Consolidated Financial Statements

Consolidated Income Statement
for the period from 1 October 2017 to 30 September 2018

	Note	2017/18	2016/17
		€ k	€ k
Revenue	7	**5,817,170**	**5,347,804**
Cost of sales		2,860,582	2,606,723
Gross profit		**2,956,588**	**2,741,081**
» Sales and marketing expenses		1,213,342	1,109,242
» General administrative expenses		325,058	324,956
» Research and development expenses		641,839	552,118
» Other income	8	4,441	20,200
» Other expenses	9	8,691	4,808
Earnings before interest and taxes (EBIT)		**772,099**	**770,157**
» Interest income	10	9,805	7,616
» Interest expenses	10	35,159	39,017
» Other financial result	10	-28,194	18,789
Financial result		**-53,548**	**-12,612**
Earnings before taxes (EBT)		**718,551**	**757,545**
» Income taxes	11	183,522	196,175
Consolidated profit/loss		**535,029**	**561,370**
» thereof profit/loss attributable to non-controlling interests		146,967	72,877
» thereof profit/loss attributable to the stockholder of the parent company		388,062	488,493

Consolidated Statement of Comprehensive Income
for the period from 1 October 2017 to 30 September 2018

	Note	2017/18	2016/17
		€ k	€ k
Consolidated profit/loss		**535,029**	**561,370**
Earnings to be reclassified:			
» Currency translation differences		-165	-62,809
» Gains/losses from available-for-sale financial assets		-2,457	-39
» Gains/losses from cash flow hedges		0	391
» Deferred income tax		708	11
Earnings not to be reclassified:			
» Remeasurement of defined benefit plans		-72,209	368,805
» Deferred income tax		31,584	-91,279
Other comprehensive income (after taxes)		**-42,539**	**215,080**
Total comprehensive income		**492,490**	**776,450**
» thereof profit/loss attributable to non-controlling interests		141,992	87,015
» thereof profit/loss attributable to the stockholder of the parent company		350,498	689,435

Consolidated Statement of Financial Position
as of 30 September 2018

Assets	Note	30 SEP 18	30 SEP 17
		€ k	€ k
Non-current assets			
» Intangible assets	12	881,246	776,762
» Property, plant and equipment	13	1,028,083	973,395
» Trade and other receivables	23	40,989	35,879
» Other non-current financial assets	14	662,663	812,999
» Other non-current non-financial assets	15	4,696	6,499
» Deferred taxes	11	666,087	616,435
		3,283,764	**3,221,969**
Current assets			
» Inventories	16	1,390,845	1,275,149
» Trade and other receivables	23	1,194,583	1,090,623
» Other current financial assets	14	1,148,429	1,054,661
» Tax refund claims		27,524	12,250
» Other current non-financial assets	15	128,348	99,924
» Cash and cash equivalents	17	729,299	562,036
		4,619,028	**4,094,643**
		7,902,792	**7,316,612**

Equity and liabilities	Note	30 SEP 18	30 SEP 17
		€ k	€ k
Equity	18		
» Issued capital		120,000	120,000
» Capital reserves		52,770	52,770
» Retained earnings		3,581,358	3,242,146
» Other reserves		-674,332	-636,768
» Non-controlling interests		682,886	651,028
		3,762,682	**3,429,176**
Non-current liabilities			
» Provisions for pensions and similar obligations	19	1,143,660	1,184,589
» Other non-current provisions	20	244,642	212,927
» Non-current financial liabilities	21	246,135	206,528
» Other non-current non-financial liabilities	22	33,012	34,062
» Deferred taxes	11	54,644	55,277
		1,722,093	**1,693,383**
Current liabilities			
» Current provisions	20	266,371	275,417
» Current financial liabilities	21	204,870	136,780
» Trade payables	23	402,947	362,067
» Current income tax payables		28,925	25,340
» Other current non-financial liabilities	22	1,514,904	1,394,449
		2,418,017	**2,194,053**
		7,902,792	**7,316,612**

Consolidated Statement of Changes in Equity
for fiscal year 2017/18[1]

	Issued capital	Capital reserves	Retained earnings	Other reserves: from currency translation	Other reserves: from the remeasurement of defined benefit plans	Other reserves: from available-for-sale financial assets	Other reserves: from cash flow hedges	Equity attributable to the stockholder of the parent company	Non-controlling interests	Consolidated equity
	€ k	€ k	€ k	€ k	€ k	€ k	€ k	€ k	€ k	€ k
1 October 2016	**120,000**	**52,770**	**1,851,412**	**58,460**	**-923,285**	**69**	**-391**	**1,159,035**	**257,320**	**1,416,355**
» Consolidated profit/loss	0	0	488,493	0	0	0	0	488,493	72,877	561,370
» Other comprehensive income	0	0	0	-56,820	257,399	-28	391	200,942	14,138	215,080
Total comprehensive income	**0**	**0**	**488,493**	**-56,820**	**257,399**	**-28**	**391**	**689,435**	**87,015**	**776,450**
Dividends	0	0	-25,000	0	0	0	0	-25,000	-35,394	-60,394
Changes in basis of consolidation	0	0	0	0	0	0	0	0	3,618	3,618
Other changes	0	0	927,241	466	26,971	0	0	954,678	338,469	1,293,147
30 September 2017	**120,000**	**52,770**	**3,242,146**	**2,106**	**-638,915**	**41**	**0**	**2,778,148**	**651,028**	**3,429,176**
» Consolidated profit/loss	0	0	388,062	0	0	0	0	388,062	146,967	535,029
» Other comprehensive income	0	0	0	-410	-35,405	-1,749	0	-37,564	-4,975	-42,539
Total comprehensive income	**0**	**0**	**388,062**	**-410**	**-35,405**	**-1,749**	**0**	**350,498**	**141,992**	**492,490**
Dividends	0	0	-48,850	0	0	0	0	-48,850	-110,460	-159,310
Changes in basis of consolidation	0	0	0	0	0	0	0	0	326	326
Other changes	0	0	0	0	0	0	0	0	0	0
30 September 2018	**120,000**	**52,770**	**3,581,358**	**1,696**	**-674,320**	**-1,708**	**0**	**3,079,796**	**682,886**	**3,762,682**

[1] For more information on the changes in equity, please refer to note 18 of the notes to the consolidated financial statements

Consolidated Statement of Cash Flows
for the period from 1 October 2017 to 30 September 2018

	2017/18	2016/17
	€ k	€ k
Consolidated profit/loss	535,029	561,370
Amortization, depreciation and impairment net of reversals of impairment losses	242,344	214,876
Changes in provisions for pensions and similar obligations	13,004	9,525
Amounts allocated to the contractual trust arrangement and other plan assets outside Germany	-127,516	-168,417
Changes in other provisions	23,497	47,760
Gain/loss from the disposal of intangible assets and property, plant and equipment	177	352
Gain/loss from the disposal of current securities	-154	-178
Changes in inventories	-102,993	-187,172
Changes in trade receivables	-93,181	-159,278
Changes in deferred taxes	-17,453	-14,533
Changes in other assets	6,374	-40,983
Changes in trade payables	18,953	70,884
Changes in current accruals	105,600	61,446
Changes in advances received	-35,809	44,489
Changes in other liabilities	8,009	4,892
Cash flows from operating activities	**575,881**	**445,033**
Proceeds from the disposal of intangible assets and property, plant and equipment	24,005	15,042
Purchases of intangible assets and property, plant and equipment	-276,674	-231,404
Net cash flow from investments in financial assets including fixed-term investments and securities maturing in >90 days	24,723	-1,364,979
Net cash flow for the acquisition/sale of shares in affiliates	-106,210	939,352
Cash flows from investing activities	**-334,156**	**-641,989**
Dividend paid to Carl Zeiss Foundation (Carl-Zeiss-Stiftung)	-48,850	-25,000
Payments to non-controlling interests	-40,753	-15,657
Proceeds from (financial) loans	16,495	11,894
Repayments of (financial) loans and bonds	-16,303	-26,468
Proceeds from capital increase at Carl Zeiss Meditec AG (net)	0	315,036
Payments for costs in connection with the capital increase at Carl Zeiss Meditec AG	0	-1,575
Cash flows from financing activities	**-89,411**	**258,230**
Changes in cash and cash equivalents	152,314	61,274
Changes in cash and cash equivalents from exchange rate movements and changes in the basis of consolidation	14,949	2,029
Cash and cash equivalents as of 1 October	562,036	498,733
Cash and cash equivalents as of 30 September	**729,299**	**562,036**

Additional information on the statement of cash flows	2017/18	2016/17
	€ k	€ k
Payments of		
» Income taxes	258,952	218,194
» Interest	10,317	12,298
» Dividends	89,603	40,657
Proceeds from		
» Income taxes	5,689	23,644
» Interest	8,760	4,839
» Dividends	450	977

Notes to the Consolidated Financial Statements
for fiscal year 2017/18

BASIS OF PRESENTATION

1 General principles

Carl Zeiss AG is a non-listed stock corporation incorporated under German law and parent company of the ZEISS Group, headquartered at Carl-Zeiss-Strasse 22, 73447 Oberkochen, (Germany), and has been entered in the commercial register of Ulm district court (HRB 501555). The Carl Zeiss Foundation (Carl-Zeiss-Stiftung), Heidenheim an der Brenz and Jena, is the sole stockholder of Carl Zeiss AG.

ZEISS is an internationally leading technology enterprise operating in the optics and optoelectronics industries. The ZEISS Group develops, produces and sells semiconductor manufacturing equipment, measuring technology, microscopes, medical technology, eyeglass lenses as well as camera and cine lenses, binoculars and planetarium technology. ZEISS comprises 4 segments: Semiconductor Manufacturing Technology, Industrial Quality & Research, Medical Technology and Consumer Markets.

Carl Zeiss AG exercises the option afforded by Sec. 315e (3) German Commercial Code (HGB) which, based on the member state option set out in the EU Regulation dated 19 July 2002, also allows companies not geared to the capital market to issue their consolidated financial statements for publication in accordance with international financial reporting standards with exempting effect as defined by this regulation.

The accompanying consolidated financial statements of Carl Zeiss AG, comprising the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of financial position, the consolidated statement of changes in equity, the consolidated statement of cash flows and the notes to the consolidated financial statements, have been prepared in accordance with international financial reporting standards (IFRSs) and the interpretations of the IFRS Interpretations Committee, as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB. All pronouncements of the International Accounting Standards Board (IASB) whose adoption is mandatory have been considered.

The consolidated financial statements are presented in euros (€). Unless otherwise specified, all amounts are stated in thousands of euros (€ k) and rounded in line with common business practice.

In order to improve clarity and transparency, individual items have been combined in the consolidated statement of financial position and the consolidated income statement and broken down and explained separately in these notes.

The consolidated financial statements and group management report prepared as of 30 September 2018 were authorized for issue to the Supervisory Board by the Executive Board on 3 December 2018.

2 Basis of consolidation

Subsidiaries, associates, joint ventures and special purpose entities are included in the consolidated financial statements. Subsidiaries and special purpose entities are entities that are controlled directly or indirectly and are consolidated in full. Control is the power to govern the financial and operating policies of another entity, directly or indirectly, such that the ZEISS Group obtains benefits from the entity's activities. Associates are entities over which Carl Zeiss AG exercises significant influence and that are neither subsidiaries nor joint ventures. Material associates and joint ventures are accounted for in the consolidated financial statements using the equity method.

The consolidated financial statements contain 34 (prior year: 33) fully consolidated German entities (including Carl Zeiss AG) and 108 (prior year: 103) fully consolidated entities in other countries. The entities are generally included in the consolidated financial statements from the date on which control is obtained.

A special fund is included in the consolidated financial statements as a structured entity because the fund activities are prescribed by the investment strategy defined by Carl Zeiss Financial Services GmbH. Carl Zeiss Financial Services GmbH is solely entitled to the earnings generated by the fund.

The entities included in consolidation and shareholdings are all contained in the list of shareholdings in accordance with Sec. 313 (2) HGB.

The number of fully consolidated entities changed as follows in the reporting period:

	Germany	Other countries	Total
1 October 2017	33	103	136
Disposals in the reporting period	0	2	2
Additions in the reporting period	1	7	8
30 September 2018	**34**	**108**	**142**

Disposals from the basis of consolidation

The following entities were removed from the basis of consolidation in the reporting period:

» Carl Zeiss Microscopy Co., Ltd., Tokyo (Japan)
(merged with Carl Zeiss Co., Ltd., Tokyo (Japan) as of 1 May 2018)

» Zaventem Services N.V.-S.A. (formerly Carl Zeiss Services N.V.-S.A.), Zaventem (Belgium)
(sold on 15 June 2018)

The disposals from the basis of consolidation did not have any significant impact on the net assets, financial position and results of operations of the ZEISS Group.

Additions to the basis of consolidation

The following entities were included in the consolidated financial statements for the first time:

» Bosello High Technology S.r.l., Cassano Magnago (Italy)
(from 1 January 2018)

» OPTEC GmbH, Düsseldorf
(from 1 January 2018)

» OOO Optec, Moscow (Russia)
(from 1 January 2018)

» Optec Limited, Minsk (Belarus)
(from 1 January 2018)

» TOO Optec, Almaty District (Kazakhstan)
(from 1 January 2018)

» TOV Optec, Kiev (Ukraine)
(from 1 January 2018)

» Carl Zeiss Co., Ltd., Hsinchu City (Taiwan)
(from 1 October 2017)

» Carl Zeiss Meditec Digital Innovations, LLC, Temple (USA)

The following entities were acquired in fiscal year 2017/18:

Bosello High Technology S.r.l., Cassano Magnago (Italy)
Under an agreement dated 6 December 2017 and effective from 1 January 2018, Carl Zeiss Industrielle Messtechnik GmbH, Oberkochen, Germany, acquired 70% of the shares in Bosello High Technology S.r.l., Cassano Magnago (Italy). The shares were largely acquired with the aim of leveraging the customized solutions provided by Bosello High Technology S.r.l. to develop into an integrated solution provider of non-destructive measurement and testing technology. The companies' common goal is to strengthen inline computed tomography in the production environment in order to improve the level of quality assurance for cast aluminum parts.

The purchase price allocation in accordance with IFRS 3 was performed in the reporting period. As reciprocal put and call options with identical terms and conditions are in place for the remaining 30% of the shares, the non-controlling interests are considered to have been acquired and were accounted for at fair value as a financial liability using the anticipated acquisition method.

The purchase price for 70% of the shares is €70.6m. The identified goodwill of €46.7m contains inseparable intangible assets, in particular from expected synergy effects from the integration of the entity into the existing operations of Carl Zeiss Industrielle Messtechnik GmbH.

The first-time consolidation of Bosello High Technology S.r.l. did not have any significant impact on the net assets, financial position and results of operations of the ZEISS Group.

OPTEC Group
Under an agreement dated 27 December 2017 and effective from 1 January 2018, Carl Zeiss Beteiligungs-GmbH, Oberkochen, (Germany), acquired 51% of the shares in OPTEC GmbH, Düsseldorf, (Germany). The shares were largely acquired in order to strengthen activities in Russia, Ukraine, the CIS states (Commonwealth of Independent States) and Georgia. The OPTEC Group is a longstanding sales and service partner of ZEISS for this region. The OPTEC Group will retain its current sales and service structure in order to operate as a solution provider with its full portfolio of ZEISS products and complementary third-party products.

The purchase price allocation in accordance with IFRS 3 was performed in the reporting period. As reciprocal put and call options with identical terms and conditions are in place for the remaining 49% of the shares, the non-controlling interests are considered to have been acquired and were accounted for at fair value as a financial liability using the anticipated acquisition method.

The provisional purchase price for 51% of the shares was €14.9m and comprises a fixed component of €10.3m and variable revenue-based components of €4.6m resulting mainly from third-party business with non-ZEISS products of the OPTEC Group in the 4 years from 2018 to 2021. The identified goodwill of €16.5m contains inseparable intangible assets, in particular from expected synergy effects from the integration of the entity into the existing operations of the ZEISS Group.

The first-time consolidation of the OPTEC Group did not have any significant impact on the net assets, financial position and results of operations of the ZEISS Group.

Ophthalmic Laser Engines, LLC, Lafayette (USA)
On 24 February 2017, Carl Zeiss Meditec Inc., Dublin (USA), acquired 52% of the shares in Ophthalmic Laser Engines, LLC, Lafayette (USA).

The provisional purchase price was €19.1m and comprised a fixed component of €18.4m and a performance-based component of €0.7m.

At the time of publishing the consolidated financial statements of Carl Zeiss AG as of 30 September 2018, the allocation of the purchase price to the assets and liabilities of the acquired entity had been completed. The identified goodwill of €14.6m chiefly stems from the expected synergy effects from the integration of the entity into the Ophthalmic Devices strategic business unit and corresponds to the goodwill reported in the consolidated financial statements of Carl Zeiss Meditec AG.

