Financial Report
2015

syngenta

Cautionary Statement Regarding Forward-Looking Statements

This Financial Report contains forward-looking statements, which can be identified by terminology such as “expect”, “would”, “will”, “potential”, “plans”, “prospects”, “estimated”, “aiming”, “on track” and similar expressions. Such statements may be subject to risks and uncertainties that could cause the actual results to differ materially from these statements.

We refer you to Syngenta’s publicly available filings with the US Securities and Exchange Commission for information about these and other risks and uncertainties. Syngenta assumes no obligation to update forward-looking statements to reflect actual results, changed assumptions or other factors.

This document does not constitute, or form part of, any offer or invitation to sell or issue, or any solicitation of any offer, to purchase or subscribe for any ordinary shares in Syngenta AG, or Syngenta ADSs, nor shall it form the basis of, or be relied on in connection with, any contract therefor.

Key information

Selected financial data

Syngenta has prepared the consolidated financial statements in US dollars ($) and in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS). Financial figures are presented in millions of dollars ($m) except where otherwise stated. The basis of preparation of the consolidated financial statements and the key accounting policies are discussed in Note 1 and in Notes 2 and 29, respectively, to the consolidated financial statements.

The selected financial highlights information in accordance with IFRS presented below has been extracted from the consolidated financial statements of Syngenta. Investors should read the entire consolidated financial statements and not rely on the summarized information. The information includes the results of operations and the net assets of Agrosan S.A. from March 9, 2011, Pasteuria Bioscience Inc. from November 8, 2012, Sunfield Seeds Inc. from November 29, 2012, Devgen N.V. from December 12, 2012, MRI Seed Zambia Ltd and MRI Agro Zambia Ltd from October 31, 2013, Società Produttori Sementi S.p.A. from April 4, 2014, Lantmännen SW Seed Hadmersleben GmbH, Lantmännen SW Seeds GmbH and SW Winter Oilseed AB from July 21, 2014 and Land.db Enterprises Inc. from October 15, 2015. For further information about these acquisitions, see Note 3 to the consolidated financial statements.

Financial highlights

($m, except where otherwise stated)	2015	2014	2013	2012	2011
	Year ended December 31,				
Amounts in accordance with IFRS					
Income statement data:					
Sales	**13,411**	15,134	14,688	14,202	13,268
Cost of goods sold	**(7,042)**	(8,192)	(7,986)	(7,223)	(6,790)
Gross profit	**6,369**	6,942	6,702	6,979	6,478
Operating expenses	**(4,528)**	(4,837)	(4,616)	(4,723)	(4,469)
Operating income	**1,841**	2,105	2,086	2,256	2,009
Income before taxes	**1,592**	1,895	1,934	2,116	1,859
Net income	**1,344**	1,622	1,649	1,850	1,570
Net income attributable to Syngenta AG shareholders	**1,339**	1,619	1,644	1,847	1,569
Number of shares – basic	**91,908,128**	91,674,127	91,952,222	91,644,190	91,892,275
Number of shares – diluted	**92,206,535**	92,007,089	92,459,306	92,132,922	92,383,611
Basic earnings per share ($)	**14.57**	17.66	17.88	20.16	17.07
Diluted earnings per share ($)	**14.52**	17.60	17.78	20.05	16.98
Cash dividends paid:					
Swiss franc ("CHF") per share	**11.00**	10.00	9.50	8.00	7.00
$ per share equivalent	**11.73**	11.25	10.01	8.82	7.64
Cash flow data:					
Cash flow from operating activities	**1,190**	1,931	1,214	1,359	1,871
Cash flow used for investing activities	**(462)**	(729)	(772)	(1,218)	(472)
Cash flow used for financing activities	**(1,188)**	(420)	(1,114)	(232)	(1,684)
Capital expenditure on tangible fixed assets	**(453)**	(600)	(625)	(508)	(479)
Balance sheet data:					
Current assets less current liabilities	**5,537**	4,858	3,990	4,537	4,107
Total assets	**18,977**	19,929	20,216	19,438	17,241
Total non-current liabilities	**(4,896)**	(4,317)	(3,356)	(4,226)	(4,063)
Total liabilities	**(10,557)**	(11,024)	(10,712)	(10,653)	(9,706)
Share capital	**(6)**	(6)	(6)	(6)	(6)
Total shareholders' equity	**(8,401)**	(8,889)	(9,491)	(8,774)	(7,526)
Other supplementary income data:					
Diluted earnings per share from continuing operations, excluding restructuring and impairment ($) [1]	**17.78**	19.42	19.30	22.03	19.03

All activities were in respect of continuing operations.

Note

1 Diluted earnings per share from continuing operations, excluding restructuring and impairment is a non-GAAP measure.

A non-GAAP measure is a numerical measure of financial performance, financial position or cash flow that either:

– includes, or is subject to adjustments that have the effect of including, amounts that are excluded in the most directly comparable measure calculated and presented under IFRS, or
– excludes, or is subject to adjustments that have the effect of excluding, amounts that are included in the most directly comparable measure calculated and presented under IFRS.

Restructuring represents the effect on reported performance of initiating and enabling business changes that are considered major and that, in the opinion of management, will have a material effect on the nature and focus of Syngenta's operations, and therefore require separate disclosure to provide a more thorough understanding of business performance. Restructuring includes the incremental costs of closing, restructuring or relocating existing operations, and gains or losses from related asset disposals. Restructuring also includes the effects of analyzing and preparing for potential industry consolidation transactions as well as completing and integrating significant business combinations and divestments, including related transaction costs, gains and losses. Recurring costs of normal business operations and routine asset disposal gains and losses are excluded. Impairment includes impairment losses associated with major restructuring as well as impairment losses and reversals of impairment losses resulting from major changes in the markets in which a reported segment operates.

Further discussion on the reason for including disclosure of this and other non-GAAP measures is included in Appendix A at the end of the Operating and Financial Review and Prospects.

Restructuring and impairment charges for 2015, 2014 and 2013 are analyzed in Note 6 to the consolidated financial statements. Restructuring for 2012 and 2011 partly related to the program announced in 2011 to integrate global commercial operations for Crop Protection and Seeds in order to enable operational synergies from the commercial integration, additional cost savings from procurement and supply chain efficiencies and the presentation of an integrated offer to growers. Restructuring for 2012 and 2011 also related to the Operational Efficiency program announced in 2004 representing the costs of closure of certain manufacturing and research and development sites and refocusing of other continuing sites and also to the further phase of the Operational Efficiency program announced in 2007 to drive cost savings to offset increased expenditure in research and technology, marketing and product development in the growth areas of Seeds, professional products and emerging country markets.

A detailed reconciliation of net income and earnings per share before restructuring and impairment to net income and earnings per share according to IFRS is presented in Appendix A at the end of the Operating and Financial Review and Prospects.

Operating and Financial Review and Prospects

Introduction

The following discussion includes forward-looking statements subject to risks and uncertainty. See "Forward-looking statements" at the beginning of this document. This discussion also includes non-GAAP financial data in addition to GAAP results. See Appendix A to this section and Note 1 to the financial highlights for a reconciliation of this data and explanation of the reasons for presenting such data.

Constant exchange rates

Approximately 51 percent of Syngenta's sales and 65 percent of Syngenta's costs in 2015 were denominated in currencies other than US dollars. Therefore, Syngenta's results for the period covered by the review were significantly impacted by movements in exchange rates. Sales in 2015 were 11 percent lower than 2014 on a reported basis, but were 1 percent higher when calculated at constant rates of exchange. The Company therefore provides analysis of results calculated at constant exchange rates ("CER") and also actual results to allow an assessment of performance before and after taking account of currency fluctuations. To present CER information, current period results for entities reporting in currencies other than US dollars are converted into US dollars at the prior period's exchange rates, rather than the exchange rates for this year. An example of this calculation is included in Appendix A of this section.

Overview

Syngenta is a world leading agribusiness operating in the crop protection, seeds and lawn and garden markets. Crop protection chemicals include herbicides, insecticides, fungicides and seed treatments to control weeds, insects and diseases in crops, and are essential inputs enabling growers around the world to improve agricultural productivity and food quality. In Seeds, Syngenta operates in the high value commercial sectors of field crops (including corn, oilseeds, cereals and sugar beet) and vegetables. The Lawn and Garden business provides professional growers and consumers with flowers, turf and landscape, and professional pest management products.

Syngenta's results are affected, both positively and negatively, by, among other factors: general economic conditions; weather conditions, which can influence the demand for certain products over the course of a season and the quantity and cost of seeds supply; commodity crop prices; and exchange rate fluctuations. Government measures, such as subsidies or rules regulating the use of agricultural products, genetically modified seeds, or areas allowed to be planted with certain crops, also can have an impact on Syngenta's industry. Syngenta's results are also affected by the growing importance of biotechnology to agriculture and the use of genetically modified crops. In future years, climate change may have both positive and negative impacts on Syngenta's results. Climate change may make growing certain crops more or less viable in different geographic areas, but is not likely to reduce overall demand for food and feed. Syngenta currently sells and is developing products to improve the water productivity of plants and increase tolerance to drought and heat. Legislation may be enacted in the future that limits carbon dioxide emissions in the manufacture of Syngenta's products or increases the costs associated with such emissions. Syngenta works actively to make its production operations more energy efficient and to reduce the rate of carbon dioxide emissions per unit of sales revenue.

Syngenta operates globally to capitalize on its technology and marketing base. Syngenta's largest market in 2015 was Europe, Africa and the Middle East, which represented approximately 31 percent of consolidated sales (2014: 32 percent) followed by Latin America and North America, each at 27 percent (2014: 29 percent and 25 percent, respectively) and Asia Pacific at 15 percent (2014: 14 percent). Markets for agricultural products in Europe, Africa and the Middle East and North America are seasonal resulting in both sales and operating profit for Syngenta in these markets being weighted towards the first half of the calendar year, which largely reflects the northern hemisphere planting and growing cycle. Latin America has its main selling season in the second half of the year due to its location in the southern hemisphere. Asia Pacific sales and operating profit are more uniform throughout the year.

Syngenta's most significant manufacturing and research and development sites are located in Switzerland, the United Kingdom ("UK"), the United States of America ("USA" or "US"), China and India. Syngenta has major research centers focused on identifying new active ingredients in Stein, Switzerland and Jealott's Hill, UK. Syngenta's primary center for agricultural genomics and biotechnology research is in the USA.

References in this document to market share estimates are based where possible on global agrochemical and biotechnology industry information provided by a third party or on information published by major competitors and are supplemented by Syngenta marketing staff estimates.

The consolidated financial statements are presented in US dollars, as this is the major currency in which revenues are denominated. However, significant, but differing proportions of Syngenta's revenues, costs, assets and liabilities are denominated in currencies other than US dollars. Approximately 15 percent of sales in 2015 were denominated in Euros, while a significant proportion of costs for research and development, administration, general overhead and manufacturing were denominated in Swiss francs and British pounds sterling (approximately 19 percent in total). Sales in Swiss francs and British pounds sterling together made up approximately 2 percent of total sales. Marketing and distribution costs are more closely linked to the currency split of the sales. As a result, operating profit in US dollars can be significantly affected by movements in exchange rates, in particular movements of the Swiss franc, British pound sterling, Euro and Brazilian real, relative to the US dollar, and the relative impact on operating profit may differ from that on sales. Sales in emerging markets are over 50 percent of Syngenta's total sales. Where it is not commercially disadvantageous, Syngenta sets sales prices in these markets in US dollars, particularly in parts of Latin America and the CIS. However, in many emerging territories Syngenta sells in the local currency of the countries in the territory and as a result has a long exposure to multiple emerging market currencies.

Introduction continued

The effects of currency fluctuations within any one year have been reduced by risk management strategies such as hedging and the aforementioned US dollar sales pricing. For further information on these strategies please refer to Note 27 of the consolidated financial statements.

The consolidated financial statements are based upon Syngenta's accounting policies and, where necessary, the results of management estimations. Syngenta believes that the critical accounting policies and estimations underpinning the financial statements are in the areas of (i) royalty and license income, (ii) impairment, (iii) classification of assets and liabilities to be divested, (iv) foreign currency translation of intercompany transactions, (v) acquisition accounting, (vi) adjustments to revenue and trade receivables, (vii) seeds inventory valuation and allowances, (viii) environmental provisions, (ix) defined benefit post-employment benefits, including pension asset ceiling, (x) deferred tax assets and (xi) uncertain tax positions. These policies are described in more detail in Notes 2 and 29 to the consolidated financial statements.

Summary of results

Net income in 2015 was 17 percent lower than 2014 as cost savings from the ongoing restructuring and local currency sales price increases were more than offset by the impacts of generally weaker currencies relative to the US dollar, increased charges to restructucturing and impairment and the favorable impact in 2014 of amendments to the defined benefit pension plans in the UK and the Netherlands.

Sales in 2015 were 11 percent lower, but 1 percent higher at constant exchange rates, with 2 percent lower sales volumes offset by 3 percent higher local currency sales prices, driven by increases to offset declines in emerging market currencies. The adverse impact on sales of generally weaker currencies relative to the US dollar was approximately $1.8 billion. The lower sales volume reflected a deliberate reduction in sales of low margin glyphosate, weaker seeds volumes in Russia and the Ukraine after the sales price increases to offset the impact of currency weakness and generally challenging markets, partly offset by a favorable impact of a change in selling terms in Brazil that brought forward the recognition of sales and $200 million royalty income from the signing of a trait license agreement with KWS and Limagrain. Despite the challenging conditions, ELATUS™ sales volumes increased by more than 30 percent, driven by growth in its second year in Brazil, and ACURON® sales exceeded $100 million in the launch year in the US. Local currency sales price increases included price increases in Russia and the Ukraine, offsetting currency weakness in those countries, partially offset by lower prices in solo glyphosate, which reflected lower purchase prices for the active ingredient; otherwise, local currency sales prices overall were broadly flat.

Operating costs as a percentage of sales increased slightly in 2015 compared with 2014, but excluding restructuring and impairment were approximately 1.4 percentage points lower. Operating costs in 2015 were reduced by approximately $1.2 billion due to weaker currency exchange rates relative to the US dollar, and also reflected savings under the ongoing restructuring programs and initial benefits from the lower oil price, which together more than offset cost inflation. In addition, operating costs compared with prior year were impacted by an increase in charges to provisions for doubtful receivables and the gains of approximately $170 million recorded in 2014 from amendments to defined benefit pension plans in the UK and the Netherlands. Restructuring and impairment costs excluding those in Cost of goods sold were $195 million higher as the Accelerating Operational Leverage ("AOL") program announced in February 2014 gained momentum in 2015; increased charges also reflected advisor costs associated with potential industry consolidation transactions, including the unsolicited approach from Monsanto Company, the ChemChina tender offer, and the impairment of assets related to a seeds crop, where expectations of future operating profitability have declined. Currency exchange rate impacts from the general strength of the US dollar reduced operating income by approximately $571 million, including higher gains on related hedges in 2015 than 2014, with a significant negative impact from the significantly weaker Russian ruble and Ukrainian hryvnia that was offset by increased local currency sales prices; excluding these currencies, the net adverse impact on operating income, including hedging, was approximately $100 million.

Cash flow from operating activities was $741 million lower including an increased build-up of trade receivables in Latin America due largely to delayed collections, reduced cash sales and extended terms combined with the aforementioned change in sales in Brazil, which brought forward the recognition of receivables; inflows from reduced inventories were also lower following the significant reduction in the inventory to sales ratio in 2014. Income before taxes, adjusted for the reversal of non-cash items was $92 million higher than 2014, including a higher add-back for charges to provisions. Taxes paid were higher following the settlement of outstanding tax years for an entity in Switzerland, and cash paid for restructuring costs increased as the AOL program progressed. Cash flow used for investing activities in 2015 was $267 million lower than in 2014, including a $147 million reduction in additions to property, plant and equipment; net cash spent on acquisitions and disposals was also lower. Cash flow used for financing activities was $768 million higher than in 2014; both years included bond repayments, but in 2015 bond repayments were broadly matched by a new bond issue, while in 2014 Eurobond and domestic CHF bonds were issued at a higher level than that of bonds repaid in the year. Subject to shareholder approval, Syngenta proposes to maintain the regular dividend at CHF 11.00 per share. In addition, if the offer to acquire Syngenta shares through a tender offer described in Note 30 to the consolidated financial statements becomes unconditional, Syngenta will pay a special dividend of CHF 5.00 per share immediately before the first settlement of the offer.

Introduction continued

Summary of results continued

Integrated sales of Crop Protection and Seeds products were 12 percent lower, but were flat at constant exchange rates. Integrated sales included the $200 million royalty income from the aforementioned license agreement with KWS and Limagrain and $239 million additional sales related to the change in sales terms in Brazil, which brought forward the sales recognition to the point of delivery to distributors less a provision for expected product returns; however, sales were decreased by the deliberate reduction in volumes of lower margin glyphosate products and lower glyphosate local currency sales prices, which together reduced sales by approximately $350 million. Crop Protection product sales were 12 percent lower, 1 percent at constant exchange rates, with 2 percent lower sales volumes partly offset by 1 percent higher local currency sales prices. Seeds sales declined in 2015 by 10 percent, but at constant exchange rates were 5 percent higher as an 8 percent increase in local currency sales prices, driven by local currency price increases in Russia and the Ukraine, was offset only partially by a 3 percent decrease in sales volume, including some adverse impact on sales volume from the aforementioned price increases.

