness.

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

Furthermore, antitrust lawsuits for damages from customers were received. As is the case in any antitrust proceedings, this may result in further lawsuits for damages. Neither provisions nor contingent liabilities were stated because the early stage of proceedings makes an assessment currently impossible.

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.

Within the scope of the European Commission's ongoing antitrust investigations regarding German automakers, authorities examined documents in the offices of Volkswagen AG in Wolfsburg and AUDI AG in Ingolstadt as part of an announced review. The Volkswagen Group and the Group

brands concerned have been cooperating fully and for a long time with the European Commission and have submitted a corresponding application. It is currently unclear whether the European Commission will instigate formal proceedings.

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

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

Additionally, fourteen 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. All of these putative class actions have been transferred to the federal multidistrict litigation proceeding in the State of California, and plaintiffs filed a consolidated class action complaint on October 12, 2017, which Volkswagen AG and certain of its affiliates moved to dismiss on December 11, 2017. On January 16, 2018, plaintiffs filed an opposition to the motion to dismiss and the court has set a deadline of February 16, 2018 for defendants to file a reply. A hearing is scheduled for May 11, 2018. On December 22, 2017, a mass action on behalf of approximately 75 individual plaintiffs alleging similar claims was filed in a California state court, which was removed to the Northern District of California on January 25, 2018.

In Canada, two similar putative class actions, including a national class, have been filed in Ontario and Quebec provincial courts against AUDI AG, Volkswagen AG and US and Canadian affiliates regarding alleged CO₂ “defeat devices” in certain petrol Audi models with automatic transmissions. Both of the Canadian actions are in the pre-certification stage. Contingent liabilities have therefore been disclosed in cases where they can be assessed and for which the likelihood of a sanction was deemed not lower than 10%.

From July through November 2017, plaintiffs filed numerous complaints in various US jurisdictions on behalf of putative classes of purchasers of German luxury vehicles against several automobile manufacturers, including Volkswagen AG and other Group companies. These complaints assert claims

under the US Sherman Antitrust Act, the Racketeer Influenced and Corrupt Organizations Act, state unfair competition and consumer protection statutes, and common law unjust enrichment. The complaints allege that since the 1990s, defendants engaged in a conspiracy to unlawfully increase the prices of German luxury vehicles by agreeing to share commercially sensitive information and to reach unlawful agreements regarding technology, costs, and suppliers. Moreover, the plaintiffs allege that the defendants agreed to limit the size of AdBlue tanks to ensure that US emissions regulators did not scrutinize the emissions control systems in defendants’ vehicles, and that such an agreement for Volkswagen was the impetus for the creation of the defeat device. On September 28, 2017, a hearing before the Judicial Panel on Multidistrict Litigation (JPML) was held, and on October 4, 2017 the JPML issued its decision consolidating and transferring these cases to Judge Breyer in the Northern District of California. On December 14, 2017, co-lead counsel were appointed representing the interests of a putative class of indirect purchasers and a putative class of direct purchasers, as well as Plaintiffs’ Steering Committee. On December 20, 2017, deadlines were set for the filing of initial and responsive pleadings and an initial case status conference scheduled for April 5, 2018, and co-lead counsel were directed to file consolidated class action complaints on behalf of the two putative classes by March 15, 2018. Neither provisions nor contingent liabilities were stated because the early stage of proceedings makes an assessment currently impossible.

From July through October 2017, plaintiffs filed claims in Ontario, Quebec and British Columbia on behalf of putative classes of purchasers of German luxury vehicles against several automobile manufacturers, including Volkswagen Canada Inc., Audi Canada Inc., and other Group companies. The claims assert causes of action under the Competition Act, common law, and Quebec’s civil law and contain similar allegations to the US complaints described in the paragraph above. Neither provisions nor contingent liabilities were stated because the early stage of proceedings makes an assessment currently impossible.

In the tax proceedings between MAN Latin America and the Brazilian tax authorities, the Brazilian tax authorities took a different view of the tax implications of the acquisition structure chosen for MAN Latin America in 2009. In December 2017, a second instance judgment was rendered in

administrative court proceedings, which was negative for MAN Latin America. MAN Latin America will initiate proceedings against this judgment before the regular court in 2018. Due to the difference in the penalties plus interest which could potentially apply under Brazilian law, the estimated size of the risk in the event that the tax authorities are able to prevail overall with their view is laden with uncertainty. However, a positive outcome continues to be expected for MAN Latin America. Should the opposite occur, this could result in a risk of about €0.7 billion for the contested period from 2009 onwards, which has been stated within the contingent liabilities in the notes.

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 in relation to additional important legal cases. This is so as to not compromise the results of the proceedings or the interests of the Company.

Strategies for hedging financial risks

In the course of our business activities, financial risks may arise from changes in interest rates, exchange rates, raw material 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 interest rate 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 interest rate 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, Canadian dollars, Chinese renminbi, Czech koruna, Hong Kong dollars, Hungarian forints, Indian rupees, Japanese yen, Mexican pesos, Norwegian kroner, Polish zloty, Russian rubles, Singapore dollars, South African rand, South Korean won, sterling, Swedish kronor, Swiss francs, Taiwan dollars and US dollars.

Raw materials purchasing entails risks relating to the availability of raw materials and price trends. Potential risks arising from changes in commodity and energy prices in the market are continuously analyzed so that immediate action can be taken whenever these arise. 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 CO₂ emission certificates.

Pages 282 to 291 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 118. 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 282.

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 supranational or international 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). Confirmed and unconfirmed lines of credit from banks supplement our broadly diversified refinancing structure.

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.

Information on the ratings of Volkswagen AG, Volkswagen Financial Services AG and Volkswagen Bank GmbH can be found on page 113 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 and financing 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 diesel issue and the current debate on the possible introduction of driving bans for diesel vehicles in major European cities at a future date. 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 2017 Annual Report of Volkswagen Financial Services AG and Volkswagen Bank GmbH.

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 crisis 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.