For further explanations on this acquisition, we refer to the Annual Report 2016/17.

The first-time consolidation of Ophthalmic Laser Engines, LLC did not have any significant impact on the net assets, financial position and results of operations of the ZEISS Group.

Carl Zeiss Meditec Digital Innovations, LLC (formerly Veracity Innovations, LLC), Temple (USA)
On 18 August 2017, Carl Zeiss Meditec Inc., Dublin (USA), acquired 100% of the shares in Veracity Innovations, LLC, Temple (USA). The company was renamed Carl Zeiss Meditec Digital Innovations, LLC on 3 October 2017.

The purchase price was €12.5m and consisted of a fixed amount of €12.2m, which was paid in August of fiscal year 2016/17 and an amount of €0.3m, which was paid subsequently in the current fiscal year. There is also an agreement on two performancebased components. In fiscal year 2017/18, the business plan was re-assessed as of the acquisition date. Based on these estimates, the criteria for the performance-based components have not been achieved and the latter were restated through other comprehensive income.

Carl Zeiss Meditec Digital Innovations, LLC is a start-up. At the end of fiscal year 2016/17, the company's revenue and profit was immaterial for the Group. Carl Zeiss AG therefore opted not to include it in the consolidated financial statements. At the end of the current fiscal year, the company's profit was material for the Group and it is therefore now included in the basis of consolidation.

At the time of publishing the consolidated financial statements of Carl Zeiss AG as of 30 September 2018, the allocation of the purchase price to the assets and liabilities of the acquired entity had been completed. The identified goodwill of €11.5m chiefly stems from the expected synergy effects from integrating the entity into the Ophthalmic Devices strategic business unit and corresponds to the goodwill reported in the consolidated financial statements of Carl Zeiss Meditec AG. As expected, the goodwill will not be tax deductible.

Changes to shares in subsidiaries currently under control
In fiscal year 2017/18, the following changes were recorded to shares in subsidiaries currently under control:

In the reporting year, Carl Zeiss Far East Co., Ltd., Kwai Fong (Hong Kong), acquired for a purchase price of CNY 1 the remaining 25% of Carl Zeiss Fixture Systems (Changchun) Co., Ltd., Changchun City (China), increasing its share in capital from 75% to 100%.

3 Consolidation principles

The consolidated financial statements are based on the financial statements of the subsidiaries included in the Group as of 30 September 2018, which have been prepared according to uniform accounting policies.

Business combinations are accounted for using the purchase method pursuant to IFRS 3 *Business Combinations*.

The identifiable assets acquired and liabilities assumed in a business combination are measured at their fair values as of the acquisition date regardless of the extent of any non-controlling interests. Non-controlling interests are measured either at the fair value (full goodwill method) or the proportionate share of fair value of the assets acquired and liabilities assumed (partial goodwill method).

The cost of the interests acquired is offset against the Group's proportionate share in the subsidiary's net assets measured at fair value. Any acquisition-related costs incurred are expensed. Any excess of cost over the Group's interest in the net fair value remaining after offsetting is recognized as goodwill under intangible assets. Any excess of the Group's interest in the net fair value over cost is recognized through profit or loss. For business combinations prior to 14 May 2002, the option set forth in IFRS 1.18 in connection with IFRS 1.C1 was exercised by including the previous GAAP accounting for these business combinations in the consolidated financial statements in accordance with IFRSs. Transactions under common control are accounted for by rolling forward the carrying amount. Changes to the investment ratio in a subsidiary which do not lead to a loss of control are treated as transactions between equity providers that do not affect income.

The profit or loss of the subsidiaries acquired in the reporting period is included in the consolidated income statement based on their group affiliation, i.e. from the date on which the Group obtains control.

A subsidiary is deconsolidated on the date on which Carl Zeiss AG loses control over the entity.

The shares in net assets that are attributable to non-controlling interests are reported under non-controlling interests within consolidated equity.

If reciprocal put and call options with the same terms and conditions are agreed in a business combination for the remaining non-controlling interests, an anticipated purchase of these shares is assumed. As such, no non-controlling interests are recognized. Instead, the conditional purchase price for these shares is reported as a financial liability at fair value.

Joint ventures as defined by IFRS 11 *Joint Arrangements* are accounted for using the equity method.

When using the equity method in accordance with IAS 28 *Investments in Associates and Joint Ventures*, the shares are initially recognized at cost in the statement of financial position and subsequently measured at amortized cost to reflect changes in the Group's share of the equity (net assets) after the acquisition date and impairment losses.

Intercompany receivables and liabilities between consolidated entities are netted.

Intercompany profits from intercompany trade are eliminated.

The income tax implications are considered in the course of consolidation by recognizing deferred taxes.

Internal revenue and other intercompany income are offset against the corresponding expenses in the consolidated income statement.

4 Summarized financial information of material subsidiaries with non-controlling interests

The summarized financial information presented in the following corresponds to the financial information in the published consolidated financial statements of Carl Zeiss Meditec AG, Jena. The share of non-controlling interests in Carl Zeiss Meditec AG amounts to 40.9%.

	2017/18	2016/17
	€ k	€ k
Revenue	1,280,860	1,189,896
Consolidated profit/loss	126,230	135,778
Other comprehensive income	1,071	600
Total comprehensive income	127,301	136,378

	30 SEP 18	30 SEP 17
	€ k	€ k
Non-current assets	410,996	415,220
Current assets	1,251,056	1,207,888
Non-current liabilities	67,238	65,295
Current liabilities	280,180	316,078
Equity	1,314,634	1,241,735

	2017/18	2016/17
	€ k	€ k
Cash flows from operating activities	187,207	37,732
Cash flows from investing activities	-28,874	-55,931
Cash flows from financing activities	-157,237	14,494
Changes in cash and cash equivalents from exchange rate movements and changes in the basis of consolidation	1,657	-1,080
Changes in cash and cash equivalents	2,753	-4,785

	2017/18	2016/17
	€ k	€ k
Consolidated profit/loss attributable to non-controlling interests	51,628	55,669
Total comprehensive income attributable to non-controlling interests	52,066	57,398
Dividends paid to non-controlling interests	20,101	15,350
Equity attributable to non-controlling interests	537,685	509,111

The partnership between the Semiconductor Manufacturing Technology segment and ASML Holding N.V., Veldhoven (Netherlands), was intensified further in fiscal year 2016/17. In connection with this, ASML paid a purchase price of €1b for 24.9% of the shares in Carl Zeiss SMT Holding GmbH & Co. KG and thus to participate financially in the business of the Semiconductor Manufacturing Technology segment.

The summarized financial information (IFRS) for Carl Zeiss SMT Holding GmbH & Co. KG and Carl Zeiss SMT GmbH breaks down as follows:

	Carl Zeiss SMT Holding GmbH & Co. KG	Carl Zeiss SMT GmbH
	30 SEP 18	**30 SEP 18**
	€ k	€ k
Non-current assets	44,464	316,428
Current assets	442,887	1,472,365
Non-current liabilities	957	285,546
Current liabilities	436,713	1,396,584
Equity	49,681	106,663
Other comprehensive income	-12	-14,061
Profit/loss for the year	359,475	31,086

5 Currency translation

The consolidated financial statements are presented in euros. In the separate financial statements, foreign currency receivables and liabilities are valued at the exchange rate prevailing on the date of the transaction. Monetary items in foreign currencies are revalued at the mean closing rate, with exchange rate gains and losses being reported in the consolidated income statement under financial result.

Financial statements denominated in foreign currency of the subsidiaries included in the consolidation are translated into euros on the basis of the functional currency concept pursuant to IAS 21 *The Effects of Changes in Foreign Exchange Rates*. All assets and liabilities are translated using average closing rates prevailing on the date of the transaction, whereas equity is translated at historical rates. The income and expense items from the income statement are translated using annual average exchange rates. Any exchange differences arising are recognized through other comprehensive income within other reserves from currency translation.

The functional currency of two companies included in the consolidated financial statements is considered to be hyperinflationary in accordance with IAS 29 *Financial Reporting in Hyperinflationary Economies*. However, the effects on the consolidated financial statements are immaterial.

The following key exchange rates for the consolidated financial statements as of 30 September 2018 and 2017 were used for currency translation:

		Closing rate		Average rate	
	€ 1 =	**30 SEP 18**	30 SEP 17	**2017/18**	2016/17
China	CNY	7.9662	7.8534	7.7819	7.5213
UK	GBP	0.8873	0.8818	0.8847	0.8716
Japan	JPY	131.2300	132.8200	131.4525	122.9052
USA	USD	1.1576	1.1806	1.1907	1.1046

6 Accounting policies

The financial statements of the entities included in the consolidated financial statements are prepared in accordance with the accounting policies of the ZEISS Group. Adjustments are made as necessary where the local GAAP financial statements of individual entities diverge from these policies. Where the reporting date of subsidiaries is different from the reporting date for the consolidated financial statements, interim financial statements are used.

New and revised financial reporting standards

The following financial reporting standards were adopted for the first time in the reporting period:

Date of issue	Standard/interpretation	Amendment/new standard or interpretation
19 January 2016	IAS 12 *Income Taxes*	Clarification on recognizing deferred tax assets from unrealized losses for assets recognized at fair value
29 January 2016	IAS 7 *Statement of Cash Flows*	Disclosures on changes to liabilities from financing activities
8 December 2016	Improvements to IFRSs (2014 to 2016)	Clarifications to IFRS 12

The adoption of new and revised financial reporting standards did not have any significant impact on the net assets, financial position and results of operations of the ZEISS Group.

The IASB and the IFRS Interpretations Committee have issued a number of revised and new standards or interpretations, which did not come into effect in the reporting period. These new pronouncements have not been early adopted in the consolidated financial statements of Carl Zeiss AG.

Date of issue	Standard/interpretation	Amendment/new standard or interpretation	Effective date	Endorsed by the EU
28 May 2014	IFRS 15 *Revenue from Contracts with Customers*	Recognition of revenue from contracts with customers	Periods beginning on or after 1 January 2018	Yes
24 July 2014	IFRS 9 *Financial Instruments*	Accounting for financial instruments	Periods beginning on or after 1 January 2018	Yes
12 April 2016	IFRS 15 *Revenue from Contracts with Customers*	Clarifications on identifying performance obligations, principal/agent considerations and licenses with transitional arrangements for modified and completed contracts	Periods beginning on or after 1 January 2018	Yes
8 December 2016	IAS 40 *Investment Property*	Clarification on transfers to or from investment property	Periods beginning on or after 1 January 2018	Yes
8 December 2016	Improvements to IFRSs (2014 to 2016)	Clarifications and amendments to IFRS 1 and IAS 28	Periods beginning on or after 1 January 2018	Yes
8 December 2016	IFRIC 22 *Foreign Currency Transactions and Advance Consideration*	Clarification of the accounting treatment of business transactions that include the receipt or payment of consideration in foreign currency	Periods beginning on or after 1 January 2018	Yes
13 January 2016	IFRS 16 *Leases*	Accounting for leases	Periods beginning on or after 1 January 2019	Yes
7 June 2017	IFRIC 23 *Uncertainty over Income Tax Treatments*	Clarification on the accounting treatment of uncertainty relating to income taxes	Periods beginning on or after 1 January 2019	Yes
12 October 2017	IAS 28 *Investments in Associates and Joint Ventures*	Clarification on the application of IFRS 9 to long-term investments in associates and joint ventures not accounted for using the equity method	Periods beginning on or after 1 January 2019	No
12 October 2017	IFRS 9 *Financial Instruments*	Clarifications and amendments to financial assets with symmetric prepayment options and modifications of financial liabilities	Periods beginning on or after 1 January 2019	Yes

Date of issue	Standard/interpretation	Amendment/new standard or interpretation	Effective date	Endorsed by the EU
12 December 2017	Improvements to IFRSs (2015 to 2017)	Clarifications and amendments to IFRS 3 and 11 as well as IAS 12 and 23	Periods beginning on or after 1 January 2019	No
7 February 2018	IAS 19 *Employee Benefits*	Clarifications and amendments on effects of plan amendments, curtailments or settlements	Periods beginning on or after 1 January 2019	No
22 October 2018	IFRS 3 *Business Combinations*	Amendments to the determination of whether a business or a group of assets is acquired	Periods beginning on or after 1 January 2020	No
31 October 2018	IAS 1 *Presentation of Financial Statements* and IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors*	Clarification and convergence of the definition of materiality in all IFRSs and the Conceptual Framework and an avoidance of the understandability of financial statements being reduced by obscuring material with immaterial information	Periods beginning on or after 1 January 2020	No

IFRS 9 *Financial Instruments* replaces IAS 39 *Financial Instruments: Recognition and Measurement*. In terms of classification, IFRS 9 now defines 3 instead of 4 measurement categories for financial assets. Categorization is based on the company's business model on the one hand, and the characteristics of the contractual cash flows of the financial asset in question on the other. The classification of financial liabilities under IFRS 9 remains largely unchanged compared with the current accounting regulations as defined by IAS 39. At the same time, IFRS 9 also contains changes for calculating impairment losses on financial assets. In the future, the basic principle of the expected loss model is to record expected losses from the moment a financial asset is recognized for the first time and before the loss occurs. The new rules and regulations also result in additional quantitative and qualitative disclosures in the notes.

For the ZEISS Group, adoption of the standard is mandatory for the first time from the fiscal year 2018/19. When applying IFRS 9 for the first time, the ZEISS Group reserves the right to continue to recognize hedges in accordance with IAS 39 instead of IFRS 9. The ZEISS Group will accumulate any transition effects as of 1 October 2018 in retained earnings and, pursuant to the transitional provisions, present the comparative period in accordance with the current rulings.

Based on the analyses performed, the ZEISS Group does not expect any significant change to result from the reallocation of existing financial assets into individual categories compared to the allocation at present. Only investments that are not consolidated or not included in the consolidated financial statements using the equity method could result in deviating measurements. The non-recurring effect from the new method for calculating impairments of financial assets, which must be recognized in other comprehensive income, will be in the low double-digit millions.

IFRS 15 *Revenue from Contracts with Customers* combines the former standards and interpretations on revenue recognition (IAS 11 and 18, IFRIC 13, 15 and 18 as well as SIC 31). The standard sets out an extensive framework for determining whether, in what amount, and at what point in time revenue is recognized. IFRS 15 provides for a uniform, five-step model for recognizing revenue that is generally applicable to all contracts with customers. Under the new standard, revenue will in the future be recognized when the customer obtains control of the goods or services and can benefit from them. Under IFRS 15, the items contract assets and contract liabilities will be introduced to the statement of financial position. These can arise from contract balances. The new rules and regulations also result in additional quantitative and qualitative disclosures in the notes.

For the ZEISS Group, adoption of the standard is mandatory from fiscal year 2018/19. The ZEISS Group will adopt the standard for the first time using the modified retrospective application method. This means that any transition effects as of 1 October 2018 will be accumulated in retained earnings and the comparative period will be presented in accordance with the current rulings.

The agreements and business models concerned were analyzed in a group-wide project. On the basis of this, future accounting guidelines on revenue recognition in the ZEISS Group pursuant to IFRS 15 were developed and the relevant business processes adapted. Based on the analyses performed, the introduction of the new items will not result in any significant effects except for changes in disclosures since the current approach for recognizing revenue is already largely in line with the new provisions of IFRS 15.

IFRS 16 *Leases* replaces the former standards and interpretations on the accounting treatment of leases (IAS 17, IFRIC 4, SIC 15 and SIC 27). IFRS 16 revokes the previous distinction between finance and operating leases for lessees and replaces it with a single on-balance sheet accounting model. Under this model, lessees must recognize assets for the right to use the leased asset and lease liabilities in the same amount. As a result, leases not previously accounted for in the statement of financial position must now be reported. Lessor accounting is largely equivalent to the rules previously set out in IAS 17. Lessors must therefore continue to distinguish between finance and operating leases.

The ZEISS Group will early adopt the standard for the first time together with IFRS 15 as of 1 October 2018 using the modified retrospective application method. This means that any transition effects as of 1 October 2018 will be accumulated in retained earnings and the comparative period will be presented in accordance with the current rulings. For leases previously classified as operating leases under IAS 17 the right of use will be recognized in the amount of the lease liability. The lease liability will be measured at the present value of the outstanding lease payments discounted using the lessee's incremental borrowing rate. Renewal, termination and purchase terms are taken into account during initial measurement of the lease liability if their exercise has become reasonably certain. The exemptions for low-value leased assets and short-term leases will be used.

The agreements and business models concerned were analyzed in a group-wide project. On the basis of this, the future accounting guidelines on leases pursuant to IFRS 16 were developed and the relevant business processes adapted. The analyses showed that the leases in place at the date of transition are expected to increase total assets by an amount in the low triple-digit millions. Most of the minimum lease payments from operating leases mentioned in note 27 Leases will be accounted for in the statement of financial position as a right-of-use asset and lease liability.