Integrated sales of Crop Protection and Seeds products were 15 percent lower in Europe, Africa and Middle East, but were 10 percent higher at constant exchange rates. Sales in Russia and the Ukraine benefitted from significant local currency price increases to offset currency declines and in US dollar terms reached 86 percent of 2014 sales; excluding these countries, sales in the region were broadly flat at constant exchange rates but adversely impacted by an approximately 17 percent decline in the Euro relative to the US dollar. Sales in North America were 5 percent lower, 4 percent at constant exchange rates, with $145 million income from the KWS and Limagrain license largely offset by the deliberate reduction in glyphosate volumes and lower glyphosate prices, together with the adverse impact on demand of low crop commodity prices. Latin America sales were 15 percent lower, 5 percent at constant exchange rates. Revenue in the region included $55 million from the KWS and Limagrain agreement and an additional $239 million from the change in sales terms noted above, but this was offset by difficult market conditions, particularly in the second half of the year, and challenging credit conditions in Brazil and Argentina; ELATUS™ sales, however, grew strongly in its second year in Brazil. Sales in Asia Pacific were 10 percent lower, 3 percent at constant exchange rates, with broad based local currency sales price increases more than offset by lower volumes from the phase-out of paraquat sales in China due to a regulatory change and drought conditions in ASEAN.

Lawn and Garden sales were 7 percent below the 2014 level, but were 3 percent higher at constant exchange rates with growth driven by the introduction of a new SDHI fungicide VELISTA™ in North America and increased vector control sales; flowers sales were lower following a focus on larger customers to improve profitability.

Gross profit margin increased by 1.6 percentage points, 1.5 percentage points excluding restructuring and impairment, despite the adverse impact of general currency exchange rate weakness relative to the US dollar. The favorable impact of the license agreement signed with KWS and Limagrain and restructuring savings, combined with reduced oil prices and smaller share in the product mix of lower margin solo glyphosate, more than offset the net impact of currency movements on US dollar sales prices and cost of goods sold.

Marketing and distribution expenses decreased by 11 percent, but were flat at constant exchange rates. Savings under ongoing restructuring programs, including headcount reductions in marketing and sales, offset an increase in charges for doubtful receivables in Latin America and inflation, particularly in emerging markets.

Research and development expense decreased by 5 percent, but was 3 percent higher at constant exchange rates, with cost savings from on-going restructuring more than offset by the impact of the $49 million gain reported in 2014 from the amendments to defined benefit pension plans in the UK and the Netherlands noted above.

General and administrative includes restructuring and impairment, the components of which are described under the Restructuring and impairment heading within this section, which increased by $195 million compared with 2014. General and administrative excluding restructuring and impairment was 21 percent lower, including foreign exchange hedging gains of $21 million compared with $15 million in 2014. Excluding currency effects, General and administrative excluding restructuring and impairment was 3 percent lower; cost savings under ongoing restructuring programs, including both headcount reductions and the relocation of certain support activities to lower cost locations, more than offset the recognition of a $22 million gain in 2014 from changes to the UK and Netherlands pension plans.

Restructuring and impairment expenses in 2015, excluding those reported in Cost of goods sold, increased by $195 million over 2014. 2015 included $240 million of costs from the AOL program announced in February 2014, compared with $63 million in 2014, as the program gained momentum. Charges in 2015 also increased due to higher acquisition, divestment and related costs, including advisor costs associated with industry consolidation activities. Non-cash costs included the impairment of the assets of a seeds crop where expectations of future operating profitability have declined.

Financial expense, net was $39 million higher than 2014 mainly due to increased exposures and hedging costs in emerging markets, particularly in Latin America. The tax rate, excluding taxes related to restructuring and impairment, increased by 2 percentage points to 17 percent.

Together, these factors resulted in 2015 net income attributable to Syngenta AG shareholders and diluted earnings per share decreasing by 17 percent, compared with 2014.

Introduction continued

Summary of results continued

In 2015, following the removal of the cap on the Swiss franc value relative to the Euro, Syngenta refined the method it uses to measure inventories and cost of goods sold to refer to the original exchange currencies in which inventory and cost of goods sold were incurred. This refinement ensures that inventories sourced with the same cost profile and which are at the same stage of manufacture are valued consistently regardless of which Syngenta entity purchases and holds them. Prior to 2015, the method used involved indirect translation into US dollars via the currencies of the Syngenta entities through which the products were routed in Syngenta's supply chain. Applying the new method, Syngenta reported 2015 net income $73 million higher than it would have reported under the previous method. The impact of applying the new method on 2014 and 2013, before the removal of the Swiss franc cap, would not have been material to the results of either year. Syngenta regards the new method as better reflecting the underlying economics from year-to-year and not in itself a factor in the change in net income between 2014 and 2015. The change in method is further described in Note 2 to the consolidated financial statements.

Acquisitions, divestments and other significant transactions

2015

On October 15, 2015, Syngenta acquired 100 percent of the shares of Land.db Enterprises Inc. in exchange for cash, including contingent consideration. The primary reason for the acquisition was to gain exclusive control of the AgriEdge Excelsior® farm management software program, which integrates products, services, risk management and technology for growers.

2014

In April 2014, Syngenta acquired 100 percent of the shares of Società Produttori Sementi S.p.A. ("PSB") in exchange for cash. PSB is one of Italy's oldest seed companies and a leader in durum wheat breeding and production. The primary reasons for the acquisition were to gain access to PSB's durum wheat breeding expertise and its links to the food industry, which will be complemented by Syngenta's cereals Research and Development and global presence.

In July 2014, Syngenta acquired the German and Polish winter wheat and winter oilseed rape ("WOSR") breeding and business operations of Lantmännen, the Swedish food, energy and agriculture group, in exchange for cash. The acquired business consists of 100 percent of the shares of Lantmännen SW Seed Hadmersleben GmbH, Lantmännen SW Seed GmbH, SW Winter Oilseed AB and certain sites in Germany. The primary reasons for the acquisition were to give Syngenta access to high-quality germplasm, a seeds pipeline and commercial varieties which complement Syngenta's portfolio and will support the continued development of hybrid cereals for growers worldwide.

Restructuring programs

In February 2014, Syngenta announced a restructuring program, the Accelerating Operational Leverage ("AOL") program to drive further improvement in operating income margins and accelerate delivery of operational leverage as sales grow. The program targets an improvement in profitability as a percentage of sales over the period up to 2018 from a reduction in the ratios of cost of goods sold, marketing and distribution, research and development and general and administrative expenses to sales. The program includes plans to further improve efficiency in customer facing operations, research and development and production and to enable an improvement in the ratio of trade working capital to sales. The cash cost of the restructuring program is estimated at approximately $900 million, including the costs of implementing new systems, but excluding related capital expenditures, and significant benefits began to be realized in 2015. During 2015, cash costs of $228 million were charged under the program and cash spent was $168 million. A pension curtailment gain of $21 million was recognized in relation to employees impacted by restructuring and non-cash charges of $33 million were incurred for impairments of assets whose values were reduced by programs improving production and supply efficiency. Cumulative costs incurred for the program through December 31, 2015 total $277 million and cumulative spending totals $211 million.

The program announced in 2011 to integrate global commercial operations for Crop Protection and Seeds is substantially complete. The program has enabled operational synergies from the commercial integration, additional cost savings from procurement and supply chain efficiencies and the presentation of an integrated product offer to grower customers. It is estimated that final cash costs of approximately $400 million will be incurred to complete the program. During 2015, costs of $27 million were charged under the program (2014: $61 million) and cash spent was $29 million (2014: $61 million). Cumulative costs incurred for the program through December 31, 2015 total $399 million and cumulative spending totals $375 million.

The operational efficiency cost saving programs announced in 2004 and 2007 are now complete. Cash spent under the programs in 2015 and 2014 totaled $7 million and $26 million, respectively, and minor cash outflows are expected during 2016. Cumulative spending on the programs to the end of 2015 totaled $1,060 million and non-cash charges totaled $371 million, broadly in line with the projected $1,050 million cash costs and $380 million of non-cash charges indicated in the 2014 report.

Results of operations 2015 compared with 2014

Sales commentary

Syngenta's consolidated sales for 2015 were $13,411 million, compared with $15,134 million in 2014, an 11 percent decrease year on year. At constant exchange rates sales grew by 1 percent. The analysis by segment is as follows:

($m, except change %)			Change				
Segment	2015	2014	Volume %	Local price %	CER %	Currency %	Actual %
Europe, Africa and Middle East	**3,884**	4,547	-2%	12%	10%	-25%	-15%
North America	**3,410**	3,582	-1%	-3%	-4%	-1%	-5%
Latin America	**3,632**	4,279	-1%	-4%	-5%	-10%	-15%
Asia Pacific	**1,837**	2,033	-7%	4%	-3%	-7%	-10%
Total integrated	**12,763**	14,441	-2%	2%	-	-12%	-12%
Lawn and Garden	**648**	693	2%	1%	3%	-10%	-7%
Group sales	**13,411**	15,134	-2%	3%	1%	-12%	-11%

Europe, Africa and Middle East

Sales decreased by 15 percent, but increased by 10 percent at constant exchange rates as sales price increases of 12 percent partially were offset by 2 percent lower volumes. The price increases were largely realized in the CIS and substantially offset the significant currency depreciation in those countries. The adverse impact on sales volume of crop protection products from dry weather conditions, low crop disease pressure and depressed cereals prices was offset by strong performance in Fungicides, particularly the cereal fungicides SEGURIS® and MODDUS®, as well as Seedcare. This offset the reduction of seeds volumes in the region, particularly in the CIS as a result of the aforementioned price increases. However, seeds volumes in the CIS grew significantly in the fourth quarter as the result of a successful campaign for corn and sunflower seeds.

North America

Sales decreased by 5 percent, 4 percent at constant exchange rates as sales prices decreased by 3 percent and volumes were 1 percent lower. A planned reduction in sales of glyphosate and lower glyphosate sales prices reduced integrated sales by 4 percent. In the USA, ongoing low crop commodity prices negatively affected the demand for crop enhancement applications. In Canada, sales were lower due to dry weather conditions and high channel inventories of Seedcare products at the start of the year. Sales in the fourth quarter increased significantly, helped by trait revenues of $145 million from the licensing agreement with KWS and Limagrain announced in October and volume growth driven by ACURON®, a newly launched herbicide.

Latin America

Sales decreased by 15 percent, 5 percent at constant exchange rates as sales prices decreased by 4 percent and volumes were 1 percent lower. Market conditions deteriorated in the second half of the year, with the sharp depreciation of the Brazilian real as well as tight credit conditions for growers in both Brazil and Argentina. The deliberate reduction in glyphosate volumes, together with lower local currency sales prices, reduced sales by $224 million. Higher sales of ELATUS™, now in its second year in Brazil, partially offset the impact of lower sales of Insecticides. In 2015, Syngenta implemented a change in contractual sales terms for crop protection products in Brazil, which caused a timing change in sales recognition and increased reported sales by $239 million. In addition, 2015 seeds sales in the region included $55 million in trait revenue from the KWS and Limagrain agreement.

Asia Pacific

Sales decreased by 10 percent, 3 percent at constant exchange rates as volumes decreased by 7 percent and sales prices were 4 percent higher. Sales volumes decreased in ASEAN, which experienced extended drought conditions, and China, where sales of paraquat were phased out due to a regulatory change. These decreases partially were offset by higher volumes in Australasia and where increased cotton acreage drove higher Seedcare sales. Sales price increases were achieved across most territories in the region, most notably in South Asia and with higher seed prices in ASEAN reflecting the increased adoption of genetically modified seed technology.

Lawn and Garden: major brands ICON®, GOLDFISCH®, GOLDSMITH SEEDS, YODER®, SYNGENTA FLOWERS

Sales decreased by 7 percent, but increased by 3 percent at constant exchange rates as volumes increased by 2 percent and sales prices were increased by 1 percent. Volume growth was driven by the introduction of the new SDHI fungicide VELISTA™ in North America and higher vector control sales in Africa and the Middle East. Sales volumes in Flowers were lower as a consequence of a new strategy focusing on larger customers in order to improve profitability.

Results of operations
2015 compared with 2014 continued

Sales commentary continued

Sales by product line are set out below:

($m, except change %)			Change				
Product line	2015	2014	Volume %	Local price %	CER %	Currency %	Actual %
Selective herbicides	**2,894**	3,083	2%	4%	6%	-12%	-6%
Non-selective herbicides	**913**	1,445	-21%	-10%	-31%	-6%	-37%
Fungicides	**3,357**	3,518	6%	3%	9%	-14%	-5%
Insecticides	**1,705**	2,066	-7%	-1%	-8%	-9%	-17%
Seedcare	**994**	1,115	-1%	1%	-	-11%	-11%
Other crop protection	**142**	154	-10%	9%	-1%	-7%	-8%
Total Crop Protection	**10,005**	11,381	-2%	1%	-1%	-11%	-12%
Corn and soybean	**1,564**	1,665	1%	3%	4%	-10%	-6%
Diverse field crops	**658**	827	-13%	21%	8%	-28%	-20%
Vegetables	**616**	663	-2%	7%	5%	-12%	-7%
Total Seeds	**2,838**	3,155	-3%	8%	5%	-15%	-10%
Elimination*	**(80)**	(95)	n/a	n/a	n/a	n/a	n/a
Total integrated	**12,763**	14,441	-2%	2%	-	-12%	-12%
Lawn and Garden	**648**	693	2%	1%	3%	-10%	-7%
Group sales	**13,411**	15,134	-2%	3%	1%	-12%	-11%

* Crop Protection sales to Seeds

Crop Protection

Selective herbicides: major brands ACURON®, AXIAL®, CALLISTO® family, DUAL MAGNUM®, BICEP II MAGNUM®, FUSILADE®MAX, FLEX®, TOPIK®

Sales decreased by 6 percent, but increased by 6 percent at constant exchange rates as local currency sales prices were increased by 4 percent and volumes grew by 2 percent. The price increase was substantially in the CIS, where it compensated for currency depreciation. Sales volume growth was led by sales in the US of ACURON®, which achieved its target of $100 million sales in its launch year. This combined with higher sales in Latin America from the change in sales terms in Brazil more than offset decreased volumes elsewhere, particularly in Canada due to dry weather conditions.

Non-selective herbicides: major brands GRAMOXONE®, TOUCHDOWN®

Sales decreased by 37 percent, 31 percent at constant exchange rates as volumes decreased by 21 percent and local currency sales prices decreased by 10 percent. The sales decline reflects the decision by Syngenta to reduce volumes of low gross profit margin solo glyphosate in order to improve overall profitability. Volumes were also impacted by the phase out of sales in China of GRAMOXONE® following a regulatory change affecting paraquat liquid formulations. The sales price decrease was due to the lower price of TOUCHDOWN® and reflected a lower purchase price for the active ingredient.

Fungicides: major brands ALTO®, AMISTAR®, BONTIMA™, BRAVO®, ELATUS™, MODDUS®, REVUS®, RIDOMIL GOLD®, SCORE®, SEGURIS®, TILT®, UNIX®

Sales decreased by 5 percent, but increased by 9 percent at constant exchange rates as volumes grew by 6 percent and local currency sales prices were increased by 3 percent. Sales volume growth was achieved in all regions except Asia Pacific, where dry weather conditions reduced demand. Growth in Latin America included strong second-year sales of ELATUS™, which exceeded $400 million. Sales volume also grew widely in Europe, led by strong sales of the cereals fungicides ALTO®, MODDUS® and SEGURIS®. Sales price increases in Latin America, Asia Pacific and Europe, which were driven by price rises in the CIS to offset currency weakness, more than offset lower prices in North America.

Insecticides: major brands ACTARA®, DURIVO®, FORCE®, KARATE®, PROCLAIM®, VERTIMEC®

Sales decreased by 17 percent, 8 percent at constant exchange rates as volumes decreased by 7 percent and local currency sales prices decreased by 1 percent. Volume growth in Asia Pacific from new product introductions in China and India was more than offset by a reduction in Latin America, caused by dry weather and low insect pressure in Argentina and high channel inventories in Brazil, though with higher ACTARA® sales in the fourth quarter from an improvement in the sugarcane market. Sales price increases in Europe, mainly in the CIS, and in Asia Pacific were offset by declines particularly in Latin America.

Results of operations 2015 compared with 2014 continued

Sales commentary continued

Seedcare: major brands AVICTA®, CRUISER®, DIVIDEND®, CELEST®/MAXIM®, VIBRANCE®

Sales decreased by 11 percent and were unchanged at constant exchange rates as a 1 percent local currency sales price increase was offset by a 1 percent volume decrease. Sales price increases in Europe, mainly in the CIS to offset currency weakness, more than offset lower prices in North America and Latin America. Sales volumes in Europe were strong in the cereals markets in the CIS and Central Europe, and in Asia Pacific sales benefitted from a focus on key accounts and broad based growth in Australasia. This largely offset lower volumes in North America, caused by high channel inventories in the Canadian cereals market and lower cotton acres in southern US states.

