4. Report on opportunities and risks

The Schaeffler Group's risk management system is an integral component of its governance structure and covers both risks and opportunities. The Schaeffler Group is exposed to a large number of potential risks that can adversely affect its business. To be able to appropriately respond to these risks, the company has a risk management system in place to ensure that risks, particularly those to the company's continued existence as a going concern and to its development, are identified on a timely basis.

Risks are defined as possible future developments or events that can lead to adverse deviations from budgeted results, while opportunities are future developments or events that can lead to favorable deviations from budgeted results. When assessing risks, the company considers the impact on its EBIT margin (earnings) and free cash flow (financial position), depending on the risk category.

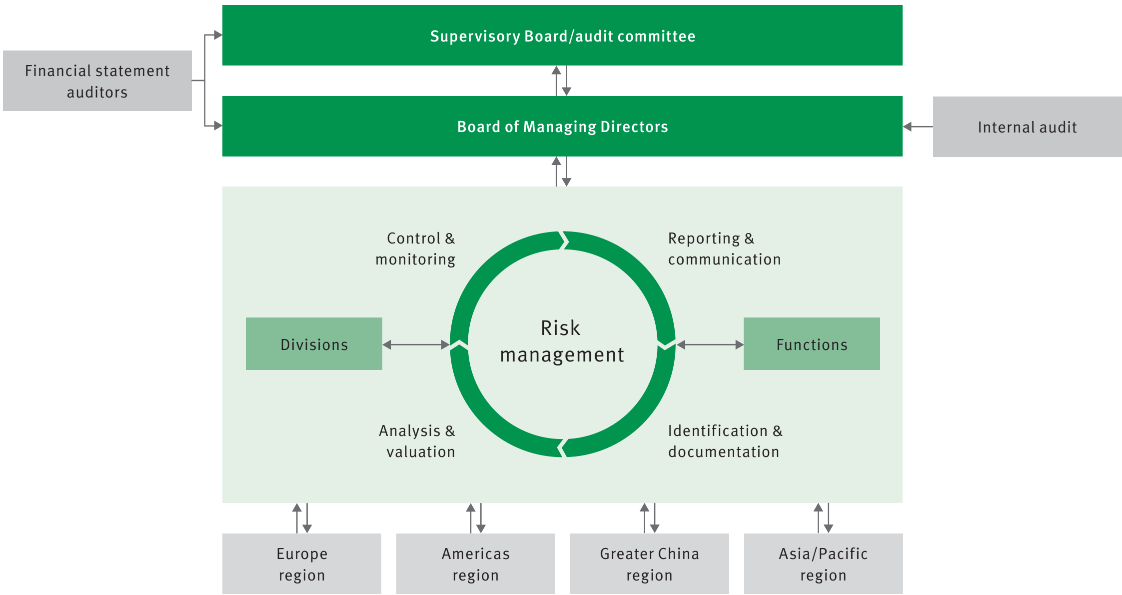
4.1 Risk management system

The Schaeffler Group intentionally takes risks in order to meet its corporate objectives. The objective of the risk management system is to identify these risks on a timely basis and to manage them in accordance with the company's risk appetite. This applies particularly to risks to the company's continued existence as a going concern and to its development, which are responded to with appropriate action. Consciously addressing identified risks and regularly monitoring risk factors is designed to increase risk awareness and ensure a continuous improvement process.

The groupwide risk management system is based on the management-oriented enterprise risk management (ERM) approach, which in turn has its basis in the globally recognized framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). As described in this framework, the processes of the risk management system are linked to financial reporting and the internal control system. The various components of the COSO Framework can be found in the Schaeffler Group's risk management process described below.

Responsibility for the risk management system rests with the Board of Managing Directors of Schaeffler AG. The Board of Managing Directors regularly reports to the Schaeffler AG audit committee and ensures that necessary risk management measures are approved. Details of the risk management system are largely set out in a risk management guideline issued by the Board of Managing Directors and published within the Schaeffler Group, making it available to all employees. It contains a description of the process, the allocation of responsibilities, and the structure of the risk management system. The Board of Managing Directors has asked Corporate Risk Management to review and update the risk management system on an ongoing basis and to ensure that existing uniform groupwide standards are implemented and complied with. All instructions from Risk Management are binding on all individuals responsible for risk.