The remaining new or amended rules and regulations mentioned in the preceding table are not expected to have a significant effect.

The other accounting policies used were the same as in the prior year.

Use of estimates
The preparation of financial statements in accordance with IFRSs requires management to make estimates and assumptions. These can affect the measurement of assets and liabilities, the nature and scope of contingencies, and the reported amounts of income and expenses during the reporting period. The assumptions and estimates primarily relate to the following matters:

» The determination of uniform useful lives is subject to estimates by management.
» The measurement parameters for impairment testing, in particular regarding goodwill (see note 12 Intangible assets).
» The actuarial parameters on which the calculation of the defined benefit obligations is based (see note 19 Provisions for pensions and similar obligations).
» The recoverability of the future tax relief.
» The timing of recognizing intangible assets pursuant to IAS 38 *Intangible Assets*.

In addition, estimates are required when assessing the recoverability of inventories and receivables as well as recognizing and measuring provisions. Actual results may differ from these estimates. The estimates and assumptions are regularly reviewed based on past experience. Changes are recognized through profit or loss as and when better information is available.

Intangible assets
In accordance with IAS 38 *Intangible Assets*, internally generated intangible assets are recognized only if it is probable that future economic benefits will flow to the entity and the cost of the asset can be measured reliably.

Acquired and internally generated intangible assets are initially measured at cost. Intangible assets with finite useful lives are subsequently measured at cost less any accumulated amortization and any accumulated impairment losses. Amortization is charged over the useful life using the straight-line method. The major part of amortization is contained in cost of sales.

Intangible assets with indefinite useful lives as well as goodwill are not amortized and are therefore recognized at cost less any impairment losses.

Development costs are capitalized if all of the criteria set forth in IAS 38.57 are satisfied. These include, for example, demonstrating the technical feasibility of completing the intangible asset so that it will be available for use or sale. Other criteria relate to the intention to complete the intangible asset and the ability to use or sell it. In addition, it must generate future economic benefits for the company.

The entities of the ZEISS Group perform development work at the limit of the possible and set new technological standards. That is why only a small portion of development costs is capitalized in the ZEISS Group, as the criteria for recognition as part of the cost of an intangible asset are not all satisfied until a relatively late stage.

The costs directly attributable to development, including appropriate development-related overheads, are recognized as part of the cost of an asset. Amortization of capitalized development costs begins when the asset is available for use and is charged using the straight-line method over the expected product life cycle or based on unit numbers defined in business plans. Research costs and development costs that cannot be capitalized are expensed in the period in which they are incurred.

Amortization is based on the following ranges of useful lives:

	Useful life
Patents, industrial rights, licenses, software	2 to 20 years
Development costs	2 to 10 years
Other intangible assets	2 to 10 years

Property, plant and equipment
Property, plant and equipment are measured at cost less any accumulated depreciation and any accumulated impairment losses in accordance with IAS 16 *Property, Plant and Equipment*. The cost of self-constructed assets includes direct costs and a portion of materials and production overheads. The cost of creating qualifying assets, i.e. for assets that take a substantial period of time to produce, includes borrowing costs. Depreciation is charged on a straight-line basis over the asset’s useful life.

Depreciation is based on the following ranges of useful lives:

	Useful life
Buildings and structures	2 to 50 years
Technical equipment and machinery	2 to 21 years
Other equipment, furniture and fixtures	2 to 25 years

Impairment of intangible assets and property, plant and equipment
IAS 36 *Impairment of Assets* requires assessing at the end of each reporting period whether there is any indication that the assets reported in the statement of financial position may be impaired. In addition, annual impairment testing is required for intangible assets with indefinite useful lives and goodwill. If any indication of impairment exists or if impairment testing is required, the Group carries out impairment testing. This involves estimating the recoverable amount of the asset or cash-generating unit (CGU) in order to determine any need to record an impairment loss. The recoverable amount is the higher of the fair value less costs to sell and the value in use – determined for the individual asset or cash-generating unit in each case.

In assessing value in use, the estimated future cash flows are discounted to their present value using an after-tax risk-adjusted discount rate based on the discounted cash flow method. The discount rates are calculated using the parameters risk-free base interest rate, risk premium (market risk premium, country risk and beta factor), borrowing costs and tax effect, and reflect the capital structure of the cash-generating unit. The detailed planning period for future cash flows covers 3 fiscal years. For the following fiscal years, the cash flows of the third detailed planning year are rolled forward taking into account appropriate growth. An impairment exists when the carrying amount of the asset or cash-generating unit exceeds the recoverable amount. Such impairment loss is recognized in the income statement immediately.

With the exception of goodwill, impairment losses recognized in prior years are reversed if the reasons for recognizing the impairment no longer exist. The reversal is limited to ensure that the carrying amount is not exceeded that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. The reversal of impairment losses recognized on goodwill is not permissible.

Government grants
In accordance with IAS 20 *Accounting for Government Grants and Disclosure of Government Assistance*, government grants are only recorded if it is reasonably certain that the conditions attached to the grants will be fulfilled and the grants actually awarded. Public investment grants are generally deferred and amortized through profit or loss over the useful lives of the related assets. Grants related to income are offset against the corresponding expenses in the period in which the expenses are incurred.

Leases
A lease is classified as a finance lease if all risks and rewards incidental to ownership are transferred to the lessee. All other leases are classified as operating leases.

Leased assets classified as finance leases in accordance with IAS 17 *Leases* and thus constituting purchases of assets with long-term financing for economic purposes are recognized at the inception of the lease at the fair value of the leased property or, if lower, at the present value of the minimum lease payments. The corresponding liability is recorded as a lease liability in the statement of financial position. Leased assets are depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

Lease payments for finance leases are apportioned between finance charges and reduction of the lease liability. Finance charges are recognized in the interest result in the income statement.

Operating lease payments are recognized immediately as an expense in earnings before interest and taxes in the income statement.

Sale-and-leaseback agreements are presented using the same principles.

Financial instruments
A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial assets and financial liabilities are reported in the consolidated statement of financial position as of the date on which ZEISS becomes party to the contract. Regular way purchases and sales of financial assets are generally recognized on the settlement date.

Under IAS 39 *Financial Instruments: Recognition and Measurement*, financial instruments are subdivided into the following categories:

» Financial assets and liabilities at fair value through profit or loss and financial assets and liabilities held for trading (FVtPL)
» Available-for-sale financial assets (AfS)
» Held-to-maturity investments (HtM)
» Loans and receivables (LaR)
» Financial liabilities carried at amortized cost (FLAC)

The classification depends on the nature and purpose of the financial instrument and is designated upon recognition.

Fair value generally corresponds to the market or quoted value. If no active market exists, fair value is calculated using generally accepted valuation techniques (for example, using the present value method or option pricing models). Amortized cost corresponds to the cost of the financial liabilities adjusted for repayments, impairment and the amortization of any discounts or premiums.

The ZEISS Group does not apply the fair value option pursuant to IAS 39.

The financial assets held for trading exclusively relate to derivative financial instruments, which the ZEISS Group uses for interest and currency hedging purposes. These are measured at fair value. Any changes in market value are recognized through profit or loss unless hedge accounting is used.

Investments as well as securities and stock and pension fund shares are generally allocated to the category of available-for-sale financial assets and recognized at fair value accordingly. If there is no active market for investments and it is not practicable to determine a reliable market value, they are measured at cost. Unrealized gains and losses are recognized in a separate item within equity, taking deferred taxes into account. If there is objective evidence of impairment, the accumulated loss recognized directly in equity is reclassified to the income statement. Increases in the market value of equity instruments are always recognized directly in equity, even if they were previously written down through profit or loss.

Held-to-maturity investments, loans and receivables, and financial liabilities are measured at amortized cost. These are mainly loans, trade receivables, cash and cash equivalents, and other financial assets and liabilities. Non-interest-bearing loans and loans bearing off-market interest rates are recognized at present value and increased due to the passage of time over their term to maturity.

Offsetting of financial instruments
In the ZEISS Group, derivative financial transactions are concluded in accordance with the German master agreement for financial futures contracts. Offsetting is enforceable only in the event of insolvency and therefore does not fulfill the offsetting criteria pursuant to IAS 32 *Financial Instruments: Presentation*.

In the ZEISS Group, credit notes received are offset against corresponding trade payables, and trade receivables are offset against corresponding credit notes if these fulfill the offsetting criteria pursuant to IAS 32.

Hedge accounting
When applying hedge accounting, if changes in the fair value of a hedging instrument relate to the effective portion of a hedge, they are recognized under other reserves from cash flow hedges, a separate item within equity, net of the related deferred taxes. The ineffective portion of the hedge is recognized immediately through profit or loss. The cumulative amounts recognized in equity are reclassified to profit or loss in the period in which the hedged item affects profit or loss.

The criteria for hedge accounting include:

A hedge is considered to be highly effective in offsetting changes in fair value or cash flows attributable to the hedged risk; the effectiveness of the hedge can be reliably measured; and at the inception of the hedge there is formal designation and documentation of the hedging relationship as well as the ZEISS Group's risk management objectives and strategies for undertaking the hedge. In addition, it is documented at the inception of the hedge whether the derivatives used for hedging purposes are expected to be highly effective in offsetting changes in fair value or cash flows of the hedged item that are attributable to the hedged risk. This assessment is renewed thereafter on a quarterly basis, along with a retrospective assessment of whether the hedge actually was highly effective.

In the ZEISS Group, hedge accounting is currently not applied for hedging relationships designed to hedge exposure from changes in cash flows arising from fluctuation in interest or exchange rates.

Inventories
Materials and supplies as well as merchandise are measured at costs of purchase, which are generally determined using the average cost method. Work in progress and finished goods are measured at costs of conversion. In addition to direct materials as well as direct labor, costs of conversion include an appropriate portion of materials and production overheads as well as production-related depreciation and production-related administrative expenses.

Write-downs are recorded on inventories when the costs of purchase or conversion exceed the estimated net realizable value. All inventory, selling and income risks are thus given adequate consideration. If the reasons for a write-down no longer apply, it is reversed to the lower of cost or estimated net realizable value.

Receivables and other assets
Receivables and other assets are accounted for at nominal value or amortized cost. Impairment losses are recognized in separate allowance accounts. Identifiable risks of default are accounted for by means of specific allowances. Any uncollectible receivables or other assets are derecognized.

Long-term construction contracts
Long-term construction contracts are recognized in accordance with the percentage-of-completion (PoC) method. Under this method, revenue and costs of sales incurred are recognized according to the stage of completion as of the reporting date, based on the contracts concluded with the customers, as soon as the outcome of the construction contract can be estimated reliably. The percentage of completion is determined based on the contract costs incurred by the reporting date as a share of total contract costs (cost-to-cost method). After deducting advances received, the revenue calculated using the PoC method is presented under trade receivables in the statement of financial position.

When the outcome of a construction contract cannot be estimated reliably, contract revenue is recognized only to the extent of contract costs incurred that will likely be recovered. Any anticipated losses are expensed immediately in full.

Cash and cash equivalents
Cash and cash equivalents comprise cash on hand and cash at banks as well as all investments with an original term of less than 3 months.

Provisions for pensions and other post-employment benefits
The entities of the ZEISS Group have various pension plans. In addition, some foreign subsidiaries have agreed to provide post-employment medical care benefits on a certain scale.

Payments for defined contribution obligations including contributions to statutory pension funds are recognized as an expense for the period.

Defined benefit obligations are measured according to IAS 19 *Employee Benefits* using the projected unit credit method allowing for expected future adjustments to salaries and pensions.

The provisions for pensions and similar obligations at German Group entities are determined based on actuarial principles and using the 2018 G mortality tables published by Prof. Dr. Klaus Heubeck. The provisions for pensions and similar obligations at entities outside Germany are determined using the relevant local basis for calculation and local parameters.

External funds invested to cover defined benefit obligations are measured at fair value and offset against the corresponding obligations.

Changes in the portfolio and variances in actual trends compared to the assumptions used for calculation purposes, as well as changes in the assumptions for the measurement of defined benefit obligations, result in actuarial gains and losses, which are recognized directly in other reserves within equity and thus directly affect the consolidated statement of financial position and the consolidated statement of comprehensive income.

The balance of the defined benefit obligation and plan assets (net defined benefit obligation or net plan assets) is discounted using the interest rate on which the measurement of the defined benefit obligation is based. The resulting net interest cost or income is recognized in the interest expenses or interest income in the consolidated income statement. Service cost is disclosed in the earnings before interest and taxes (EBIT).

Deferred compensation
ZEISS offers employees with unlimited employment contracts the option of using untaxed compensation to make provision for old age. Depending on the terms of their contract, the employees may convert up to 3 monthly salaries a year. The amounts converted are paid into an employer's pension liability insurance policy and the associated benefits are pledged to the employees. The amount and timing of the receivables from the employer's pension liability insurance matches those of the benefits payable to employees. As the receivables are pledged, they generally satisfy the requirements for plan assets and are presented on a net basis. The pension plan is therefore classified as a defined contribution plan from a substance-over-form perspective. If the future benefits under the employer's pension liability insurance are higher than the benefit obligation to the employee, the employee receives the higher amount.

The amount is dependent on the age of the employees at the time of conversion of their compensation and the employees' decision on whether to have the deferred compensation paid out as a one-off payment or as a pension. In addition to the conversion of compensation, the deferred compensation system may include invalidity and surviving dependants' benefits, depending on the model chosen.

Other provisions
In accordance with IAS 37 *Provisions, Contingent Liabilities and Contingent Assets*, present obligations to third parties arising from past events are disclosed within other provisions if it is probable that an outflow of resources will be required and can be measured reliably. The provisions are recognized at full cost.

Where the effect of the time value of money is material and the remaining term of the obligation can be determined reliably, non-current provisions are recognized at the amount needed to settle the obligation, discounted to the reporting date. In such cases, the increase in the provision due to the passage of time is recognized as an interest expense.

The provisions for obligations under the German phased retirement scheme, long-service awards and death benefits are determined and measured on the basis of actuarial reports or similar parameters.

Restructuring provisions
Restructuring provisions are recognized when an entity has made the decision to restructure and has a detailed formal plan for the restructuring, stating the parts of a business or locations concerned, the approximate number of employees affected and when the plan will be implemented, and it has been announced to those affected or their representatives before the reporting date. The amount of the provision covers all direct expenditures arising from the restructuring which necessarily arise during the restructuring and are not associated with the ongoing or future activities of the entity.

Warranty provisions
Warranty obligations may be legal, contractual or non-contractual. Provisions are recognized for expenses expected to be incurred under guarantee or warranty obligations. Warranty claims are expected especially when the warranty period has not yet expired, when warranty expenses were incurred in the past or when there is specific indication of pending warranty cases. The warranty risk is derived either from individual estimates or past experience and is provided for accordingly.

Provisions for litigation risks
Provisions are recognized for risks arising from litigation in which entities of the ZEISS Group are the defendants and if it is more likely than not that the outcome will be negative. They are measured at the amount that the company would have to pay in the event of a negative outcome. This amount includes the amounts payable by the company, such as damages and compensation payments as well as anticipated legal costs.

Deferred taxes
Deferred taxes are recognized using the liability method according to IAS 12 *Income Taxes*.

Deferred tax assets and liabilities are recognized on all temporary differences between the IFRS carrying amounts and the tax accounts of consolidated entities and on consolidation measures.

Further, deferred tax assets for future economic benefits from unused tax losses and unused tax credits are taken into account if it is probable that they will be used.

The carrying amount of deferred tax assets is reviewed at every reporting date and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow the deferred tax asset to be utilized. A previously unrecognized deferred tax asset is reassessed and recognized to the extent that it has become probable that future economic benefits will be recovered.

Deferred tax liabilities are recognized for the expected income tax and withholding tax on expected dividend payments by subsidiaries. In contrast, deferred tax liabilities are not recognized for temporary differences from retained earnings of subsidiaries as the temporary differences will not reverse in the foreseeable future.

Deferred taxes relating to items recognized in other comprehensive income are likewise recognized in other comprehensive income and not through profit or loss.

Deferred tax assets and deferred tax liabilities are offset if a group entity has a legally enforceable right to offset current tax assets and current tax liabilities and these relate to income taxes levied by the same taxation authority on the same taxable entity. Consequently, deferred tax assets and liabilities are netted within consolidated tax groups.

Liabilities
Liabilities are carried at amortized cost using the effective interest method.

Revenue recognition and other income
The company recognizes revenue from the sale of goods based on the corresponding contract as soon as all parts of the product have been delivered, risks of ownership have been transferred, the sales price is fixed or can be determined, there are no significant obligations to customers and collection of the receivables is considered probable. Revenue is presented net of cash discounts, price reductions, customer bonuses and rebates. If the sale comprises services or maintenance agreements, this portion of the revenue is deferred and released to income in accordance with the stage of completion or pro rata temporis over the contractual period.

