Group Management Report

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THE ZEISS GROUP

Business activity

ZEISS is an internationally leading technology enterprise operating in the optics and optoelectronics industries. The Group emerged from a workshop for precision mechanics and optics established by company founder Carl Zeiss in Jena (Thuringia) in 1846. Today, ZEISS is headquartered in Oberkochen (Baden-Württemberg).

ZEISS plays an active part in advancing leading-edge technology and drives forward the world of optics and other related fields with its solutions. The Group comprises 4 segments.

Semiconductor Manufacturing Technology
With its product portfolio, the Semiconductor Manufacturing Technology segment covers a variety of key processes in the production of microchips. ZEISS develops and manufactures lithography optics, optical systems for semiconductor manufacturing equipment as well as systems and solutions for manufacturing defect-free photomasks. The technologies from ZEISS enable further miniaturization of semiconductor structures, making microchips smaller, more powerful, energy-efficient and cost-effective.

Research & Quality Technology
The Research & Quality Technology segment comprises business with industrial metrology and microscope systems: ZEISS develops and produces bridge-type, horizontal-arm and production measuring machines, form, contour and surface measuring machines, and computer tomographs for industrial quality assurance. Excellent and user-friendly software solutions complete the offering.

The segment also covers the entire spectrum of microscopy: light, ion, electron and X-ray microscopes are used in the life sciences and materials research, as well as for industrial quality assurance.

The Research & Quality Technology segment comprises the Industrial Metrology and Microscopy business groups.

Medical Technology
The Medical Technology segment develops, manufactures, markets and sells diagnostic and therapy systems, as well as implants and consumables in the field of ophthalmology. In addition, ZEISS offers visualization systems for microsurgery – for example, neuro/ENT surgery, dentistry and gynecology. ZEISS aspires to improve the diagnosis and treatment of diseases by constantly enhancing its innovative products. As a solutions provider, the company plays an active part in the increasing digitalization and systems integration in the medical sector and creates the conditions needed for efficient processes and effective patient data management at its customers. The segment's activities are pooled primarily in the TecDAX-listed entity Carl Zeiss Meditec AG, in which Carl Zeiss AG has a 65.1% shareholding.

Vision Care/Consumer Products
The Vision Care/Consumer Products segment pools the eyeglass business of the Vision Care business group and the business with camera and cine lenses, binoculars, hunting optics, spotting scopes, planetariums and sighting systems for flight simulations of the Consumer Optics business group. ZEISS develops, produces and sells solutions for the entire eyeglass value chain. Alongside eyeglass lenses, this includes devices for vision testing, digital consultation and measurement applications as well as services for eye care professionals. ZEISS is one of the world's largest manufacturers of eyeglass lenses.

Global presence

The ZEISS Group is represented in more than 40 countries and has over 50 sales and service locations, more than 30 manufacturing sites and about 25 research and development centers around the globe.

Group structure

Carl Zeiss AG is the strategic management holding company that manages the ZEISS Group. It develops the corporate business activities and portfolio and provides central management and service functions. The sole owner of the company is the Carl Zeiss Foundation (Carl Zeiss Stiftung).

Group strategy

ZEISS has a broad and balanced business portfolio focusing on attractive future-oriented markets of optics, precision mechanics and optoelectronics. The objective of portfolio management is the sustainable business success of the ZEISS Group. This objective and the need to generate equity by means of internal financing require a systematic strategy geared to continuously enhancing value added.

The ZEISS mission statement is: "As the pioneer of science in optics, we continue to challenge the limits of our imagination. With our passion for excellence, we create value for our customers and inspire the world in new ways." This statement encapsulates the Group's fundamental objectives: ZEISS aims to leverage its customer focus to consolidate and expand its position as a global technology leader.

To achieve its objectives, ZEISS relies on the commitment and expertise of its employees, its innovative strength, its culture of innovation and its strong brand. Moreover, the Group is constantly working on increasing its international business activities.

The Carl Zeiss Agenda 2016 strategic program launched in 2011 still defines the direction for the development of the Group. The program aims to make ZEISS even more modern, global and dynamic. In this context, continually enhancing customer service and leveraging opportunities presented by digitalization play an important role.

Corporate management

The ZEISS Group is managed using financial and non-financial key indicators. These are summarized in a balanced scorecard. For ZEISS, revenue growth, EBIT, Economic Value Added (EVA®) and Free Cash Flow (FCF) are the most important financial indicators. Important non-financial indicators are customer and employee satisfaction, innovation excellence and process quality. In addition, there is a clear focus on sustainable further development of the leadership and corporate culture.

REPORT ON ECONOMIC POSITION

Macroeconomic and segment-specific environment

Macroeconomic environment

During the reporting period, global economic growth was considerably lower than forecast. The rapidly developing economies in Asia, such as India and China, continued to grow at above-average rates, even if growth in China cooled down considerably. The Latin American markets did not develop uniformly; while Brazil was in the throes of a serious recession, Mexico enjoyed moderate growth. The market growth of the industrial nations in fiscal year 2015/16 was moderate, but remained below expectations. While the upswing in the USA and Japan was significantly smaller than expected, market growth in the euro zone developed as expected.

Uncertainty in the markets, particularly in China and in Brazil, as well as the low oil price, uncertainty surrounding Brexit, the situation in the Middle East and persistent structural problems were key political and economic issues that negatively impacted the investing activities of industry and the public sector.

Segment-specific environment

Semiconductor Manufacturing Technology

Worldwide revenue with semiconductor products, which are primarily deployed in mobile devices such as smartphones and tablets, but also with solid state drives, networks and server farms, was characterized by stagnation in the reporting period. This was mainly due to a weak demand for electronic equipment and a surplus of memory chips. However, the investment climate in the market for semiconductor manufacturing equipment stabilized after a significant slowdown. At the end of fiscal year 2015/16, there were signs of noticeable growth momentum in this market.

Research & Quality Technology

In the market for industrial metrology, the positive trend continued at global level in fiscal year 2015/16. The automotive and the associated supplier industry was the key driver. Additionally, there was also stronger growth in other sectors, such as medical technology and air transport. The market developed positively in Germany and the USA in particular, while the pace of growth in the rapidly developing economies slackened slightly.

During the reporting period, the microscopy market grew slightly. Asian countries continued to gain importance in global research spending. In Europe and the USA, by contrast, investment in research was hesitant. The market for industrial microscopes continued to grow in the semiconductor, electronics and automotive sectors, while demand from the global steel industry and the mining, oil and gas sectors weakened.