Seeds

Corn and soybean: major brands AGRISURE®, GOLDEN HARVEST®, NK®

Sales decreased by 6 percent, but increased by 4 percent at constant exchange rates as local currency sales prices were increased by 3 percent and volumes grew by 1 percent. Corn sales volumes increased due to a combined $200 million recognized in North America and Latin America in the fourth quarter from the licensing agreement with KWS and Limagrain. This was partially offset by lower branded product sales in the US, caused by the acreage shift from corn to soybean, and lower corn volumes in Europe due to reduced acreage. Soybean volumes in Latin America decreased as sales were shifted to distributors as part of the implementation of the Integrated Business Partner model in Brazil. Corn prices were increased significantly in the CIS and also increased in Asia Pacific, driven by increased adoption of genetically modified seed technology there.

Diverse field crops: major brands NK® oilseeds, HILLESHÖG® sugar beet

Sales decreased by 20 percent, but increased by 8 percent at constant exchange rates as local currency sales prices were increased by 21 percent and volumes decreased by 13 percent. The strong price growth was due to substantial price increases on sunflower in the CIS, which fully offset the impact of currency depreciation, though with some adverse impact on sales volume as some growers switched from high value hybrids to lower quality local seeds. Sugar beet volumes were lower due to oversupply in the sugar market, which led to significant acreage shifts in Europe.

Vegetables: major brands ROGERS®, S&G®

Sales decreased by 7 percent, but increased by 5 percent at constant exchange rates as local currency sales prices were increased by 7 percent and volumes decreased by 2 percent. Sales prices were increased in all regions with a focus on capturing value for high quality hybrids across the portfolio and in particular in Asia Pacific where Syngenta captured a share of the strong return on investments being achieved by growers in South Asia. Sweetcorn sales in the USA decreased due to high processor inventories.

Operating income

Variances in the tables below reflect the profit impact of changes year on year. For example, an increase in sales or a decrease in costs is a positive variance and a decrease in sales or increase in costs is a negative variance.

Group Operating Income	Total as reported under IFRS		Restructuring and impairment		Before restructuring and impairment[1]		Change before restructuring and impairment[1]	
($m, except change %)	**2015**	2014	**2015**	2014	**2015**	2014	Actual %	CER%
Sales	**13,411**	15,134	**–**	–	**13,411**	15,134	**-11%**	**1%**
Cost of goods sold	**(7,042)**	(8,192)	**–**	(13)	**(7,042)**	(8,179)	**14%**	**5%**
Gross profit	**6,369**	6,942	**–**	(13)	**6,369**	6,955	**-8%**	**7%**
as a percentage of sales	**48%**	46%	**–**	–	**48%**	46%		
Marketing and distribution	**(2,210)**	(2,497)	**–**	–	**(2,210)**	(2,497)	**11%**	**–**
Research and development	**(1,362)**	(1,430)	**–**	–	**(1,362)**	(1,430)	**5%**	**-3%**
General and administrative	**(956)**	(910)	**(388)**	(193)	**(568)**	(717)	**21%**	**3%**
Operating income	**1,841**	2,105	**(388)**	(206)	**2,229**	2,311	**-4%**	**21%**
as a percentage of sales	**14%**	14%			**17%**	15%		

Operating Income/(Loss)			
($m, except change %)	**2015**	2014	Change %
Europe, Africa and Middle East	**1,155**	1,456	-21%
North America	**973**	901	8%
Latin America	**890**	1,069	-17%
Asia Pacific	**484**	560	-14%
Non-regional	**(1,781)**	(1,981)	10%
Total integrated	**1,721**	2,005	-14%
Lawn and Garden	**120**	100	20%
Group	**1,841**	2,105	-13%

The two tables above do not represent income statements prepared under IFRS. Please refer to the information reported in the consolidated financial statements.

1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description.

Results of operations 2015 compared with 2014 continued

Overall Group operating income

Operating income decreased by 13 percent to $1,841 million as the adverse impact of generally weaker currencies versus the US dollar and increased charges to Restructuring more than offset cost savings and local currency sales price increases. Overall, weaker currencies reduced operating income by approximately $571 million, including a significant adverse impact from the Russian ruble and Ukrainian hryvnia. The ruble and hryvnia currency impact was substantially offset by local currency sales price increases in Russia and the Ukraine. Excluding these currencies, the adverse impact on operating income of exchange rate movements, including the net hedging result from the hedging program for forecast foreign currency transactions ("EBITDA hedging program"), is estimated at approximately $100 million. The ratio of operating income to sales was broadly flat, but improved by approximately 1.4 percentage points excluding restructuring and impairment.

Sales declined by 11 percent, but were 1 percent higher at constant exchange rates with sales volumes 2 percent lower with the deliberate reduction in sales of solo glyphosate and challenging market conditions in all regions more than offsetting license income received from KWS and Limagrain and the impact of the change in selling terms in Brazil. Overall local currency sales prices were 3 percent higher, driven by price increases in Russia and the Ukraine to substantially maintain equivalent US dollar price levels and after absorbing lower prices for solo glyphosate; prices otherwise were broadly flat. Exchange rate movements reduced sales by $1.8 billion, or 12 percent. Gross profit margin increased by 1.6 percentage points, 1.5 percentage points excluding restructuring and impairment. The favorable impact of the license agreement signed with KWS and Limagrain and restructuring savings, combined with reduced oil prices and the smaller share in the product mix of lower margin solo glyphosate, more than offset lower US dollar sales prices and the inclusion in 2014 of gains from the amendments to defined benefit pension plans in the UK and the Netherlands.

Marketing and distribution costs were 11 percent lower, but remained flat at constant exchange rates, with emerging market cost inflation and an increase to charges for doubtful receivables, particularly in Brazil, more than offsetting marketing and distribution cost savings from restructuring activities. Research and development expense decreased by 5 percent, but was 3 percent higher at constant exchange rates, with cost savings from ongoing restructuring more than offset by the impact of the $49 million gain reported in 2014 from the amendments to defined benefit pension plans in the UK and the Netherlands noted above. Research and development expense increased to 10.2 percent of sales, compared with 9.4 percent in 2014, also due to the different currency mix in Research and development costs compared with that of sales.

General and administrative including restructuring and impairment was 5 percent higher than 2014, but 21 percent lower excluding restructuring and impairment. General and administrative is reported net of the result of currency hedging programs, which in 2015 was a net income of $21 million compared with a net income of $15 million in 2014. At constant exchange rates, taking into account both variances in underlying costs and the change in the net hedging result from year to year, General and administrative excluding restructuring and impairment was 3 percent lower than 2014. General and administrative costs in global support functions, including Business Services, are charged out to the segments and to the global Research and development and Production and Supply operations in US dollars at amounts fixed at the start of the year and are then reported in Cost of goods sold, Research and development expense and Marketing, sales and distribution expense; as a result, the impact of currency movements on reported General and administrative is calculated based on the gross expenditure before these recharges. Lower costs in 2015 at constant exchange rates reflected savings under the ongoing restructuring programs, including headcount reductions and the transfer of support function roles to lower cost countries, as well as tight constraint of variable costs; increased gains on the disposal of non-current assets in 2015 offset the $22 million recorded gain on changes to the UK and Netherlands pension plans in 2014. Restructuring and impairment, including the portion recorded in Cost of goods sold, is described in Note 6 to the consolidated financial statements and increased by $182 million in 2015 to $388 million due to the progression of the AOL restructuring program and advisory costs related to proposed industry consolidation corporate transactions.

Results of operations 2015 compared with 2014

Operating income by segment

Europe, Africa and Middle East	Total as reported under IFRS		Restructuring and impairment		Before restructuring and impairment[1]		Change before restructuring and impairment[1]	
($m, except change %)	2015	2014	2015	2014	2015	2014	Actual %	CER%
Sales	3,884	4,547	–	–	3,884	4,547	-15%	10%
Cost of goods sold	(1,889)	(2,180)	–	(13)	(1,889)	(2,167)	13%	2%
Gross profit	1,995	2,367	–	(13)	1,995	2,380	-16%	21%
as a percentage of sales	51%	52%			51%	52%		
Marketing and distribution	(586)	(720)	–	–	(586)	(720)	19%	4%
General and administrative	(254)	(191)	(128)	(30)	(126)	(161)	22%	17%
Operating income	1,155	1,456	(128)	(43)	1,283	1,499	-14%	37%
as a percentage of sales	30%	32%			33%	33%		

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements.
1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description

Reported sales in Europe, Africa and Middle East were 15 percent below 2014, but had been reduced by approximately 25 percent due to weaker exchange rates relative to the US dollar, including the Euro, Russian ruble and Ukrainian hryvnia. At constant exchange rates, sales were 10 percent above 2014, with local currency price increases of 12 percent, principally in the CIS to compensate the currency weakness, offset by 2 percent lower sales volumes. See the Sales commentary section above for further information on sales in the region.

Gross profit margin was 0.7 percentage points lower and, excluding restructuring and impairment was also 0.7 percentage points lower. Local currency price increases in Russia and the Ukraine offset the adverse impact of exchange rate weakness and enabled gross profit to be largely maintained. The portion of Restructuring and impairment in 2014 that is included in Cost of goods sold related to the acquisitions completed in the year.

Marketing and distribution costs were 19 percent lower, 4 percent at constant exchange rates, with lower charges for doubtful receivables following strong customer collections in Eastern Europe and cost savings realized under the AOL restructuring program.

General and administrative was 33 percent higher including increased restructuring charges. Excluding restructuring and impairment, General and administrative was 22 percent lower, 17 percent at constant exchange rates due to the inclusion in 2015 of the gain on disposal of land from a site in Switzerland. Restructuring and impairment charges reported within General and administrative were $128 million in 2015 compared with $30 million in 2014. Charges in 2015 include $107 million related to progressing the AOL restructuring program, including restructuring the marketing organization and the relocation of certain support activities to lower cost countries, and $7 million for the integration of acquisitions completed in previous years. Charges in 2014 include first year costs of the AOL program in the region.

Operating income as a percentage of sales was 2 percentage points lower in 2015, but excluding restructuring and impairment was broadly flat at 33 percent, with the lower Marketing and distribution and General and administrative expenses offsetting the reduced gross profit margin.

North America	Total as reported under IFRS		Restructuring and impairment		Before restructuring and impairment[1]		Change before restructuring and impairment[1]	
($m, except change %)	2015	2014	2015	2014	2015	2014	Actual %	CER%
Sales	3,410	3,582	–	–	3,410	3,582	-5%	-4%
Cost of goods sold	(1,779)	(2,003)	–	–	(1,779)	(2,003)	11%	9%
Gross profit	1,631	1,579	–	–	1,631	1,579	3%	3%
as a percentage of sales	48%	44%			48%	44%		
Marketing and distribution	(537)	(564)	–	–	(537)	(564)	5%	3%
General and administrative	(121)	(114)	(37)	(22)	(84)	(92)	9%	8%
Operating income	973	901	(37)	(22)	1,010	923	9%	8%
as a percentage of sales	29%	25%			30%	26%		

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements.
1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description

Reported sales decreased by 5 percent, 4 percent at constant exchange rates, with sales volumes 1 percent lower and 3 percent lower local currency sales prices. See the Sales commentary section above for further information on sales in the region. Sales included $145 million from the license agreement with KWS and Limagrain, which increased the gross profit margin by approximately 2.3 percentage points; excluding this, gross profit margin was approximately 1.5 percentage points higher in 2015, 1 percentage point at constant exchange rates, partly due to the impact of lower volumes of lower margin solo glyphosate sales in 2015.

Results of operations 2015 compared with 2014 continued

Operating income by segment continued

Marketing and distribution costs were 5 percent lower, 3 percent at constant exchange rates, with savings from restructuring within both the marketing and distribution functions.

General and administrative excluding restructuring and impairment was 9 percent below 2014, 8 percent at constant exchange rates, due partially to a settlement gain relating to the US defined benefit pension plan and the realization of insurance proceeds relating to claims made in prior years, where recovery had not previously been assumed.

Restructuring and impairment costs were $15 million higher than 2014 and in 2015 included $23 million under the AOL program, including a minor impairment related to the closure of a seeds plant in the US. 2015 charges also included $7 million of impairment of exclusive distribution rights where an agreement was terminated. Charges in 2014 included $12 million for initiatives under the AOL program, cash costs for the closure of activities that had not been divested with the Dulcinea business and final charges under previous restructuring programs.

Operating income as a percentage of sales increased by 4 percentage points as a result of the higher gross profit margin, including the favorable impact of the $145 million license income from the agreement with KWS and Limagrain.

Latin America	Total as reported under IFRS		Restructuring and impairment		Before restructuring and impairment[1]		Change before restructuring and impairment[1]	
($m, except change %)	2015	2014	2015	2014	2015	2014	Actual %	CER%
Sales	3,632	4,279	–	–	3,632	4,279	-15%	-5%
Cost of goods sold	(2,118)	(2,492)	–	–	(2,118)	(2,492)	15%	5%
Gross profit	1,514	1,787	–	–	1,514	1,787	-15%	-4%
as a percentage of sales	42%	42%			42%	42%		
Marketing and distribution	(557)	(615)	–	–	(557)	(615)	9%	-13%
General and administrative	(67)	(103)	(28)	(26)	(39)	(77)	50%	-
Operating income	890	1,069	(28)	(26)	918	1,095	-16%	-15%
as a percentage of sales	25%	25%			25%	26%		

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements.

1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description

Sales decreased by 15 percent, 5 percent at constant exchange rates with 1 percent lower sales volumes and 4 percent lower local currency sales prices. See the Sales commentary section above for further information on sales in the region. Gross profit margin was stable at 42 percent, approximately 0.4 percentage points lower at constant exchange rates. The favorable mix impact of reduced sales volume of lower margin glyphosate, lower glyphosate active ingredient purchase costs and an improved gross profit margin on seeds products from the new soybean operating model combined to offset the adverse impact of lower sales prices.

Marketing and distribution costs were 9 percent lower than 2014, but were 13 percent higher at constant exchange rates, with relatively high local cost inflation rates, particularly in Argentina, and higher charges to provisions for doubtful receivables due to weaker macroeconomic and liquidity conditions, particularly in Brazil; these more than offset the full year benefit in 2015 of the reduction of the commercial organisation in Argentina that occurred in 2014.

General and administrative excluding restructuring and impairment was approximately 50 percent lower than 2014, but broadly flat at constant exchange rates, with costs savings in support functions offset by an increase in litigation costs. General and administrative in 2015 was net of currency hedging gains of $31 million, compared with losses of $6 million in 2014.

Restructuring and impairment costs increased by $2 million to $28 million in 2015. The 2015 amount includes $22 million related to the AOL restructuring program, including restructuring of marketing operations and initial costs to establish an integrated system and support platform in Brazil. Charges in 2014 included non-cash impairments of $14 million for the write-down of machinery in Brazil due to significant changes in production processes and $9 million for initiatives to drive efficiencies in local commercial operations under the AOL program.

Operating income was $179 million lower, $177 million excluding restructuring and impairment, due to the reduced sales and increased charges for doubtful receivables. Operating income as a percentage of sales declined by 0.5 percentage points. Excluding restructuring and impairment, operating income as a percentage of sales declined by 0.3 percentage points and by 2.6 percentage points at constant exchange rates due to increased Marketing and distribution costs, including the higher charges for doubtful receivables.

Results of operations 2015 compared with 2014 continued

Operating income by segment continued

Asia Pacific	Total as reported under IFRS		Restructuring and impairment		Before restructuring and impairment[1]		Change before restructuring and impairment[1]	
($m, except change %)	2015	2014	2015	2014	2015	2014	Actual %	CER%
Sales	1,837	2,033	–	–	1,837	2,033	-10%	-3%
Cost of goods sold	(1,012)	(1,107)	–	–	(1,012)	(1,107)	9%	4%
Gross profit	825	926	–	–	825	926	-11%	-3%
as a percentage of sales	45%	46%			45%	46%		
Marketing and distribution	(286)	(314)	–	–	(286)	(314)	9%	4%
General and administrative	(55)	(52)	(20)	(4)	(35)	(48)	27%	26%
Operating income	484	560	(20)	(4)	504	564	-11%	–
as a percentage of sales	26%	28%			28%	28%		

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements.
1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description

Sales were 10 percent lower, but only 3 percent lower at constant exchange rates, with 7 percent lower sales volumes and 4 percent higher local currency sales prices. See the Sales commentary section above for further information regarding sales in the region. Gross profit margin declined by 0.6 percentage points, but was flat at constant exchange rates, with higher local currency sales prices and reduced sales of lower margin paraquat offset by adverse country mix within the region.

Marketing and distribution costs were 9 percent lower, 4 percent at constant exchange rates, with savings from restructuring in the marketing function.

General and administrative excluding restructuring and impairment decreased by $13 million, approximately $12 million at constant exchange rates, with tight cost constraints on support functions, minor increases in government grants and gains from an intangible asset disposal.

Restructuring and impairment charges in 2015 increased by $16 million to $20 million. Charges in 2015 included $16 million for implementation of AOL programs and $3 million final charges under a previous restructuring program.