If rights of return are agreed when products are sold, revenue is not recognized unless corresponding values based on past experience are available. The expected volume of returns is estimated and recognized as reducing revenue based on past experience.

Interest income is recognized pro rata temporis using the effective interest method. Dividends are recognized when the legal right to receive the payment is established. If royalties are paid for multiperiod agreements, revenue is generally recognized on a straight-line basis.

Expense recognition
Expenses are generally recognized when it is probable that there will be an outflow of economic benefits from the entity.

Research and development costs are expensed as incurred unless they can be capitalized as part of the cost of the asset. Subsidies for research and development are deducted from the expenses when they become receivable for research and development projects that have been performed and the associated expenditure.

The company is liable to its customers for flawless functioning of the products sold during the contractual warranty period. The corresponding warranty provisions are recognized by debiting cost of sales when revenue is recognized.

NOTES TO THE CONSOLIDATED INCOME STATEMENT

7 Revenue

Revenue contains the amounts charged to customers for goods and services. Sales deductions such as rebates and discounts are deducted from revenue.

Revenue was generated from products, technical and other services for biomedical research and medical technology, system solutions for the semiconductor, automotive and mechanical engineering industries, planetariums and high-end consumer articles such as eyeglass lenses, camera and cine lenses and binoculars.

Revenue by region breaks down as follows:

	2017/18		2016/17	
	€ k	%	€ k	%
Germany	609,761	10	620,845	12
EMEA (without Germany)	2,443,226	42	2,081,338	39
Americas	1,346,916	24	1,362,561	25
APAC	1,417,267	24	1,283,060	24
	5,817,170	**100**	**5,347,804**	**100**

Of revenue, €5,254m (prior year: €4,819m) is attributable to the sale of goods, €516m (prior year: €475m) to the rendering of services and €47m (prior year: €54m) to the granting of licenses.

8 Other income

Other income contains rental income and income from the sale of scrap, as well as other income not attributable to functional costs.

9 Other expenses

Other expenses contain losses from the disposal of non-current assets, expenses from additions to other provisions and other operating expenses not attributable to functional costs.

10 Financial result

Interest result

	2017/18	2016/17
	€ k	€ k
Interest income	**9,805**	**7,616**
» thereof from affiliates	277	250
Interest expenses	**35,159**	**39,017**
» thereof to affiliates	134	213
» thereof interest cost for pensions	22,160	23,590
	-25,354	**-31,401**

Other financial result

	2017/18	2016/17
	€ k	€ k
Income from investments	581	1,208
Income from profit transfer	1,952	2,564
Expenses for loss absorption	842	3,219
Investment result	**1,691**	**553**
Income/expenses from exchange differences	-22,638	-17,870
Income/expenses from changes in market value	-13,605	32,683
Sundry other financial result	6,358	3,423
Other financial result	**-28,194**	**18,789**

Income from investments includes income from affiliates of €173k (prior year: €626k).

The expenses from exchange differences and changes in market value should be seen in the context of the hedging of currency risks.

11 Income taxes

Income taxes include domestic and foreign income taxes, the reversal of tax provisions, tax refunds and deferred taxes.

Income taxes break down as follows:

	2017/18	2016/17
	€ k	€ k
Current tax expenses less tax refunds and reversal of tax provisions	216,600	210,625
Deferred tax income	-33,078	-14,450
» thereof from temporary differences	-55,645	-11,938
» thereof from changes in tax rates	23,596	1,364
» thereof from unused tax losses including any reductions	-1,029	-3,876
	183,522	**196,175**

Deferred taxes are determined on the basis of the tax rates that apply or are expected to apply based on the tax laws that have been enacted or substantively enacted in the individual countries at the time of realization. In Germany, a corporate income tax rate of 15.0% currently applies. Taking into account the solidarity surcharge and the different trade tax levy rates, the rates for German entities are in the range of 27.7% to 31.0% (prior year: 27.2% to 30.2%). The tax rates form the basis for the calculation of current taxes.

The nominal tax rates applicable outside Germany in the reporting period range between 7.5% and 35.0% (prior year: 9.0% and 38.4%).

The total amount of deferred tax assets and liabilities as of 30 September 2018 is allocated to the following items of the statement of financial position:

	30 SEP 18		30 SEP 17	
	Assets	Liabilities	Assets	Liabilities
	€ k	€ k	€ k	€ k
Non-current assets	**21,776**	**65,700**	**21,804**	**88,619**
Intangible assets	11,062	39,832	13,567	44,324
Property, plant and equipment	4,923	25,125	5,237	28,100
Other non-current assets	5,791	743	3,000	16,195
Current assets	**71,606**	**23,344**	**85,822**	**35,017**
Inventories	61,011	5,324	71,125	6,038
Receivables and other current assets	10,595	18,020	14,697	28,979
Non-current liabilities	**456,579**	**917**	**444,354**	**2,244**
Provisions for pensions and similar obligations	414,423	823	394,570	0
Other non-current liabilities	42,156	94	49,784	2,244
Current liabilities	**86,302**	**6,360**	**66,474**	**2,704**
Outside basis differences	**0**	**2,902**	**0**	**2,086**
Unused tax losses	**76,859**	**0**	**77,479**	**0**
Total deferred taxes	**713,122**	**99,223**	**695,933**	**130,670**
Impairment losses	2,456	0	4,105	0
Offsetting	44,579	44,579	75,393	75,393
Deferred taxes, net	**666,087**	**54,644**	**616,435**	**55,277**

Unused tax losses include deferred tax assets from unused tax losses as well as from tax credits.

Apart from Germany, the following countries also recognized unused tax losses that are likely to be used: Brazil, China, France, Israel, Spain, and the USA (prior year: Austria, Brazil, China, Denmark, France, Israel, Italy, Spain, the UK and the USA).

The unused tax losses for which no deferred taxes were recognized amount to €148,502k (prior year: €211,947k). Most of these are available for offsetting for more than 5 years or never expire. As of the reporting date these unused tax losses were classified as not likely to be usable because based on the forecasts it is not likely that future taxable profit will be available. Consolidation measures gave rise to deferred tax assets of €51,858k (prior year: €55,117k) and deferred tax liabilities of €37,988k (prior year: €36,409k).

In the reporting period, the tax rate of the parent company Carl Zeiss AG of 28.78% (prior year: 31.1%) was used for the first time as the tax rate applicable for the reconciliation of the expected income tax expense of €206,799k (prior year: €235,596k), based on earnings before taxes, to the current income tax expense of €183,522k (prior year: €196,175k).

The tax reconciliation statement is presented in the table below:

	2017/18	2016/17
	€ k	€ k
Earnings before taxes (EBT)	718,551	757,545
Expected income tax expense (= 28.78% x EBT; prior year: = 31.1% x EBT)	**206,799**	**235,596**
Differences from diverging tax rates	-10,839	-15,630
Effects of changes in tax rates	23,596	1,364
Effects of non-deductible expenses	16,538	29,337
Effects of tax-free income	-4,858	-2,592
Effects relating to other periods	-29,699	-22,246
Permanent effects	-9,537	-26,593
Other	-8,478	-3,061
Current income tax expense	**183,522**	**196,175**

NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

12 Intangible assets

The goodwill amounting to €664,537k (prior year: €588,908k) is tested for impairment annually at the level of the cash-generating units.

The cash flows referred to in the impairment test are determined on the basis of detailed plans with a planning horizon of 3 years. For the following fiscal years, the cash flows of the last detailed planning year are rolled forward with a growth rate of 1.0%. The discount rates are based on an after-tax weighted average cost of capital (WACC) depending on the cash-generating unit. The cost of capital is a material parameter in impairment testing. A change in WACC has a direct impact on value in use.

In a sensitivity analysis, the discount rate was increased by 1 percentage point and the long-term growth rate was decreased by half a percentage point. This did not cause any need to recognize an impairment loss, either individually or when combining the 2 adjustments.

Goodwill is allocated to the cash-generating units on the basis of the internal organizational structure of the ZEISS Group for fiscal year 2017/18. This allows goodwill to be allocated to the individual segments or, more specifically, business groups/strategic business units as follows:

	30 SEP 18		30 SEP 17	
	Carrying amounts	WACC (after tax)	Carrying amounts	WACC (after tax)
	€ k	%	€ k	%
» Semiconductor Metrology Systems	42,975	11.8	42,375	12.1
Semiconductor Manufacturing Technology	**42,975**		**42,375**	
» Industrial Metrology	87,883	8.4	39,437	9.3
» Microscopy	48,035	9.1	42,598	8.6
Research & Quality Technology	**135,918**		**82,035**	
» Ophthalmic Devices	155,461	10.3	137,062	9.3
» Microsurgery	4,188	10.3	1,441	9.3
Medical Technology	**159,649**		**138,503**	
» Vision Care	325,995	6.0	325,995	5.9
Vision Care/Consumer Products	**325,995**		**325,995**	
Total	**664,537**		**588,908**	

The changes in the Research & Quality Technology and Medical Technology segments' cash-generating units primarily stem from the first-time consolidation of Bosello High Technology S.r.l., Cassano Magnago (Italy), Carl Zeiss Meditec Digital Innovations, LLC, Temple (USA) and OPTEC GmbH, Düsseldorf (Germany). The other changes in the cash-generating units result from foreign currency translation in accordance with IAS 21.47.

Apart from goodwill, the ZEISS Group does not report any intangible assets with indefinite useful lives.

	Patents, industrial rights, licenses, software	Goodwill	Development costs	Other intangible assets	Total
	€ k	€ k	€ k	€ k	€ k
Cost					
1 October 2016	**405,832**	**678,623**	**215,956**	**136,289**	**1,436,700**
Change in the basis of consolidation	0	13,825	0	0	13,825
Additions	19,809	0	19,608	8,653	48,070
Disposals	466	0	142	430	1,038
Reclassifications	4,633	0	0	-4,606	27
Exchange differences	-5,503	-11,202	-4,325	-3,690	-24,720
30 September 2017	**424,305**	**681,246**	**231,097**	**136,216**	**1,472,864**
Amortization/impairment					
1 October 2016	**335,362**	**96,633**	**131,156**	**91,484**	**654,635**
Change in the basis of consolidation	0	0	0	0	0
Additions	27,104	0	17,415	10,711	55,230
Disposals	434	0	142	426	1,002
Reversal of impairment losses	0	0	0	0	0
Reclassifications	0	0	0	0	0
Exchange differences	-4,851	-4,295	-1,267	-2,348	-12,761
30 September 2017	**357,181**	**92,338**	**147,162**	**99,421**	**696,102**
Carrying amounts as of 30 September 2017	**67,124**	**588,908**	**83,935**	**36,795**	**776,762**
Cost					
1 October 2017	**424,305**	**681,246**	**231,097**	**136,216**	**1,472,864**
Change in the basis of consolidation	35,957	74,688	0	38,450	149,095
Additions	14,111	0	14,241	3,939	32,291
Disposals	14,039	354	23	2,238	16,654
Reclassifications	7,953	0	0	-7,953	0
Exchange differences	1,435	2,238	1,607	19	5,299
30 September 2018	**469,722**	**757,818**	**246,922**	**168,433**	**1,642,895**
Amortization/impairment					
1 October 2017	**357,181**	**92,338**	**147,162**	**99,421**	**696,102**
Change in the basis of consolidation	216	0	0	963	1,179
Additions	30,778	0	20,661	26,428	77,867
Disposals	13,975	0	0	2,234	16,209
Reversal of impairment losses	0	0	0	0	0
Reclassifications	0	0	0	0	0
Exchange differences	1,273	943	630	-136	2,710
30 September 2018	**375,473**	**93,281**	**168,453**	**124,442**	**761,649**
Carrying amounts as of 30 September 2018	**94,249**	**664,537**	**78,469**	**43,991**	**881,246**

13 Property, plant and equipment

	Land and buildings including buildings on third-party land	Technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
	€ k	€ k	€ k	€ k	€ k
Cost					
1 October 2016	**743,353**	**841,876**	**920,346**	**60,526**	**2,566,101**
Change in the basis of consolidation	0	0	0	0	0
Additions	6,889	39,787	67,302	69,356	183,334
Disposals	2,688	23,426	40,629	1,306	68,049
Reclassifications	1,350	20,941	15,610	-37,928	-27
Exchange differences	-8,353	-12,347	-10,705	-1,509	-32,914
30 September 2017	**740,551**	**866,831**	**951,924**	**89,139**	**2,648,445**
Depreciation/impairment					
1 October 2016	**308,291**	**563,642**	**715,482**	**0**	**1,587,415**
Change in the basis of consolidation	0	0	0	0	0
Additions	29,229	60,787	69,629	0	159,645
Disposals	2,372	22,007	28,314	0	52,693
Reversal of impairment losses	0	0	0	0	0
Reclassifications	8	202	-210	0	0
Exchange differences	-4,676	-7,675	-6,966	0	-19,317
30 September 2017	**330,480**	**594,949**	**749,621**	**0**	**1,675,050**
Carrying amounts as of 30 September 2017	**410,071**	**271,882**	**202,303**	**89,139**	**973,395**

	Land and buildings including buildings on third-party land	Technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
Cost					
1 October 2017	**740,551**	**866,831**	**951,924**	**89,139**	**2,648,445**
Change in the basis of consolidation	79	1,261	3,125	47	4,512
Additions	25,701	39,513	76,064	103,105	244,383
Disposals	2,082	17,681	46,401	7,115	73,279
Reclassifications	7,057	38,916	11,745	-57,718	0
Exchange differences	-528	-3,445	-1,808	-142	-5,923
30 September 2018	**770,778**	**925,395**	**994,649**	**127,316**	**2,818,138**
Depreciation/impairment					
1 October 2017	**330,480**	**594,949**	**749,621**	**0**	**1,675,050**
Change in the basis of consolidation	67	750	1,611	0	2,428
Additions	32,545	61,416	70,516	0	164,477
Disposals	1,624	15,366	32,552	0	49,542
Reversal of impairment losses	0	0	0	0	0
Reclassifications	0	-27	27	0	0
Exchange differences	-11	-1,095	-1,252	0	-2,358
30 September 2018	**361,457**	**640,627**	**787,971**	**0**	**1,790,055**
Carrying amounts as of 30 September 2018	**409,321**	**284,768**	**206,678**	**127,316**	**1,028,083**

Property, plant and equipment with a net carrying amount of €53,602k (prior year: €51,374k) are subject to restrictions on disposal or serve as collateral for liabilities. Accumulated contractual purchase commitments for property, plant and equipment and intangible assets total €211,042k as of the reporting date (prior year: €133,336k).

14 Other financial assets

	30 SEP 18		30 SEP 17	
		thereof due in more than 1 year		thereof due in more than 1 year
	€ k	€ k	€ k	€ k
Shares in affiliates	39,505	39,505	33,734	33,734
Investments	3,711	3,711	1,642	1,642
Loans	42,494	38,230	43,820	42,494
Securities	268,258	201,661	240,627	81,775
Derivatives	5,430	0	41,245	0
Sundry other financial assets	1,451,694	379,556	1,506,592	653,354
	1,811,092	**662,663**	**1,867,660**	**812,999**

The sundry other financial assets mainly consist of fixed-term deposits, the assets of entities within and outside Germany in connection with financing or securing obligations toward employees and rent deposits.

15 Other non-financial assets

Other non-financial assets mainly comprise prepaid expenses as well as tax reimbursement claims from taxes other than income taxes.

16 Inventories

	30 SEP 18	30 SEP 17
	€ k	€ k
Materials and supplies	370,951	325,089
Work in progress	449,894	469,595
Finished goods and merchandise	547,600	461,781
Advances	22,400	18,684
	1,390,845	**1,275,149**

The carrying amounts contain write-downs of €176,983k (prior year: €168,589k).

The write-downs recorded on inventories, which are recognized under cost of sales in the consolidated income statement, amounted to €51,032k in the reporting period (prior year: €65,339k). Write-downs of €9,121k (prior year: €8,751k) were reversed through profit or loss.

Cost of materials amounted to €1,685m in the fiscal year (prior year: €1,542m).

17 Cash and cash equivalents

	30 SEP 18	30 SEP 17
	€ k	€ k
Cash funds	569,085	461,139
Securities due in less than 90 days of their acquisition date	160,214	100,897
	729,299	**562,036**

Cash is composed of checks, cash on hand and cash at banks. The effective interest rate for cash at banks due in less than 90 days is mainly between -0.4% and 0.0% (prior year: -0.4% and 0.0%).