Structure of risk management system No. 062



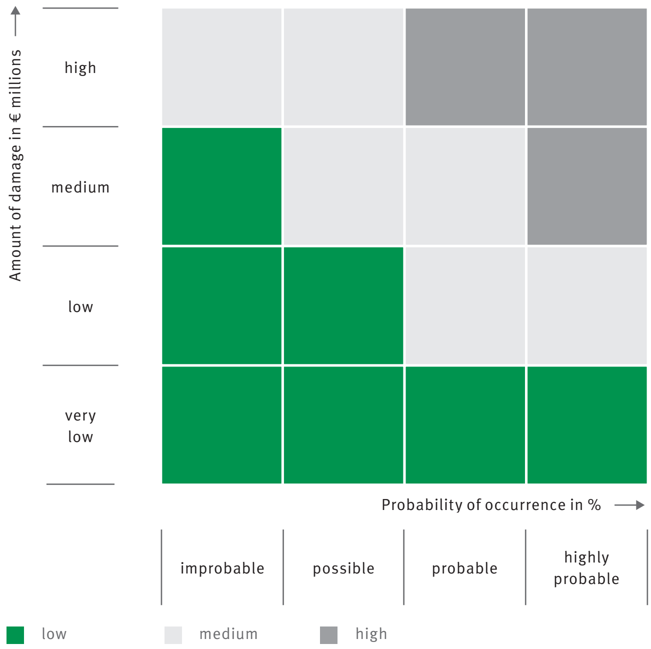
The risk management system consists of a multi-phase process spanning various levels and organizational units in order to appropriately reflect the matrix structure of the Schaeffler Group. In a bottom-up process, risks are identified and analyzed at the subsidiary level. Based on this analysis, the next step is a top-down analysis by the appropriate global management of the functions and divisions. They assess the risks identified within the subsidiaries, taking into account all interdependencies within the Schaeffler Group. This approach ensures that all dimensions of the Schaeffler Group's matrix structure are reflected in the risk management system. Risks are identified at all material Schaeffler AG subsidiaries on a semiannual basis. Operating management is responsible for identifying risks. The time period for identifying risks is three years, longer than the outlook horizon.

The guideline also defines a groupwide catalog of risk categories to ensure that all risks along the value chain are identified. Identified risks have to be assigned to pre-defined risk categories. This catalog must be completely reviewed by all those responsible for risk in order to ensure uniform and complete identification of risks. To make risk assessment comparable, suggested risk assessments have been provided for all risk categories.

Subsidiaries included are selected using a defined selection process based on revenue and earnings measures as well as risk factors specific to the business. The performance measures revenue and EBIT are applied depending on the business model of each subsidiary. This selection process ensures that all Schaeffler Group subsidiaries that are relevant from a materiality perspective are included in the risk management system. In 2016, 44 of 153 Schaeffler Group entities were included, representing 94 % of revenue and 94 % of the Schaeffler Group's EBIT.

The risk management system only deals with risks exceeding a threshold of EUR 5 m on a net basis. Risks are assessed based on their amount of damage and their probability of occurrence. The assessment classifies the amount of damage of each risk in one of four categories: very low, low, medium, and high. Classification is performed based on the amount of damage for one year. The probability of occurrence is assessed using percentages and is also classified in four categories: improbable, possible, probable, and highly probable. The combination of estimated amount of damage and probability of occurrence determines the risk class, which is classified as either low, medium, or high based on its impact on net assets, the financial position, and earnings.
Risk classes are presented graphically using a risk matrix:

Risk matrix No. 063



Effect on net assets, financial position, and earnings

The assessment is made based on the following limits:

Impact assessment No. 064

Amont of damage in €		Probability of occurrence in %	
‹ 10 million	very low	‹ 25 %	improbable
› = 10 million - ‹ 25 million	low	25 % - ‹ 50 %	possible
› = 25 million - ‹ = 50 million	medium	50 % - 75 %	probable
› 50 million	high	› 75 %	highly probable

In assessing risks, the Schaeffler Group differentiates between gross exposures and net exposures; measures already in place can reduce the gross exposure with respect to both amount of damage and probability of occurrence. The net exposure represents the amount of damage and the probability of occurrence after taking into account any risk mitigation measures in place at the reporting date.

Identified risks are actively managed to achieve the company's intended level of risk mitigation. Management takes measures to avoid or reduce risks or to provide safeguards against them. Any risks that cannot be mitigated by taking appropriate action are classified as business risks. Risks with a low impact on the Schaeffler Group are managed by operating management. Risks with a medium or high impact, however, are also managed by the Board of Managing Directors of Schaeffler AG. Within its area of responsibility, the Board of Managing Directors decides what measures are required and ensures that they are implemented and kept up to date. The current risk assessment is regularly reported to the Board of Managing Directors and the audit committee.

