Report on Expected Developments

Global economic growth in 2020 is expected to continue at the prior-year level. Global demand for passenger cars will probably vary from region to region and remain at the 2019 level on the whole. With our brand diversity, broad product range, technologies and services, we are well prepared for the future challenges in the mobility business.

In the following, we describe the expected development of the Volkswagen Group and the general framework for its business activities. Risks and opportunities that could represent a departure from the forecast trends are presented in the Report on Risks and Opportunities.

Our assumptions are based on current estimates by third-party institutions. These include economic research institutes, banks, multinational organizations and consulting firms.

DEVELOPMENTS IN THE GLOBAL ECONOMY

Our forecasts are based on the assumption that global economic growth in 2020 will be at the same level as in the preceding year. We still believe that risks will arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, growth prospects will be negatively impacted by continuing geopolitical tensions and conflicts as well as epidemics spanning countries and regions, such as the current spread of the coronavirus. We anticipate that momentum in both the advanced economies and the emerging markets will be similar to that seen in 2019. We expect to see the strongest rates of expansion in Asia’s emerging economies.

Furthermore, we anticipate that the global economy will also continue to grow in the period from 2021 to 2024.

Europe/Other Markets

In Western Europe, economic growth in 2020 is likely to decline slightly compared to the reporting year. Resolving structural problems continues to pose a major challenge, as does the uncertain impact of the United Kingdom’s exit from the EU.

In Central Europe, we estimate that growth rates in 2020 will remain approximately level with those for the past fiscal year. The economic situation in Eastern Europe should stabilize, providing the conflict between Russia and Ukraine does not worsen. The Russian economy is expected to see only muted growth.

For Turkey, we anticipate a rising growth rate amid higher inflation. The South African economy will probably be dominated by political uncertainty and social tensions again in 2020 resulting, in particular, from high unemployment. Growth should therefore increase only slightly.

Germany

We expect that gross domestic product (GDP) in Germany will increase only at a low rate in 2020. The situation in the labor market will probably remain stable and bolster consumer spending.

North America

We assume that the economic situation in the USA will continue to be stable in 2020. GDP growth should be lower than in the reporting period, however. The US Federal Reserve could further reduce the key interest rate during 2020. Economic growth is likely to remain more or less stable in Canada. In Mexico, we expect it to increase slightly following stagnation in the previous year.

South America

The Brazilian economy will most likely stabilize in 2020 and record somewhat more dynamic growth than in the reporting period. Amid sustained high inflation, the economic situation in Argentina is expected to stay very tense.

Asia-Pacific

In 2020, the Chinese economy is expected to continue growing at a relatively high level, but will lose some of its momentum compared with prior years. The agreement on trade matters
with the United States and fiscal policy by the government are likely to have a stabilizing impact, whereas a further spread of the coronavirus may have a dampening effect on the economic development. For India, we anticipate an expansion rate on a similar scale to the previous years. In Japan, growth is forecast to remain weak.

**TRENDS IN THE MARKETS FOR PASSENGER CARS AND LIGHT COMMERCIAL VEHICLES**

We expect trends in the markets for passenger cars in the individual regions to be mixed in 2020. Overall, the volume of global demand for new vehicles will probably match the 2019 level. We are forecasting growing demand for passenger cars worldwide in the period from 2021 to 2024.

Trends in the markets for light commercial vehicles in the individual regions will also be mixed in 2020; on the whole, we anticipate a slight dip in demand in 2020. We expect a return to the growth trajectory for the years 2021 to 2024.

The Volkswagen Group is well prepared for the future challenges pertaining to the automotive mobility business and the mixed developments in regional automotive markets. Our brand diversity, our presence in all major world markets, our broad and selectively expanded product range, and our technologies and services put us in a good competitive position worldwide. With electric drives, digital connectivity and autonomous driving, we want to make the automobile cleaner, quieter, more intelligent and safer. We have set ourselves the goal of continuing to excite our customers in future and meeting their diverse needs with an appealing product portfolio of impressive vehicles and forward-looking, tailor-made mobility solutions.