18 Equity

The *issued capital* of Carl Zeiss AG totaling €120,000k is unchanged compared to the prior year and is divided into 120,000,000 stocks at nominal value, all of which are held by the Carl Zeiss Foundation (Carl-Zeiss-Stiftung). A dividend of €48,850k was distributed in the reporting period (prior year: €25,000k).

The *capital reserves* are unchanged at €52,770k.

Retained earnings primarily contain:
» the legal reserve of Carl Zeiss AG of €5,950k
» the consolidated profit of the reporting year as well as the past results generated by the entities included in the consolidated financial statements less the associated non-controlling interests
» the acquisition or sale of shares in subsidiaries currently under control

Other reserves present the differences arising from the currency translation of foreign subsidiaries' separate financial statements without effect on income as well as remeasurement effects recognized in equity:
» defined benefit plans
» available-for-sale financial assets and
» derivative financial instruments used in hedge accounting, relating in this case to derivatives used in connection with cash flow hedges

Non-controlling interests contain the proportionate share of non-controlling interests in equity.

In fiscal year 2016/17, ZEISS and ASML Holding N.V., Veldhoven (Netherlands), intensified their long-standing partnership in the semiconductor business. In connection with this, ASML paid a purchase price of €1b for a non-controlling interest of 24.9% in Carl Zeiss SMT Holding GmbH & Co. KG and thus to participate financially in the business of the Semiconductor Manufacturing Technology segment. The proportionate share of the Semiconductor Manufacturing Technology segment came to €22m on the transaction date. The share of non-controlling interests in the ZEISS Group's equity increased accordingly. After taking tax effects into account, the resulting difference to the purchase price is included under other changes in retained earnings as well as the ZEISS Group's other reserves and increased these items by a total of €964m.

Furthermore, Carl Zeiss Meditec AG performed a capital increase in return for a cash contribution of €314m in March 2017. Since the stockholders' subscription rights were excluded pursuant to Sec. 186 (3) Sentence 4 German Stock Corporation Act (AktG), the capital increase is fully reflected in the shares of the non-controlling interests.

The development of consolidated equity is shown in the consolidated statement of changes in equity. The presentation is based on the requirements of IAS 1 *Presentation of Financial Statements*.

19 Provisions for pensions and similar obligations

The provisions for pensions include current and future pension obligations of Carl Zeiss AG and various subsidiaries. In addition, this item comprises the provisions of the US entities for medical care benefit obligations.

The ZEISS Group has both defined contribution plans and defined benefit plans.

In the case of defined contribution plans, the obligation of the entity concerned is limited to the payment of the agreed amounts. The expenses for defined contribution plans amounted to €82,118k in the reporting period (prior year: €76,585k).

With defined benefit plans, the entity's obligation consists of fulfilling the commitments made to current and former employees and their surviving dependants. Such obligations exist both at group entities in Germany and other countries. In the ZEISS Group, defined benefit plans are partly funded via provisions and partly via external funds.

The obligations from defined benefit plans primarily relate to pension obligations in Germany, the USA and the UK.

The characteristics and the associated risks of the defined benefit plans vary depending on the legal, tax and economic framework in the respective country.

German pension plans
The currently applicable pension arrangement for employees in Germany is an employer-financed defined benefit plan, comprising old age, disability and surviving dependants' pensions. These pensions are generally granted after a certain period of service.

The defined benefit plan is a modular system in which one pension module is calculated and fixed for each fiscal year. The contribution amount is based on the employee's income and the profit of the company during the fiscal year, with a basic contribution being guaranteed. The contribution is translated into a pension module on the basis of age- and interest-related factors. The pension modules acquired are aggregated and paid out as a life-long annuity.

For employees who were employed before 1 January 2000, vested rights from previous final-salary-based defined benefit plans must be taken into account for service periods up to 2010.

To reduce the risks associated with defined benefit plans (in particular longevity, salary increases and inflation), benefits are partly financed via external plan assets. To this end, a contractual trust arrangement (CTA) was introduced in Germany in fiscal year 2005/06, under which assets are transferred to a trust association such that they can be used only to settle the benefit obligations of the active employees. These assets satisfy the criteria set forth in IAS 19 for plan assets and can therefore be offset against the benefit obligations in these consolidated financial statements. Where the assets exceed the underlying secured claims, the excess is reported under non-current financial assets.

In addition to the employer-financed pensions, all employees in Germany have the option of participating in the company pension scheme in the form of deferred compensation. This is a defined contribution plan financed by converting salary components, for which the company takes out employer's pension liability insurance.

Pension plans outside Germany
Major pension plans exist primarily in the USA and the UK. These are employer-financed defined benefit plans, comprising old age and surviving dependants' benefits as well as medical benefits, depending on how they are structured. Some of these plans are based on final salary, while others are based on salary-related modules. The obligations from foreign defined benefit obligations are largely covered by assets in long-term external funds. The plans in the USA and in the UK are closed to new employees and existing obligations are now capped.

Actuarial assumptions are essential for all defined benefit plans. Besides life expectancy, which in Germany is determined based on the 2018 G mortality tables published by Prof. Dr. Klaus Heubeck, and in other countries on comparable local measurement bases, the following assumptions were made for the purposes of the actuarial calculations:

	Germany		Other countries	
	2017/18	2016/17	**2017/18**	2016/17
	%	%	%	%
Interest rate	1.90	2.00	0.47 to 8.00	0.42 to 7.00
Future salary increases	2.75	2.75	0.00 to 5.00	0.00 to 5.00
Future pension increases	1.75	1.75	0.00 to 3.40	0.00 to 3.45

The assumptions regarding interest rates, future salary and pension increases as well as mortality rates, on which the calculation of the defined benefit obligation (DBO) was based, vary depending on economic and other conditions in the country in which the plans exist. The interest rates were determined on an entity-specific basis as of the respective reporting date, depending on the weighted average duration of the pension obligations and in line with the respective maturities and currencies.

The amounts for defined benefit obligations recognized in the statement of financial position break down as follows:

				30 SEP 18
	Defined benefit obligations (DBO)	Fair value of plan assets	Effects of the asset ceiling	Net carrying amount from defined benefit obligations
	€ k	€ k	€ k	€ k
Germany	2,375,217	1,308,500	0	1,066,717
Other countries	298,792	226,836	468	72,424
Carrying amount	**2,674,009**	**1,535,336**	**468**	**1,139,141**
» thereof pension provisions				1,143,660
» thereof other financial assets				4,519

				30 SEP 17
	Defined benefit obligations (DBO)	Fair value of plan assets	Effects of the asset ceiling	Net carrying amount from defined benefit obligations
	€ k	€ k	€ k	€ k
Germany	2,274,566	1,189,230	0	1,085,336
Other countries	310,662	219,663	5,809	96,808
Carrying amount	**2,585,228**	**1,408,893**	**5,809**	**1,182,144**
» thereof pension provisions				1,184,589
» thereof other financial assets				2,445

The reconciliation from the funded status to the amounts recognized in the consolidated statement of financial position is as follows:

	30 SEP 18	30 SEP 17
	€ k	€ k
Present value of funded pension obligations	1,870,327	1,668,239
Plan assets	1,535,336	1,408,893
Funded status (net)	**334,991**	**259,346**
Present value of unfunded pension obligations	**803,682**	**916,989**
Adjustment on account of asset ceiling	467	5,809
Carrying amount	**1,139,140**	**1,182,144**
» thereof pension provisions	1,143,660	1,184,589
» thereof other financial assets	4,519	2,445

Pension provisions developed as follows:

	2017/18	2016/17
	€ k	€ k
1 October	**1,184,589**	**1,718,558**
Recognized through profit or loss		
Service cost	61,954	54,244
Net interest cost	22,160	23,590
Recognized in other comprehensive income		
Benefits paid	-73,190	-71,830
Remeasurements	72,209	-368,805
Employer contributions	-127,516	-168,417
Exchange differences on translation	887	-6,095
Other	2,567	3,344
30 September	**1,143,660**	**1,184,589**

Service cost is recorded in functional costs; net interest cost is recorded in the financial result.

The present value of the defined benefit obligations developed as follows during the reporting periods:

	2017/18	2016/17
	€ k	€ k
1 October	**2,585,228**	**2,907,274**
Change in the basis of consolidation	498	0
Service cost	61,954	54,244
Interest cost	52,503	42,080
Benefits paid	-86,880	-83,769
Remeasurements		
» Actuarial gains/losses as a result of changes in demographic assumptions	24,688	435
» Actuarial gains/losses as a result of changes in financial assumptions	34,622	-357,478
» Actuarial gains/losses as a result of experience adjustments	-2,658	36,859
Exchange differences on translation	2,935	-15,641
Other	1,119	1,224
30 September	**2,674,009**	**2,585,228**

The present value of the defined benefit obligations is attributable to:

	30 SEP 18	30 SEP 17
	€ k	€ k
Active employees	1,286,131	1,242,513
Former employees with vested rights	249,144	234,889
Pensioners	1,138,734	1,107,826
	2,674,009	**2,585,228**

A detailed reconciliation of the change in the fair value of plan assets is presented in the table below:

	2017/18	2016/17
	€ k	€ k
1 October	**1,408,893**	**1,190,801**
Interest income	30,493	18,516
Remeasurements	-21,007	53,065
Employer contributions	127,516	168,417
Employee contributions	192	242
Withdrawals for benefit payments	-13,690	-11,939
Exchange differences on translation	2,048	-9,546
Other	891	-663
30 September	**1,535,336**	**1,408,893**

The actuarial gains/losses from the DBO and the remeasurement of the plan assets are recognized in other comprehensive income.

Employer contributions to plan assets for the following fiscal year are expected to amount to €2,954k.

These plan assets are used exclusively to settle the defined benefit obligations. The funding of these benefit obligations serves to cover future cash outflows as required by law in some countries and made on a voluntary basis in others.

Giving special consideration to the type of the underlying obligations, the assets transferred in Germany to Carl Zeiss Pensions-Treuhand e.V. are to be invested in the interest of the beneficiaries so as to maximize security and profitability while ensuring liquidity at all times. The objective of the investment is the long-term ability to fulfill the obligation.

The plan assets in the CTA are managed using an absolute return approach with the objective of achieving an attractive return over the investment horizon in order to earn the interest cost of the pension liabilities while controlling and limiting short-term risks. The target return is derived as a deterministic figure from the obligations.

Dynamic risk management aims to decrease the risks of potential losses in relation to strategic asset allocation (SAA) while generating a return comparable with the SAA over the course of a market cycle. The exposures of the asset classes are managed by means of derivatives on an annual basis using defined allocation ranges and taking into account a risk budget.

The portfolio of plan assets consists of the following components:

	30 SEP 18	30 SEP 17
	€ k	€ k
Stocks and stock funds	492,373	460,923
Pensions and pension funds	509,967	531,613
Real estate and real estate funds	9,512	10,475
Cash and cash equivalents	309,182	220,888
Other assets	214,302	184,994
	1,535,336	**1,408,893**

Price quotations for the stocks and stock funds as well as pensions and pension funds are almost exclusively in an active market; for the other investments, there are no market quotations.

Changes in the relevant actuarial assumptions would have had the following effects on the defined benefit obligation as of the reporting date:

	30 SEP 18	
Change in the present value of the defined benefit obligations (DBO)	Increase by 0.5%	Decrease by 0.5%
	€ k	€ k
Interest rate	-235,949	276,427
Future salary increases	26,480	-23,738
Future pension increases	116,158	-106,424

A 1-year increase in life expectancy would lead to an increase of €130,423k in the present value of the defined benefit obligations.

The sensitivity analyses presented take into account ceteris paribus the change of a parameter, while retaining the calculation method.

To examine the sensitivity of the DBO with regard to a change in the assumed life expectancy, the mortality rates used were reduced in a comparative calculation so that the decrease results in an increase in life expectancy of roughly 1 year.

For the defined benefit obligations as of the reporting date, the following pension payments are forecast for the next 10 years, with the expected benefit payments being partly funded via plan assets:

Maturity profile of defined benefit obligations Estimated benefit payments for the fiscal years ahead	€ k
Fiscal year 2018/19	83,579
Fiscal year 2019/20	86,068
Fiscal year 2020/21	87,969
Fiscal year 2021/22	90,039
Fiscal year 2022/23	91,866
Fiscal years 2023/24 up to and including 2027/28	490,585

The average weighted duration of the pension plans is about 20 years in Germany, about 13 years in the USA and about 18 years in the UK.

20 Other provisions

	30 SEP 18		30 SEP 17	
		thereof due within 1 year		thereof due within 1 year
	€ k	€ k	€ k	€ k
Provisions for income taxes	43,259	43,259	77,028	77,028
Provisions for personnel-related obligations	39,706	9,102	39,122	18,848
Provisions for sales-related obligations	206,503	153,149	127,166	105,171
Sundry other provisions	221,545	60,861	245,028	74,370
	511,013	**266,371**	**488,344**	**275,417**

Provisions for income taxes comprise amounts for taxes that have not yet been finally assessed.

Provisions for personnel-related obligations contain phased retirement obligations, long-service awards and early retirement arrangements, the timing and/or amount of which cannot yet be precisely determined. Provisions for sales-related obligations principally relate to warranty obligations and services still to be rendered. Sundry other provisions include provisions for environmental risks, legal costs and restructuring.

	1 OCT 17	Change in basis of consolidation	Utilization	Reversal	Additions	Unwinding of the discount and effects from changes in the discount factor	Exchange differences	30 SEP 18
	€ k	€ k	€ k	€ k	€ k	€ k	€ k	€ k
Provisions for income taxes	77,028	0	-66,881	-5,043	38,303	0	-148	43,259
Provisions for personnel-related obligations	39,122	0	-16,915	-798	18,342	40	-85	39,706
Provisions for sales-related obligations	127,166	411	-40,929	-8,820	129,308	0	-633	206,503
Sundry other provisions	245,028	55	-33,195	-11,203	21,151	132	-423	221,545
	488,344	**466**	**-157,920**	**-25,864**	**207,104**	**172**	**-1,289**	**511,013**

21 Financial liabilities

	30 SEP 18			30 SEP 17		
		thereof due within 1 year	thereof due in more than 5 years		thereof due within 1 year	thereof due in more than 5 years
	€ k	€ k	€ k	€ k	€ k	€ k
Liabilities to banks	207,076	39,127	27,498	215,135	23,319	27,500
Loans	5,052	5,052	0	52,552	52,552	0
Derivatives	19,069	18,996	0	8,711	7,765	0
Lease liabilities	11,457	3,806	0	6,863	3,157	0
Other financial liabilities	208,351	137,889	0	60,047	49,987	0
	451,005	**204,870**	**27,498**	**343,308**	**136,780**	**27,500**

Liabilities to banks

Promissory notes of €200m were placed in prior years. In June 2016, some of the promissory notes were renewed and some were refinanced at new conditions. The part of €33m that was not renewed was repaid to the investors. The contractually agreed terms of the promissory notes totaling €167m break down as follows:

» €87m with a term of 5 years
» €52.5m 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 to fixed interest rates.

As of 16 July 2014, Carl Zeiss AG concluded a revolving credit facility with a volume of €500m and a term of 5 years with a syndicate of banks. The credit facility includes an option of extending on 2 occasions, by 1 year in each case. The second extension option was exercised on 17 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 €22.4m was drawn in the reporting period to fund activities in other countries. There are also foreign credit facilities of €8.2m.

An annuity loan of €45m was borrowed from Kreditanstalt für Wiederaufbau by an agreement dated 20 January 2012. The loan is subject to fixed interest, is repaid in quarterly installments of €1,417k from 31 March 2014 to 30 December 2021 and has a residual carrying amount of €18,417k as of the reporting date.

Lease liabilities
The finance lease liabilities are detailed in note 27 Leases.

Other financial liabilities
Obligations to non-controlling interests
Obligations to non-controlling interests amount to €147m (prior year: €20m) and contain dividend obligations to ASML Holding N.V., Veldhoven (Netherlands), and purchase price obligations from the acquisition of shares in Bosello High Technology S.r.l., Cassano Magnago (Italy), and the OPTEC Group.

Profit participation capital
The Annual General Meeting of Carl Zeiss AG adopted a resolution on 19 March 2012 authorizing the Executive Board to issue profit participation rights in the fiscal years 2011/12 through to 2015/16 for a total amount of up to €25,000k. As of the reporting date, these comprise participation certificates of the 2013-D, 2014-D, 2015-D and 2016-D series, each with a term of 5 years and a nominal volume totaling €9,125k.

In accordance with the terms and conditions of the participation certificates, they are subject to graded interest rates (0% to 20%) depending on the ZEISS Group's return on sales.

The Annual General Meeting of Carl Zeiss AG adopted a resolution on 13 March 2017 authorizing the Executive Board to continue issuing profit participation certificates in the fiscal years from 2016/17 up to and including 2020/21 for a total amount of up to €25,000k. As of the reporting date, these comprise participation certificates of the 2017-D series, each with a term of 5 years and a nominal volume totaling €4,048k.