Corporate risk management reports to the Board of Managing Directors on the risk situation semiannually, which ensures that the Board of Managing Directors is continually updated on the current risk situation of the Schaeffler Group and its change over time. All net exposures with a medium or high impact are reported to the Board of Managing Directors. These reports also include an aggregated summary of identified opportunities. Between regular reporting dates, emerging risks are reported using a defined ad hoc process, ensuring timely communication of emerging risks to the Board of Managing Directors.

Internal audit regularly satisfies itself that the risk management system is effective.

In response to the growing complexity of the risk management system and to ensure data is protected, Schaeffler has captured risks in a risk management tool developed specifically for this purpose.

4.2 Internal control system

Paralleling the risk management system, the Schaeffler Group has a system of internal controls over financial reporting (ICS) ensuring the accuracy of the accounting system and the related financial reporting.

Like the risk management system, the Schaeffler Group's ICS is conceptually based on the COSO Framework. The components defined in the Framework are applied to all levels of the group, especially including the compilation of the separate and consolidated financial statements of Schaeffler AG.

The financial statement information reported by Schaeffler AG and its subsidiaries via a uniform groupwide chart of accounts represents the base data for the compilation of the separate and consolidated financial statements. Many subsidiaries receive support from an internal shared service organization in this process. Schaeffler obtains assistance from external specialists in dealing with certain complex issues requiring extensive specialized knowledge (such as the valuation of pension obligations).

Conceptual and process-related requirements and deadlines as well as analyses and reasonability checks at the corporate level ensure that the separate and consolidated financial statements of Schaeffler AG are compiled, prepared, and issued in accordance with IFRS, to a high level of quality, and on time.

The following significant features of the system of internal controls over financial reporting have been implemented within the Schaeffler Group as part of this process:

- An accounting manual sets out uniform accounting policies, taking into account new IFRS financial reporting standards required to be applied for the first time.
- Closing instructions issued quarterly provide Schaeffler AG subsidiaries with information on all relevant issues regarding the content as well as the processes and deadlines for compiling the financial statements.
- Tasks and responsibilities regarding the compilation of the separate and consolidated financial statements are clearly defined and assigned.
- The operating units and the various staff members involved in the process stay in close contact on matters concerning accounting, financial statement compilation, and quality assurance with respect to financial statement compilation.

The process for compiling the separate and consolidated financial statements itself is secured by numerous control activities, taking into account materiality. In particular, these include extensive systems-based reasonability checks, controls using reviews (by a second member of staff) performed on a regular basis, and analyses and reasonability checks of the quarterly and annual consolidated financial statements at the corporate level.

As at each year-end, management assesses the appropriateness and effectiveness of the ICS in place. To this end, the Schaeffler Group uses a standardized methodology to identify the group companies and processes relevant to ICS, define the required controls and document them in accordance with uniform requirements. This is then followed up with a review of the effectiveness of the defined controls that is performed using a risk-based approach, either by the reporting unit itself, by internal audit, or as part of the audit of the consolidated financial statements.

These arrangements as well as their continuous improvement are designed to provide reasonable assurance that the ICS prevents significant misstatements of the financial statements and consolidated financial statements and to ensure quality standards are maintained in compilation, preparation, and issuance.

The Board of Managing Directors considers the system of internal controls over the compilation of the annual and consolidated financial statements of Schaeffler AG to be effective for 2016.

4.3 Risks

The risks set out below could take on a medium or high impact on the Schaeffler Group's earnings, financial position, and net assets within the planning horizon. Risks are divided into strategic, operating, legal, and financial risks and are described in decreasing order of the magnitude of their impact on Schaeffler's net assets, financial position, and earnings. Unless the extent to which one or both divisions are affected by these risks is explicitly described, the discussion of the risks relates to both of the Schaeffler Group's divisions.

Strategic risks

The key operating risks of the Schaeffler Group are described below.

Electric mobility

Electrification is progressing, and as a result, the further development of conventional drive trains is coming under pressure. Firstly, improvements to conventional drive trains will become less relevant, and secondly, existing products/applications will be replaced. The Schaeffler Group has established its electric mobility business field with the intention of creating a portfolio of products for this field designed to offset any potential future losses in revenue from conventional drive trains. Should the initiatives undertaken not have the desired effect, this could have a medium impact on the Schaeffler Group's financial position and earnings.