**Europe/Other Markets**

For 2020, we anticipate that the volume of new passenger car registrations in Western Europe will be distinctly below that recorded in the reporting period. The uncertain impact of the United Kingdom’s exit from the EU is likely to further exacerbate the ongoing uncertainty among consumers, continuing to dampen demand. We expect a moderate decline on the British and Italian markets in 2020. In France and Spain, the markets are likely to fall perceptibly short of the level seen in the reporting year.

For light commercial vehicles, we expect demand in Western Europe in 2020 to be distinctly lower than the prior-year level, owing to the uncertain impact of the United Kingdom’s exit from the EU and the pull-forward effect on sales of the WLTP in 2019. In France, the United Kingdom, Italy and Spain we are forecasting a marked drop in some cases.

**North America**

The volume of demand in the markets for passenger cars and light commercial vehicles (up to 6.35 tonnes) in North America as a whole and in the USA in 2020 is likely to fall slightly short of the previous year. Demand will probably remain highest for models in the SUV and pickup segments. In Canada, the number of new registrations is also projected to be slightly lower than the previous year’s level. For Mexico, we expect a moderate fall in demand compared with the reporting year.

**South America**

Owing to their dependence on demand for raw materials worldwide, the South American markets for passenger cars and light commercial vehicles are heavily influenced by developments in the global economy. We expect to see an overall moderate increase in new registrations in the South American markets in 2020 compared with the previous year. In Brazil, demand volume is expected to rise perceptibly again in 2020 following the increase in the reporting period. However, we anticipate that demand in Argentina will be slightly lower year-on-year.

**Asia-Pacific**

In 2020, the passenger car markets in the Asia-Pacific region are expected to be at the prior-year level. We expect, subject to a further spread of the coronavirus, demand in China to be
slightly up on the previous year’s level. Attractively priced entry-level models in the SUV segment in particular should still see strong demand. For as long as there is no resolution in sight, the trade dispute between China and the United States will continue to weigh on business and consumer confidence. We anticipate a slight decrease in the Indian market compared with the previous year. By contrast, Japan’s market volume is forecast to record a distinct decrease in 2020.

The market volume for light commercial vehicles in 2020 will probably fall moderately short of the previous year’s figure. We are expecting demand in the Chinese market to be distinctly below that of the prior year. For India, we are forecasting a moderately higher volume in 2020 than in the reporting period. In the Japanese market, demand is likely to be markedly lower than the previous year’s level.

**TRENDS IN THE MARKETS FOR COMMERICAL VEHICLES**

Starting in fiscal year 2020, we are redefining the relevant markets of the Volkswagen Group for trucks and buses based on our core countries. Our relevant truck markets are the 27 EU member states excluding Malta, but including the United Kingdom, Norway and Switzerland (EU27+3), as well as Brazil, Russia, Turkey and South Africa. The bus markets relevant for the Volkswagen Group are the EU27+3, Brazil and Mexico.

For 2020, we expect new registrations for mid-sized and heavy trucks with a gross weight of more than six tonnes to be distinctly lower than the 2019 level in markets that are relevant for the Volkswagen Group. We regard the declining incoming orders seen in 2019 and the anticipated drop in transport volumes as a sign of a downturn in the European truck market. For the EU27+3 countries, we expect a 10 to 20% downturn in the market in 2020. Russia will probably witness a distinct rebound in demand. In Turkey, we are forecasting a very sharp recovery of demand after a very low level in the prior year. For South Africa, we are forecasting a moderate decrease. We estimate that demand in Brazil will be much higher than in the previous year.

On average, we anticipate solid growth rates in the relevant truck markets for the years 2021 to 2024.

A slight year-on-year increase in overall demand for 2020 is likely in the bus markets relevant for the Volkswagen Group. We anticipate a moderate decline in the market in the EU27+3 countries, a moderate increase in Mexico and new registrations in Brazil will probably be much higher than the prior-year level.

Overall, we expect a noticeable decrease in the demand for buses on the relevant markets for the period from 2021 to 2024.

**TRENDS IN THE MARKETS FOR POWER ENGINEERING**

We expect the market environment in power engineering to remain difficult in 2020, with continuation of the general tendencies seen in 2019.