In accordance with the terms and conditions of the participation certificates, they are subject to graded interest rates (0% to 16%) depending on the ZEISS Group's revenue performance.

The recipients are the employees of Carl Zeiss AG and its affiliates in Germany. In addition, the boards of foreign group entities are authorized to issue similar rights to employees not eligible for the Carl Zeiss AG profit participation offer.

The terms and conditions of the participation certificates provide for termination rights for either party only in very limited exceptions.

For more information on the contractually agreed undiscounted cash outflows from the non-derivative financial liabilities and derivative financial instruments, please refer to note 23 Financial instruments and risk management.

22 Other non-financial liabilities

	30 SEP 18		30 SEP 17	
		thereof due within 1 year		thereof due within 1 year
	€ k	€ k	€ k	€ k
Advances received on account of orders	519,746	519,418	550,969	550,333
Personnel-related obligations	377,548	377,548	345,560	345,560
Sales-related obligations	347,021	347,021	273,390	273,390
Deferred income	146,671	116,428	144,501	113,029
Sundry other non-financial liabilities	156,930	154,489	114,091	112,137
	1,547,916	**1,514,904**	**1,428,511**	**1,394,449**

The sales-related obligations mainly relate to outstanding invoices and bonus and commission payments.

23 Financial instruments and risk management

As a global player, the ZEISS Group is exposed to credit risks, liquidity risks and market risks (currency, interest rate and other market risks) as part of its ordinary activities.

Credit risk

Credit risk stems from an adverse development in the economic conditions of the company's counterparties or borrowers and lies primarily in trade receivables. There is the threat of non-performance on the part of a contractual party. The maximum credit risk position of the ZEISS Group is equivalent to the carrying amounts of the financial instruments disclosed as financial assets and the guarantees issued to non-consolidated group entities. The risks are minimized by obtaining collateral, gathering credit ratings/references or analyzing track records of prior business relations, particularly payment behavior. The most frequent form is the retention of title. Impairment losses are recognized for any credit risks associated with the financial assets.

The table below provides information on the credit risks contained in trade and other receivables:

	30 SEP 18	30 SEP 17
	€ k	€ k
Trade and other receivables (gross)	**1,260,069**	**1,164,123**
(Portfolio-based) valuation allowance	24,995	37,765
Allowance for exchange differences	498	144
Trade and other receivables (net)	**1,235,572**	**1,126,502**
» thereof due in more than 1 year	40,989	35,879

As of 30 September 2018, trade and other receivables include receivables of €17,517k (prior year: €29,741k) from long-term construction contracts billed according to the percentage-of-completion method and finance lease receivables of €16,358k (prior year: €11,807k).

Revenue of €44,424k (prior year: €69,861k) was recognized from construction contracts in the reporting period. The total costs incurred plus recognized profits less recognized losses for the projects ongoing as of the reporting date amount to €44,424k (prior year: €69,861k). Advances received of €1,333k (prior year: €1,227k) have already been taken into account in the settlement of construction contracts. As of 30 September 2018, security retentions by customers for construction contracts amounted to €2,435k (prior year: €3,146k).

Identifiable credit risks are accounted for by specific allowances as well as portfolio-based allowances on trade and other receivables. These bad debt allowances developed as follows:

	2017/18	2016/17
	€ k	€ k
1 October	**37,765**	**29,672**
Change in the basis of consolidation	110	0
Utilization	-6,811	-2,745
Reversal	-16,692	-5,561
Addition	10,910	17,151
Exchange rate effects	-287	-752
30 September	**24,995**	**37,765**

The calculation of the percentages used for the portfolio-based valuation allowances was reviewed in the fiscal year. The review showed that the percentages used to date no longer adequately provide for the credit risk associated with trade receivables. The respective valuation allowances were therefore adjusted, resulting in a reversal of €10m in the reporting year.

The table below provides information on trade and other receivables that are not impaired:

	30 SEP 18	30 SEP 17
	€ k	€ k
Trade and other receivables (net)	**1,235,572**	**1,126,502**
» thereof neither impaired nor past due as of the reporting date	824,200	816,316
» thereof not impaired as of reporting date but past due by the following time periods:		
» up to 30 days	179,046	146,732
» 31 to 90 days	114,894	49,633
» 91 to 180 days	34,919	36,152
» 181 to 365 days	23,474	17,989
» 366 days and more	17,542	19,952

With regard to trade and other receivables which are neither impaired nor past due, there are no indications that defaults will occur that will lead to a reduction in assets.

The table below provides information on the offsetting of non-derivative financial instruments and the resulting limit to the credit risk:

	30 SEP 18	30 SEP 17
	€ k	€ k
Trade and other receivables (before offsetting)	1,300,226	1,163,827
Offsetting of credit notes issued	64,654	37,325
Remaining credit risk	**1,235,572**	**1,126,502**

The following offsetting of derivative financial instruments would be possible in the event of insolvency at a counterparty:

	30 SEP 18	30 SEP 17
	€ k	€ k
Derivatives with a positive market value	5,430	41,245
Amount available for offsetting in the event of insolvency	5,364	7,695
Remaining credit risk	**66**	**33,550**

Another credit risk is connected to the investment of cash if the banks are not able to meet their obligations. This risk is diversified by investing at different banks, defining limits per asset class and issuer, and applying high rating standards to business partners.

Liquidity risk
The liquidity risk of the ZEISS Group is the risk that it may not be able to meet its financial obligations (to repay financial liabilities or make interest payments).

The cash that serves this risk is generated primarily by operations. Where necessary or where it makes sense for strategic reasons, external sources of finance are drawn on in addition. Carl Zeiss Meditec AG also has the possibility of raising equity funds on the capital market.

For further details on financial liabilities, please refer to note 21 Financial liabilities.

The table below provides information on the offsetting of trade payables and the resulting limit to the liquidity risk:

	30 SEP 18	30 SEP 17
	€ k	€ k
Trade payables (before offsetting)	408,022	370,513
Offsetting of credits notes issued	5,075	8,446
Remaining liquidity risk	**402,947**	**362,067**

The following offsetting of derivative financial instruments with a negative market value would be possible in the event of insolvency of a counterparty:

	30 SEP 18	30 SEP 17
	€ k	€ k
Derivatives with a negative market value	19,069	8,711
Amount available for offsetting in the event of insolvency	5,364	7,695
Remaining liquidity risk	**13,705**	**1,016**

Liquidity is ensured by means of ongoing, group-wide liquidity monitoring and budgeting and a diversified investment policy that takes into account the terms to maturity and is implemented by Carl Zeiss Financial Services GmbH on a group-wide scale. The available liquidity as well as the revolving credit facility agreed in fiscal year 2013/14 give the ZEISS Group adequate flexibility to cover the Group's refinancing needs. The ZEISS Group is not subject to any concentration of risk thanks to the diverse nature of its financing sources and its cash and cash equivalents.

The table below shows the contractually agreed undiscounted cash outflows for non-derivative financial liabilities:

	Undiscounted cash outflows			
	due within 1 year	due in 1 to 5 years	due in more than 5 years	**Total 30 SEP 18**
	€ k	€ k	€ k	€ k
Trade payables	402,947	0	0	**402,947**
Financial liabilities				
» Liabilities to banks	41,423	149,072	28,531	**219,026**
» Loans	5,120	0	0	**5,120**
» Lease liabilities	4,508	8,165	0	**12,673**
» Other financial liabilities	139,064	70,463	0	**209,527**
Guarantees	6,395	0	0	**6,395**

	Undiscounted cash outflows			
	due within 1 year	due in 1 to 5 years	due in more than 5 years	Total 30 SEP 17
	€ k	€ k	€ k	€ k
Trade payables	360,997	840	230	**362,067**
Financial liabilities				
» Liabilities to banks	27,002	177,395	29,563	**233,960**
» Loans	52,683	0	0	**52,683**
» Lease liabilities	3,642	3,951	0	**7,593**
» Other financial liabilities	52,262	10,060	0	**62,322**
Guarantees	10,456	0	0	**10,456**

The table below shows the contractually agreed undiscounted cash outflows for derivative financial instruments with a negative market value:

	Undiscounted cash outflows			
	due within 1 year	due in 1 to 5 years	due in more than 5 years	**Total 30 SEP 18**
	€ k	€ k	€ k	€ k
Derivative financial liabilities settled on a gross basis				
» Cash outflows	711,303	0	0	**711,303**
» Cash inflows	686,383	0	0	**686,383**

	Undiscounted cash outflows			
	due within 1 year	due in 1 to 5 years	due in more than 5 years	Total 30 SEP 17
	€ k	€ k	€ k	€ k
Derivative financial liabilities settled on a gross basis				
» Cash outflows	558,119	0	0	**558,119**
» Cash inflows	547,488	0	0	**547,488**

Market risk
The operations of the ZEISS Group are exposed to market price risks due to changes in exchange rates and interest rates. Business policy aims to minimize these risks by means of hedging. All hedging transactions are implemented at corporate level.

From an operating perspective, hedging rates are set for all relevant currencies. All business is transacted in compliance with the principle of strict separation of duties between front office (trading), middle office (financial risk management) and back office (settlement, documentation).

Exchange rate risk
On account of its global orientation, the ZEISS Group is primarily exposed to exchange rate risks in operations whenever revenue is generated or goods are purchased in a currency other than the currency in which the associated costs are incurred. This risk is mainly in relation to the US dollar, the Japanese yen, the pound sterling and the Chinese renminbi.

In order to reduce the effect of exchange rate fluctuations on operations, foreign exchange risks are mostly hedged using standard currency options and forward exchange contracts concluded with banks with excellent credit ratings.

For risk management and monitoring purposes value-at-risk analyses, supplemented by scenario, sensitivity and stress test analyses, are used to quantify exchange rate risks. These risk analyses are reported monthly to the Group's Executive Board.

These value-at-risk analyses are used to regularly assess the risk position from changes in exchange rates by calculating the maximum loss for a certain confidence level and retention period. Value at risk is determined on the basis of historical data and taking into account correlations between the transactions analyzed. The value at risk determined then shows the maximum loss that will not be exceeded over a period of 10 days with a probability of 95% (historical simulation).

In the past fiscal year, value at risk decreased compared to the prior year to €0.7m (prior year: €0.8m).

Interest rate risk
Interest rate risk arises from fluctuations in market interest rates.

These changes can affect both earnings (cash flow risk) and any fluctuations in the value of financial instruments (fair value risk). The ZEISS Group has various interest-sensitive assets and liabilities and therefore has interest rate exposure from its asset and liability management.

The interest rate risk is analyzed and managed centrally by Carl Zeiss Financial Services GmbH. The ZEISS Group has the following cash flow and fair value risks based on its floating-rate and fixed-rate instruments in this context.

Cash flow risk: A change of +/- 50 base points would have an effect of +/- €8.7m on profit or loss (prior year: +/- €7.1m). A change of +/- 50 base points would have no effect on equity.

Fair value risk: Assuming a change of +/- 50 base points, the fixed-rate instruments held by the ZEISS Group as available-for-sale financial instruments would have an effect of +/- €2.4m on equity (prior year: +/- €1.0m).

The ZEISS Group is not exposed to material other price risks.

Carrying amounts and fair values by category

The table below presents the carrying amounts and fair values of the financial instruments accounted for by measurement category.

					30 SEP 18
		Carrying amount	(Amortized) cost	Amount recognized pursuant to IAS 17	Fair value
	Categories of IAS 39	€ k	€ k	€ k	€ k
Trade and other receivables	LaR/n.a.	1,235,572	1,219,214	16,358	*
Other financial assets					
» Shares in affiliates	AfS	39,505	39,505		*
» Investments	AfS	3,711	3,711		*
» Loans	LaR	42,494	42,494		*
» Securities	AfS	268,258			268,258
» Derivatives	FVtPL	5,430			5,430
» Other financial assets	LaR	1,451,694	1,451,694		*
Cash and cash equivalents	LaR	729,299	729,299		*
Financial assets		**3,775,963**	**3,485,917**	**16,358**	**273,688**
Trade payables	FLAC	402,947	402,947		*
Other financial liabilities					
» Liabilities to banks	FLAC	207,076			219,138
» Loans	FLAC	5,052	5,052		*
» Derivatives	FVtPL	19,069			19,069
» Lease liabilities	n.a.	11,457		11,457	12,648
» Other financial liabilities	FLAC	208,351	208,351		*
Financial liabilities		**853,952**	**616,350**	**11,457**	**250,855**
Aggregated by measurement category in accordance with IAS 39					
Loans and receivables	LaR	3,459,059	3,442,701		
Financial assets at fair value through profit or loss	FVtPL	5,430			5,430
Available-for-sale financial assets	AfS	311,474	43,216		268,258
Financial liabilities at amortized cost	FLAC	823,426	616,350		219,138
Financial liabilities held for trading	FVtPL	19,069			19,069

					30 SEP 17
		Carrying amount	(Amortized) cost	Amount recognized pursuant to IAS 17	Fair value
	Categories of IAS 39	€ k	€ k	€ k	€ k
Trade and other receivables	LaR/n.a.	1,126,502	1,114,695	11,807	*
Other financial assets					
» Shares in affiliates	AfS	33,734	33,734		*
» Investments	AfS	1,642	1,642		*
» Loans	LaR	43,820	43,820		*
» Securities	AfS	240,627			240,627
» Derivatives	FVtPL	41,245			41,245
» Other financial assets	LaR	1,506,592			1,523,612
Cash and cash equivalents	LaR	562,036	562,036		*
Financial assets		**3,556,198**	**1,755,927**	**11,807**	**1,805,484**
Trade payables	FLAC	362,067	362,067		*
Other financial liabilities					
» Liabilities to banks	FLAC	215,135			237,624
» Loans	FLAC	52,552	52,552		*
» Derivatives	FVtPL	8,711			8,711
» Lease liabilities	n.a.	6,863		6,863	7,509
» Other financial liabilities	FLAC	60,047	60,047		*
Financial liabilities		**705,375**	**474,666**	**6,863**	**253,844**
Aggregated by measurement category in accordance with IAS 39					
Loans and receivables	LaR	3,238,950	1,720,551		1,523,612
Financial assets at fair value through profit or loss	FVtPL	41,245			41,245
Available-for-sale financial assets	AfS	276,003	35,376		240,627
Financial liabilities at amortized cost	FLAC	689,801	474,666		237,624
Financial liabilities held for trading	FVtPL	8,711			8,711

* The fair value approximately corresponds to the carrying amount

As of the reporting date, there is no intention to sell any of the significant investments.

Fair value measurement
Financial instruments are measured at fair value based on a 3-level fair value hierarchy:

Level 1: Fair value is calculated based on the quoted, unadjusted market prices on active markets.

Level 2: Fair value is calculated based on market data such as stock prices, exchange rates or interest curves pursuant to market-based valuation techniques (e.g. present value method or option pricing models).

Level 3: Fair value is calculated based on models with non-observable market data.

The decision on classification is made on the reporting date.

The table below shows the fair values of financial instruments as well as their respective classification:

Fair value				**30 SEP 18**
	Level 1	Level 2	Level 3	Total
	€ k	€ k	€ k	€ k
Securities	205,392	62,866	0	268,258
Derivatives	0	5,430	0	5,430
Financial assets	**205,392**	**68,296**	**0**	**273,688**
Liabilities to banks	0	219,138	0	219,138
Derivatives	0	19,069	0	19,069
Lease liabilities	0	12,648	0	12,648
Financial liabilities	**0**	**250,855**	**0**	**250,855**

Fair value				30 SEP 17
	Level 1	Level 2	Level 3	Total
	€ k	€ k	€ k	€ k
Securities	121,024	119,603	0	240,627
Derivatives	0	41,245	0	41,245
Sundry other financial assets	0	1,523,612	0	1,523,612
Financial assets	**121,024**	**1,684,460**	**0**	**1,805,484**
Liabilities to banks	0	237,624	0	237,624
Derivatives	0	8,711	0	8,711
Lease liabilities	0	7,509	0	7,509
Financial liabilities	**0**	**253,844**	**0**	**253,844**

Net gain or loss
The effects of financial instruments recognized in the income statement are presented on a net basis in the table below by category as defined in IAS 39 *Financial Instruments: Recognition and Measurement*:

				2017/18
		thereof from interest	thereof from subsequent measurement	thereof from disposals
	€ k	€ k	€ k	€ k
Loans and receivables	-539	8,023	-8,554	-8
Available-for-sale financial assets	896	650	92	154
Financial assets and liabilities at fair value through profit or loss	-18,731	0	-13,605	-5,126
Financial liabilities measured at amortized cost	-18,523	-9,866	-8,657	0

				2016/17
		thereof from interest	thereof from subsequent measurement	thereof from disposals
	€ k	€ k	€ k	€ k
Loans and receivables	-18,568	6,038	-24,575	-31
Available-for-sale financial assets	138	731	-2,539	1,946
Financial assets and liabilities at fair value through profit or loss	38,009	0	32,683	5,326
Financial liabilities measured at amortized cost	-12,073	-12,284	211	0

The interest and currency result from the measurement of receivables and loans is reported in the "Loans and receivables" category under net gain or loss. The gains or losses from the measurement and realization of securities and investments are presented in the "Available-for-sale financial assets" category. The "Financial assets and liabilities at fair value through profit or loss" category contains the gains or losses from the measurement of derivatives. The interest and currency result from the measurement of liabilities is recognized in the "Financial liabilities measured at amortized cost" category.