Operating income margin decreased by 2 percentage points to 26 percent, but excluding restructuring and impairment remained flat at 28 percent.

Non-regional

Income and expense transactions in the integrated business have been attributed to the geographic regions based on the market destination to which they relate, rather than on the region in which they originated. Some costs of the integrated organization do not relate to a geographic destination and are reported as non-regional. These include global marketing teams, research and development and corporate headquarter functions. In addition, regional gross profit performance is based on standard product costs, with variances from the standard reported as non-regional in order to align the reported results with organizational responsibility. Non-regional also includes results of centrally managed currency and commodity hedging programs.

Non-regional costs decreased by $200 million, or 10 percent from 2014, to $1,781 million largely due to a decrease in Cost of goods sold of $146 million reflecting more favorable production cost variances in the production of Crop Protection products. The favorable production cost variances are due to both weaker currency exchange rates in purchasing and manufacturing costs and lower purchase prices, including those linked to the price of oil. Research and development expense was 5 percent lower, but was 3 percent higher at constant exchange rates as cost savings from ongoing restructuring were offset by the $49 million of gains from pension plan amendments in the UK and Netherlands recorded in 2014. Global marketing expense decreased by $27 million due to the restructuring and reorganization of the global marketing teams. General and administrative is reported including currency hedging losses of $30 million compared with gains of $13 million in 2014. Excluding restructuring and impairment, General and administrative decreased by $33 million to $274 million. At constant exchange rates, these costs were approximately $30 million higher, with cost savings from the AOL restructuring program more than offset by the $22 million gain recorded in 2014 from the amendments to the UK and Netherlands pension plans and lower gains in 2015 on tangible asset disposals. Restructuring and impairment charges reported within non-regional increased by $72 million to $168 million. Charges in 2015 included $66 million related to the AOL program, including impairments at two manufacturing sites, a further impairment related to a seeds crop where expectations of future profitability have reduced and approximately $77 million of acquisition, divestment and related costs, including advisory costs associated with possible corporate transactions. Details of restructuring and impairment for 2015 and 2014 are shown further below.

Results of operations
2015 compared with 2014 continued

Lawn and Garden	Total as reported under IFRS		Restructuring and impairment		Before restructuring and impairment[1]		Change before restructuring and impairment[1]	
($m, except change %)	2015	2014	2015	2014	2015	2014	Actual %	CER%
Sales	648	693	–	–	648	693	-7%	3%
Cost of goods sold	(298)	(318)	–	–	(298)	(318)	6%	-1%
Gross profit	350	375	–	–	350	375	-7%	4%
as a percentage of sales	54%	54%			54%	54%		
Marketing and distribution	(161)	(174)	–	–	(161)	(174)	8%	–
Research and Development	(52)	(54)	–	–	(52)	(54)	3%	-1%
General and administrative	(17)	(47)	(7)	(15)	(10)	(32)	69%	-1%
Operating income	120	100	(7)	(15)	127	115	10%	14%
as a percentage of sales	19%	14%			20%	17%		

This table does not represent an income statement prepared under IFRS. Please refer to the segmental information reported in Note 4 to the consolidated financial statements.

1 Amounts before restructuring and impairment are non-GAAP measures. Please refer to Appendix A of the Operating and Financial Review for a more detailed description

Lawn and Garden sales were 7 percent lower, but were 3 percent higher at constant exchange rates, with a 1 percent increase in local currency sales prices and a 2 percent increase in sales volumes. See the Sales commentary section above for further information on sales in the segment. Gross profit margin decreased by 0.1 percentage points but increased by 0.8 percentage points at constant exchange rates from increased volumes of higher margin Turf & Landscape products.

Marketing and distribution costs were 8 percent lower, but were flat at constant exchange rates. Research and development expense was 3 percent lower, 1 percent higher at constant exchange rates, with restructuring activities at the Netherlands site having started in the final quarter of the year. General and administrative is reported net of a $24 million currency hedging gain under the EBITDA hedging program compared with $8 million in 2014. General and administrative excluding restructuring and impairment was 69 percent lower than 2014 including the hedging gains and at constant exchange rates was 1 percent higher.

Restructuring costs in 2015 decreased by $8 million compared with 2014 and in 2015 related largely to the AOL program. Restructuring costs in 2014 were due to continuing restructuring of the Flowers business, including initiatives to improve efficiency as part of the AOL program.

Operating income as a percentage of sales increased by approximately 5 percentage points to 19 percent. Excluding restructuring and impairment, operating income as a percentage of sales increased by approximately 3 percentage points to 20 percent, 16 percent excluding the hedging gain; at constant exchange rates, operating income as a percentage of sales increased by approximately 1.8 percentage points.

Defined Benefit Pensions

Defined benefit pension expense was a charge of $165 million in 2015 compared with a credit of $36 million in 2014. After adjusting for the non-recurrence in 2015 of $175 million of one-time gains in 2014 from plan amendments and settlements in the UK and Netherlands, pension expense increased by $26 million, mainly due to a reduction in the discount rate used to measure expense for the Swiss pension plan, from 2.25 percent in 2014 to 1.25 percent in 2015, and to $11 million of early retirement costs incurred in implementing the AOL program, partly offset by first year savings from the UK plan amendment and the reporting of Netherlands benefit expense as defined contribution rather than defined benefit. Syngenta expects 2016 defined benefit pension expense, excluding costs associated with restructuring, to be similar to 2015 expense at constant exchange rates, with the impact of a further reduction in the Swiss discount rate from 1.25 percent to 0.75 percent offset by savings from the restructuring actions undertaken in 2015.

Syngenta contributions to defined benefit pension plans were $168 million in 2015 compared with $185 million in 2014. The decrease is due to Syngenta having paid in 2014 a $25 million additional lump sum contribution resulting from the 2013 Swiss plan amendment. No such additional contributions were made in 2015. In 2016, Syngenta expects contributions to defined benefit pension plans, excluding early retirement contributions associated with restructuring actions, to be approximately $160 million.

Results of operations 2015 compared with 2014 continued

Restructuring and impairment

Restructuring and impairment charges for the years ended December 31, 2015 and 2014, broken down into the main restructuring initiatives, consist of the following:

($m)	2015	2014
Accelerating operational leverage programs:		
Cash costs	228	49
Pension curtailment gain	(21)	–
Non-cash impairment costs	33	14
Integrated crop strategy programs:		
Cash costs	27	61
Operational efficiency programs:		
Cash costs	–	18
Acquisition, divestment and related costs:		
Cash costs	91	27
Non-cash items		
Reversal of inventory step-ups	–	13
Fixed asset impairment	1	–
Other non-cash restructuring and impairment:		
Non-current asset impairment	29	24
Total restructuring and impairment [1]	**388**	206

1 $nil (2014: $13 million) is included within Cost of goods sold and $388 million (2014: $193 million) as Restructuring within General and Administrative

Restructuring represents the effect on reported performance of initiating and enabling business changes that are considered major and that, in the opinion of management, will have a material effect on the nature and focus of Syngenta's operations, and therefore require separate disclosure to provide a more thorough understanding of business performance. Restructuring includes the incremental costs of closing, restructuring or relocating existing operations, and gains or losses from related asset disposals. Restructuring also includes the effects of analyzing and preparing for potential industry consolidation transactions as well as completing and integrating significant business combinations and divestments, including related transaction costs, gains and losses. Recurring costs of normal business operations and routine asset disposal gains and losses are excluded.

Impairment includes impairment losses associated with major restructuring as well as impairment losses and reversals of impairment losses resulting from major changes in the markets in which a reported segment operates.

The incidence of these business changes may be periodic and the effect on reported performance of initiating them will vary from period to period. Because each such business change is different in nature and scope, there will be little continuity in the detailed composition and size of the reported amounts which affect performance in successive periods. Separate disclosure of these amounts facilitates the understanding of performance including and excluding items affecting comparability. Syngenta's definition of restructuring and impairment may not be comparable to similarly titled line items in financial statements of other companies.

2015

Accelerating operational leverage programs

Cash costs of $228 million, including $127 million of severance and pension charges, consist of $77 million for initiatives to restructure marketing and commercial operations, $43 million for projects to drive efficiencies in territory commercial operations, $48 million to rationalize logistical operations and optimize production capacity, $36 million for Research and Development productivity projects, $17 million for projects to increase the effectiveness of back office support services and $7 million for project management. Non-cash impairment costs of $33 million consist of tangible asset write-downs at three sites resulting from projects to rationalize logistical operations and optimize production capacity. The pension curtailment gain consists of the difference between the cash contributions payable on early retirements and the calculation of net pension curtailment costs according to IFRS, with regards to the Swiss defined benefit pension plan. Cash costs for early retirements are included in the cash costs of various projects described above.

Integrated crop strategy programs

Cash costs of $27 million include $20 million of charges for the transfer of certain system and process management activities to the internal service center in India, including $11 million for information system projects, $1 million to restructure the integrated Research and Development function, $1 million to restructure the Human Resource organization and $5 million of corporate headquarter and other costs.

Acquisition, divestment and related costs

Cash costs of $91 million include $8 million incurred to integrate previous acquisitions, mainly the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen, PSB and MRI. A further $83 million represents transaction charges, including costs related to potential industry consolidation transactions, such as the proposals received from Monsanto Company, as well as costs associated with the separation and planned divestment of the Flowers and Vegetables Seeds businesses announced during 2015; following an internal review, Syngenta decided in 2016 not to pursue the divestments. The impairment relates to fixed assets acquired with the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen.

Other non-cash restructuring

Other non-current asset impairment of $29 million includes $20 million to impair the assets of a seeds crop where expectations of future operating profitability have reduced, $7 million of impairment of exclusive distribution rights where the distribution agreement has been terminated and $2 million for two other intangible asset impairments.

2014

Accelerating operational leverage programs

In February 2014, Syngenta commenced the restructuring program to drive further improvements in operating income margins and accelerate delivery of operational leverage as sales grow. 2014 cash costs of $49 million included $14 million for initiatives to restructure marketing and commercial operations, $13 million for projects to drive efficiencies in territory commercial operations, particularly in Latin America, $11 million to rationalize logistical operations and optimize production capacity, $5 million for Research and Development productivity projects, and $6 million for project management. Non-cash charges consisted of $1 million for the impairment of a site, which was closed, and $13 million for inventory write-downs due to a significant rationalization of the Vegetables product range.

Results of operations 2015 compared with 2014 continued

2014 continued

Integrated crop strategy programs
Cash costs of $61 million included $24 million of charges for the transfer of certain system and process management activities to a new internal service center in India, including severance and pension costs of $11 million, $25 million for the development and rollout of processes and training programs for marketing the integrated Crop Protection and Seeds product offers and related commercial reorganization, $4 million for information system projects, $4 million to restructure the integrated Research and Development function, $2 million to restructure the Human Resource organization and $2 million for legal entity rationalization projects.

Operational efficiency programs
The operational efficiency restructuring programs announced in 2004 and 2007 were substantially complete. The final expenditures of $18 million in 2014 largely related to the rollout of standardized and outsourced human resource support services.

Acquisition, divestment and related costs
Cash costs of $27 million included $21 million incurred to integrate previous acquisitions, mainly Devgen, MRI, PSB, and the Polish and German winter wheat and oilseed rape breeding and business operations of Lantmännen. A further $6 million consisted of transaction costs, including those related to uncompleted transactions. Reversal of inventory step-up related to the MRI and PSB acquisitions.

Other non-cash restructuring
Other non-cash restructuring consisted of $20 million of fixed asset impairments, including $14 million for plant and machinery in Brazil and Canada due to significant changes in production processes and $6 million for development costs of major plant expansion projects that were subsequently aborted, and $4 million for the impairment of loan notes related to strategic venture capital investments.

Financial expense, net
Financial expense, net increased to $256 million in 2015 from $217 million in 2014. Currency related financial expenses in 2015 of $215 million were $76 million higher than 2014 reflecting the higher cost of hedging in emerging markets and increased exposures in Latin American countries due to later receivable collections. Net interest expense of $19 million in 2015 was $24 million lower than in 2014 with lower levels of average gross debt in 2015 and more recent debt issuances at lower interest rates than the debt they replaced.

Taxes
Syngenta's effective tax rate in 2015 was 16 percent, 2 percent higher than the 14 percent effective tax rate for 2014. Syngenta's Swiss statutory tax rate was 22 percent in both years. Income taxed at different rates reduced the effective tax rate by 8 percent in 2015, compared with 4 percent in 2014, with a higher weighting of income subject to a lower tax rate, including in Switzerland where certain intellectual property income is subject to tax at a reduced rate; total income before taxes in Switzerland was 53 percent of group income before tax in 2015, compared with 33 percent in 2014. Tax deduction for amortization and impairments not recognized for IFRS reduced the tax rate by 2 percent (3 percent in 2014) due to the impairment of the shares held by several group companies in subsidiaries resulting from a decrease in the value of the subsidiaries as determined under local GAAP, due in part to weaker exchange rates of the functional currency of the subsidiaries. Changes in prior year estimates and other items increased the tax rate by 4 percent in 2015, compared with reducing the tax rate by 2 percent in 2014, due to a change in the tax treatment of certain costs in the US in 2015. Non-recognition of deferred tax assets increased the tax rate by 5 percent in 2015 (3 percent in 2014) mainly due to deferred tax assets in parts of Latin America where the criteria for recognizing deferred tax assets is not met because of local currency weakness and weak economic conditions; conversely an improvement in profitability in operations in Russia and the Ukraine contributed to a 2 percent reduction in the tax rate from recognition of previously unrecognized deferred tax assets (1 percent in 2014).

The tax rate on restructuring and impairment was 23 percent in 2015, compared with 18 percent for 2014 due to the different mix of gains and losses included in the net charge over the period and the varying tax treatments applied in different countries. Future rates applicable to restructuring and impairment will be dependent on the nature and size of the charges and may vary from year to year.

Net income for the period and other supplementary income data
Net income attributable to Syngenta shareholders in 2015 was $1,339 million, 17 percent lower than the 2014 amount of $1,619 million. Sales were 11 percent lower due to weaker foreign currency exchange rates relative to the US dollar. Operating costs excluding Restructuring and impairment as a percentage of sales were 1.4 percentage points lower, but including the higher level of Restructuring and impairment were 0.2 percentage points higher. Operating costs in 2014 were net of a $175 million gain recognized on changes to the UK and Netherlands pension plans. These combined to reduce operating income by 13 percent from 2014. As a result of the higher financial expense, net, and the increase in the effective tax rate, net income was 17 percent below 2014.

After related taxation, restructuring and impairment charges in 2015 were $300 million compared with $168 million in 2014 largely due to increased charges related to the AOL restructuring program announced in 2014 and increased acquisition, divestment and related costs, including those for advisors supporting Syngenta in the ongoing industry consolidation review and activities.

Foreign operations and foreign currency transactions
Syngenta's subsidiaries use their local currency as their functional currency for accounting purposes except where the use of a different currency more fairly reflects their actual circumstances.

Syngenta operates worldwide and its business has grown significantly in emerging markets, with a broadening of the currency effects that need to be closely monitored. Syngenta regularly analyzes how currency fluctuations will impact its operating results and manages the impact with a combination of commercial actions, such as product pricing, and financial risk management strategies, such as hedging. Next to the Euro, the Swiss franc and the British pound, the Brazilian real gives rise to a major currency exposure due to the large size of Syngenta's business activities in Brazil.

Foreign operations and foreign currency transactions
continued

Sales prices to customers in Brazil largely are linked to the US dollar, which limits the impact of fluctuations in the US dollar/Brazilian real exchange rate, incuding the significant devaluation of the Brazilian real that occurred in 2015. Similarly, Syngenta manages its currency exposure in the CIS, mainly Russia and Ukraine which both experienced further significant currency devaluation in 2015, by increasing local currency sales prices to compensate the loss in sales value from the currency devaluation.

Syngenta regularly monitors receivables exposure in all countries in which it operates. In the Eurozone, Greece, Italy, Portugal and Spain have been experiencing weak macro-economic conditions since 2010. In Latin America, Argentina, Brazil and Venezuela are also experiencing economic and financial difficulties and exchanging local currency into US dollars in these countries to pay for imported goods can be difficult. The following table outlines for the above named countries the aggregate, gross trade receivables, those past due for more than 180 days and the related provision for doubtful receivables at December 31, 2015 and 2014.

($m)	**2015**	2014
Gross trade receivables	**2,256**	1,794
Past due for more than 180 days	**209**	111
Provision for doubtful trade receivables	**186**	118

A major proportion of growers in Argentina using Syngenta's products export their crops, which enables them to generate income that is economically linked to the US dollar. Because of this, Syngenta is able to price most of its sales in Argentina in US dollars through to cash collection, which reduces its exposure to the Argentine peso. However, future legislation, competitors' behavior or central bank restrictions may limit or remove this protection or further limit the ability of Syngenta to access US dollars in, or remit US dollars from, Argentina. Sales in Argentina were 3 percent of Syngenta's total sales in 2015.

Receivables exposure from customers in Russia and the Ukraine has reduced during 2015, with 100 percent of 2014 sales and 85 percent of 2015 sales in those countries having been collected as of December 31, 2015. Sales in the CIS were approximately 5 percent of Syngenta's total sales in 2015.