Digitalization

Digitalization is progressing rapidly and has already completely transformed certain sectors. The Schaeffler Group recognized the issue of digitalization early on, has developed a digitalization strategy – its "Digital Agenda" – and is in the process of implementing it at a rapid pace. The pace of implementation and adaptation represents an important success factor in this regard and, therefore, also a risk. Digitalization is also affecting the work place and will lead to changes in the working environment. As part of the "Digital Agenda", employees with varying skills and qualifications are increasingly confronted with new products, processes, and structures requiring extensive training and also re-qualification. The Schaeffler Group has focused on this issue early on. However, should the Schaeffler Group nevertheless be unable to overcome these challenges as quickly as necessary, this could have a medium impact on the group's financial position and earnings.

Strategic market risks

The markets for the products the Schaeffler Group offers are subject to significant technological change, continuously developing technological standards, changing customer preferences, and constantly emerging innovative products. Existing technologies and products may be entirely replaced by newly developed and marketed technologies and newly introduced products. For instance, the Schaeffler Group holds an excellent competitive position with respect to drive trains based on the internal combustion engine. This exceptional position may be jeopardized by the loss of the competitive advantage as well as by expiry of key patents.

The Schaeffler Groups high-margin component business is facing considerable pricing pressure driven by increasing demands for price reductions on the part of customers, purchasing cooperatives, and certain, more focused and leaner competitors, especially in the emerging markets. The company is currently not passing these demands for extensive price reductions on to its own suppliers and cannot fully absorb them with its existing structure.

The Schaeffler Group's competitiveness depends fundamentally on its ability to keep up with the technological developments discussed above, maintain its technology leadership, and continue to manufacture innovative products cost effectively. Not achieving this objective would represent a medium risk to the Schaeffler Group's financial position and earnings that would last beyond the planning horizon.

Operating risks

The key operating risks of the Schaeffler Group are listed below.

Market developments

As the Schaeffler Group is a global supplier in the automotive and industrial sector, demand for Schaeffler products is to a large extent driven by global economic conditions. The demand for products of the Automotive division depends considerably on the overall economic trend. This also applies to the engineering sector and industrial growth markets such as renewable energy. In addition, demand is subject to cyclical fluctuations.

In the Automotive division, demand is not only affected by global economic conditions, but also by other factors such as changes in consumption patterns, fuel prices, interest rate levels, and others. The large number of economic factors affecting global demand for automobiles leads to significant volatility in automobile production, which makes forecasting sales exactly considerably more difficult. Demand for Industrial products is influenced by a wide range of factors due to the large variety of business fields in which the Schaeffler Group operates. Renewable energy depends heavily on government subsidies. Sales of production machinery, on the other hand, depend on new developments and the resulting need for capital expenditures. Aerospace benefits from various new technological developments. Individual drivers can be identified for each sector. Adverse trends in individual markets could have a medium impact on the Schaeffler Group's financial position and earnings.

Loss of market share

The Schaeffler Group operates in a highly competitive and technologically fast-paced environment. As a result, the company is exposed to the risk of being displaced by existing or new competitors and of its products being replaced by product innovations or by new technological features. Especially the automotive supply sector is characterized by a high level of capital expenditures, a high rate of technological change, constant progress in production technology and high pressure on pricing from OEMs. The Schaeffler Group's key customers include well-known OEMs and suppliers who are themselves subject to significant competitive pressure with respect to innovation and costs and, therefore, strive to obtain price reductions both during the bidding process and throughout the term of supply agreements. To prevent constant price adjustments from impairing margins, the Schaeffler Group is forced to continually improve its production process and reduce expenditures. The Schaeffler Group mainly competes with other international suppliers, and to some degree also with regional suppliers, on price, quality, reliability of supply, and design, as well as on the ability to offer technological support and service worldwide. Should the company become no longer able to compete on one of these factors, customers may decide to obtain products and services from competitors. As a result of the intense competition in the automotive supply sector, Schaeffler considers the risk of losing market share in the Automotive division higher than in the Industrial division. Besides the price, another deciding factor in the Industrial division and in the Aftermarket business is the ability to deliver, which is constantly being enhanced by systematic improvements in production and delivery logistics.

Loss of market share could have a medium impact on the Schaeffler Group's earnings and financial position. Close cooperation with the Schaeffler Group's key customers on product development and strict product quality control measures reduce the likelihood of substitution and, at the same time, help maintain price levels.