Hedge accounting
In the prior years, forward exchange contracts were concluded in order to hedge the currency exposure from forecast revenue in a project business transaction of US$1.8m. These forward exchange contracts were designated as cash flow hedges in compliance with the requirements for hedge accounting. In the prior years, the ineffective portion of the currency hedges was included in the income and expenses from changes in market value, respectively. The planned revenue was no longer expected to occur in the prior year, meaning that the amounts recognized in other comprehensive income in the prior year were reclassified to the financial result through profit or loss.

	30 SEP 18	30 SEP 17
	€ k	€ k
Fair value of hedge	0	0
Recognized in other comprehensive income	0	0
Reclassified through profit or loss	0	391

No hedging relationships designed to hedge exposure from changes in cash flows arising from fluctuation in exchange rates were reported as of the reporting date.

OTHER NOTES

24 Notes to the statement of cash flows

The consolidated statement of cash flows shows how the cash and cash equivalents reported in the statement of financial position of the ZEISS Group changed in the course of the fiscal year as a result of cash received and paid. In accordance with IAS 7 *Statement of Cash Flows*, a distinction is made between cash flows from operating activities, investing activities and financing activities.

The cash flows from investing activities and financing activities are determined on the basis of payments made or received. As for government grants for research and development, third-party subsidies are offset against investments in property, plant and equipment. The cash flows from operating activities, on the other hand, are derived indirectly from the consolidated profit or loss for the year. When performing the indirect calculation, changes in items of the statement of financial position considered in connection with operating activities are adjusted for effects from currency translation and changes in the basis of consolidation. Non-cash effects are likewise eliminated. Changes in the items of the statement of financial position concerned can therefore not be reconciled with the figures based on the published consolidated statement of financial position.

Changes to liabilities from financing activities during the fiscal year are shown in the table below:

			Non-cash changes		
	1 OCT 17	Cash changes	from currency translation	from changes in the basis of consolidation	**30 SEP 18**
	€ k	€ k	€ k	€ k	€ k
Liabilities to banks	215,135	-4,116	-3,943	0	207,076
Lease liabilities	6,863	4,308	236	50	11,457
	221,998	**192**	**-3,707**	**50**	**218,533**

25 Contingent liabilities and assets

	30 SEP 18	30 SEP 17
	€ k	€ k
Liabilities from guarantees	6,395	10,456
Guarantee commitment obligations	167	0
Other contingent liabilities	1,720	371

The other contingent liabilities and the liabilities from guarantees and guarantee commitments were not recognized as provisions because the probability of an outflow of resources is considered remote.

26 Average headcount for the year and personnel expenses

	2017/18	2016/17
	Number	Number
Germany	11,429	10,721
EMEA (without Germany)	4,197	3,862
Americas	6,482	6,161
APAC	5,651	5,076
	27,759	**25,820**
Trainees	372	360
Total	**28,131**	**26,180**

The average number for the year is calculated on the basis of full-time equivalents.

Personnel expenses break down as follows:

	2017/18	2016/17
	€ k	€ k
Wages and salaries	1,657,092	1,539,456
Social security	258,933	237,369
Pension costs	67,888	60,175
Total	**1,983,913**	**1,837,000**

27 Leases

Operating leases – ZEISS as the lessee

The Group has entered into lease agreements for office space and office equipment. The contracts have terms of between 1 and more than 5 years and some contain renewal and purchase options as well as price adjustment clauses.

Other expenses from rental, lease and similar agreements for the reporting period break down as follows:

	2017/18	2016/17
	€ k	€ k
Minimum lease payments	70,141	69,264
» thereof sale-and-leaseback	7,126	8,718
Contingent rent	2,853	2,068
» thereof sale-and-leaseback	0	0
Sublease payments	0	56
» thereof sale-and-leaseback	0	0
	72,994	**71,388**

By maturity band, future minimum rent and lease payments under non-cancelable operating leases are as follows:

	2017/18	2016/17
Term to maturity	€ k	€ k
Less than 1 year	57,743	46,967
» thereof sale-and-leaseback	8,007	8,885
Between 1 and 5 years	108,841	93,361
» thereof sale-and-leaseback	9,012	14,214
More than 5 years	33,566	23,700
» thereof sale-and-leaseback	0	12

Operating leases – ZEISS as the lessor
The Group has entered into lease agreements mainly for buildings and technical equipment with future minimum lease payments receivable from non-cancelable operating leases with the following terms:

	2017/18	2016/17
Term to maturity	€ k	€ k
Less than 1 year	12,327	11,809
Between 1 and 5 years	9,151	18,242
More than 5 years	0	18

Finance leases – ZEISS as the lessee
The ZEISS Group has entered into finance leases for various fixed assets, mainly buildings.

The carrying amounts of these fixed assets contain the following amounts from finance leases under which the ZEISS Group is the lessee:

	2017/18	2016/17
	€ k	€ k
Land and buildings	4,978	3,196
» thereof sale-and-leaseback	4,919	2,131
Technical equipment and machinery	72	140
» thereof sale-and-leaseback	0	0
Other equipment and machinery	599	698
» thereof sale-and-leaseback	0	0

On 28 September 1999, the company sold and leased back land, buildings and leasehold improvements in Dublin (USA). The sale-and-leaseback transaction qualifies as a finance lease under IAS 17 *Leases*. In the fiscal year, the term of the lease was renewed until 2021. The land, buildings and leasehold improvements with a carrying amount of €4,919k (prior year: €2,131k) continue to be carried and depreciated by the lessee.

Finance lease liabilities are due as follows:

				30 SEP 18
		thereof due within 1 year	thereof due in 1 to 5 years	thereof due in more than 5 years
	€ k	€ k	€ k	€ k
Future minimum lease payments	12,673	4,508	8,165	0
» thereof sale-and-leaseback	11,989	4,180	7,809	0
Interest portion	1,216	702	514	0
» thereof sale-and-leaseback	1,191	684	507	0
Present value of future minimum lease payments	**11,457**	**3,806**	**7,651**	**0**
» thereof sale-and-leaseback	10,798	3,496	7,302	0

				30 SEP 17
		thereof due within 1 year	thereof due in 1 to 5 years	thereof due in more than 5 years
	€ k	€ k	€ k	€ k
Future minimum lease payments	7,593	3,642	3,951	0
» thereof sale-and-leaseback	6,718	3,284	3,434	0
Interest portion	730	485	245	0
» thereof sale-and-leaseback	668	436	232	0
Present value of future minimum lease payments	**6,863**	**3,157**	**3,706**	**0**
» thereof sale-and-leaseback	6,050	2,848	3,202	0

As in the prior year, there are no future minimum lease payments under non-cancelable subleases.

Finance leases – ZEISS as the lessor

Technical equipment is leased out under finance lease agreements. The finance lease receivables total €16,358k as of the reporting date (prior year: €11,807k).

				30 SEP 18
		thereof due within 1 year	thereof due in 1 to 5 years	thereof due in more than 5 years
	€ k	€ k	€ k	€ k
Gross investment	17,840	6,080	11,148	612
Unearned finance income	1,482	681	762	39
Present value	**16,358**	**5,399**	**10,386**	**573**

				30 SEP 17
		thereof due within 1 year	thereof due in 1 to 5 years	thereof due in more than 5 years
	€ k	€ k	€ k	€ k
Gross investment	13,195	3,998	8,490	707
Unearned finance income	1,388	529	819	40
Present value	**11,807**	**3,469**	**7,671**	**667**

28 Government grants

The government grants received in the reporting period were as follows:

	2017/18	2016/17
	€ k	€ k
Research and development grants	10,434	9,451
Grants related to assets	6,137	3,363
Other grants related to expenses	526	933
	17,097	**13,747**

29 Related party disclosures

Related parties as defined by IAS 24 *Related Party Disclosures* include the Carl Zeiss Foundation (Carl-Zeiss-Stiftung), Heidenheim an der Brenz and Jena, the entity SCHOTT AG, Mainz, owned by the Carl Zeiss Foundation (Carl-Zeiss-Stiftung), the associates, joint ventures and non-consolidated subsidiaries as well as the members of the Executive Board and the Supervisory Board of Carl Zeiss AG.

All transactions with these entities are settled at arm's length conditions. The resulting effects on the consolidated financial statements are immaterial.

The table below shows receivables from and liabilities to entities and investments that are not included in the consolidated financial statements of Carl Zeiss AG:

	30 SEP 18	30 SEP 17
	€ k	€ k
Receivables	37,885	33,497
Liabilities	19,089	69,135

These receivables and liabilities mainly stem from trade and cash management. The liabilities as of 30 September 2017 contain several loans totaling €52,500k granted by the Carl Zeiss Foundation (Carl-Zeiss-Stiftung) to Carl Zeiss AG at arm's length conditions, of which €47,500k was repaid in fiscal year 2017/18. The remaining amount of €5,000k is presented as a loan under financial liabilities in the consolidated statement of financial position.

The table below shows the goods and services supplied to and received from entities and investments that are not included in the consolidated financial statements of Carl Zeiss AG:

	2017/18	2016/17
	€ k	€ k
Goods and services supplied	30,018	27,716
Goods and services received	40,199	35,765

In the reporting period, there were no transactions between the ZEISS Group and members of the Executive Board and the Supervisory Board and their family members above and beyond the existing employment, service or appointment relationships and the related contractually agreed remuneration.

Information on the remuneration of board members is contained in note 33 Remuneration of the Executive Board and the Supervisory Board.

30 German Corporate Governance Code

The Management Board and the Supervisory Board of the listed company Carl Zeiss Meditec AG, Jena, included in the consolidated financial statements have issued a declaration in accordance with Sec. 161 AktG on the recommendations issued by the government commission on the German Corporate Governance Code and made it available to stockholders on the company's website (www.zeiss.de/meditec-ag/ir) in the Corporate Governance Section.

31 Audit fees

The Supervisory Board of Carl Zeiss AG engaged Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart (Germany), to audit the consolidated financial statements. The audit fees relate to the group auditor Ernst & Young GmbH, Germany.

	2017/18	2016/17
	€ k	€ k
Audit services	1,457	1,445
Other attestation services	142	95
Tax advisory services	50	199
Other services	76	184

32 Subsequent events

On 22 October 2018, Carl Zeiss Meditec Inc., Dublin, California (USA), signed an agreement to acquire 100% of the shares in IanTECH, Inc., Reno, Nevada (USA) ("IanTECH").

IanTECH specializes in technical solutions for microinvasive cataract surgery. The acquisition will strengthen ZEISS's technological position in cataract surgery.

At present, the provisional purchase price comprises a fixed component (including an escrow amount) of €95m and performance-based components totaling no more than €229m. The performance-based components reward the achievement of defined targets from 2020 onwards. If all the targets are met, a maximum amount of €229m will be payable for these components. If there are delays or targets are not met, the amount payable is reduced in increments down to a minimum of zero.

Since the timing of the acquisition coincides with the publication of the consolidated financial statements, no information on the assets and liabilities assumed or the expected goodwill is disclosed pursuant to IFRS 3.B66.

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

33 Remuneration of the Executive Board and the Supervisory Board

Total remuneration of the members of the Executive Board for performance of their duties at Carl Zeiss AG and its subsidiaries came to €10,609k for fiscal year 2017/18 (prior year: €10,945k). Of the total remuneration, €250k (prior year: €150k) is attributable to long-term benefits and €1,900k (prior year: €1,399k) to service cost for pension obligations. Current fixed and variable remuneration comes to €8,459k (prior year: €9,396k). The members of the Executive Board did not receive any additional remuneration because they either waived the remuneration for their activities on the supervisory board of subsidiaries or offset this against their Executive Board remuneration.

The total benefits paid to former members of the Executive Board and their surviving dependants amounted to €2,449k for fiscal year 2017/18 (prior year: €3,205k). Provisions totaling €48,665k (prior year: €45,064k) were recognized for the benefit obligations to former members of the Executive Board or their surviving dependants.

The total remuneration of the members of the Supervisory Board of Carl Zeiss AG for their activities came to €1,262k in fiscal year 2017/18 (prior year: €1,287k).

Oberkochen, 3 December 2018

The Executive Board of Carl Zeiss AG

Prof. Dr. Michael Kaschke

Dr. Karl Lamprecht

Dr. Matthias Metz

Dr. Ludwin Monz

Dr. Christian Müller

Dr. Jochen Peter

List of Shareholdings of the Group

in accordance with Sec. 315e (1) in conjunction with Sec. 313 (2) German Commercial Code (HGB)
30 September 2018

Country	City	Name of entity	Share in capital acc. to Sec. 285 No. 11 HGB %	Beneficial share in capital %
1. Fully consolidated subsidiaries				
Germany	Aalen	Carl Zeiss 3D Automation GmbH [1]	100.0	100.0
Germany	Ostfildern	Carl Zeiss 3D Metrology Services GmbH Stuttgart	100.0	100.0
Germany	Öhringen	Carl Zeiss Automated Inspection GmbH [1]	100.0	100.0
Germany	Oberkochen	Carl Zeiss Beteiligungs-GmbH [1]	100.0	100.0
Germany	Göttingen	Carl Zeiss CMP GmbH [1]	100.0	100.0
Germany	Oberkochen	Carl Zeiss Energie GmbH [1]	100.0	100.0
Germany	Oberkochen	Carl Zeiss Financial Services GmbH [1]	100.0	100.0
Germany	Tholey	Carl Zeiss Fixture Systems GmbH	90.0	90.0
Germany	Oberkochen	Carl Zeiss Grundstücks GmbH & Co. KG [1]	100.0	100.0
Germany	Oberkochen	Carl Zeiss Industrielle Messtechnik GmbH [1]	100.0	100.0
Germany	Jena	Carl Zeiss Jena GmbH [1]	100.0	100.0
Germany	Jena	Carl Zeiss Jena Grundstücks GmbH & Co. KG [1]	100.0	100.0
Germany	Jena	Carl Zeiss Meditec AG	59.1	59.1
Germany	Jena	Carl Zeiss Meditec Asset Management Verwaltungsgesellschaft mbH [1]	100.0	59.1
Germany	Oberkochen	Carl Zeiss Meditec Vertriebsgesellschaft mbH [1]	100.0	59.1
Germany	Jena	Carl Zeiss Microscopy GmbH [1]	100.0	100.0
Germany	Neubeuern	Carl Zeiss Optotechnik GmbH [1]	100.0	100.0
Germany	Schönkirchen	Carl Zeiss Schönkirchen GmbH [1]	100.0	100.0
Germany	Oberkochen	Carl Zeiss SMT GmbH [1]	100.0	75.1
Germany	Oberkochen	Carl Zeiss SMT Holding GmbH & Co. KG [1]	75.1	75.1
Germany	Oberkochen	Carl Zeiss SMT Holding Management GmbH [1]	100.0	100.0
Germany	Jena	Carl Zeiss Spectroscopy GmbH [1]	100.0	100.0
Germany	Wetzlar	Carl Zeiss Sports Optics GmbH [1]	100.0	100.0
Germany	Aalen	Carl Zeiss Vision GmbH	100.0	100.0
Germany	Aalen	Carl Zeiss Vision Grundstücks GmbH & Co. KG [1]	100.0	100.0
Germany	Aalen	Carl Zeiss Vision Holding GmbH	100.0	100.0
Germany	Aalen	Carl Zeiss Vision International GmbH	100.0	100.0
Germany	Aalen	Carl Zeiss Vision Investment GmbH	100.0	100.0
Germany	Wetzlar	Carl Zeiss Wetzlar Grundstücks GmbH & Co. KG [1]	100.0	100.0
Germany	Frankfurt	Helaba Invest - CZFS Spezialfonds	100.0	100.0
Germany	Aalen	Marwitz & Hauser GmbH [1]	100.0	100.0
Germany	Düsseldorf	OPTEC GmbH	51.0	100.0[3]
Germany	Kiel	Opton Feintechnik Kiel GmbH [1]	100.0	100.0
Argentina	Buenos Aires	Carl Zeiss Vision Argentina S.A.	100.0	100.0
Australia	North Ryde	Carl Zeiss No. 2 Pty Ltd	100.0	100.0
Australia	North Ryde	Carl Zeiss Pty. Ltd.	100.0	100.0
Australia	Tonsley	Carl Zeiss Vision Australia Group Pty. Ltd.	100.0	100.0
Australia	Tonsley	Carl Zeiss Vision Australia Holdings Ltd.	100.0	100.0
Australia	Tonsley	Carl Zeiss Vision Australia Pty. Ltd.	100.0	100.0
Australia	Tonsley	Sola Optical Partners (Limited Partnership)	100.0	100.0
Belgium	Zaventem	Carl Zeiss N.V.-S.A.	100.0	100.0