In 2020, the market volume for two-stroke engines used in merchant shipping is likely to reach a higher level than in the reporting period. Calls for high energy efficiency and low pollutant emissions will continue to have a significant influence on ship designs in the future. We expect sustained stable demand in the market for four-stroke engines used in ferries, cruise ships, dredgers and government vessels. In the offshore sector, new order volumes of special applications look set to be on the low side due to existing overcapacity. Overall, we expect the marine market to be at a slightly higher level than that seen in the reporting period. The competitive pressure will continue unabated.

Demand for energy correlates strongly with macroeconomic and demographic trends, especially in emerging markets. The global trend toward decentralized power stations and gas-based applications shows no sign of losing momentum. For 2020, we expect demand to rise slightly for the gas sector in particular but to remain at a low level overall. On the whole, this low level of demand poses a major challenge for the new market with carbon-neutral technologies.

In turbomachinery, we expect to see continued strong demand in 2020, attributable to an investment backlog and also to stable commodity prices. High capacity utilization of production equipment by market participants can be expected, which is likely to bring about a further easing of competition. Energy generation is still marked by overcapacity on the part of electricity producers in industrialized countries, but due to the increase in investments for power generation using biomass and the use of natural gas as a transition source of energy, we expect a slight increase in demand for steam and gas turbines. Renewable energy sources in particular are expected to generate growth because their irregular electricity production will necessitate greater storage capacity. This is the reason the construction of pilot plants for thermal storage is being pushed, which in turn has led to a build out of the market for turbocompressors and turboexpanders.

We anticipate a stable trend in the marine and power plant after-sales business for diesel engines in 2020. In turbomachinery, we expect a slight upward trend for the coming year. Particularly in the oil and gas sector we are seeing a positive trend resulting from the clearing of the investment backlog from recent years.
For the period 2021 to 2024, we expect to see growing demand in the power engineering markets. However, the extent and timing of this growth will vary in the individual business fields.

**TRENDS IN THE MARKETS FOR FINANCIAL SERVICES**

We believe that automotive financial services will also be very important for vehicle sales worldwide in 2020. We expect demand to continue rising in emerging markets where market penetration has so far been low. Regions with established automotive financial services markets will see a continuation of the trend towards enabling mobility at the lowest possible total cost. Integrated end-to-end solutions, which include mobility-related service modules such as insurance and innovative packages of services, will become increasingly important for this. Additionally, we expect demand to increase for new forms of mobility, such as rental services, and for integrated mobility services, for example parking, refueling and charging. We estimate that this trend will continue in the years 2021 to 2024.

In the mid-sized and heavy commercial vehicles category, we anticipate rising demand for financial services products in emerging markets. In these countries in particular, financing solutions support vehicle sales and are thus an essential component of the sales process. In the developed markets, we expect to see increased demand for telematics services and services aimed at reducing total cost of ownership in 2020. This trend is also expected to continue in the period 2021 to 2024.

**EXCHANGE RATE TRENDS**

In 2019, the euro lost ground against the US dollar on an annual average. The euro/sterling exchange rate remained stable overall, despite some volatility amid continued high uncertainty about the outcome of the Brexit negotiations with the EU and the related question of what form this relationship would take in the future. The currencies of Asian emerging markets, the Russian ruble and the Mexican peso also posted gains against the euro in the reporting period, in contrast to the Argentine peso, the Brazilian real and the South African rand which posted losses. For 2020, we are forecasting that the euro will strengthen against the US dollar, sterling and the Chinese renminbi. The expectation is that the Brazilian real and Indian rupee will remain relatively weak. The Russian ruble will probably be unable to maintain the recent positive gains. For 2021 to 2024, we expect that the euro will be stable against the key currencies, but that the comparative weakness of the currencies in the above-mentioned emerging markets will probably continue. However, there is still a general event risk – defined as the risk arising from unforeseen market developments.

**INTEREST RATE TRENDS**

Interest rates remained comparatively low with a few exceptions in fiscal year 2019 due to the continuation of expansionary monetary policies worldwide and the challenging overall economic environment. In the major Western industrialized nations, key interest rates persisted at a low level on the whole. The US Federal Reserve changed course in the summer in an effort to shore up the economy, cutting its key interest rate after several years of successive increases. The European Central Bank continued its expansionary monetary policy. In the light of further expansionary monetary policy measures, we currently therefore do not expect interest rates in the USA and the eurozone to rise in 2020. For the years 2021 to 2024, however, we anticipate a rise in interest rates, though the pace will vary from region to region.