Dependence on customers

The Schaeffler Group's key customers represent a substantial proportion of the Schaeffler Group's revenue. Despite this, the company's dependence on individual OEMs or suppliers is limited, since Schaeffler provides a large variety of products to various regions and applications. Thus, individual Schaeffler products may be substituted, but the probability that the customer will completely terminate the relationship is low and such a termination would require a longer period of time. Nevertheless, substitution of individual products can also have a medium impact on the Schaeffler Group's financial position and earnings.

Production risk

As the Schaeffler Group's production is very capital-intensive, a large proportion of its costs are fixed. At several locations, ensuring the best-possible utilization of capacity requires having only one of a given type of machine available. The failure of one of these bottleneck machines can lead to a bottleneck in supply to internal and external customers. The period between failure of the bottleneck machine and when alternative means of production are set up is key. Alternative means of production can either be set up by a Schaeffler Group plant with comparable production lines or provided by an alternative supplier. Establishing safety stock can also help reduce losses. To minimize the probability of occurrence, the risk is mitigated by extensive maintenance. However, failure of a bottleneck machine represents a medium risk to the Schaeffler Group's financial position and earnings.

Warranty and liability risks

One significant factor in customers' decision to purchase the products offered by the Schaeffler Group is their high quality. To secure this level of quality for the long-term, the Schaeffler Group employs a certified quality management system, supported by additional quality improvement processes. However, there is a risk that poor quality products end up getting delivered, causing product liability risk. The use of defective products can lead to damage, unplanned repairs, or recalls on the part of the customer which can result in liability claims or reputational damage. Furthermore, deteriorating product quality can result in increased warranty and liability risk vis-à-vis the Schaeffler Group's customers. The Schaeffler Group responds to such risks by adopting strict quality control measures and continually improving its production processes in order to minimize the probability of warranty and liability risks materializing. Individual risks becoming reality could have a medium impact on the Schaeffler Group's financial position and earnings. All product liability risks are insured. The extent of actual reimbursements that can be claimed from insurers can only be assessed on a case-by-case basis.

Product piracy risks

The Schaeffler brands INA, LuK, and FAG are associated with a high standard of quality, making them increasingly susceptible to product piracy. Counterfeit products are normally sold at significantly reduced prices, which can lead to increased pressure on the Schaeffler Group's prices. Combating product piracy is a high priority for the Schaeffler Group. The Schaeffler Group protects intellectual property not only using global patents and industrial property rights but also by actively combatting counterfeit products, which damage its image as well as its revenue. Based on the large number of counterfeit products seized, the Schaeffler Group estimates the impact of this issue on its earnings and financial position to be medium.

Legal risks

The Schaeffler Group's operations give rise to legal risks, for instance those resulting from non-compliance with relevant regulations. Legal risks are reflected in provisions recognized in accordance with financial reporting standards and are not quantified further within risk management system.

Antitrust proceedings

Current and future investigations and proceedings regarding violations of antitrust law could have an adverse impact on the financial position and earnings of the Schaeffler Group as well as on its reputation. Possible payment obligations in connection with these investigations and proceedings may result in unplanned cash outflows. The Schaeffler Group cooperates with the investigating authorities in current and future investigations as a matter of principle. The imposition of penalties cannot be ruled out. In Spain and Korea, the company has appealed judgments imposing penalties.

In addition, claims for damages have been filed against Schaeffler Group companies as a result of known antitrust proceedings. These claims could have a medium impact on the Schaeffler Group's financial position and earnings. The Schaeffler Group has recognized appropriate provisions for possible charges to earnings.

Litigation

Certain Schaeffler Group companies are involved in various legal cases or could become involved in additional litigation. These could lead to claims for damages or to other claims. In addition, the company's or their opponents' legal expenses could be significant. These legal cases are mainly related to the Schaeffler Group's sales and purchases of goods and services. Existing legal cases could have a medium impact on the Schaeffler Group's financial position and earnings.

Compliance risks

As a company with operations worldwide, Schaeffler has to comply with varying laws and regulations around the globe. It is possible that violations of existing law occur despite careful observance of such legal requirements. The consequences of such instances of non-compliance could have a negative impact on the Schaeffler Group's net assets, financial position, and earnings as well as on its reputation. The Schaeffler Group will cooperate with the authorities with respect to any current or future instances of non-compliance and will respond appropriately to weaknesses identified.