Medical Technology

The market for medical technology again saw stable growth. Growth drivers are medical advances as well as megatrends such as demographic development as a result of increasing life expectancy, and population growth. While a growing per capita income increases the demand for basic medical care in the dynamically developing economies, the willingness of people in the western regions to pay more for better quality services is increasing.

Pressure to contain costs in the health care systems is increasingly generating price pressure. The growing regulatory requirements, and their variance from one region to another, are a growing challenge in the context of product development and licensing.

Vision Care/Consumer Products

Global market growth in the vision care market remains stable. The main growth drivers are the good market development in the rapidly developing economies as well as innovations for eye care professionals and consumers. However, the global market continues to be characterized by high price pressure and ongoing consolidation and acquisitions by competitors.

The market for camera lenses saw very positive development in fiscal year 2015/16, especially in the area of mirrorless cameras for which ZEISS offers lenses such as the Batis and Loxia lines. However, the camera market for single-lens reflex cameras declined. A fierce price war left its mark on the market for binoculars. The specialty markets for hunting optics, nature observation and planetariums stagnated. The market for the new business of flight simulators grew as a result of modernization investments.

Overall statement on the economic situation of the Group as of fiscal year-end

In fiscal year 2015/16, the economic environment was challenging. Nevertheless, ZEISS was able to continue the positive development of the prior years with a successful fiscal year 2015/16.

The Group recorded revenue of €4,881m in the reporting period (prior year: €4,511m). At €615m, EBIT exceeded the prior-year figure of €369m.

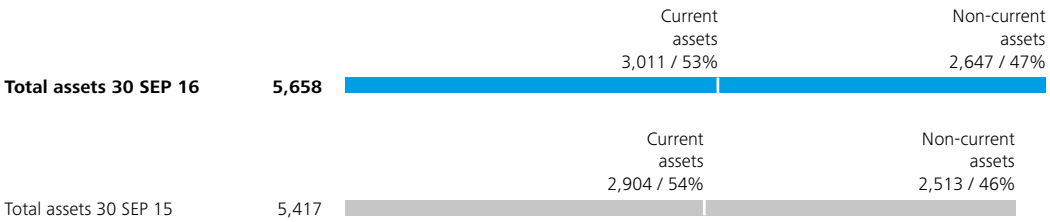
The development that had been forecast in the prior year was thus exceeded.

Net assets

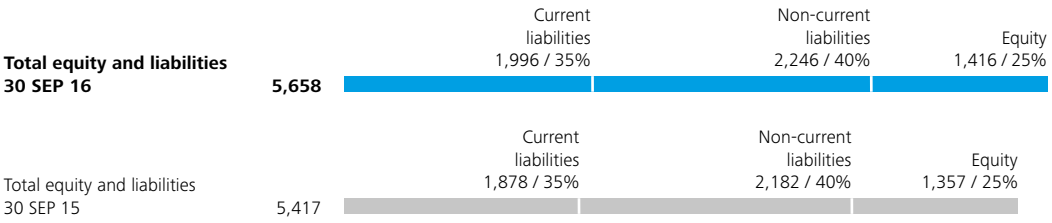
A new consolidation system was implemented in the reporting period as well as a revised group chart of accounts. The aim was to further increase capacity for analysis within the Group. In light of this, the comparative prior-year figures were adjusted accordingly and are indicated by an asterisk (*) in the following.

Total assets increased by €241m in the reporting period to €5,658m (prior year: €5,417m). With regard to assets, this resulted mainly from the increase in deferred tax assets as well as the change in inventories and trade receivables and other receivables. The change in other current financial assets results from fixed-term deposits, which is reflected in the decrease in cash and cash equivalents. In terms of equity and liabilities, the main effect was an increase caused by the change in provisions for pensions and similar obligations, trade payables and the changes in equity. This was countered by the development of non-current financial liabilities.

Structure of the statement of financial position – assets in € m/as a % of total assets



Structure of the statement of financial position – equity and liabilities in € m/as a % of total equity and liabilities



Intangible assets

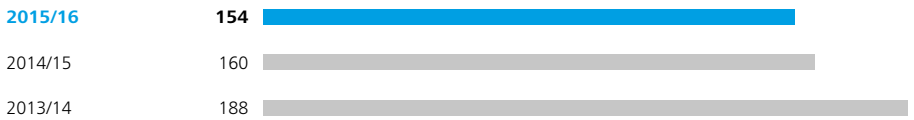
Intangible assets of €782m (prior year: €795m) mainly contain goodwill of €582m (prior year: €582m). The decrease in intangible assets by €13m is attributable to amortization.

The impairment tests performed in the reporting period did not give rise to the need to recognize any impairment losses on goodwill.

Property, plant and equipment

In fiscal year 2015/16, ZEISS invested a total of €154m in property, plant and equipment (prior year: €160m), mainly in modernization measures relating to production plants and in furniture and fixtures. Depreciation in the reporting period amounted to €155m (prior year: €150m).

Capital expenditures on property, plant and equipment in € m



Other non-current assets

Other non-current assets amounted to €150m (prior year: €137m) and mainly pertained to assets for securing flextime credits via a contractual trust arrangement (CTA), investments, loans as well as securities.

Working capital

The change in inventories and current trade receivables is consistent with the increase in business volume compared to the prior year. The increase in trade receivables by €47m to €970m relates to the cut-off date. Inventories came to €1,118m as of the reporting date (prior year: €1,081m).

Other current assets amounted to €399m (prior year*: €247m). The change mainly resulted from the fixed-term deposits at the end of the fiscal year, which were higher than in the prior year.

Trade payables came to €297m as of the reporting date (prior year: €228m).

Current provisions remained unchanged on the prior year at €247m and essentially comprise provisions for personnel-related and sales-related obligations, provisions for income taxes, and provisions in connection with required structural adjustments.

The increase in other current non-financial liabilities by €35m to €1,290m (prior year*: €1,255m) includes, among other things, the change in advances received, which increased by €18m in fiscal year 2015/16 to €512m (prior year: €494m).

Equity at a sound level

Equity amounted to €1,416m as of the reporting date (prior year: €1,357m). The consolidated profit of €404m generated in the reporting period increased equity. Countereffects resulted from the remeasurement of defined benefit plans, which reduced equity by €332m, and from the dividends paid of €26m.

The equity ratio of 25.0% remained on a par with the prior-year level (prior year: 25.1%).