**COMMODITY PRICE TRENDS**

Geopolitical and economic uncertainty in different forms caused the prices for many raw and input materials to vary in 2019. For example, average prices for raw materials such as crude oil, aluminum, lead, copper and coking coal fell, while prices for iron ore, rare earths, natural rubber and the precious metals palladium and rhodium, among others, rose. Prices for the raw materials that are relevant for e-mobility also developed unevenly: average prices for lithium and cobalt fell, while nickel prices were up on the prior-year level. Based on analyses of factors of influence and trends in the commodity markets, we expect the prices of most commodities to rise in 2020. For the years 2021 to 2024, we continue to expect volatility in the commodity markets with prices trending upwards. We preventively analyze and limit these risks using system-based procurement methods. Long-term, stable supply agreements ensure that the Group’s needs are satisfied and guarantee a high degree of supply reliability.

**NEW MODELS IN 2020**

The Volkswagen Passenger Cars brand will launch the eighth generation of its best-selling Golf model in 2020 and it will again claim a leading position in the compact class with a sharper design, numerous technical highlights and an all-digital cockpit. The all-electric ID.3, the first vehicle to be based on the Modular Electric Drive Toolkit, aims to excite its customers with a range suited to everyday usability, a forward-
looking design and equipment such as the augmented reality head-up display. In 2020, the T-Roc will be available as a convertible. The Arteon will receive a product upgrade and the Arteon Shooting Brake will also be presented. The up! and the Tiguan will likewise receive a model update. In the Chinese market, Volkswagen will continue its electric car offensive with the electric Tharu and the Tayron as a plug-in hybrid. Alongside these, a multi-purpose vehicle, the coupé versions of the Tayron and Tiguan L and the updated Phideon will be launched. Volkswagen will strengthen its presence in the United States with the upgraded Atlas, the new Atlas Cross Sport and an electric SUV. South America will see the launch of the sporty versions of the Polo and Virtus and the New Urban Coupé Nivus.

In 2020, Audi will launch more versions of the e-tron and the likewise all-electric e-tron Sportback. With successor models to the A3 and A3 Sportback, Audi is also looking to defend its lead in the premium segment of the compact class. The A3 Sportback, the A6 saloon and the Avant will all be available as plug-in hybrids in 2020. The A5, Q2 and Q5 model series will be updated.

ŠKODA will market two vehicles with all-electric drives from 2020 – the citigo e iV and the new Enyaq SUV. Production of the successor models to the successful Octavia and Octavia Combi will also start. In addition, a plug-in hybrid will be available in the Octavia and Superb series. The Chinese, Indian and Russian markets will see the launch of the Rapid model tailored to the requirements of local customers.

In 2020, SEAT will offer the el-Born, an all-electric vehicle with a sporty emotive design. The new Leon is waiting in the wings. CUPRA will also present a particularly powerful version of the Leon and expand its product range with the addition of its first standalone model, the CUPRA Formentor.

Following the launch of the Taycan in the United States at the end of 2019, Porsche will gradually introduce the all-electric sports car to further markets in 2020.

Bentley will present the luxurious spearhead of the model series with the Continental GT Mulliner Convertible.

Lamborghini will bring out an upgrade of its Huracán RWD. Volkswagen Commercial Vehicles will present the successor model of the Caddy, popular with families and tradespeople alike.

Scania and MAN will also work steadily on introducing new products and services in 2020.

Ducati will launch the Streetfighter V4 and the Streetfighter V4 S in addition to three new models from the Panigale family, among others. The Icon Dark model will also expand the Scrambler family.

FUTURE ORGANIZATIONAL STRUCTURE OF THE GROUP

Our plans are based on the Volkswagen Group’s current structures.

They do not include a possible sale of RENK AG or the possible acquisition of all outstanding ordinary shares of Navistar International Corporation.

The effects of such transactions on the results of operations, financial position and net assets are not taken into account in the forecast of the Volkswagen Group.