Country	City	Name of entity	Share in capital acc. to Sec. 285 No. 11 HGB	Beneficial share in capital
			%	%
Belgium	Zaventem	Carl Zeiss Vision Belgium NV	100.0	100.0
Brazil	São Paulo	Carl Zeiss do Brasil Ltda.	100.0	100.0
Brazil	Petrópolis	Carl Zeiss Vision Brasil Industria Optica Ltda.	100.0	100.0
British Virgin Islands	Road Town, Tortola	Carl Zeiss Vision China (BVI) Ltd.	100.0	100.0
China	Changchun City	Carl Zeiss Fixture Systems (Changchun) Co., Ltd.	100.0	100.0
China	Shanghai	Carl Zeiss IMT (Shanghai) Co., Ltd.	100.0	100.0
China	Shanghai	Carl Zeiss (Shanghai) Co., Ltd.	100.0	100.0
China	Suzhou-City	Carl Zeiss Suzhou Co., Ltd.	100.0	100.0
China	Guangzhou	Carl Zeiss Vision (China) Ltd.	100.0	100.0
China	Guangzhou	Carl Zeiss Vision (Guangzhou) Ltd.	100.0	100.0
China	Guangzhou	Carl Zeiss Vision Sunlens China Ltd.	100.0	100.0
China	Guangzhou	Carl Zeiss Vision Technical Services (Guangzhou) Ltd.	100.0	100.0
China	Guangzhou	Carl Zeiss Vision Technologies (Guangzhou) Ltd.	100.0	100.0
Denmark	Birkerød	Carl Zeiss A/S	100.0	100.0
Denmark	Copenhagen	Carl Zeiss Vision Danmark A/S	100.0	100.0
Finland	Vantaa	Carl Zeiss Oy	100.0	100.0
France	La Rochelle, Perigny	Atlantic SAS	100.0	59.1
France	Marly-le-Roi	Carl Zeiss Meditec France S.A.S.	100.0	59.1
France	La Rochelle, Perigny	Carl Zeiss Meditec SAS	100.0	59.1
France	Marly-le-Roi	Carl Zeiss SAS	100.0	100.0
France	Sablé-sur-Sarthe	Carl Zeiss Services S.a.r.l.	100.0	100.0
France	Fougères	Carl Zeiss Vision France Holding S.A.S.	100.0	100.0
France	Fougères	Carl Zeiss Vision France S.A.S.	100.0	100.0
France	Paris	France Chirurgie Instrumentation SAS	100.0	59.1
UK	Cambridge	Carl Zeiss Ltd	100.0	100.0
UK	Cambridge	Carl Zeiss Microscopy Limited	100.0	100.0
UK	Birmingham	Carl Zeiss Vision UK Limited	100.0	100.0
UK	Livingston	HYALTECH Ltd.	100.0	59.1
UK	Birmingham	SILS Limited	100.0	100.0
Hong Kong	Kwai Fong, Hong Kong	Carl Zeiss Far East Co., Ltd.	100.0	100.0
Hong Kong	Hong Kong Shatin, N.T.	Carl Zeiss Vision Sunlens Asia Pacific Ltd.	100.0	100.0
India	Bangalore	Carl Zeiss India (Bangalore) Private Limited	100.0	100.0
Ireland	Wexford	Carl Zeiss Vision Ireland Ltd.	100.0	100.0
Ireland	Wexford	Sola Holdings Ireland Limited	100.0	100.0
Israel	Misgav	Carl Zeiss SMS Ltd.	100.0	75.1
Italy	Cassano Magnago (VA)	Bosello High Technology S.r.l.	70.0	100.0[3]
Italy	Milan	Carl Zeiss S.p.A.	100.0	100.0
Italy	Varese	Carl Zeiss Vision Italia S.p.A.	100.0	100.0
Japan	Tokyo	Carl Zeiss Co., Ltd.	100.0	100.0
Japan	Tokyo	Carl Zeiss IMT Co., Ltd.	100.0	100.0
Japan	Tokyo	Carl Zeiss Meditec Co., Ltd.	100.0	79.2
Japan	Tokyo	Carl Zeiss Vision Japan Co., Ltd.	100.0	100.0

Country	City	Name of entity	Share in capital acc. to Sec. 285 No. 11 HGB	Beneficial share in capital
			%	%
1. Fully consolidated subsidiaries				
Canada	Toronto	Carl Zeiss Canada Ltd.	100.0	100.0
Canada	Toronto	Carl Zeiss Vision Canada Inc.	100.0	100.0
Kazakhstan	Almaty District	TOO Optec	100.0	100.0[3]
Colombia	Bogotá D.C.	Carl Zeiss Vision Colombia S.A.S.	100.0	100.0
Korea, South	Seoul	Carl Zeiss Co., Ltd.	100.0	100.0
Korea, South	Seoul	Carl Zeiss Vision Korea Co., Ltd.	100.0	100.0
Malaysia	Petaling Jaya	Carl Zeiss Sdn. Bhd.	100.0	100.0
Malaysia	Kuala Lumpur	Carl Zeiss Vision (Malaysia) Sdn. Bhd.	100.0	100.0
Mauritius	Quatre Bornes	FCI SUD Ltd.	100.0	59.1
Mexico	México D.F.	Carl Zeiss de México S.A. de C.V.	100.0	100.0
Mexico	Tijuana	Carl Zeiss Vision Manufactura de Mexico S. de R.L. de C.V.	100.0	100.0
Mexico	Naucalpan	Carl Zeiss Vision Mexico S. de R.L. de C.V.	100.0	100.0
New Zealand	Auckland	Carl Zeiss (N.Z.) Ltd.	100.0	100.0
Netherlands	Breda	Carl Zeiss B.V.	100.0	100.0
Netherlands	Breda	Carl Zeiss Vision Nederland B.V.	100.0	100.0
Norway	Oslo	Carl Zeiss AS	100.0	100.0
Austria	Vienna	Carl Zeiss GmbH	100.0	100.0
Austria	Graz	Carl Zeiss Industrielle Messtechnik Austria GmbH	100.0	100.0
Poland	Poznan	Carl Zeiss Shared Services Sp. z o.o.	100.0	100.0
Poland	Poznan	Carl Zeiss Sp. z o.o.	100.0	100.0
Portugal	Setúbal	Carl Zeiss Vision Portugal S.A.	100.0	100.0
Russia	Moscow	OOO Optec	100.0	100.0[3]
Sweden	Stockholm	Carl Zeiss AB	100.0	100.0
Sweden	Malmö	Carl Zeiss Vision AB	100.0	100.0
Switzerland	Feldbach	Carl Zeiss AG	100.0	100.0
Switzerland	Feldbach	Carl Zeiss Vision Swiss AG	100.0	100.0
Singapore	Singapore	Carl Zeiss India Pte. Ltd.	100.0	100.0
Singapore	Singapore	Carl Zeiss Pte. Ltd.	100.0	100.0
Singapore	Singapore	Carl Zeiss Vision Singapore Pte. Ltd.	100.0	100.0
Slovakia	Bratislava	Carl Zeiss Slovakia, s.r.o.	100.0	100.0
Spain	Tres Cantos – Madrid	Carl Zeiss Iberia, S.L.	100.0	100.0
Spain	Tres Cantos – Madrid	Carl Zeiss Meditec Iberia SA	100.0	59.1
Spain	Tres Cantos – Madrid	Carl Zeiss Vision España, S.L.	100.0	100.0
South Africa	Randburg	ANASPEC (Pty.) Ltd.	100.0	100.0
South Africa	Randburg	Carl Zeiss (Pty.) Ltd.	100.0	100.0
South Africa	Randburg	Carl Zeiss Vision South Africa (Pty) Ltd.	100.0	100.0
Taiwan	Hsinchu City	Carl Zeiss Co., Ltd.	100.0	100.0
Thailand	Bangkok	Carl Zeiss Co. Ltd.	49.0[2]	49.0[2]
Czech Republic	Prague	Carl Zeiss spol. s r.o.	100.0	100.0
Turkey	Ankara	Carl Zeiss Meditec Medikal Cözümler Tic. ve San. A.S	100.0	59.1
Ukraine	Kiev	TOV Optec	100.0	100.0[3]

Country	City	Name of entity	Share in capital acc. to Sec. 285 No. 11 HGB	Beneficial share in capital
			%	%
Hungary	Mátészalka	Carl Zeiss Sport Optikai Hungaria Kft.	100.0	100.0
Hungary	Mátészalka	Carl Zeiss Vision Hungary Optikai Kft.	100.0	100.0
USA	Thornwood	Carl Zeiss Inc.	100.0	100.0
USA	Minneapolis	Carl Zeiss Industrial Metrology, LLC	100.0	100.0
USA	Temple	Carl Zeiss Meditec Digital Innovations, LLC	100.0	59.1
USA	Dublin	Carl Zeiss Meditec, Inc.	100.0	59.1
USA	Ontario	Carl Zeiss Meditec Production, LLC	100.0	59.1
USA	Thornwood	Carl Zeiss Microscopy, LLC	100.0	100.0
USA	Thornwood	Carl Zeiss SBE, LLC	100.0	100.0
USA	San Diego	Carl Zeiss Vision Holdings Ltd.	100.0	100.0
USA	San Diego	Carl Zeiss Vision Inc.	100.0	100.0
USA	Pleasanton	Carl Zeiss X-ray Microscopy, Inc.	100.0	100.0
USA	Pembroke	FCI Ophthalmics Inc.	100.0	59.1
USA	Lafayette	Ophthalmic Laser Engines, LLC	52.0	30.8
Venezuela	San Diego	Carl Zeiss Vision Venezuela Industria Optica C.A.	100.0	100.0
United Arab Emirates	Dubai	Carl Zeiss Vision MENA FZE	100.0	100.0
Belarus	Minsk	Optec Limited	100.0	100.0[3]

2. Non-consolidated subsidiaries

Germany	Cologne	Carl Zeiss 3D Metrology Services GmbH Cologne	100.0	100.0
Germany	Garching near Munich	Carl Zeiss 3D Metrology Services GmbH Munich	100.0	100.0
Germany	Peine	Carl Zeiss 3D Metrology Services GmbH Peine	100.0	100.0
Germany	Oberkochen	Carl Zeiss Dritte Vorratsgesellschaft mbH	100.0	100.0
Germany	Aalen	Carl Zeiss EyeTec GmbH	100.0	100.0
Germany	Oberkochen	Carl Zeiss Grundstücks-Verwaltungs GmbH	100.0	100.0
Germany	Dresden	Carl Zeiss Innovationszentrum für Messtechnik GmbH	100.0	100.0
Germany	Ulm	Carl Zeiss MES Solutions GmbH	100.0	100.0
Germany	Wangen	Carl Zeiss Optical Components GmbH	100.0	100.0
Germany	Cologne	Carl Zeiss Retrofit und Service GmbH	100.0	100.0
Germany	Oberkochen	Carl Zeiss Sechste Vorratsgesellschaft mbH	100.0	100.0
Germany	Oberkochen	Carl Zeiss Siebte Vorratsgesellschaft mbH	100.0	100.0
Germany	Oberkochen	Carl Zeiss Venture Beteiligungsgesellschaft mbH	100.0	100.0
Germany	Aalen	Carl Zeiss Vision Erste Vorratsgesellschaft mbH	100.0	100.0
Germany	Oberkochen	Gusto Gourmet GmbH	100.0	100.0
Germany	Essingen	Holometric Technologies Forschungs- und Entwicklungs-GmbH	100.0	100.0
Denmark	Birkerød	Brock & Michelsen Invest A/S	100.0	100.0
Croatia	Zagreb	Carl Zeiss d.o.o.	100.0	100.0
Philippines	Taguig	Carl Zeiss Philippines Pte. Ltd.	100.0	100.0
Poland	Slupsk	OptiMedi Sp. z o.o.	91.1	58.3
Poland	Slupsk	OptiNav Sp. z o.o.	64.0	64.0
Romania	Bucharest	Carl Zeiss Instruments S.R.L.	100.0	100.0
Romania	Timisoara	GUARDUS S.R.L.	82.0	82.0

Country	City	Name of entity	Share in capital acc. to Sec. 285 No. 11 HGB	Beneficial share in capital
			%	%
2. Non-consolidated subsidiaries				
Zimbabwe	Harare	Carl Zeiss (Pvt.) Ltd. (Zimbabwe)	100.0	100.0
Slovenia	Ljubljana	Carl Zeiss d.o.o.	100.0	100.0
Taiwan	Taipeh	Achelis Taiwan Co., Ltd.	100.0	100.0
Turkey	Istanbul	Carl Zeiss Teknoloji Cözümleri Ticaret Limited Sirketi	100.0	100.0
Hungary	Budapest	Carl Zeiss Technika Kft.	100.0	100.0
USA	San Diego	American Optical IP Corporation	100.0	100.0
USA	Warsaw, Indiana	Bosello High Technology USA LLC	100.0	100.0[3]
USA	Novi, Michigan	Carl Zeiss Metrology Services Inc.	80.0	80.0
USA	Peabody	Carl Zeiss SMT, Inc.	100.0	75.1
Belarus	Minsk	JV ZEISS-BelOMO OOO	60.0	60.0
3. Associates not accounted for using the equity method				
Germany	Jena	JENAER BILDUNGSZENTRUM gGmbH SCHOTT CARL ZEISS JENOPTIK	33.3	33.3
Germany	Eggenstein-Leopoldshafen	Nanoscribe GmbH	39.9	39.9
Germany	Mainz	SCHOTT-ZEISS ASSEKURANZKONTOR GmbH	50.0	50.0
Germany	Aalen	tooz technologies GmbH	100.0	50.0
Germany	Holm-Seppensen	X-Ray Solutions GmbH	49.0	49.0[3]
Denmark	Nørresundby	3D-CT A/S	49.0	49.0
Italy	Samarate (VA)	S.E.A.I. S.r.l.	25.0	25.0[3]
USA	Dover	tooz technologies Inc.	50.0	50.0

[1] In accordance with Sec. 264 (3) HGB or Sec. 264b HGB, these entities are exempted from the duty to publish their financial statements
[2] Majority of the voting rights
[3] Due to reciprocal put and call options

Independent auditor's report

We issued the following auditor's report on the consolidated financial statements and the group management report:

"Independent auditor's report

To Carl Zeiss AG

Opinions

We have audited the consolidated financial statements of Carl Zeiss AG, Oberkochen (Germany), and its subsidiaries (the Group), which comprise the consolidated income statement, and the consolidated statement of comprehensive income, consolidated statement of financial position, consolidated statement of changes in equity and consolidated statement of cash flows for the fiscal year from 1 October 2017 to 30 September 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of Carl Zeiss AG for the fiscal year from 1 October 2017 to 30 September 2018.

In our opinion, on the basis of the knowledge obtained in the audit,

» the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) German Commercial Code (HGB) and, in compliance with these requirements, give a true and fair view of the net assets and financial position of the Group as of 30 September 2018, and of its results of operations for the fiscal year from 1 October 2017 to 30 September 2018, and

» the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development.

Pursuant to Sec. 322 (3) Sentence 1 German Commercial Code (HGB), we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 German Commercial Code (HGB) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the Group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Other information

The Supervisory Board is responsible for the Report of the Supervisory Board. In all other respects, the executive directors are responsible for the other information. The other information comprises the following components designated for the annual report, of which we obtained a version before issuing our auditor's report: Financial Highlights, Foreword from the Executive Board, Expert Dialog, Fiscal Year Highlights, Represented Worldwide, Future-Shaping Segments, Responsible Behavior, Ownership Structure, Report of the Supervisory Board, Supervisory Board of Carl Zeiss AG and Corporate Governance.

Our opinions on the consolidated financial statements and on the combined group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

» is materially inconsistent with the consolidated financial statements, with the combined group management report or our knowledge obtained in the audit, or
» otherwise appears to be materially misstated.

Responsibilities of the executive directors and the Supervisory Board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German law pursuant to Sec. 315e (1) German Commercial Code (HGB), for the preparation of consolidated financial statements that give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 German Commercial Code (HGB) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

» Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control

» Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems

» Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures

» Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

» Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) German Commercial Code (HGB).

» Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

» Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

» Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit."

Stuttgart, 12 December 2018

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Dr. Jungblut	Prof. Dr. Schmidt
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]