At December 31, 2015, approximately 65 percent of Syngenta's cash and cash equivalent was held in US dollars, approximately 11 percent in Indian rupees, approximately 4 percent in Brazilian real, approximately 3 percent in Euros, and approximately 2 percent in Thai baht. No other individual currency made up more than 2 percent.

Liquidity and capital resources

Syngenta's principal source of liquidity is cash generated from operations. This has been more than sufficient to cover cash used for investment activities in all years since 2006, except in 2012 when the higher level of cash used for investing activities resulting from increased business acquisitions required funding with a combination of cash generated from operations and the issuance of unsecured non-current bonds. Except for any significant business acquisitions or a significant deterioration in the rate of receivables collections from that currently expected by management, cash generated from operations is expected to be more than sufficient to cover cash expected to be used for investment activities in 2016.

Working capital fluctuations are supported by short-term funding available through commercial paper and related syndicated committed credit facilities. Operating in a seasonal business, Syngenta typically obtains funds from its short-term facilities during the first half of the year to fund operations during the northern hemisphere growing season and repays these funds during the second half when receivables are collected. Longer-term capital resources include unsecured non-current bonds issued under a Euro Medium Term Note (EMTN) program, unsecured non-current Notes issued under a Note Purchase Agreement in the US Private Placement market and unsecured non-current bonds issued in the US public debt market. See Capital markets and credit facilities for details of outstanding debt, including debt issued in 2015.

For information on Syngenta's funding and treasury policies and objectives in terms of the manner in which treasury activities are controlled, please see Note 27 to the consolidated financial statements.

Syngenta reported cash and cash equivalents on December 31, 2015 and 2014 of $1,141 million and $1,638 million, respectively. At December 31, 2015 and 2014, Syngenta had current financial debt of $547 million and $1,137 million, respectively, and non-current financial debt of $3,183 million and $2,752 million, respectively.

Capital markets and credit facilities

Funds for Syngenta's working capital needs were available during the year from its $2,500 million Global Commercial Paper program supported by a $1,500 million committed, revolving, multi-currency, syndicated credit facility. Syngenta entered into its Global Commercial Paper program in 2000 and amended it in 2007. At December 31, 2015 and 2014, Syngenta had no commercial paper issuances outstanding.

The $1.5 billion syndicated credit facility (the "Credit Facility") was signed in 2012 and will mature in 2019. The Credit Facility provides for fixed interest rate, multi-currency short-term borrowings, with the interest rate based on LIBOR. At December 31, 2015, Syngenta had no borrowings under the Credit Facility. In January 2016, the terms of Syngenta's $1.5 billion committed, revolving, multi-currency syndicated credit facility were amended to enable Syngenta to establish an additional $1 billion committed, syndicated facility. The additional facility was established in January 2016 and expires in 2019.

Absent major acquisitions, Syngenta targets maintaining an investment grade credit rating, as recognized by major third-party rating agencies, which it currently believes provides an optimal balance between financial flexibility and the cost of capital. Syngenta's short- and long-term credit facilities and outstanding bond note instruments do not contain any significant covenants affecting its ability to pay dividends or borrow additional funds. In addition, there are no material legal or economic restrictions on the ability of subsidiaries to transfer funds to the Company in the form of cash dividends except as disclosed in the consolidated cash flow statement.

Liquidity and capital resources continued

The table below summarizes Syngenta's unsecured notes in issuance at December 31, 2015:

($m)	Issuance date	Carrying amount	Value at issue
Euro floating rate note 2017	March 2014	272	344
0.750% CHF bond 2019	March 2014	353	396
5.110% US dollar private placement 2020	December 2005	85	75
1.875% Eurobond 2021	March 2014	543	689
3.125% US dollar bond 2022	March 2012	519	500
1.625% CHF bond 2024	March 2014	251	283
5.350% US dollar private placement 2025	December 2005	75	75
1.250% Eurobond 2027	March 2015	540	559
2.125% CHF bond 2029	March 2014	151	170
5.590% US dollar private placement 2035	December 2005	100	100
4.375% US dollar bond 2042	March 2012	248	250
Total		3,137	3,524

While Syngenta may continue to issue further bonds to replace existing debt or to manage the maturity profile of financial debt, management is of the opinion that, absent a major business acquisition or a very significant deterioration in working capital or the rate of receivables collections from that currently expected, the funding available from the sources described above will be sufficient to satisfy Syngenta's working capital, capital expenditures and debt service requirements for the foreseeable future, including cash expenditures relating to restructuring programs. In the event of a major business acquisition, Syngenta would seek additional funding from capital markets or other sources. Syngenta regards as sufficiently remote the likelihood that a very significant deterioration in working capital or unexpected decline in the rate of receivables collections will occur so as not to require the development of a detailed contingency funding plan.

On February 2, 2016, Syngenta entered into a transaction agreement (the "Transaction Agreement") among Syngenta, ChemChina and China National Agrochemical Corporation. For discussion of the potential impact of this event on Syngenta's credit facilities and unsecured notes, see Trend and Outlook – ChemChina Tender Offer.

Cash flow

The following table sets out certain information about cash flow for each of the periods indicated:

	Year ended December 31,		
($m)	**2015**	2014	2013
Cash flow from operating activities	**1,190**	1,931	1,214
Cash flow used for investing activities	**(462)**	(729)	(772)
Cash flow used for financing activities	**(1,188)**	(420)	(1,114)

Cash flow from operating activities

Cash flow from operating activities decreased by $741 million to $1,190 million in 2015 from $1,931 million in 2014 largely due to changes in net working capital. Cash inflows from inventory reduction in 2015 were $32 million compared with $326 million in 2014; year-end inventories as a percentage of sales were 32 percent in both years. Outflows from trade and other working capital assets increased by $536 million in 2015 largely due to delayed collections and extended sales terms in Latin America and the change in sales terms in Brazil, which brought forward the recognition of receivables. Cash inflows from trade and other working capital liabilities increased by $175 million in 2015 from a low level in 2014 following the inventory reduction in the year; the 2015 increase also included higher accrued expenses, including those related to restructuring charges. Income before taxes in 2015 decreased by $303 million from 2014 for the reasons described above. Non-cash items were $395 million higher in 2015 mainly due to the $403 million net charges in respect of provisions; net charges in respect of pension provisions were $148 million in 2015 compared with a net credit of $35 million in 2014, and net charges to restructuring provisions were $125 million higher in 2015; adjusted for non-cash items, income before taxes was $92 million higher than 2014. Cash outflows for financial expense, net decreased from 2014 to 2015 due to lower interest payments and net realized foreign exchange. Cash paid in respect of income taxes was $152 million higher than in 2014 including payments in respect of several tax years for an entity in Switzerland. Cash contributions to pension plans were $28 million lower in 2015; 2014 included a non-recurring, additional payment of $25 million made to the Swiss plan as part of the 2013 plan amendment. Cash paid in 2015 in respect of restructuring provisions was $99 million higher than 2014 largely due to the progression of the AOL restructuring program.

Liquidity and capital resources continued

Cash flow used for investing activities

Cash flow used for investing activities was $462 million in 2015, $267 million less than in 2014. Additions to property, plant and equipment were $147 million lower than 2014 as investments were reduced in response, in part, to the lower growth in the crop protection and seeds markets seen in 2014 and 2015, and which is expected currently for 2016. Proceeds from disposals increased by $43 million in 2015, which included the sales of land in Switzerland and the US. The cash outflows for business acquisitions decreased from $86 million in 2014, which was for the purchase of PSB and the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen, to $11 million in 2015, which includes the acquisition of Land.db Enterprises Inc.

Cash flow used for financing activities

Cash flow used for financing activities of $1,188 million was $768 million higher than in 2014 mainly due to a decrease in new borrowings. Syngenta issued EUR 500 million in Euro denominated bonds in 2015, and EUR 750 million in Euro denominated bonds and CHF 750 million in Swiss domestic bonds in 2014. In both 2015 and 2014, bonds of EUR 500 million were repaid at maturity. The dividend paid to shareholders in 2015 increased by $46 million compared with 2014. Net treasury share purchases were $70 million lower in 2015; in 2015, Syngenta repurchased 389,500 of its own shares, with 158,000 shares to be used for future requirements of share based payment plans and 231,500 related to a share repurchase program. Sales of treasury shares related to employee share and share option plans.

Research and development (“R&D”)

Syngenta’s Research and Development organization is dedicated to developing quality crop protection and seeds products, as well as crop-focused solutions which integrate multiple technologies. R&D focuses on taking a holistic approach to help customers grow their specific crop using the best technology to address their needs, be it a single technology, a combination of technologies, or technologies and services.

Syngenta is committed to improving crop yield and quality in a sustainable way and, through its global product safety group and global regulatory team, is committed to developing and registering products that are safe and effective. Syngenta maximizes its innovation potential by leveraging its industry expertise and partnering with other technology leaders across the globe.

The total spent on research and development was $1,362 million in 2015, $1,430 million in 2014 and $1,376 million in 2013. Attribution of research and development costs for 2015 was $1,310 million for Syngenta’s integrated Crop Protection and Seeds business and $52 million in Lawn and Garden. In 2014, the attribution was $1,376 million for Syngenta’s integrated Crop Protection and Seeds business and $54 million in Lawn and Garden. In 2013, the attribution was $1,320 million for the integrated business and $56 million in Lawn and Garden.

There are no off-balance sheet financing transactions associated with research and development activity.

Contractual obligations, commitments and contingent liabilities

At December 31, 2015, Syngenta had contractual obligations to make future payments in the periods indicated in the following:

($m)	Notes to the financial statements reference	Total	Less than 1 year	1–3 years	3–5 years	5–10 years	More than 10 years
Financial debt	16, 18	3,671	533	273	438	1,388	1,039
Interest on fixed rate financial debt	27	785	67	134	131	196	257
Other non-current liabilities	18	26	12	6	8	–	–
Capital lease payments	25	60	18	20	14	8	–
Operating lease payments	25	120	61	30	22	7	–
Capital expenditures	25	134	65	69	–	–	–
Pension contribution commitments	22	206	44	83	79	–	–
Unconditional purchase obligations	25	947	483	379	45	40	–
Long-term research agreements and other long-term commitments	25	135	55	41	22	17	–
Total		6,084	1,338	1,035	759	1,656	1,296

Of the total financial debt, floating rate financial debt is $534 million (mainly local bank loans and overdraft facilities), all of which is due within one year. No interest obligation in respect of this debt is included in the table above. There is no contractual obligation to renew this debt. The debt amount, and the interest payments associated with it, will vary over time according to Syngenta’s funding requirements and future interest rates.

Fixed rate debt of $3,137 million is comprised primarily of the outstanding Eurobonds, Swiss franc domestic bonds and $ bonds and private placement notes. Fixed rate interest payments of $785 million on these are included above.

Other non-current liabilities arise from deferred payments related to acquisitions and license agreements.

Provisions for long-term liabilities totaling $727 million shown in Syngenta’s consolidated balance sheet have not been included in the above table because the timing of their payment is not contractually fixed and cannot be estimated with sufficient certainty within the context of the time periods in the table. This applies particularly to those amounts which are not expected to be paid during 2016. Note 19 to the consolidated financial statements presents the components of the estimated $193 million of provisions that are expected to be paid during 2016.

Contractual obligations, commitments and contingent liabilities continued

The supply agreements for materials giving rise to the unconditional purchase obligations are entered into by Syngenta to ensure availability of materials meeting the specifications required by Syngenta. Where suppliers have made significant capital investment, these agreements generally provide for Syngenta to pay penalties in the event that it terminates the agreements before their expiry dates.

Pension contribution commitments totaling $206 million represent unconditional fixed payments to the UK pension fund according to the schedule of contributions agreed during 2015. Not included in the above table are:

- Additional UK Pension Fund contributions of up to $22 million per year which are required to be paid if the actual return on UK pension plan assets over the period to November 30, 2020 is less than the agreed assumption.
- Swiss Pension Fund contributions for future service. The rules of Syngenta's main Swiss defined benefit pension fund commit Syngenta to contributing a fixed percentage of employees' pensionable pay to the fund.
- As disclosed in Note 22 to the consolidated financial statements, Syngenta expects to pay $160 million of contributions to its defined benefit pension plans in 2016 excluding restructuring costs and excluding any accelerated payments which Syngenta may decide to make as business and financial market conditions develop during 2016. $44 million of these contributions are included as commitments in the table above. The remaining $116 million represents 2016 service contributions, which are not included as commitments in the table above.

The above table excludes income tax liabilities of $382 million in respect of uncertain tax positions. These are presented within current income tax liabilities in the consolidated balance sheet because it is not possible to make a reasonably reliable estimate of the actual period of cash settlement with the respective taxing authorities.

Off-balance sheet arrangements

Syngenta had no off-balance sheet arrangements as at December 31, 2015, other than the above contractual obligations, commitments and contingent liabilities. Syngenta has no unconsolidated special purpose entities that are likely to create material contingent obligations.

Critical accounting estimates

Critical accounting estimates and new accounting pronouncements are discussed in Notes 2 and 29 to the consolidated financial statements.

Recent developments

Note 30 to the consolidated financial statements provides details of events which occurred between the balance sheet date and February 2, 2016 that would require adjustment to or disclosure in the consolidated financial statements.

Trend and Outlook

Syngenta believes that the long-term fundamental industry growth drivers of population growth and dietary change trends, leading to increasing demand for food and feed, remain in place. However, in both 2014 and 2015 favorable seasonal weather conditions in key growing areas, particularly in North America, have led to high yields in the production of the major field crops. As a result, there has been downward pressure on the prices of agricultural commodities; this in turn has reduced farmer profitability and led to downward pressure on the markets for crop protection chemicals and seeds. The current lower oil prices may reduce growth in the usage of biofuels, but environmental regulations in some countries, including the United States, require the inclusion of minimum percentages of biofuels in gasoline and this will underpin current levels of usage. Prices of a basket of the key field crops of corn, soybean, wheat and rice continued to decline in 2015 and are now below those in the immediate aftermath of the global financial crisis in the 2009 to 2011 period. In Latin America, the lower US dollar crop prices of the major corn and soybean crops have been partly offset by weaker currency exchange rates relative to the US dollar, but crop input demand has been further constrained by deteriorating liquidity, leading in some cases to credit quality issues. Given the likely continuation of lower grower incomes and resulting pressure on the use of high quality seed and chemical inputs, Syngenta currently anticipates low market growth to continue in 2016.

Weaker foreign exchange rates relative to the US dollar had a significant impact on reported sales in 2015. While the impact on operating profit is discussed below, exchange rate movements reduced reported sales in 2015 by approximately 12 percent, with sales in Euro reduced by approximately 15 percent and sales in emerging markets reduced by approximately 16 percent. In some markets, particularly Russia and the Ukraine, where currency decline was over 50 percent, the adverse impact was almost fully offset by local currency sales price increases to maintain US dollar prices. Weaker exchange rates are expected to continue to reduce reported sales in 2016; if exchange rates at the end of 2015 continued through 2016, Syngenta estimates a further adverse impact to reported sales of approximately 4 percent.

At the regional level, the market in North America in 2015 reflected lower farmer profitability from the above mentioned low crop prices. Syngenta's sales in the region in 2015 included $145 million from the license with KWS and Limagrain; a repeat of license income at this level in 2016 is not currently expected. The planned reduction of sales of low margin solo glyphosate reduced 2015 integrated sales volumes in the region by approximately 3 percent; a similar reduction in low margin glyphosate is planned for 2016. In Europe, Africa and the Middle East, market growth in 2015 was low following strong growth in 2014, with some adverse impact from low crop prices. Reported sales in 2015 were impacted by the broad currency weakness relative to the US dollar and the sales price increases implemented to offset this, particularly in Russia and the Ukraine. Excluding these countries, sales in the region were broadly flat at constant exchange rates. Underlying growth is expected to remain at moderate levels in 2016.

Trend and Outlook continued

Syngenta targets to offset further emerging market currency weakness with local currency sales price increases; similar price increases are generally not expected to be achievable in the Eurozone and other developed markets. In Latin America, the lower crop prices reduced farmer profitability in the major corn, soybean and cotton markets. While this was partly mitigated by weaker local currencies, the negative macroeconomic environment particularly in Brazil reduced liquidity at both grower and distributor level and also reduced demand. In addition, Syngenta constrained sales in some cases due to concerns over credit quality. At the industry level, crop protection channel inventories in Brazil were high at the start of the season and this, compounded by reduced pest pressure, also reduced demand. The difficult macroeconomic and liquidity background is expected to persist in 2016, though the reduction in export taxes in Argentina implemented in 2016 may lead to some improvement in the agricultural sector there. In 2015, Syngenta modified sales terms in Brazil, which changed the point of revenue recognition and resulted in a one-time increase in reported sales of $239 million; this will not repeat in 2016. Syngenta's sales in the region in 2015 included $55 million from the aforementioned license with KWS and Limagrain; a repeat of license income at this level in 2016 is not currently expected. The reduction of sales of low margin solo glyphosate reduced 2015 integrated sales volumes in the region by approximately 2 percent and is largely complete in the region. Where possible in the region, Syngenta sells crop protection products under a US dollar price list. Due to the rapid decline of the Brazilian real in the second half of 2015, Syngenta was able to offset only partially the impact of the currency decline; price increases are planned in 2016 to continue to recover losses from the currency decline, but full recovery will be difficult in the context of the market weakness. Further sales volume growth is expected from the continued penetration of ELATUS™, launched in 2014. Sales declined in Asia Pacific in 2015 due to the phase out of paraquat in China, completed in 2015, and drought in ASEAN. In the emerging markets in Asia, the adverse impact on sales of weaker currencies relative to the US dollar was fully offset by local currency sales price increases in 2015; while Syngenta targets to offset any further weakness in a similar manner, success in implementing further sales price increases cannot be assured.