Pension obligations

In fiscal year 2005/06, the financing of the pension obligations in Germany was restructured for the most part in the form of a contractual trust arrangement (CTA). The German entities transferred capital to cover pension obligations toward employees at that time to a dedicated trust, thus clearly separating the funds for operations from those for the pension obligations. This has increased the transparency and international comparability of the Group's financial reporting. The legally independent trust invests the assets transferred to it on the basis of an appropriate long-term investment strategy. The pension obligations of the corresponding entities remain unchanged.

The CTA assets in Germany, which are separated from operating funds, increased in the reporting period to €975m (prior year: €740m). This increase results from transfers to the CTA of €200m and from the return on existing plan assets. Benefit obligations in Germany again rose significantly on account of the interest rate under IFRS, which fell further to 1.30% in fiscal year 2015/16 (prior year: 2.35%). Due to the cut-off date, this resulted in a funded status of the pension obligations of 58% (prior year: 58%). The Group also has pension obligations toward employees of foreign subsidiaries. In accordance with IAS 19, the pension obligations reported in the statement of financial position correspond to the actual obligations as of the reporting date and therefore correspond to the present value of benefit obligations after deducting the fair value of plan assets as of the reporting date. Provisions for pensions are reported at an amount of €1,719m (prior year: €1,483m) in the consolidated statement of financial position. This is equivalent to 30% of total assets (prior year: 27%).

Financial liabilities

At €358m (prior year: €537m), financial liabilities were lower than the prior-year level. This amount essentially comprises promissory notes, a loan arranged with Kreditanstalt für Wiederaufbau as well as issued participating capital. The decrease compared to the prior year is mainly due to the repayment of the loan borrowed from the European Investment Bank of €150m in fiscal year 2011/12 as well as €33m of repaid promissory notes.

Profit participation
ZEISS employees participated in the company's profit for fiscal year 2015/16. The Group issued profit participation certificates with a total (nominal) volume of €3.9m to employees in Germany. The non-transferable certificates have an annual return, the level of which depends on the Group's return on sales. The profit participation certificates have a term of 5 years, after which they are repaid. In addition, employees in Germany received a bonus of up to €1,400 gross, paid in October 2016 after the end of the reporting period. Employees at the majority of entities outside Germany also participated in the profit for fiscal year 2015/16 on the basis of the respective country-specific regulations.

Financial position

Sound liquidity base despite concomitant special allocation to plan assets
In the reporting period, the financial position was again mainly characterized by purchases of property, plant and equipment, above all for modernization measures at production plants and in furniture and fixtures in all regions. In addition, there were cash outflows totaling €218m for allocations to plan assets in Germany and abroad, for investment in fixed-term deposits as well as the premature repayment of the loan of €150m from the European Investment Bank.

The cash outflows from investing activities were completely covered by the cash inflows from operating activities.

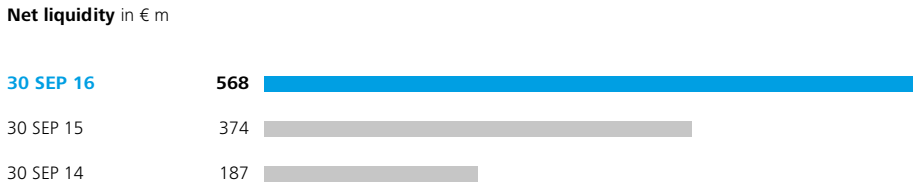
Cash flows from operating activities improved by 7% in the reporting period to €425m (prior year: €396m) and were largely determined by the profit for the year. In addition, there were allocations to plan assets in Germany and abroad of €218m.

Cash flows from investing activities came to minus €357m in the reporting period (prior year: minus €206m). This development is mainly due to cash outflows related to fixed-term deposits. Investments in property, plant and equipment and intangible assets remained on a par with the prior-year level at minus €191m (prior year: minus €187m).

Cash flows from investing activities decreased by €182m in fiscal year 2015/16 to minus €207m (prior year: minus €25m). In the reporting period, loans payable of €197m were repaid. This includes cash outflows of €150m related to the early repayment of the loan to the European Investment Bank. Furthermore, dividend payments of €26m were made. These were partially offset by cash inflows of €15m. These relate, among other things, to the use of the revolving credit facility abroad.

Financial resources[1] came to €796m as of the end of the reporting period (prior year: €776m). Loans payable amounted to €228m (prior year: €402m), which resulted in net liquidity[2] of €568m (prior year: €374m).

[1] Cash and cash equivalents plus securities and fixed-term deposits
[2] Financial resources less loans payable



The financial position offers a sound base on which to realize the ZEISS Group's long-term growth strategy.

In addition, the Group has an extensive range of instruments at its disposal for raising external financing to fund its business operations. These include above all promissory notes totaling €167m, whose terms to maturity break down as follows:

» €72m with a term of 5 years
» €67.5m with a term of 7 years
» €27.5m with a term of 10 years

Of this amount, a total of €69m is subject to floating interest rates and €98m is subject to fixed interest rates.

In addition, a revolving credit facility with a total volume of €500m and a term of 5 years was concluded between Carl Zeiss AG and a syndicate of banks in fiscal year 2013/14. The credit facility includes an option of extending on 2 occasions, by 1 year in each case. The second extension option was exercised in May 2016, so that the extended maturity date is 16 July 2021. The revolving credit facility serves as a strategic liquidity reserve for the ZEISS Group, of which BRL 88m was drawn in the reporting period (prior year: BRL 35m).

The loan arranged in fiscal year 2011/12 with the Kreditanstalt für Wiederaufbau (€45m) remains in place. This is subject to fixed interest rates and is being repaid on a quarterly basis over the period from 31 March 2014 until 30 December 2021. The residual carrying amount totaled €30m as of the end of the reporting period.

The loan arranged in fiscal year 2011/12 with the European Investment Bank (€150m) was repaid at its full nominal amount in the reporting period.

Goals and principles of financial management

ZEISS has a global financial management system that incorporates all subsidiaries and is coordinated centrally at group level. This also includes monitoring and managing currency risks. The primary objective is to secure and effectively manage the liquidity of the Group. In addition, ZEISS strives to continuously improve its financial strength and minimize financial risks. Investments are made principally in securities from issuers with good credit ratings. For ZEISS, the operations of the segments, with which the financial activities and strategic orientation are aligned, are the main source of liquidity. The Group has sufficient cash and cash equivalents and lines of credit to finance its operational and strategic objectives.