See chapter entitled "Governance structure" for a discussion of the company's compliance management system.

The company uses a material compliance management system to help it meet its commitment to using only components and raw materials that comply with the applicable laws and regulations. However, there is a risk that legal requirements and changes therein are not identified in time and that products are distributed in the market in violation of the law. This could have a medium impact on the Schaeffler Group's financial position and earnings.

Financial risks

Financial risks include tax risks and pension risks as well as the impact of changes in foreign exchange rates and liquidity risks.

Tax risks

The Schaeffler Group is subject to tax audits worldwide. Tax authorities' interpretation of the tax law or of relevant facts made in current or future tax audits may differ from that of the Schaeffler Group. This may lead to adjustments to tax bases and increases in the tax liability. An adjustment to the tax base can have a high impact on the Schaeffler Group's financial position.

Pension risks

The Schaeffler Group has extensive pension obligations, particularly in Germany, the U.S., and the United Kingdom. The obligations in the Anglo-Saxon countries are financed by pension funds. Pension obligations are measured using actuarial valuations based on assumptions regarding possible future events, such as the discount rate, increases in wages, salaries, and pensions, and statistical life expectancy. Plan assets may be invested in various asset classes, such as equity instruments, fixed-income securities, or real estate, which are subject to fluctuations in value. A change in the parameters listed above can have a medium impact on the Schaeffler Group's net assets, particularly in Germany and the United Kingdom.

Currency risks

The Schaeffler Group is exposed to a wide range of currency risks due to its international reach. The largest such currency risks from operations result from fluctuations in the U.S. Dollar and Chinese Renminbi exchange rates.

Currency risks from financing activities arise mainly from the impact of changes in the U.S. Dollar exchange rate on the portion of bonds issued in U.S. Dollars that is not hedged.

Currency risks from operations and from financing activities are continually monitored and reported. Currency risk is managed at the corporate level. Currency risks are aggregated across the group and hedged using hedging instruments. Hedging instruments used include forward exchange contracts and cross-currency swaps. Currency risks, market values of foreign currency derivatives, and developments in foreign exchange markets are continuously monitored and managed as part of the risk management system.

To the extent competitors from other currency areas can offer lower prices due to movements in exchange rates, changes in foreign exchange rates can adversely affect the Schaeffler Group's competitive position. The Schaeffler Group's manufacturing locations are spread around the world, enabling the group to reduce the impact of changes in exchange rates on its competitive position. However, exchange rate trends can have a medium impact on the Schaeffler Group's earnings and financial position.

Liquidity risks

The risk that the Schaeffler Group will not be able to meet its payment obligations as they come due is referred to as liquidity risk. The Schaeffler Group differentiates between short-, medium- and long-term liquidity risks.

Liquidity risks can arise if financing needs cannot be met by existing equity or debt financing arrangements. The Schaeffler Group's financing requirements were met throughout the year 2016 by existing financing instruments and by the refinancing arrangements completed.

To avoid unforeseen short- or medium-term liquidity needs to the extent possible, short- and medium-term liquidity risk is monitored and managed using a rolling liquidity budget with a forecasting period of up to twelve months. Short-term fluctuations in cash flow are monitored daily and can be offset using lines of credit. To this end, the Schaeffler Group has a revolving credit facility of EUR 1.3 bn and other bilateral lines of credit held by various subsidiaries.

The Schaeffler Group's loan and bond agreements, which are generally long-term, contain certain constraints including a requirement to meet certain financial covenants. The creditors are entitled to call the debt prior to maturity under certain circumstances, including if covenants are not met, which would result in the debt becoming due immediately. Compliance with financial covenants is monitored on an ongoing basis and regularly reported to the lending banks. To date, the company has complied with the financial covenants as stipulated in the debt agreements. The Schaeffler Group also expects to comply with these covenants in the future.

Any non-compliance with the covenants contained in the debt agreements as well as any liquidity requirements exceeding those that can be covered by the existing lines of credit can have a medium impact on the Schaeffler Group's net assets, financial position, and results of operations. It is considered improbable that these situations will actually occur.