INVESTMENT AND FINANCIAL PLANNING

To ensure the Volkswagen Group’s future viability, we will continue to mobilize our pronounced strengths in innovation and technology and push the Volkswagen Group’s transformation while leveraging our economies of scale and achieving the greatest possible synergies.

In our current planning for 2020, the majority of capex (investments in property, plant and equipment, investment property and intangible assets, excluding capitalized development costs) will be spent on new products and the continued rollout and further development of the modular toolkit. The focus on hybridization, electrification and digitalization of our vehicles has been stepped up again, particularly through the development of the Modular Electric Drive Toolkit (MEB) and the Premium Platform Electric (PPE), the all-electric platform for our premium and sports brands. We are also investing in the modification of selected locations for the production of electric vehicles. The Automotive Division’s ratio of capex to sales revenue will fluctuate around a level of 6.0–6.5%.

Besides capex, investing activities will also include additions to capitalized development costs. Among other things, these reflect upfront expenditures in connection with the electrification and updating of our model range.

With the investments in our facilities and models, as well as in the development of electric drives and modular toolkits, we are laying the foundations for profitable, sustainable growth at Volkswagen. These investments also include commitments arising from decisions taken in previous fiscal years.

We aim to finance the investments in our Automotive Division from our own capital resources and expect cash flows from operating activities to exceed the Automotive Division’s investment requirements. For 2020, we expect further cash outflows resulting from the diesel issue and significantly higher outflows from mergers & acquisitions.

We estimate that net cash flow in 2020 will subsequently be clearly positive albeit perceptibly below the prior-year figure.
Nevertheless, net liquidity in the Automotive Division will probably be distinctly higher than in the reporting period.

These plans are based on the Volkswagen Group’s current structures. A possible sale of RENK AG and related cash inflows are not taken into account. Our planning also does not include cash outflows for a possible acquisition of all outstanding ordinary shares of Navistar International Corporation.

Our joint ventures in China are accounted for using the equity method and are therefore not included in the figures above. For 2020, the joint ventures plan to invest in e-mobility, further enhancement of the model portfolio, the development of new mobility solutions and smart city concepts. Their capex will exceed the 2019 level and be financed from the companies’ own funds.

In the Financial Services Division, we are planning higher investments in 2020 than in the previous year. We expect the growth in lease assets and in receivables from leasing, customer and dealer financing to lead to funds tied up in working capital, of which around half will be financed from the gross cash flow. As is common in the sector, the remaining funds needed will be met primarily through unsecured bonds on the money and capital markets, the issuing of asset-backed securities, customer deposits from the direct banking business, and through the use of international credit lines.

**TARGETS FOR VALUE-BASED MANAGEMENT**

Based on long-term interest rates derived from the capital market and the target capital structure (fair value of equity to debt = 2:1), the minimum required rate of return on invested capital defined for the Automotive Division remains unchanged at 9%.

In spite of the change in the accounting for leases (IFRS 16), which entered into force in January 2019 and increased invested capital in fiscal year 2019, as well as other adverse effects of the special items on earnings, we exceeded both the prior-year figure and our minimum rate of return on invested capital in the reporting period with a return on investment (ROI) of 11.2 (11.0)% (see also page 125). Invested capital will continue to increase further in 2020 as a result of investments in new models, in the development of alternative drives and modular toolkits and in future technologies. The return on investment (ROI) in the Automotive Division will probably exceed our minimum required rate of return on invested capital and be slightly higher than in the previous year.

**SUMMARY OF EXPECTED DEVELOPMENTS**

The Volkswagen Group’s Board of Management expects the global economy to continue growing in 2020 at the level of the previous year. We still believe that risks will arise from protectionist tendencies, turbulence in the financial markets and structural deficits in individual countries. In addition, growth prospects will be negatively impacted by continuing geopolitical tensions and conflicts as well as epidemics spanning countries and regions, such as the current spread of the coronavirus. We anticipate that momentum in both the advanced economies and the emerging markets will be similar to that seen in 2019. We expect to see the strongest rates of expansion in Asia’s emerging economies.

The trend in the automotive industry closely follows global economic developments. We assume that competition in the international automotive markets will intensify further.