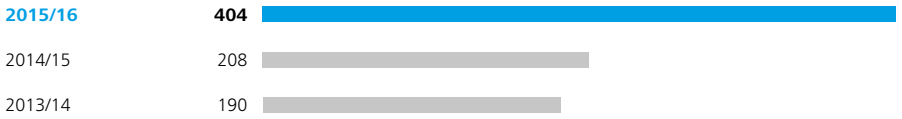
Results of operations

The income statement is prepared using the cost of sales method that is widely used internationally.

The results of operations are characterized by an increase in revenue in all divisions and regions as well as a markedly higher EBIT margin. Currency effects had no significant impact on the results of operations of the ZEISS Group in the reporting period.

ZEISS achieved a consolidated profit totaling €404m (prior year: €208m).

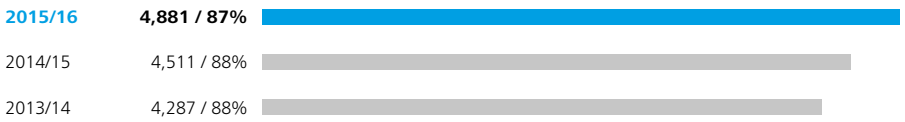
Consolidated profit/loss in € m



Revenue growth in a challenging market environment

In the reporting period, the ZEISS Group's revenue increased by 8% from €4,511m in the prior year to €4,881m, with the share of international revenue of 87% remaining unchanged at the very high level seen in prior years. The revenue development forecast in the prior year was achieved.

Revenue in € m/international share as a %



The ZEISS Group's incoming orders increased by 8% (adjusted for currency effects: 8%) in the reporting period to €5,019m (prior year: €4,653m) and thus exceeded €5b for the first time. Incoming orders in the instrument segment increased by a total of 6% (adjusted for currency effects: 6%). The Semiconductor Manufacturing Technology segment recorded an increase in incoming orders of 14% (adjusted for currency effects: 14%) compared to the prior year.

Consolidated revenue by segment

Revenue by segment	2015/16	2014/15	Change compared to prior year as a %	
	€ m	€ m		Adjusted for currency effects
Semiconductor Manufacturing Technology	972	893	9	9
Research & Quality Technology	1,466	1,356	8	8
Medical Technology	1,290	1,211	7	7
Vision Care/Consumer Products	1,089	1,007	8	8
Other	64	44	45	41
ZEISS Group	**4,881**	**4,511**	**8**	**8**

Semiconductor Manufacturing Technology

The Semiconductor Manufacturing Technology segment generated revenue of €972m. That is equivalent to an increase of 9% (adjusted for currency effects: 9%) compared to the prior year (€893m).

After an initially restrained start, demand for Deep Ultra Violet (DUV) lithography optics improved significantly over the course of the fiscal year. Stable DUV sales thus generated contributed significantly to the level of revenue achieved - together with a likewise growing repair and upgrade business. Cost and competitive pressure for all volume products remains high. The Semiconductor Manufacturing Technology segment also recorded an increasing number of orders for Extreme Ultra Violet (EUV) lithography optics during the reporting period. Business with components and modules for lithography lasers was unchanged. While revenue generated with systems and solutions for manufacturing defect-free photomasks in the reporting period did not quite match the prior-year figure, incoming orders for these products significantly exceeded the prior-year level at the end of the fiscal year. In addition, the service business in this segment made a strong contribution to revenue.

ZEISS has been working with its partners on EUV future-oriented technology for about 20 years. The chip manufacturers see this as the most suitable technology for the further miniaturization of microchip structures. They were positive about the progress made in EUV lithography in the reporting period and ordered several systems of the current generation from the strategic partner ASML. The productivity and stability of the EUV wafer scanners in the field have been improved. However, end users are demanding further progress with regard to the reliability of the scanners and, in particular, important improvements to the light source before the systems go into mass production of microchips. ASML and other development partners are working intensively on this with the support of ZEISS.

As of 30 September 2016, the segment had 2,674 employees worldwide (prior year: 2,836).

Research & Quality Technology

In fiscal year 2015/16, the segment increased its revenue by 8% (adjusted for currency effects: 8%) from €1,356m in the prior year to €1,466m.

Demand for metrology solutions from the Industrial Metrology business group developed very positively during the reporting period. The business group reported significant revenue growth above all in North America and Germany. Increases were also recorded in the rapidly developing economies. Growth in both the European and Asian markets was lower compared to that in other regions. Demand for services again grew in all regions and business areas. One focus of the segment is the expansion of software solutions in the Industry 4.0 environment.

Business with microscopy systems for research and teaching saw increasingly encouraging development during the reporting period due to the introduction of new light microscopy solutions. The industrial market continued to develop positively. The Microscopy business group benefited here from increasing investments in industrial research and production. By contrast, the area of materials analysis in the oil and gas industry was negatively impacted by the fall in the price of oil.

By means of rigorous implementation of the program designed to increase competitiveness launched in fiscal year 2014/15, savings were achieved both in cost of materials and non-personnel expenses as well as by means of personnel-related measures in individual areas. Negotiations with the employees' representatives on the measures were concluded successfully.

As of 30 September 2016, the segment had 6,069 employees worldwide (prior year: 5,869).

Medical Technology

The Medical Technology segment closed the fiscal year with a revenue increase of 7% (adjusted for currency effects: 7%). Revenue rose to €1,290m (prior year: €1,211m).

The Asia/Pacific region (APAC) proved to be the largest growth driver. China, Southeast Asia and South Korea in particular listed the highest growth rates. In the region of Europe, Middle East and Africa (EMEA), business development of individual markets remained extremely diverse. Good contributions to sales came from Germany, France and the UK. Revenue developed negatively, particularly in Southern Europe and the Middle East. The Americas region benefited from the development of the US dollar against the euro. The fact that it nevertheless recorded a drop in revenue was mainly due to the continued intense competition in the ophthalmic diagnostic business.

As of 30 September 2016, the segment had 4,299 employees worldwide (prior year: 4,144). Due to different bases of consolidation, the figures for the Medical Technology segment deviate from those published for Carl Zeiss Meditec AG.

Vision Care/Consumer Products

The Vision Care/Consumer Products segment increased revenue in the fiscal year by 8% (adjusted for currency effects: 8%) from €1,007m in the prior year to €1,089m.

In all regions, growth was achieved in particular with ZEISS brand eyeglass lenses and product innovations. In the EMEA region, the Vision Care business group reported a significant increase in revenue. The business group also developed positively in the rapidly growing economies, in particular in China and India and Eastern Europe. In the USA, progress was made in business development. However, this largest market continues to be a challenge.