Lawn and Garden profitability as a percentage of sales in 2015 was broadly at the planned target level. The previously announced divestment of the Flowers business will not now be pursued in 2016. Modest overall segment top line growth is anticipated in 2016, with a continued focus on cost control to maintain operating margins at constant exchange rates.

Syngenta continues to target premium prices and to seek opportunities for value pricing related to the incremental value its products bring to growers, though the current slower market growth and competitive markets are expected to limit the scope of price increases. Syngenta has reduced and will continue to reduce sales of products in certain countries where gross profit margins are insufficient to justify the risk capital employed; a further reduction in sales of low margin solo glyphosate is planned in 2016, particularly in North America.

Syngenta has a strong pipeline of new crop protection products at various stages of development and, with market leadership in crop protection chemicals, a strong position in seeds for most key crops and leading commercial organizations in all four regions, Syngenta believes it has a clear competitive advantage to deliver above market sales growth over the longer term. In the nearer term, crop protection product sales growth is expected to be driven by the growth in recently launched ACURON®, following the launch in the United States in 2015, and SOLATENOL™, with further expansion in Brazil and launches in 2016 in the United States and France. This is expected to more than offset the further planned reduction in solo glyphosate sales. In Seeds, distinctive technologies such as ENOGEN® in corn and HYVIDO™ hybrid barley are expected to contribute to growth, though in 2016 this is expected currently to be offset by lower license income, as noted above.

In 2016, Syngenta will continue to drive savings and productivity through the AOL program. These savings are expected to be partially offset by inflation, in particular in emerging markets, and a higher level of short-term incentives in 2016 following below target incentives in 2015. In Research and development, savings under the AOL program are targeted in 2016 to more than offset cost inflation and, at constant exchange rates, costs are projected to be lower in 2016 than 2015. Marketing and distribution costs included an increased charge to provisions for doubtful receivables in 2015 compared with 2014, largely due to the deteriorating credit quality in Latin America; assuming no further deterioration, savings from the AOL program in Marketing and distribution costs and General and administrative costs (excluding restructuring) are projected to largely absorb the impacts of salary and other cost inflation and higher employee incentives, as noted above.

Excluding impairments, which cannot be forecast, the further acceleration of the AOL program noted above is expected to result in increased restructuring charges related to this program in 2016. Earlier restructuring programs are substantially complete at the end of 2015, with minimal charges expected in 2016. Given ongoing discussions on industry consolidation and potential corporate transactions involving Syngenta, the level of charges for acquisitions, divestments and related costs in 2016 cannot be predicted reliably and in general the timing of the recognition of charges for particular restructuring events, which is dependent on when irreversible commitments to the events occur, makes it difficult to predict such costs with certainty.

Trend and Outlook continued

In 2015, oil prices traded in a range of $50-60 per barrel in the first half of the year and then decreased to approximately $40 per barrel by the end of the year. Prices have subsequently reduced further to approximately $30 per barrel at the end of January 2016. With its current product mix, Syngenta estimates that each $10 movement in the price of a barrel of oil impacts its cost of goods sold by approximately $30-35 million. However, due to supplier production chains and Syngenta's own inventory, it can take from 9 to 12 months for movements in the oil price to feed through into cost of goods sold.

In 2015, 52 percent of Syngenta's sales were in emerging markets, up from around 35 percent ten years ago. Emerging markets continue to have higher long-term growth potential because significant crop yield gaps exist versus developed markets; this growth potential is further supported by ongoing technology adoption. Managing volatility in such markets, in particular credit and currency exposures, is integral to Syngenta's business model.

Overall, Syngenta has significant currency exposures, which at a high level can be summarized as:

– a short position against the US dollar in Swiss francs and British pounds
– a net long position in Euros over the course of a full year, relatively minor compared with sales in Euros, but with a long position in the first half selling season and a short position in the second half from more evenly spread Euro-based operating costs including raw material costs
– a long position in Japanese yen, Australian and Canadian dollars and many emerging market currencies
– in Brazil and Argentina, a significant portion of sales are effectively priced in US dollars, resulting in a net short local currency exposure, though the linkage has weakened in Brazil and there can be a time lag before local currency prices are adjusted.

As noted above, following the recent exchange rate volatility in Russia and the Ukraine, Syngenta has acted to link pricing of sales in these countries (both of which export grain to the global market) to US dollars to reduce the long exposure to these currencies. This was achieved in 2015, though with some adverse impact on seeds sales volumes.

Forecast transaction exposures in the major currencies are hedged under a rolling 12 month program, largely through forward contracts. In 2015, Syngenta estimates the impact on underlying sales and costs of exchange rate movements to have been approximately $577 million adverse to 2014, which together with a net hedging gain of $21 million compared with a gain of $15 million in 2014, resulted in an adverse year-on-year impact on operating income from exchange rate movements of approximately $571 million when compared with 2014. The major driver of the adverse net impact was weaker emerging market currencies, particularly the Russian ruble and Ukrainian hryvnia where the impact of these two currencies was recovered in sales prices; excluding the ruble and hryvnia, the adverse net impact was estimated to be approximately $100 million.

At rates prevailing in January 2016, Syngenta expects an adverse impact on operating income from the underlying exposures. This is due to the adverse impact of a generally stronger US dollar on sales net of the favorable impact of the weaker Swiss franc on operating costs, combined with an adverse net hedging result compared with 2015, particularly hedges of the Brazilian real. Excluding the ruble and hryvnia, the combined adverse year-on-year impacts of the change in the net hedging result and the loss from underlying exposures are estimated to total approximately an adverse $50–100 million compared with 2015. As noted above, the adverse impact from the weaker ruble and hryvnia is expected to be substantially offset by higher local currency prices from the US dollar sales price lists. Emerging market currency exposures in particular are largely unhedged, so the actual impact may differ positively or negatively from the above estimate. The net hedging result is reported within General and administrative in the consolidated income statement.

Subject to approval by the shareholders at the Annual General Meeting on April 26, 2016, the Board is recommending to maintain the regular dividend at CHF 11.00 per share. In addition, if the offer to acquire Syngenta shares through a tender offer described in Note 30 to the consolidated financial statements becomes unconditional, Syngenta will pay a special dividend of CHF 5.00 per share immediately before the first settlement of the offer.

ChemChina Tender Offer

On February 2, 2016, Syngenta entered into a transaction agreement (the "Transaction Agreement") with ChemChina and China National Agrochemical Corporation. Pursuant to the terms of the Transaction Agreement, ChemChina will cause a newly incorporated company that is directly or indirectly controlled by ChemChina (the "Offeror") to submit a tender offer for all publicly held ordinary shares of Syngenta and American Depositary Shares ("ADSs") of Syngenta issued by the Bank of New York Mellon as depositary (the "ChemChina Tender Offer").

Pursuant to the terms and conditions of the Transaction Agreement, which was unanimously approved by Syngenta's Board of Directors, the Offeror will offer the shareholders of Syngenta $465 per ordinary share. In addition, the Offeror will allow Syngenta to pay a special dividend of CHF 5 per ordinary share conditional upon and prior to closing.

The consummation of the ChemChina Tender Offer is subject to certain customary conditions, including, among others, (i) the valid tender to the Offeror of at least 67 percent in aggregate of the issued ordinary shares of Syngenta (or ADSs representing shares) and (ii) the receipt of required regulatory approvals, including approval by the Committee on Foreign Investment in the United States ("CFIUS").

ChemChina is required to take all actions and to supply all information necessary to obtain regulatory approvals for the ChemChina Tender Offer unless such actions would (i) result in the reduction of the consolidated sales of one year of $2.68 billion or more or (ii) in the case of CFIUS, remove all oversight, management and control of ChemChina or all physical and other access of ChemChina to businesses, assets or operations of Syngenta which contributed to consolidated sales of Syngenta of $1.54 billion or more in financial year 2015.

Trend and Outlook continued

ChemChina Tender Offer continued

Syngenta's Board of Directors has agreed to support the ChemChina Tender Offer and recommend acceptance of the ChemChina Tender Offer to Syngenta shareholders. During the term of the Transaction Agreement, Syngenta may not solicit any third party proposal or transaction. However, Syngenta may, in response to an unsolicited written proposal for all or a majority of the shares that Syngenta's Board of Directors determines in good faith is more favorable to the holders of Syngenta's ordinary shares than the ChemChina Tender Offer taking into account all terms and conditions including expense reimbursement provisions, execution risks and closing conditions (a "Superior Proposal") and after providing ChemChina the opportunity to propose measures to improve the terms of the ChemChina Tender Offer, furnish such third party with information and participate in discussions with such third party. The Board of Directors of Syngenta is not permitted to change its recommendation of the ChemChina Tender Offer, to recommend a third party transaction or to enter into an agreement related thereto, except in connection with a Superior Proposal (that is a firm offer that is fully financed or, to the extent the consideration incudes shares, is subject only to required shareholder approval, and that the Board determines is capable of being made and consummated in a reasonable time frame) after providing ChemChina at least five trading days to improve its offer such that ChemChina's improved offer is as least as favorable to the holders of Syngenta's ordinary shares as such a Superior Proposal.

Syngenta will pay ChemChina an amount equal to $1.5 billion if the ChemChina Tender Offer is not successful or does not become unconditional in certain circumstances, including, among others, for a reason attributable to (i) a material breach by Syngenta of the Transaction Agreement, (ii) the withdrawal or modification by Syngenta's Board of Directors of its recommendation for the ChemChina Tender Offer, (iii) the entry by Syngenta into, or the recommendation by its Board of, an alternative transaction or (iv) the public announcement of an alternative transaction prior to the termination of the Transaction Agreement and Syngenta entering into a definitive agreement relating to such alternative transaction within 12 months of such termination and such alternative transaction being consummated.

ChemChina will pay Syngenta an amount equal to $3 billion if, despite all other conditions of the ChemChina Tender Offer having been satisfied or are still capable of being satisfied, the ChemChina Tender Offer does not become unconditional and/or is terminated as a result of the failure to obtain Chinese regulatory approvals or antitrust approvals, but not including CFIUS, if not attributable to a breach by Syngenta of any of its respective obligations under the Transaction Agreement.

The Transaction Agreement may be terminated in a limited number of circumstances, including (i) by either party if all conditions are not satisfied by June 30, 2017, and the Swiss Takeover Board no longer requires the ChemChina Tender Offer to remain open, (ii) by either party if the Offeror publicly declares that the ChemChina Tender Offer will not be further pursued or has failed or if the Offeror otherwise withdraws from launching, continuing or settling the ChemChina Tender Offer so long as the Swiss Takeover Board permits the ChemChina Tender Offer not to be launched, no longer to remain open or not to be settled and the party seeking to terminate is not in breach of any provision under the Transaction Agreement that causes any such non-pursuance, failure or withdrawal, (iii) by either party if the other party materially breaches its obligations, or has materially breached representations or warranties under the Transaction Agreement, unless promptly and fully remedied by the breaching party, (iv) by ChemChina if Syngenta enters into a definitive agreement with a third party regarding an alternative transaction or a competing offer has an acceptance rate of more than 10 percent of Syngenta's ordinary shares, (v) by ChemChina if Syngenta's Board of Directors (1) fails to recommend the ChemChina Tender Offer to the shareholders of Syngenta or include its recommendation in the Schedule 14D-9 to be filed by Syngenta with respect to the ChemChina Tender Offer, (2) withdraws or adversely modifies its recommendation of the ChemChina Tender Offer or makes an announcement to that effect, or (3) recommends an alternative transaction or makes an announcement to that effect, (vi) by Syngenta if the Board of Directors of Syngenta withdraws or modifies its recommendation of the ChemChina Tender Offer and ChemChina has the right to withdraw the ChemChina Tender Offer or (vii) by Syngenta in the event that all Chinese regulatory approvals (other than antitrust approvals) have not been obtained within 12 weeks after the date of the Transaction Agreement.

Following the execution of the Transaction Agreement, Syngenta is not permitted to pay any dividends other than (i) its ordinary dividend of up to CHF 11 in respect of the financial year 2015 and an ordinary dividend in respect of the financial year 2016 in accordance with Syngenta's dividend policy in effect as of the date of the Transaction Agreement if the first settlement of the ChemChina Tender Offer has not occurred on the date on which Syngenta is required to dispatch the invitation to the ordinary general meeting of shareholders in 2017 and (ii) a special dividend of CHF 5 payable immediately prior to the closing of the ChemChina Tender Offer. In addition, effective as of the execution of the Transaction Agreement, Syngenta is required to suspend its share buy-back program and any market making or similar arrangements.

Trend and Outlook continued

ChemChina Tender Offer continued

Following the closing of the ChemChina Tender Offer, four out of ten members of Syngenta's Board of Directors will consist of persons who are independent of ChemChina and its affiliates (each, an "Independent Director"). The current Chairman of Syngenta will become the Vice-Chairman of Syngenta's Board of Directors and lead Independent Director. Following the closing of the ChemChina Tender Offer, certain matters will require the affirmative vote of at least two of Syngenta's Independent Directors, including, among others, (i) any change in the location of Syngenta's headquarters, (ii) any raising of new debt or making of distributions which would lower the rating of Syngenta to a level below investment grade (by Moody's and Standard & Poor's), (iii) any reduction in Syngenta's R&D budget below specified thresholds, (iv) any material change in the agricultural sustainability programs or reduction of funding of the Syngenta Foundation for Sustainable Agriculture below specified thresholds and (v) any material change to Syngenta's Health, Safety and Environment Policy and Standards. The Independent Directors will also be required to approve, subject to certain exceptions, any transaction between any member of the ChemChina group, on the one hand, and any member of Syngenta group, on the other hand, if the transaction is not made at market terms. The above corporate governance matters remain in place until the earlier of (i) five years following the first settlement of the ChemChina Tender Offer and (ii) a re-listing of Syngenta's ordinary shares through an initial public offering.

The Transaction Agreement is governed by and construed in accordance with the laws of Switzerland.

In connection with the ChemChina Tender Offer, Syngenta will likely incur debt as part of ChemChina's financing of the acquisition. This may have a negative impact on Syngenta's credit rating and financing expense. Some of Syngenta's unsecured notes have change of control provisions. Assuming that Syngenta's credit rating remains at investment grade levels, Syngenta expects that its unsecured senior notes will remain outstanding and no change of control repurchase offer would be required. However, a change of control likely will trigger a renegotiation of Syngenta's credit facilities. If any refinancing should prove to be necessary, Syngenta expects it would work with ChemChina to obtain replacement financing.

Quantitative and qualitative disclosure about market risk

For quantitative and qualitative disclosure about market risk, see Notes 27 and 28 to the consolidated financial statements.

Appendix A

Reconciliation of non-GAAP measures to equivalent GAAP measures

A non-GAAP measure is a numerical measure of financial performance, financial position or cash flows that either:

– includes, or is subject to adjustments that have the effect of including, amounts that are excluded in the most directly comparable measure calculated and presented under IFRS; and
– or excludes, or is subject to adjustments that have the effect of excluding, amounts that are included in the most directly comparable measure calculated and presented under IFRS.

Syngenta uses non-GAAP measures in this report where they are regarded by management as important for the investor to fully understand Syngenta's performance. The non-GAAP measures presented in this report are measures adjusted for exchange rate movements and to exclude restructuring gains and losses, impairment losses and divestment gains and losses. The Company presents these measures because:

– movements in exchange rates historically have had, and in the future are expected to have, a significant impact on sales and operating income from period to period; and
– restructuring and impairment charges historically have fluctuated, and in the future are expected to fluctuate, significantly from period to period and thereby have a volatile impact on results.

Syngenta has been engaged in significant restructuring activities since the formation of the Company in 2000, including programs to integrate and extract synergies from the combined operations of the Zeneca agrochemicals business and the Novartis agribusiness, the integration of business combinations, the Operational Efficiency programs, the implementation of the integrated crop strategy and, beginning in 2014, the AOL program. The incidence of restructuring charges is periodic and volatile, reflecting the timing of irrevocable commitments related to specific sites and operations. Therefore the impact on reported performance varies from period to period and there is limited continuity in the specific composition or size of such charges. Internal financial reporting and management and employee incentive plans are substantially based on financial measures excluding the charges for restructuring and impairment so that management is incentivized to deliver the benefits of the associated restructuring and not to achieve short-term financial targets by deferring implementation of restructuring plans. Restructuring programs typically deliver benefits with a payback over several years, similar to capital investments, and control over restructuring expenditures is performed on a similar project basis to that applied with capital investments.