We predict that trends in the markets for passenger cars in the individual regions will be mixed in 2020. Overall, the volume of global demand for new vehicles will probably match that of 2019. For 2020, we anticipate that the volume of new passenger car registrations in Western Europe will be distinctly below that recorded in the reporting period. After a positive performance overall in recent years, we expect demand in the German passenger car market to fall noticeably year-on-year in 2020. Sales of passenger cars are expected to fall slightly short of the prior-year figures in markets in Central and Eastern Europe in 2020. The volume of demand in the markets for passenger cars and light commercial vehicles (up to 6.35 tonnes) in North America in 2020 is likely to be slightly lower than in the prior year. We expect to see an overall moderate increase in new registrations for passenger cars and light commercial vehicles in the South American markets in 2020 compared with the previous year. The passenger car markets in the Asia-Pacific region are expected to be at the prior-year level in 2020.

Trends in the markets for light commercial vehicles in the individual regions will also be mixed in 2020; on the whole, we anticipate a slight dip in demand.

We expect a distinct year-on-year fall in 2020 of new registrations of mid-sized and heavy trucks with a gross weight of more than six tonnes in the markets relevant for the Commercial Vehicles Business Area. In the bus markets that are relevant for the Volkswagen Group, we expect to see a slight increase in overall demand in 2020 compared with the previous year.

We believe that automotive financial services will again be very important for vehicle sales worldwide in 2020.
The Volkswagen Group is well prepared for the future challenges pertaining to automobility business activities and for the mixed development of the regional automotive markets. Our brand diversity, our presence in all major world markets, our broad and selectively expanded product range, and our technologies and services put us in a good competitive position worldwide. As part of the transformation of our core business, we are positioning our Group brands with an even stronger focus on their individual characteristics and are optimizing the vehicle and drive portfolio. The focus is primarily on our vehicle fleet’s carbon footprint and on the most attractive and fastest-growing market segments. In addition, we are working to leverage the advantages of our multibrand Group even more effectively with the ongoing development of new technologies and the enhancement of our toolkits. With electric drives, digital connectivity and autonomous driving, we want to make the automobile cleaner, quieter, more intelligent and safer. We have set ourselves the goal of continuing to excite our customers in the future and meeting their diverse needs with an appealing product portfolio of impressive vehicles and forward-looking, tailor-made mobility solutions.

We expect deliveries to customers of the Volkswagen Group in 2020 to be in line with the previous year amid market conditions that continue to be demanding.

Challenges will arise particularly from the economic situation, the increasing intensity of competition, volatile commodity and foreign exchange markets and more stringent emissions-related requirements.

We expect the sales revenue of the Volkswagen Group to grow by up to 4% in 2020 and the sales revenue of the Passenger Cars Business Area to be moderately higher than in the prior-year. In terms of operating profit for the Group and the Passenger Cars Business Area, we forecast an operating return on sales in the range of 6.5–7.5% in 2020. For the Commercial Vehicles Business Area, we anticipate an operating return on sales of 4.0–5.0% amid a moderate decrease in sales revenue. In the Power Engineering Business Area we expect that sales revenue will match that of the previous year and that the operating loss will become smaller. For the Financial Services Division we forecast that sales revenue and the operating result will be in line with the previous year.

In the Automotive Division, the R&D ratio and the ratio of capex to sales revenue will probably fluctuate in the range of 6.0–6.5% in 2020. We anticipate further cash outflows resulting from the diesel issue and significantly higher outflows from mergers & acquisitions in 2020. Consequently, we estimate that the net cash flow will be clearly positive albeit perceptibly below the prior-year figure. Net liquidity in the Automotive Division will probably distinctly exceed the prior-year level. We expect a slight increase in return on investment (ROI) compared with the previous year. Our unchanged stated goal is to continue our solid liquidity policy.

To achieve sustainable success, we need skilled and dedicated employees. We aim to increase their satisfaction and motivation by means of equal opportunities, an attractive and modern working environment, and a forward-looking organization of work. Every day, we at the Volkswagen Group assume and exercise responsibility in issues relating to the environment, safety and society. In terms of integrity, Volkswagen aims to become a role model for a modern, transparent and successful enterprise. We are also aiming for operational excellence in all business processes.