The business of the Consumer Optics business group was characterized in all areas by fierce competition and high price pressure. New products such as full-frame autofocus lenses were successfully positioned in the market, as well as accessory lenses with the licensing partner Fellowes. Entry into simulation, a new business line which is still in the development stage, unlocked additional growth potential.

As of 30 September 2016, the segment had 9,320 employees worldwide (prior year: 9,076).

Consolidated revenue by region

Revenue by region and cooperation partners	**2015/16**	2014/15	Change compared to prior year as a %	
	€ m	€ m		Adjusted for currency effects
EMEA	1,611	1,552	4	5
» thereof Germany	599	547	10	10
Americas	1,260	1,215	4	3
APAC	1,123	953	18	17
Cooperation partners	887	791	12	12
ZEISS Group	**4,881**	**4,511**	**8**	**8**

In the economic region of EMEA, ZEISS reported an increase in revenue in the reporting period of 4% (adjusted for currency effects: 5%) to €1,611m (prior year: €1,552m), with revenue in Germany increasing by 10% to €599m (prior year: €547m).

Business in the Americas region increased slightly. Revenue came to €1,260m, 4% (adjusted for currency effects: 3%) higher than in the prior year (€1,215m). The development of the US dollar had a slight positive effect in fiscal year 2015/16.

Revenue in the APAC region increased by 18% compared to the prior year (adjusted for currency effects: 17%) to €1,123m (prior year: €953m). China continued its growth trajectory in the reporting period.

Business with cooperation partners increased by 12% to €887m in fiscal year 2015/16 (prior year: €791m). The main contributory factor was the stabilization in investment activity in the semiconductor sector after a considerable cooling down in the prior year.

Functional costs

Cost of sales increased by €103m in comparison to the prior year and came to €2,534m (prior year: €2,431m). Gross profit improved by €267m from €2,080m to €2,347m in the reporting period. ZEISS pursues the goal of systematically increasing its competitiveness. In this connection, the initiatives launched in the prior year were continued, leading to further productivity improvements. In the reporting period, these resulted in an increase in the gross margin to 48% (prior year: 46%).

Sales and marketing expenses in fiscal year 2015/16 came to €972m (prior year: €929m), which is equivalent to a slight decrease in proportion to revenue. General administrative expenses were kept constant at €329m (prior year: €323m), despite an increase in business volume.

Research and development expenses amounted to €485m in the reporting period (prior year: €473m) before subsidies (€18m; prior year: €7m) and financing from third parties (€31m; prior year: €0m). This again represents 10% (prior year 10%) of revenue, testifying to the ZEISS Group's continued strong focus on innovation. After taking into account subsidies and financing from third parties, the research and development expenses recognized in the income statement came to €436m (prior year: €466m).

Development of earnings

Earnings before interest, taxes, depreciation and amortization (EBITDA) amounted to €819m in the reporting period (prior year: €572m).

Earnings before interest and taxes (EBIT) of €615m (prior year: €369m) with an EBIT margin of 13% (prior year: 8%) were generated in the reporting period. This development is attributable to the growth in revenue in the reporting period as well as to increases in efficiency and productivity. The EBIT margin projected in the prior year was exceeded.

	2015/16	2014/15	2013/14
	€ m	€ m	€ m
EBITDA	819	572	572
» EBITDA margin as a %	17	13	13
	615	369	360
» EBIT margin as a %	13	8	8

The financial result improved by €38m compared to the prior year to minus €67m (prior year: minus €105m). The interest result amounted to minus €56m in the reporting period (prior year: minus €49m). The other financial result increased by €34m to minus €11m (prior year: minus €45m). This is essentially attributable to measurement effects in connection with hedge accounting and to the development of the exchange rates important to ZEISS in the reporting year.

The tax expense for fiscal year 2015/16 totaled €144m (prior year: €56m), which resulted in a group tax rate of 26% (prior year: 21%). The increase in tax expenses mainly resulted from deferred tax assets recognized in profit or loss on loss carryforwards on account of improved business developments, which reduced the tax expenses of the prior year accordingly.

The consolidated profit thus came to €404m in the reporting period (prior year: €208m).

Economic value added generated

ZEISS measures value added generated using the Economic Value Added (EVA®) indicator. This is the internal measure of the company's success. In fiscal year 2015/16, EVA® amounted to €310m (prior year: €115m). ZEISS therefore once again achieved considerable value added and continued the positive development of prior years. EVA® is calculated as the operating profit after taxes less cost of capital. The internal interest rate used to determine weighted average of cost of capital ranges between 6.5 and 10%, depending on the business involved.

NON-FINANCIAL KEY PERFORMANCE INDICATORS

Responsibility

Responsibility has a long tradition at ZEISS. As a company operating under the umbrella of the Carl Zeiss Foundation (Carl Zeiss Stiftung), ZEISS has been implementing the stipulations anchored in the Foundation Statute for over 125 years.

Employees

The total headcount of the ZEISS Group increased as of 30 September 2016 by 487 worldwide to 25,433 (prior year: 24,946). The number of employees increased most in the APAC region, where it rose by 561 to 4,788 (prior year: 4,227).

ZEISS is an international company. Around 58% (prior year: 56%) of the ZEISS workforce – equivalent to 14,663 employees (prior year: 14,051) – works outside Germany.

The Group's research and development departments have a total of 2,551 employees – 10% of the workforce – working on new solutions and technologies for the optics industry (prior year: 2,648 employees, 11%).

Education and training is a high priority at ZEISS. As of the reporting date, the Group had 375 apprentices and trainees in Germany (prior year: 433).

The focal points of HR policy at ZEISS are employee training and leadership development. The Group invested more than €4m to this end in Germany alone. Employees can select a large number of courses in the internal qualification program. In addition, ZEISS supports off-the-job training and personnel development measures.

ZEISS promotes the health and performance of its employees through comprehensive occupational health and safety measures. This also includes the organization of occupational health care precautions. At both national and international level, standardized key performance indicators (KPI) of the International Labor Organization (ILO) are consolidated and evaluated for the assessment of occupational safety. The ILO KPIs of the ZEISS production sites worldwide have been measured centrally since fiscal year 2012/13. The health management system at ZEISS contributes to the sustainable creation of a modern working environment.

Societal and social engagement

ZEISS plays an active role in society. The Group supports educational measures and scientific projects and institutions as well as selected social and cultural initiatives at company locations. ZEISS has been cooperating for years with non-governmental organizations as well as giving donations in money and in kind to ensure that medical care and the training of medical professionals are also available to people in developing and emerging countries.