Appendix A continued

Syngenta presents non-GAAP measures on operating income before restructuring and impairment at both the segmental and group levels. Restructuring and impairment charges have had a material effect on operating income in the period covered by the review. In the opinion of management, reporting operating performance excluding restructuring and impairment in addition to the GAAP measures provides a more thorough understanding of business performance. Together with disclosure of the material elements within restructuring and impairment and of the overall anticipated size and timeframe of restructuring programs, these measures may assist investors in forecasting future operating performance. In addition to GAAP measures, Syngenta uses measures of operating performance excluding restructuring and impairment in internal reporting to management and the Board of Directors, and these measures are used in the incentive plans for Syngenta management and other employees. Restructuring and impairment charges have been incurred in all the periods covered by the review and are expected to continue to arise and have a material effect on operating performance in future periods. Consequently, non-GAAP measures of operating income before restructuring and impairment do not present a complete picture of operating performance and these measures should be seen only as supplementary to the GAAP measure.

Syngenta presents non-GAAP information on income before taxes excluding restructuring and impairment together with income tax expense before restructuring and impairment to assist investors to calculate the Group tax rate both including and excluding the impact of restructuring and impairment charges.

The tax rate on restructuring and impairment charges has been volatile and different from the tax rate on income before taxes excluding restructuring and impairment, due in part to many categories of restructuring or impairment charges not being deductible for tax purposes. In addition to GAAP measures, measures of income before taxes excluding restructuring and impairment and income tax expense excluding restructuring and impairment are used in internal reporting to management and the Board of Directors. Restructuring and impairment charges have been incurred in all the periods covered by the review and are expected to continue to arise and have a material effect on operating performance in future periods. Consequently, non-GAAP measures of income before taxes excluding restructuring and impairment and income tax expense before restructuring and impairment do not present a complete picture of financial performance and these measures should be seen only as supplementary to the GAAP measure.

Syngenta presents non-GAAP information on net income and earnings per share before restructuring and impairment and, where relevant, on net income and earnings per share from continuing operations before restructuring and impairment. As above, restructuring and impairment charges have had a material effect on operating income in the period covered by the review. In the opinion of management, reporting net income and earnings per share excluding restructuring and impairment in addition to the GAAP measures provides a more thorough understanding of business performance. Together with disclosure of the material elements within restructuring and impairment and of the overall anticipated size and timeframe of restructuring programs, this disclosure may assist investors in forecasting future performance. In addition to net income and earnings per share prepared in accordance with GAAP, Syngenta uses net income and earnings per share excluding restructuring and impairment in internal reporting to management and the Board of Directors, and the measure is used in the incentive plans for Syngenta management and other employees. Restructuring and impairment charges have been incurred in all the periods covered by the review and are expected to continue to arise and have a material effect on financial performance in future periods. Consequently, the non-GAAP measures of net income and earnings per share before restructuring and impairment do not present a complete picture of financial performance and these measures should be seen only as supplementary to the GAAP measures.

Appendix A continued

For improved clarity, the definitions of these non-GAAP measures and reconciliations of non-GAAP measures to the appropriate GAAP measure are provided below. The tables below are included to show the reconciliation of the GAAP measures to the non-GAAP measures used in the report and do not represent income statements prepared under IFRS.

Reconciliation of net income excluding restructuring and impairment (non-GAAP measure) to profit for the period (GAAP measure)

2015 ($m, except percentage, share and per share amounts)	Total	Restructuring and impairment	Before restructuring and impairment
Operating income	**1,841**	**(388)**	**2,229**
Income/(loss) from associates and joint ventures	**7**	**–**	**7**
Financial expense, net	**(256)**	**–**	**(256)**
Income before taxes	**1,592**	**(388)**	**1,980**
Income tax expense	**(248)**	**88**	**(336)**
Net income	**1,344**	**(300)**	**1,644**
Attributable to non-controlling interests	**(5)**	**–**	**(5)**
Net income attributable to Syngenta AG shareholders	**1,339**	**(300)**	**1,639**
Tax rate	**16%**	**23%**	**17%**
Number of shares – basic (millions)	**92**		**92**
Number of shares – diluted (millions)	**92**		**92**
Basic earnings per share	**14.57**	**(3.26)**	**17.83**
Diluted earnings per share	**14.52**	**(3.26)**	**17.78**

2014 ($m, except percentage, share and per share amounts)	Total	Restructuring and impairment	Before restructuring and impairment
Operating income	2,105	(206)	2,311
Income/(loss) from associates and joint ventures	7	–	7
Financial expense, net	(217)	–	(217)
Income before taxes	1,895	(206)	2,101
Income tax expense	(273)	38	(311)
Net income	1,622	(168)	1,790
Attributable to non-controlling interests	(3)	–	(3)
Net income attributable to Syngenta AG shareholders	1,619	(168)	1,787
Tax rate	14%	18%	15%
Number of shares – basic (millions)	92		92
Number of shares – diluted (millions)	92		92
Basic earnings per share	17.66	(1.83)	19.49
Diluted earnings per share	17.60	(1.82)	19.42

2013 ($m, except percentage, share and per share amounts)	Total	Restructuring and impairment	Before restructuring and impairment
Operating income	2,086	(179)	2,265
Income/(loss) from associates and joint ventures	48	–	48
Financial expense, net	(200)	–	(200)
Income before taxes	1,934	(179)	2,113
Income tax expense	(285)	38	(323)
Net income	1,649	(141)	1,790
Attributable to non-controlling interests	(5)	–	(5)
Net income attributable to Syngenta AG shareholders	1,644	(141)	1,785
Tax rate	15%	22%	15%
Number of shares – basic (millions)	92		92
Number of shares – diluted (millions)	92		92
Basic earnings per share	17.88	(1.53)	19.41
Diluted earnings per share	17.78	(1.52)	19.30

Reconciliation of net income excluding restructuring and impairment (non-GAAP measure) to profit for the period (GAAP measure) continued

2012 ($m, except percentage, share and per share amounts)	Total	Restructuring and impairment	Before restructuring and impairment
Operating income	2,256	(265)	2,521
Income/(loss) from associates and joint ventures	7	–	7
Financial expense, net	(147)	–	(147)
Income before taxes	2,116	(265)	2,381
Income tax expense	(266)	83	(349)
Net income	1,850	(182)	2,032
Attributable to non-controlling interests	(3)	–	(3)
Net income attributable to Syngenta AG shareholders	1,847	(182)	2,029
Tax rate	13%	31%	15%
Number of shares – basic (millions)	92		92
Number of shares – diluted (millions)	92		92
Basic earnings per share	20.16	(1.98)	22.14
Diluted earnings per share	20.05	(1.98)	22.03

2011 ($m, except percentage, share and per share amounts)	Total	Restructuring and impairment	Before restructuring and impairment
Operating income	2,009	(245)	2,254
Income/(loss) from associates and joint ventures	15	–	15
Financial expense, net	(165)	–	(165)
Income before taxes	1,859	(245)	2,104
Income tax expense	(289)	55	(344)
Net income	1,570	(190)	1,760
Attributable to non-controlling interests	(1)	–	(1)
Net income attributable to Syngenta AG shareholders	1,569	(190)	1,759
Tax rate	16%	22%	16%
Number of shares – basic (millions)	92		92
Number of shares – diluted (millions)	92		92
Basic earnings per share	17.07	(2.07)	19.14
Diluted earnings per share	16.98	(2.05)	19.03

Constant exchange rates

Syngenta compares results from one period to another period in this report using variances calculated at constant exchange rates ("CER"). To present that information, current period results for entities reporting in currencies other than US dollars are converted into US dollars at the prior period's exchange rates, rather than the exchange rates for the current year. See Note 26 to the consolidated financial statements for information on average exchange rates in 2015 and 2014. For example, if a European entity reporting in CHF sold CHF 100 million of products in 2015 and 2014, Syngenta's financial statements would report $104 million of revenues in 2015 (using 0.96 as the rate, which was the average exchange rate in 2015) and $110 million in revenues in 2014 (using 0.91 as the rate, which was the average exchange rate in 2014). The CER presentation would translate the 2015 results using the 2014 exchange rates and indicate that underlying revenues were flat. Syngenta presents this CER variance information in order to assess how its underlying business performed before taking into account currency exchange fluctuations. Syngenta also presents its actual reported results in order to provide the most directly comparable data under GAAP.

Syngenta Group Consolidated Financial Statements

Consolidated Income Statement

(for the years ended December 31, 2015 and 2014)

($m, except share and per share amounts)	Notes	2015	2014
Sales	4, 5	**13,411**	15,134
Cost of goods sold		**(7,042)**	(8,192)
Gross profit		**6,369**	6,942
Marketing and distribution		**(2,210)**	(2,497)
Research and development		**(1,362)**	(1,430)
General and administrative:			
Restructuring	6	**(388)**	(193)
Other general and administrative		**(568)**	(717)
Operating income		**1,841**	2,105
Income from associates and joint ventures		**7**	7
Interest income	28	**150**	152
Interest expense	28	**(169)**	(195)
Other financial expense		**(22)**	(35)
Currency gains/(losses), net	28	**(215)**	(139)
Financial expense, net		**(256)**	(217)
Income before taxes		**1,592**	1,895
Income tax expense	7	**(248)**	(273)
Net income		**1,344**	1,622
Attributable to:			
Syngenta AG shareholders	8	**1,339**	1,619
Non-controlling interests		**5**	3
Net income		**1,344**	1,622
Earnings per share ($):			
Basic earnings per share	8	**14.57**	17.66
Diluted earnings per share	8	**14.52**	17.60
Weighted average number of shares:			
Basic		**91,908,128**	91,674,127
Diluted		**92,206,535**	92,007,089

The accompanying notes form an integral part of the consolidated financial statements.

All activities were in respect of continuing operations.

Consolidated Statement of Comprehensive Income

(for the years ended December 31, 2015 and 2014)

($m)	Notes	2015	2014
Net income		**1,344**	1,622
Components of other comprehensive income (OCI)			
Items that will not be reclassified to profit or loss:			
(Losses)/gains on equity investments at fair value through OCI	28	**(3)**	(33)
Actuarial (losses)/gains of defined benefit post-employment plans	14, 22	**(61)**	(511)
Income tax relating to items that will not be reclassified to profit or loss	7	**10**	127
		(54)	(417)
Items that may be reclassified subsequently to profit or loss:			
Unrealized gains/(losses) on derivatives designated as cash flow and net investment hedges and related hedging costs	27	**38**	(37)
Currency translation effects		**(698)**	(625)
Income tax relating to items that may be reclassified subsequently to profit or loss	7	**(74)**	(65)
		(734)	(727)
Total OCI		**(788)**	(1,144)
Total comprehensive income		**556**	478
Attributable to:			
Syngenta AG shareholders		**553**	475
Non-controlling interests		**3**	3
Total comprehensive income		**556**	478

The accompanying notes form an integral part of the consolidated financial statements.

All activities were in respect of continuing operations.

Consolidated Balance Sheet

(at December 31, 2015 and 2014)

($m, except share amounts)	Notes	2015	2014
Assets			
Current assets:			
Cash and cash equivalents	28	**1,141**	1,638
Trade receivables	9, 28	**4,128**	3,698
Other accounts receivable	9, 28	**845**	747
Inventories	11	**4,345**	4,861
Derivative and other financial assets	28	**401**	377
Other current assets	10	**338**	244
Total current assets		**11,198**	11,565
Non-current assets:			
Property, plant and equipment	12	**3,383**	3,562
Intangible assets	13	**3,040**	3,186
Deferred tax assets	7	**783**	1,008
Financial and other non-current assets	14, 28	**396**	420
Investments in associates and joint ventures	14	**177**	188
Total non-current assets		**7,779**	8,364
Total assets		**18,977**	19,929
Liabilities and equity			
Current liabilities:			
Trade accounts payable	15, 28	**(3,311)**	(3,472)
Current financial debt and other financial liabilities	16, 28	**(730)**	(1,329)
Income taxes payable		**(444)**	(706)
Other current liabilities	17, 28	**(983)**	(984)
Provisions	19	**(193)**	(216)
Total current liabilities		**(5,661)**	(6,707)
Non-current liabilities:			
Financial debt and other non-current liabilities	18, 28	**(3,501)**	(2,976)
Deferred tax liabilities	7	**(668)**	(665)
Provisions	19	**(727)**	(676)
Total non-current liabilities		**(4,896)**	(4,317)
Total liabilities		**(10,557)**	(11,024)
Shareholders' equity:			
Issued share capital: 2015: 92,945,649 ordinary shares (2014: 92,945,649)	20	**(6)**	(6)
Retained earnings		**(6,500)**	(6,289)
Reserves		**(2,316)**	(3,052)
Treasury shares: 2015: 1,161,397 ordinary shares (2014: 1,286,312)	20	**421**	458
Total shareholders' equity		**(8,401)**	(8,889)
Non-controlling interests		**(19)**	(16)
Total equity		**(8,420)**	(8,905)
Total liabilities and equity		**(18,977)**	(19,929)

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Cash Flow Statement

(for the years ended December 31, 2015 and 2014)

($m)	Notes	2015	2014
Income before taxes		**1,592**	1,895
Reversal of non-cash items	21	**1,203**	808
Cash (paid)/received in respect of:			
Interest received		**138**	138
Interest paid		**(163)**	(197)
Other financial receipts		**334**	139
Other financial payments		**(460)**	(286)
Income taxes		**(482)**	(330)
Restructuring costs	19	**(125)**	(26)
Contributions to pension plans, excluding restructuring costs	19	**(156)**	(184)
Other provisions	19	**(80)**	(70)
Operating cash flow before change in net working capital		**1,801**	1,887
Change in net working capital:			
Change in inventories		**32**	326
Change in trade and other working capital assets		**(868)**	(332)
Change in trade and other working capital liabilities		**225**	50
Cash flow from operating activities		**1,190**	1,931
Additions to property, plant and equipment	12	**(453)**	(600)
Proceeds from disposals of property, plant and equipment		**74**	39
Purchases of intangible assets	13	**(90)**	(82)
Purchases of investments in associates and other financial assets		**(29)**	(38)
Proceeds from disposals of intangible and financial assets		**46**	39
Business acquisitions (net of cash acquired) and business divestments		**(10)**	(87)
Cash flow used for investing activities		**(462)**	(729)
Increases in third party interest-bearing debt		**1,098**	2,272
Repayments of third party interest-bearing debt		**(1,174)**	(1,556)
Sales of treasury shares and options over own shares	23	**85**	53
Purchases of treasury shares		**(119)**	(157)
Distributions paid to shareholders		**(1,078)**	(1,032)
Cash flow used for financing activities		**(1,188)**	(420)
Net effect of currency translation on cash and cash equivalents		**(37)**	(46)
Net change in cash and cash equivalents		**(497)**	736
Cash and cash equivalents at the beginning of the year		**1,638**	902
Cash and cash equivalents at the end of the year		**1,141**	1,638

Of total cash and cash equivalents of $1,141 million (2014: $1,638 million), $157 million (2014: $166 million) is required to meet insurance solvency requirements of the Group's insurance subsidiaries. These amounts therefore were not readily available for the general purposes of the Group. There are no other significant restrictions on Syngenta's ability to use assets or settle liabilities.

At December 31, 2015, cash equivalents totalled $839 million (2014: $1,218 million) and consisted of bank and money market fund deposits.

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Changes in Equity

(for the years ended December 31, 2015 and 2014)

($m)	Attributable to Syngenta AG shareholders: Par value of ordinary shares	Additional paid-in capital	Treasury shares, at cost	Fair value reserves	Cumulative translation adjustment	Retained earnings	Total shareholders' equity	Non-controlling interests	Total equity
January 1, 2014	6	3,437	(481)	(35)	413	6,151	9,491	13	9,504
Net income						1,619	1,619	3	1,622
OCI				(61)	(695)	(388)	(1,144)		(1,144)
Total comprehensive income	–	–	–	(61)	(695)	1,231	475	3	478
Transactions with owners as owners:									
Share based compensation			109			7	116		116
Dividends paid						(1,032)	(1,032)		(1,032)
Share repurchases			(157)				(157)		(157)
Cancellation of treasury shares		(7)	71			(64)	–		–
Other and income taxes on share based compensation						(4)	(4)		(4)
December 31, 2014	6	3,430	(458)	(96)	(282)	6,289	8,889	16	8,905
Net income						**1,339**	**1,339**	**5**	**1,344**
OCI				**24**	**(760)**	**(50)**	**(786)**	**(2)**	**(788)**
Total comprehensive income	**–**	**–**	**–**	**24**	**(760)**	**1,289**	**553**	**3**	**556**
Transactions with owners as owners:									
Share based compensation			**171**			**(10)**	**161**		**161**
Dividends paid						**(1,078)**	**(1,078)**		**(1,078)**
Share repurchases			**(134)**				**(134)**		**(134)**
Other and income taxes on share based compensation						**10**	**10**		**10**
December 31, 2015	**6**	**3,430**	**(421)**	**(72)**	**(1,042)**	**6,500**	**8,401**	**19**	**8,420**

The accompanying notes form an integral part of the consolidated financial statements.