Risk assessment — No. 065

	Amount of damage in €	Probability of occurrence in %	Impact	Change from prior year
Strategic risks				
• Electric mobility	high	improbable	medium	new
• Digitalization	medium	possible	medium	new
• Strategic market risks	medium	possible	medium	→
Operating risks				
• Market developments	high	improbable	medium	new
• Loss of market share	high	improbable	medium	↗
• Dependence on customers	low	highly probable	medium	new
• Production risk	high	improbable	medium	→
• Warranty and liability risks	high	improbable	medium	→
• Product piracy risks	low	probable	medium	→
Legal risks				
• Antitrust proceedings	low	probable	medium	→
• Litigation	medium	possible	medium	↗
• Compliance risk	high	improbable	medium	new
Financial risks				
• Tax risks	high	highly probable	high	→
• Pension risks	high	possible	medium	→
• Currency risks	medium	possible	medium	↘
• Liquidity risk	high	improbable	medium	→

4.4 Opportunities

The responsibility for identifying and utilizing opportunities lies with operating management. Opportunities are discussed with the Board of Managing Directors during the regular Strategy Dialog and, based on these discussions, strategies are derived to determine the future direction of the Schaeffler Group.

An aggregated overview of the opportunities identified in the Strategy Dialog is included in the reports regularly provided to the Board of Managing Directors and the Supervisory Board of Schaeffler AG. Opportunities are documented in the risk management tool.

The Schaeffler Group's most significant opportunities lie in strategic trends and in changes to the legal environment that may lead to increased demand for Schaeffler products.

Strategic opportunities

The Schaeffler Group with its range of products and services and its global presence is in a good position to participate in the expected megatrends of the future.

The Schaeffler Group's strategic and operational opportunities specifically result from the following factors:

Globalization

Shifting activities to local markets could enable the Schaeffler Group to tap opportunities for reducing cost and to improve proximity to the customer. The company also identifies and realizes additional potential worldwide. This also bolsters the company's competitive position vis-à-vis competitors from low-wage countries.

Potential in emerging countries

Increasing affluence in the emerging countries results in the development of a growing middle class there. The newly emerging group of buyers can lead to increasing demand for automobiles and industrial goods. The Schaeffler Group is a supplier to all well-known OEMs and suppliers, generally providing an opportunity to participate in increased demand. The company has invested in significant additional resources in order to increase its local presence in the emerging countries, and plans to continue to pursue this growth strategy.

Electric mobility

Increasing demands on OEMs to reduce fuel consumption and emissions as well as increased safety requirements provide the Schaeffler Group with an opportunity to increase its revenue per vehicle. A related issue is the increasing complexity of systems, which provides the opportunity to add new functionalities to its product range. Reducing emissions by improving the technology of conventional internal combustion engines offers further opportunities to the Schaeffler Group, as do the plug-in hybrids currently being developed, which consist of a highly efficient internal combustion engine and an electric drive. Hybridized vehicles require expertise in the classic field of engine/transmission as well as in newer product fields such as hybrid modules and electric axles. The Electric Mobility Systems Division coordinates its wide range of activities relating to alternative types of drives, allowing the Schaeffler Group to benefit from comprehensive systems know-how.

Public mobility

The increasing number of people living in mega-cities is making public transportation within cities, such as metros, rapid transit systems, and streetcars, as well as between cities, e.g. by high-speed train, more and more attractive and important. Especially rail vehicles represent an extremely interesting growing market for the Schaeffler Group. Reliable and innovative rolling bearing solutions for applications ranging from bogie to the drive train are key to modern rail vehicles – and also promise growth for mechatronic products in the age of digitalization in mobility. In addition, the high stresses and resulting wear and tear as well as safety regulations make this market a market of the future not only with respect to OEMs but also to the Aftermarket business.

Global mobility

Increasing globalization is inherently associated with an increase in the volume of air traffic. As a result, growth in the aerospace sector is forecasted to be steady. In this sector, issues such as reducing CO_2, reducing weight, and optimizing fuel consumption are increasingly gaining in importance. The Schaeffler Group is already actively participating in these developments.

Urbanization

People are increasingly moving to larger cities and metropolises, whether for their job, cultural events, or consumer spending. As a result, energy and water consumption is expected to continue to rise in these central locations in the future. In addition, the increasing electrification of automobiles will drive a growing need for energy. The rising demand for energy and the beginning transition to renewable energy both lead to an inevitable demand for energy from renewable sources. Especially in the wind business, the Schaeffler Group is actively doing research, but is also already operating successfully in the market. Continually expanding the existing expertise in these business fields offers additional future opportunities for growth.

OEM trends

In the last few years, OEMs have increasingly created global platforms aimed at standardizing components and vehicle systems in order to save costs by increasing efficiency. Consequently, OEMs are looking for suppliers who can supply standardized components worldwide. In return, they reduce the number of suppliers and concentrate on a few global suppliers. Suppliers such as the Schaeffler Group benefit from this trend due to their global presence and their ability to supply products to the same technological and quality standards worldwide.