In addition, dividend distributions to the Carl Zeiss Foundation (Carl Zeiss Stiftung) are used within the framework of its aims to promote in particular scientific and mathematical studies in research and teaching.

Environment

ZEISS attaches great importance to the sustainable and economical use of resources as well as environmental protection. Sustainability is a key consideration – from the development and manufacture to the packaging and shipment, through to disposal of its products. The Group has also defined corresponding requirements for its suppliers.

All the major manufacturing sites worldwide and some international subsidiaries are certified to the international environmental management standard ISO 14001. ZEISS spent around €12m on environmental protection measures over the past year.

ZEISS launched its initiatives for the efficient handling of energy a good few years ago. Since December 2015, all business units of the ZEISS Group in the European Union have been certified to the globally recognized energy management standard ISO 50001.

Products and value chain

Optical technologies are key technologies of the future. The technological and scientific applications will increasingly penetrate all areas of life and improve people's lives. For 170 years, ZEISS has been synonymous with innovation. The specific ownership structure of ZEISS ensures the scope required to enable investments in new developments and solutions in the long term.

ZEISS cooperates with global networks of renowned universities, research institutes and specialists in developing new technologies and solutions.

ZEISS invests in innovations and solutions, and secures its innovative advantage by means of patents. As of the reporting date, ZEISS held 7,793 patents worldwide (prior year: 7,071). In the reporting period, the Group applied for new patents for 447 inventions (prior year: 413).

Integrity and compliance at ZEISS

It is vital to the reputation of ZEISS that the business partners, customers, public authorities, the general public as well as competitors, have confidence in the responsible, law-abiding and ethical behavior of all ZEISS employees. Therefore, ZEISS approved a Code of Conduct in 2007 that is valid throughout the world. It specifies and explains the general rules of behavior for various areas of our business activities. The Group has also implemented framework conditions with the ZEISS Compliance Management System to ensure compliance with the law, regulatory requirements as well as internal corporate guidelines.

Suppliers around the world make an important contribution to the ZEISS products and services and thus also have an important influence on the sustainability performance of ZEISS. The company expects its suppliers to recognize the Code of Conduct of the Electronic Industry Citizenship Coalition (EICC) and to implement ongoing measures to meet these requirements. The internationally recognized Code of Conduct is based on the UNO guiding principles for business and human rights and was derived from international standards. At the beginning of fiscal year 2016/17, selected suppliers will be required to complete sustainability questionnaires. ZEISS will then carry out sustainability assessments in on-site audits.

RISK AND OPPORTUNITY REPORT

Groups with global operations face a large number of entrepreneurial risks and opportunities that can have a sustained impact on planned results of operations. The assessment of opportunities and risks and conscientious handling of entrepreneurial uncertainty are an important part of corporate governance at ZEISS.

Risk management system

The central risk management system at ZEISS stipulates uniform rules and processes to detect, assess and manage risks at an early stage. The key objective is to minimize the negative effects of potential risks.

In the business groups, risk management coordinators apply the central policies and procedures. The management of the business groups and strategic business units detects, manages and reports on operating and strategic risks. Overall responsibility lies with the Group's Executive Board, which regularly assesses risks and opportunities and their management at group level. While the Executive Board examines the appropriateness of the risk management system, the Supervisory Board's Audit Committee monitors the effectiveness of the risk management system.

Internal control system

The internal control system (ICS) of ZEISS is based on the COSO Enterprise Risk Management Model (COSO ERM model). It integrates organizational, process-related and technical measures to ensure proper operating activities and correct reporting. This integrated enterprise risk management system covers strategic and operational risks, i.e. it does not merely monitor financial risks. For central processes, there are defined key risks and defined control mechanisms, which are evaluated with regard to their effectiveness.

The Group's Executive Board ensures that an adequate and effective internal control system is in place and that it is continuously enhanced. The Supervisory Board's Audit Committee monitors the effectiveness of the internal audit function, risk management and the internal control system as well as the financial reporting process.

Strategic and operational risks

ZEISS systematically analyzes and evaluates risks. Special emphasis is placed on potential economic effects and on probability of occurrence. Risks are thus quantified and classified, and the risk-bearing capacity is identified. Due to the broad portfolio and the Group's global presence, the strategic and operational risks are spread broadly.

General risks and opportunities
ZEISS regularly checks for risks and opportunities that can arise from changes in markets and within the supplier and customer environment, consolidation within the industry and technological developments. In addition, ZEISS analyzes economic, legal and political developments or economic sanctions in the economic regions relevant for the Group and evaluates possible scenarios. Opportunities and risks that could arise from major natural disasters are also evaluated. The international orientation, sustainable operating policies and balanced ZEISS portfolio help spread the risk.

Innovation risks and opportunities
The results of operations and reputation of ZEISS are heavily dependent on the development of innovative products and solutions. New trends and current findings from science and research can give rise to abrupt technology shifts, new customer requirements, and also make new business models necessary. In order to take advantage of these opportunities at an early stage and to minimize the probability of occurrence and the economic impact of the risk, ZEISS cooperates with research institutes, engages in development partnerships and also makes targeted technology acquisitions.

Personnel risks and opportunities
Demographic change and the changing requirements of digital competences, as well as the differing training and qualifications standards around the globe, are creating new challenges when it comes to filling job vacancies. These give rise to moderate economic risks. ZEISS counters these with a global recruitment strategy, which leads to a low probability of occurrence. In order to retain employees in the long term, the Group offers various employee benefits depending on the location – these include, for example, offers for health promotion or child care.

Risks and opportunities in procurement and production
ZEISS ensures compliance with national and international standards, laws and regulations by means of an integrated management system that addresses the issues of quality, environmental protection, occupational health and safety, and energy management. The regulatory requirements for commodities and materials, the growing complexity of purchased parts and the limited number of suppliers (single source) for some technologies give rise to higher costs and a moderate procurement risk. ZEISS carries out systematic supplier audits to minimize these risks. ZEISS is continuously working to stabilize supply chains and to reduce the dependence on individual suppliers, as well as to keep the associated economic impact down. ZEISS systematically leverages opportunities that arise from bundling procurement activities.

Risks and opportunities of information technology
ZEISS constantly examines and utilizes the opportunities of digitalization in order to offer customers additional and enhanced services. At the same time, the Group constantly updates its existing information technology (IT) systems, and its IT protection and security systems. Some ZEISS IT systems are operated by external partners. For these service providers, the Group has defined high technical and legal standards regarding the hardware and software deployed as well as process monitoring and data security. ZEISS continuously monitors the implementation of and compliance with these standards. The probability of IT risks occurring is estimated to be low. However, the economic impact can be considerable.

Risks and opportunities from acquisitions
Acquisitions or investments offer ZEISS the opportunity to enlarge its competencies and technology portfolio or to increase its access to regional markets. ZEISS systematically checks the associated risks and opportunities. Due diligence reviews aimed at assessing the business development that can be expected are a key element prior to closing transactions. The economic impact and probability of occurrence are therefore low.

Goodwill totaling €582m from acquisitions is shown in the consolidated statement of financial position. This goodwill is subject to regular impairment tests. It cannot be ruled out that impairment losses on goodwill may need to be recognized on account of changes in economic conditions, business models or technologies.

Legal risks, patents and intellectual property
ZEISS safeguards its technologies and products through a comprehensive industrial property rights strategy. If ZEISS patent and brand rights are infringed by third parties, the Group takes legal steps in order to counter the associated high economic risk. The probability of such cases occurring is low.

When developing new products and technologies, ZEISS systematically checks whether the rights of a third party could be affected, develops non-protected solutions, if necessary, and acquires the requisite licenses and rights, or seeks other solutions by legal contract. Due to the complexity of possible industrial rights and the increased activity of institutional patent assertion entities there is a moderate risk of litigation with a moderate economic risk. Appropriate provision is made in the statement of financial position for any claims arising from unclear patent situations.

There is no pending litigation that poses any risk to the continued existence of ZEISS at present.

ZEISS has set out the basic principles of correct conduct in business activities in a Code of Conduct, which applies to all employees. In order to avoid breaches of compliance and minimize risks to the Group's reputation, ZEISS has established a corporate-wide compliance organization.

Financial risks and opportunities
The overall financial risks of the ZEISS Group are classified as moderate. The measures listed result in a low probability of occurrence.

The financial activities and the associated opportunities and risks of the ZEISS Group are managed centrally. The Group uses defined risk strategies to minimize risks resulting from changes in exchange rates, interest rates or the value of assets. Furthermore, the Group is generally exposed to credit and liquidity risks. On account of its global orientation, the ZEISS Group is exposed to risks from exchange rate fluctuations in its operations and the financial results and cash flows reported. Interest rate risk arises from fluctuations in market interest rates.

The ZEISS Group exclusively uses derivative financial instruments to hedge interest rate and currency risks. For this purpose, it enters into interest rate swaps and standard currency options and forward exchange contracts. These cover the underlying goods and services transactions of group entities and non-derivative financial transactions (hedged transactions).

Credit risk stems from an adverse development in the economic conditions of the company's borrowers or counterparties. On the one hand, this gives rise to the risk of default, in full or in part, on contractually agreed payments or performance and, on the other, potentially a need to recognize credit-risk-related impairment losses on financial instruments. The maximum credit risk position of the ZEISS Group as of the end of the reporting period is equivalent to the carrying amount of the financial instruments disclosed as financial assets and the guarantees issued to non-consolidated group entities.

The liquidity risk of the ZEISS Group represents the risk that Carl Zeiss AG or a subsidiary may not be able to meet its financial obligations (e.g. to repay financial liabilities or make interest payments). ZEISS has sufficient liquidity reserves in the form of cash and lines of credit. The Group's investment strategy is conservative: the focus here is on security and short-term availability. In addition, ZEISS ensures that the investments are broadly diversified.

Risks of default are limited by choosing counterparties with excellent credit ratings given by external rating agencies. Concentration risks are limited and managed by generally entering into transactions with various banks.

In the context of pension obligations, high risks also arise from the increasing life expectancy of the beneficiaries, from general interest rate developments and from the obligation to regularly adjust the amount of the pensions paid. The existing pension agreements could give rise to risks with regard to equity. The provisions negatively impact the statement of financial position and could therefore restrict scope for strategic action. In light of this, the pension rules were revised during the previous reporting period and adapted to the changed conditions on the financial market. By doing this, ZEISS is countering the risks that could arise in particular from the development of interest rates. The new pension rules came into effect as of the beginning of fiscal year 2015/16.

ZEISS has transferred the funds to cover pension obligations toward active employees in Germany to a contractual trust arrangement (CTA).

Further financial risks and risks relating to the statement of financial position can in principle arise from changes in accounting standards.

Market risks and opportunities

The broad and balanced ZEISS business portfolio helps spread risk. The economic risk arising from the differing development of the segments is classified as moderate with a moderate probability of occurrence. In order to further reduce both the probability of occurrence and the economic risk, ZEISS has launched programs designed to increase competitiveness in individual areas.

The volatility and increasing consolidation of the semiconductor sector entails risks and opportunities for the Semiconductor Manufacturing Technology segment, to which ZEISS must adapt in a flexible manner. The company is well positioned for changing market and technology requirements thanks to an optimized organizational structure. In particular, the use of EUV lithography for volume production of semiconductor chips offers considerable growth opportunities while also presenting high inherent technological risks for the business group. ZEISS therefore collaborates closely with its strategic partner ASML and other development partners in order to jointly steer this future-oriented technology to success.

The Research & Quality Technology segment is exposed to risks arising from the Industrial Metrology business group's dependence on the capital goods industry and particularly the automotive and the associated supplier industry, and their willingness to invest. These are reduced by the continuous development of new application areas and by the stringent expansion of the business group's business with customer services. Opportunities still arise for the business group from increasingly networked production processes (Industry 4.0), from the pursuit of increased productivity in all customer segments as well as from its positioning as a one-stop provider, and the expansion of local value chains in the key economic regions. The business development of the Microscopy business group depends heavily on government budgets for education and research, and on an innovative product portfolio. The segment is therefore improving its product portfolio in order to develop new market and customer segments with industrial applications and it is initiating measures to improve the development of delivery times. Increasing industrial requirements, new materials and the growing scarcity of

resources call for new analytical methods in microscopy and offer new sales opportunities for the business group. Megatrends such as the aging population are triggering additional growth opportunities in the area of microscopy for research and routine biomedical applications; for example, in pharmaceuticals research or in diagnosis of diseases.