Operational opportunities

Development of vehicle population

The absolute vehicle population drives growth in the Automotive Aftermarket. Growth depends on various factors, such as demand (determined by kilometers driven and the composition of the vehicle population), services offered, as well as products offered. Besides the vehicle population, increasing content per vehicle provides additional opportunities.

Industry 4.0

The internet of things finding its way into the factory has started a fourth industrial revolution. Future scenarios in practice often referred to under the heading “Industry 4.0” are characterized by highly individualized products in very flexible manufacturing conditions. In future, companies will network their machinery, warehousing systems and equipment around the world. The accompanying global digitalization is progressing at an enormous speed everywhere. This requires components which can identify and transmit condition-based information. Rolling bearings play a key role as they are responsible for guidance and positioning as well as supporting process forces and movements. To this end, sensors, actuators, control elements, and software components are being added to rolling bearings. The objectives range from continuous condition monitoring to independently locating solutions in response to error messages or active process control based on data from the bearing. The Schaeffler Group views its sensor-equipped bearings as an opportunity to benefit from this trend.

Digitalization

The topic of “digitalization” connects both divisions. It will significantly transform the entire economy and its traditional processes. The convergence of the real world and the digital world will produce new business models and a lasting increase in value creation. The Schaeffler Group's "Digital Agenda" comprises four key elements: Products & services, Machines & processes, Analyses & simulation, and User experience & customer value. With its "Digital Agenda", the Schaeffler Group is concentrating both on internal processes and on products and solutions for its customers. It is not only internally that the company aims to increase the efficiency of its processes, use available data more intensively, and more effectively link production locations, machines, and buildings. It also aims to expand on its customers' existing business models and help them develop new ones.

Legal opportunities

The Schaeffler Group's legal opportunities specifically result from the following factors:

Emission standards

Constantly tightening exhaust emission standards (Euronorm, CAFE standard) are putting increased pressure on OEMs to use energy efficient solutions in their vehicle drives, consisting of the internal combustion engine and the transmission. The Schaeffler Group as their development partner can support the search for solutions with its innovative strength, creating innovations that manufacturers can turn into a competitive edge.

Average fleet consumption

Besides emission standards, government pressure on OEMs is also increasing with respect to the fuel consumption of the vehicles they produce: Governments are prescribing certain limits for fleet consumption, to be achieved via their model mix. This also helps drive developments needed to reduce emissions, benefitting primarily technology-oriented suppliers like the Schaeffler Group, since the requirements established by the market and the law make a strong development partnership between the OEM and its suppliers a necessity.

Financial opportunities

The Schaeffler Group's financial opportunities specifically result from the following factors:

Rating

Rating agencies Standard & Poor's and Moody's have been assigning a company rating to the Schaeffler Group and instrument ratings to its outstanding bonds since January 2012. An improvement in the ratings published by Standard & Poor's and Moody's can provide the Schaeffler Group with more favorable financing conditions and open up new opportunities to obtain financing. In 2016, rating agency Moody's upgraded Schaeffler AG's company rating to Baa3 (investment grade) with a stable outlook. Rating agency Standard & Poor's upgraded the Schaeffler AG company rating to BB+ (sub-investment grade) with a stable outlook. The issuance ratings for secured bonds improved to Baa3 (Moody's) and BB+ (Standard & Poor's). The issuance rating of the unsecured bonds has been withdrawn since the unsecured bonds were redeemed in full on October 13, 2016.

Financial markets

Favorable trends in interest and foreign exchange rates can positively impact the Schaeffler Group's financial result and earnings. The company constantly monitors the financial markets in order to detect any possible impact on the Schaeffler Group on a timely basis and identify any potential need for action.

4.5 Overall assessment of Schaeffler Group opportunities and risks

The outlook issued by the Schaeffler Group is not in jeopardy, including from the existing risks. In addition to the specific risks described in the management report, unexpected developments significantly damaging or harming the company's production process, customer relationship, or reputation can occur at any time.

The Schaeffler Group's situation with respect to risks has deteriorated slightly compared to the prior year. This change is due to new risks being included and a change in the assessed impact of certain medium risks.

The overall assessment of the significant opportunities and risks does not indicate any risks which, either individually or in combination with other risks, jeopardize the company's continued existence as a going concern.