In the Medical Technology segment, political and regulatory decisions can have a long-term effect on the reimbursement of costs for medical treatment and thus on willingness to invest in new therapy systems. Cuts in public budgets can have similar consequences. Furthermore, new product launches can be delayed or even rejected due to changes in product approval requirements. Patients may be injured due to malfunctions or incorrect operation of medical devices. This can result in substantial litigation costs and cause long-term damage to the company's reputation. The steadily rising world population and higher life expectancy, which is likely to lead to increased demand for medical technology, are giving rise to growth opportunities for the Medical Technology segment. Further growth potential is inherent in the rapidly developing economies due to the growing demand for basic medical care.

Within the Vision Care/Consumer Products segment, the Vision Care business group is exposed to risks arising from fundamental changes in the market, ongoing consolidation in the industry and the concentration of customer structures. Other risks include the continued fall in the price of eyeglass lenses, as well as competitors who use online sales channels or deploy new technologies to establish their own production capacity. Opportunities continue to be offered by the growing importance of the brand for consumers, freeform technology and the associated new business fields, optimization of the value chain, and new business models resulting from digitalization. The Consumer Optics business group is subject to risks in the market for cine lenses due to increasing competitive and price pressure. Opportunities can arise from new developments and from sector and technology trends in this market. In the market for camera lenses, there are risks due to an increasingly weak market for single-lens reflex cameras, which also results in opportunities in the market for mirrorless cameras. The licensing business depends on the attractiveness of the ZEISS brand for partners of the business group. ZEISS counters this risk by means of a consistent brand strategy.

Another risk is presented by product delays in Sports Optics. This could give rise to idle capacity at manufacturing sites.

Overall statement on the risks faced by the company

When this report was prepared, no risks were discernible that could jeopardize the ability of the ZEISS Group to continue as a going concern. There are no significant differences for the overall assessment compared to the prior year. The Executive Board believes that the Group has a solid foundation for further development and uses a systematic strategy and planning process to provide the resources required in order to leverage the opportunities.

SUBSEQUENT EVENTS

By agreement dated 3 November 2016, a non-controlling interest of 24.9% in Carl Zeiss SMT, Oberkochen was acquired by ASML Holding N.V., Veldhoven, Netherlands. ASML Holding N.V. will pay a purchase price of €1b, which will lead to a corresponding increase in cash and cash equivalents as well as in equity. The objective of the agreement is to accelerate the development of a future generation of Extreme Ultra Violet (EUV) lithography systems. The transaction is subject to approval by the relevant authorities and is expected to be formally concluded in the second quarter of 2017.

In addition, an agreement has been reached under which the ASML Group will finance approximately €220m in research and development and approximately €540m in investments in the equipment and process chain of Carl Zeiss SMT, Oberkochen, over the next 6 years.

There were no additional significant events after the end of the fiscal year.

REPORT ON EXPECTED DEVELOPMENTS

Future conditions of business development

Moderate economic growth is currently still expected for fiscal year 2016/17.

The global economy is growing with very different regional variations. While growth rates in the industrialized countries are stagnating, growth in the rapidly developing economies is still good, although it is starting to flatten. According to forecasts, the US economy will see moderate growth, whereas Japan and Europe – also as a result of Brexit – will be negatively impacted. A "new normality" with flattening growth rates and a process of transformation in industry is expected in China. According to forecasts, the Indian economy will see above-average development. Brazil will emerge from the recession with marginal growth.

Uncertainties about the economic development in the growth markets, the low oil prices, the unpredictable impact of Brexit, the outcome of the presidential election in the USA, the situation in the Middle East and Ukraine as well as ongoing structural problems are significant political and economic factors which could negatively impact on investment activity of industry and the public sector.

Expected development of the markets and industries relevant for ZEISS

Semiconductor Manufacturing Technology

ZEISS expects that the global semiconductor market will recover in fiscal 2016/17, but will grow more slowly in the future. The remaining growth drivers are, in particular, the constantly rising storage and computing requirements due to the rapidly growing data volumes and increasing digitalization in all areas of life, as well as new applications especially in the automotive and industrial environment. The classic growth drivers will see negative (PCs) or low positive (tablets and smartphones) development. The Group expects growth in the market for semiconductor manufacturing equipment to be in the medium single-digit percentage range in fiscal year 2016/17. The outlook for the future is, as always in the field of semiconductors, characterized by great uncertainty.

Research & Quality Technology

The Group expects business development in industrial metrology to be stable overall. ZEISS expects rather cautious investment behavior for Europe - while there are positive indicators for business domestically, business in North America and, increasingly, also in Asia. ZEISS also expects the business group's extensive global service business to continue to grow.

For the microscopy business, it is apparent that the public subsidies for research, which are on the whole restrictive, will result in stagnating global growth in the academic environment. Positive impetus is expected for the industrial application of microscopes. The Group expects that this robust market environment will remain in place for the Microscopy business group.

Medical Technology

Medical devices and medical equipment will remain an attractive business field in the health care sector. ZEISS expects that growth drivers in the market for the Medical Technology segment, such as demographic trends and population growth as well as rising demand from the rapidly developing economies, will continue to exist. They will be supplemented by new technologies and applications, particularly in the area of minimally invasive surgery, that will contribute to growth of the industry. From the customer's perspective, a better cost-benefit balance of medical technology products and increasing digitalization and systems integration are playing a key role in day-to-day work in doctors' offices and hospitals.

Vision Care/Consumer Products

For the business of the Vision Care/Consumer Products segment, ZEISS expects global growth to remain stable. Major drivers of the development of the markets for the Vision Care business group are demographic trends, increasing income in the rapidly developing economies and rising demand for individualized precision eyeglass lenses. ZEISS expects the increasing digitalization in lens fitting and production, logistics, marketing and customer service to result in major changes. ZEISS expects the Consumer Optics business group to face tougher competition. In addition, the Group assumes that the US market will recover. With the size of the market for cine lenses set to remain constant, increased competitive pressure is expected due to the entry of new competitors from Asia.

Overall statement on anticipated development

When these consolidated financial statements for 2015/16 were prepared, moderately increasing global economic growth with differences between the various regions was becoming apparent. In light of the global economic development forecasts currently available, the Executive Board of Carl Zeiss AG regards the goals planned for fiscal year 2016/17 as challenging. In light of the initial signs of increasing market uncertainty, ZEISS expects less dynamic growth in some of the rapidly developing economies compared to prior years, with a slight decrease expected for China. Thanks to the solid positioning of the segments in their respective markets, which ZEISS established and expanded in the past, mainly through its innovative strength, for fiscal year 2016/17 the Group expects a roughly comparable return on EBIT and a slight increase in revenue.