The amount available for dividend distribution is based on Syngenta AG's shareholders' equity determined in accordance with the legal provisions of the Swiss Code of Obligations. In 2014, a dividend of CHF 10.00 ($11.25) per share was paid in respect of 2013. In 2015, a dividend of CHF 11.00 ($11.73) per share was paid in respect of 2014.

The Board of Directors recommends a dividend payment of CHF 11.00 per share (equivalent to $11.08 per share translated at the December 31, 2015 exchange rate) subject to shareholder approval at the Annual General Meeting (AGM) on April 26, 2016.

Included within the fair value reserves are (i) cash flow hedge reserves, which comprise the effective portion of the cumulative net change in the fair value of cash flow hedging instruments related to hedged items that have not yet been recognized in profit or loss, and (ii) fair value reserves, which comprise the cumulative net change in the fair value of investments at fair value through OCI. Movements in the cash flow hedge reserves are shown in Note 27. Movements in the fair value reserves for equity investments are shown in Note 28.

The cumulative translation adjustment comprises all foreign currency differences arising from the translation of the financial statements of foreign operations, as well as from the translation of long-term monetary items that are part of net investments in foreign subsidiaries.

Notes to the Syngenta Group Consolidated Financial Statements

1. Basis of preparation of the consolidated financial statements

These consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS or IFRSs) as issued by the International Accounting Standards Board (IASB). The consolidated financial statements have been prepared on an historical cost basis, except for items that are required by IFRSs to be measured at fair value, principally certain financial instruments and biological assets, which are valued at fair value less costs to sell.

The consolidated financial statements incorporate the financial statements of Syngenta AG, a company domiciled and incorporated in Switzerland, and all of its more than 150 subsidiaries globally (together referred to as "Syngenta") and Syngenta's interests in associates and joint ventures. Approximately 40 subsidiaries are considered to be significant legal entities. There are no material non-controlling interests or structured entities. Syngenta's main research and development facilities are located in Switzerland, UK and USA and its main production sites are in Switzerland, UK, USA, France, China, India and Brazil. Syngenta AG's principal executive offices are at Schwarzwaldallee 215, 4058 Basel, Switzerland.

The consolidated financial statements are presented in United States dollars ("$") as this is the major currency in which revenues are denominated. "$m" refers to millions of United States dollars. The functional currency of Syngenta AG is the Swiss franc ("CHF").

Syngenta is a world leading agribusiness operating in the crop protection, seeds and lawn and garden markets. Crop protection chemicals include herbicides, insecticides, fungicides and seed treatments to control weeds, insects and diseases in crops, and are essential inputs enabling growers around the world to improve agricultural productivity and food quality. In Seeds, Syngenta operates in the high value commercial sectors of field crops (including corn, oilseeds, cereals and sugar beet) and vegetables. The Lawn and Garden business provides professional growers and consumers with flowers, turf and landscape, and professional pest management products.

The preparation of financial statements requires management to exercise judgment when applying accounting policies and to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimated. Note 2 below includes further discussion of certain critical accounting estimates.

The consolidated financial statements were approved for issue by the Board of Directors on February 2, 2016 and are subject to approval by the Annual General Meeting on April 26, 2016.

2. Significant accounting policy judgments and estimates

This note describes the impact on Syngenta's consolidated financial statements of significant accounting judgments made when applying IFRSs and critical assumptions and accounting estimates.

Application of critical accounting policies

Royalty and license income

Individual agreements licensing to third parties the right to use Syngenta technology can and do have unique terms and, consequently, the accounting judgments required to apply IAS 18 "Revenue" to each such agreement can differ significantly.

In 2015, Syngenta entered into license agreements with KWS SAAT SE ("KWS"), Vilmorin & Cie S.A. ("Limagrain") and their joint ventures AgReliant Genetics LLC, AgReliant Genetics Inc. (collectively "AgReliant") and Genective S.A. ("Genective"), granting worldwide non-exclusive rights to its corn germplasm and traits portfolio, including in-licensed third party traits. Syngenta received a $200 million non-refundable license payment in 2015 in accordance with the agreement. Syngenta determined that it has no substantive future performance obligations in respect of this amount and therefore has recognized it in full as revenue in 2015. Further contingent milestone payments may become receivable, and would be recognized at that time as license income, dependent upon future regulatory approvals and agreements. Additional sales-based royalties may also become receivable if sales of licensed products exceed thresholds defined in the agreement, and would be recognized as revenue at the time that the licensees make the related sales.

In 2010, Syngenta entered into a license with Pioneer Hi-Bred International Inc. ("Pioneer"), a subsidiary of E.I. DuPont de Nemours and Co. ("DuPont") for its corn rootworm trait MIR604 (AGRISURE® RW) for corn seed. Prior to 2014, Syngenta recognized the present value of contractual minimum license income, and a corresponding receivable, upon fulfilment of the relevant milestones. This receivable is payable in instalments with final payments due in 2016. At December 31, 2015, Syngenta reported a $132 million royalty receivable in other accounts receivable in respect of this non-exclusive global license (2014: $158 million, of which $40 million in other current assets and $118 million in financial and other non-current assets). The remaining minimum license income is due in 2016. Syngenta recognized $12 million in 2015 (2014: $14 million) of imputed interest income on this royalty receivable.

2. Significant accounting policy judgments and estimates continued

Impairment

For purposes of testing goodwill for impairment, goodwill is allocated to cash generating units (CGUs). Syngenta generally defines each crop protection product active ingredient and each seed crop as a CGU. However, where one active ingredient is sold in mixture with other active ingredients to a significant extent, the active ingredients concerned are grouped together into a single CGU because independent cash inflows only exist at this higher level. Each CGU is generally defined on a global basis, reflecting the international nature of the business, and contains tangible assets such as plant and equipment as well as intangible assets such as product and patent rights.

North America corn and soybean seeds are defined as a single CGU because of common intellectual property and other interdependencies between these two crops, which do not apply to other crops. Goodwill on certain major acquisitions, principally Zeneca agrochemicals business goodwill of $548 million, was allocated to each Syngenta operating segment in proportion to each such segment's relative value at the time Syngenta established its current basis of segmentation, and is tested for impairment at those levels by relating the allocated amount for each segment to the total cash flows of the respective segment. The goodwill amounts allocated to segments and significant other CGUs are disclosed in Note 13.

For CGUs to which no goodwill is allocated, a reduction in forecast sales within management's five year forecast horizon compared with the previous year's five year forecast cycle, combined with a reduction in latest forecasts of current year sales compared with the current year budget, is generally considered an indicator of market related impairment and results in the performance of detailed impairment tests. Syngenta also performs detailed impairment tests when there are asset specific indicators of impairment such as withdrawal of or restrictions placed upon product registrations, plans to divest products or, for property, plant and equipment, plans to restructure or close a site. Higher discount rates are used to test property, plant and equipment for impairment in the case of restructuring because of the higher risk associated with remaining cash flows when operations are being physically relocated. The value in use calculation takes account of cash flows from the remaining period of operations and includes decommissioning costs. In 2015, in order to enable the business to focus on delivering the AOL restructuring program, Syngenta has continued to use the medium term management forecasts prepared in 2014 for much of its business. For those CGUs, in its 2015 impairment testing Syngenta has relied upon its 2014 recoverable amount estimates, which exceeded the carrying amounts of those CGUs by a substantial margin.

If a CGU becomes impaired, the impairment loss is allocated first to any goodwill in the CGU, and then to reduce the CGU's other assets pro rata.

Classification of assets and liabilities to be divested

On August 18, 2015, Syngenta announced its intention to divest its Flowers seeds business, which is reported as part of its Lawn and Garden operating segment. On September 3, 2015, Syngenta announced actions to accelerate shareholder value creation, including its intention to divest its global Vegetables seeds business, which is reported within the regional operating segments of its integrated Crop Protection and Seeds business, as a means to demonstrate the value of its global seeds portfolio. IFRS 5 requires non-current assets and liabilities that are to be divested to be classified as held for sale in the consolidated balance sheet if they are immediately available for sale in their current condition and the divestment transaction is highly probable and is expected to occur within one year of the balance sheet date. Such classification leads to significant changes in how assets are measured and how assets and liabilities are presented in the consolidated financial statements. At December 31, 2015, Syngenta had initiated an internal review of the proposed divestments to take account of market conditions and the complexity of separating the businesses from Syngenta. In view of this, Syngenta concluded that a sale of these businesses was no longer highly probable and therefore has not classified them as held for sale at December 31, 2015. On February 2, 2016, Syngenta formally decided not to pursue the proposed divestments of Flowers and Vegetables.

Pension asset ceiling

At December 31, 2015, Syngenta has reported other non-current assets of $21 million (2014: $8 million) and provisions of $408 million (2014: $376 million) as net defined benefit pension assets and liabilities, respectively. IFRSs require Syngenta to estimate the economic benefit it can obtain from the amount by which the fair value of assets held in a defined benefit plan exceeds the defined benefit obligation (DBO) measured in accordance with IAS 19 ("pension surplus"). This applies both when a surplus exists at the reporting date and when a surplus would arise when Syngenta meets an existing minimum funding obligation. Accounting recognition of a surplus in Syngenta's UK defined benefit pension plan is supported by the economic benefit of future contribution savings and, when this benefit is less than the surplus, also by the future refund, net of applicable taxes, which will be unconditionally available to Syngenta when all liabilities have been settled. At December 31, 2015, net defined benefit pension assets have been reduced by $43 million and net defined benefit pension provisions have been increased by $9 million, representing the part of the projected UK plan surplus that does not meet the accounting recognition criteria. In 2014, all of the projected UK plan surplus met the accounting recognition criteria. The surplus in Syngenta's US pension plan, which is non-contributory, is supported by the economic benefit of future contribution savings, measured as the excess of future service cost, over the present value of required employer contributions for future service ("excess service cost"). At December 31, 2015 and 2014, there is no surplus in Syngenta's Swiss pension plan.

2. Significant accounting policy judgments and estimates continued

Critical accounting estimates

Foreign currency translation

As Syngenta moves its inventories through a complex international supply chain, they are owned by several group entities over the inventory holding period, which may be up to nine months for crop protection chemicals and longer for certain crop seeds. To determine consolidated cost of goods sold, Syngenta records the historical cost of inventories from the time raw materials are purchased until the finished products reach their final location and condition before sale to third party customers. Inventories in the consolidated balance sheet include all purchase, manufacturing and distribution costs incurred to bring them to their location and condition at the balance sheet date, after eliminating profits and losses arising from intercompany transactions. In 2015, following the removal by the Swiss National Bank of the cap on the Swiss franc value versus the Euro, Syngenta refined the method it uses to measure inventories to refer to the original currencies in which the inventory costs were incurred. Historical cost as expressed in US dollars is measured by translating the costs from those original currencies directly into US dollars using the exchange rates that applied when the costs were incurred. When inventories are sold, consolidated cost of goods sold is determined by translating these currency amounts to US dollars at the average exchange rates of the period in which the sale occurs. Inventories at each period end are measured by translating the costs directly into US dollars at the exchange rates at the balance sheet date. Foreign currency translation gains and losses that result from these translations are recognized in OCI. Prior to 2015, the method used involved indirect translation into US dollars via the currencies of the Syngenta entities which had held the inventories over the period since their initial recognition, which led to product costs varying according to the route they took through Syngenta's supply chain. In the opinion of Syngenta, the refined method it has adopted in 2015 better reflects economic reality when currency exchange rates fluctuate during the inventory holding period, because it ensures that inventories sourced with the same cost profile and which are at the same stage of manufacture are valued consistently regardless of which Syngenta entity purchases and holds them. Syngenta has applied this refined method prospectively as a change in estimate. Had Syngenta applied its current method during 2014, 2014 net income would have been approximately $20 million higher than reported. Had Syngenta continued to apply its previous method, 2015 net income would have been approximately $73 million lower than reported largely due to the removal of the Swiss franc cap.

Syngenta has to make judgments on whether loans between entities within the Syngenta group are likely to be repaid in the foreseeable future in order to allocate foreign currency translation differences on those items to profit or loss if the loan will be repaid or to OCI if the loan is effectively part of the net investment in the borrowing subsidiary. If the functional currency of a subsidiary changes, the capital structure of the subsidiary, including the continuation of loans that are effectively part of the Group's investment in that subsidiary, may require review. In such cases, Syngenta applies any resulting change in the accounting treatment of foreign currency translation gains and losses on the loan from the same date that it applies the functional currency change.

Acquisition accounting

Applying the acquisition method of accounting requires significant management judgment to estimate the fair values and useful lives of the acquired assets, in particular intangible assets such as intellectual property related to currently marketed products and in-process research and development (IPR&D). In 2015, Syngenta recognized new intangible assets of $25 million (2014: $64 million) resulting from acquisitions. Fair value measurements are based on the forecast cash flows that Syngenta believes a typical potential buyer would use to value the assets, excluding any synergy benefits considered specific to Syngenta. Key assumptions for technologies under development include:

- the outcomes of research and development activities;
- the probability and likely timing of obtaining regulatory approvals for products based on the technology;
- market size and share;
- sales pricing trends and competitors' reaction;
- cost and efficiency of the production process for the products; and
- the period over which the products are likely to generate economic benefits given the likely impact of patent expirations.

Forecast cash flows for each asset are discounted using a rate developed from the estimated Weighted Average Cost of Capital (WACC) of the acquired company. The specific discount rates are estimated separately for each intangible asset and may vary significantly from one asset to another. Where Syngenta considers the risks applicable to an asset are not fully reflected in the forecast data available, it incorporates a risk premium into the discount rate. If actual cash flows are materially different from those used in calculating fair values, this may lead to changes in amortization expense or asset specific impairment losses in future periods.

Technology based companies acquired by Syngenta may have significant deferred tax assets, related in particular to tax losses carried forward resulting from research and development expenditures. The amount of tax losses available for carry forward upon acquisition is often affected by events that occurred several years before acquisition, which may make estimation difficult. IFRS requires recognition of a deferred tax asset for these losses at the acquisition date to the extent that Syngenta is more likely than not to utilize the losses before they expire through offset against future taxable profits. Management judgment is required about whether possible tax planning strategies are likely to be acceptable to tax authorities in the relevant jurisdictions. If actual taxable profits and outcomes of tax rulings are materially different from the assumptions made at the acquisition date, the income tax expense of future periods could be materially affected.

The acquisition accounting values recognized for intangible assets and deferred tax assets for acquisitions made during the periods presented in these financial statements are given in Note 3 below.

2. Significant accounting policy judgments and estimates continued

Impairment review

At December 31, 2015, Syngenta has reported intangible assets of $1,639 million (2014: $1,660 million) for goodwill and $1,401 million (2014: $1,526 million) for intangible assets other than goodwill, as reported in Note 13. The recoverable amount for goodwill has been determined based on value in use of the relevant segment, CGU or group of CGUs to which the goodwill is allocated. The recoverable amounts of all material intangible assets and property, plant and equipment have also been based on their value in use.

The main assumptions used in determining the recoverable amounts for operating segments and other CGUs include market size and Syngenta's market share, future sales prices and volumes, future development expenditures required to maintain products' marketability and registration in the relevant jurisdictions, and products' lives. At operating segment level, the key assumptions related to sales volume and value are expressed separately for each product line, market segment and crop, and assumptions related to expenses are expressed by region. At CGU level, assumptions are expressed by product. The assumptions are reviewed annually as part of management's budgeting and strategic planning cycles. These assumptions can be subject to significant adjustment from such factors as changes in crop growing patterns in major markets (for example, as a result of movements in crop prices), changes in product registration, or pressure from competitor products. Estimated cash flows for operating segments and other CGUs are based on Syngenta management forecasts, cover a five year horizon and include a terminal value which assumes a 2.0 percent long-term growth rate (2014: 2.0 percent), except for one seeds crop CGU facing significant economic challenges where no long term growth has been assumed. Syngenta's forecasts for the North America corn and soybean seed CGU also include the following key assumptions for revenue from seed sales:

– for each of the two crops, market size expressed as acres planted, Syngenta's market share, crop commodity prices, and licensing revenues; and
– for new genetic traits, the timing of regulatory approval and marketing launch, and seed pricing compared with existing products.

Management believes, based on recent and expected future growth in agricultural markets, that there are long-term prospects for continued growth in Syngenta's business.

The discount rates used to discount the estimated future cash flows included in the value in use calculations are based on a post-tax WACC of 7.1 percent (2014: 6.5 percent). There is considerable debate among financial market participants about what are the most appropriate input values, such as risk-free rate of return, relationship of benchmark industry share prices to the overall equity market (beta) and equity risk premium, to use in a WACC calculation under current market conditions. In 2015, when calculating the discount rate, Syngenta has assumed a 2.9 percent risk free rate equal to market yields on 30-year government bonds (2014: 2.5 percent equal to market yields on 10 year government bonds) at the date of performing the annual impairment test and a 5.0 percent equity risk premium (2014: 5.0 percent). Syngenta now believes that using a 30-year bond yield results in a more appropriate discount rate than a 10-year yield because of current conditions in the government bond market. The results of Syngenta's 2014 impairment testing would not have changed if a 30-year yield had been used at that date. The discount rate determined in this way is considered to include market estimates of industry sector risk premium. Syngenta's CGUs generally reflect the global nature of its Crop Protection and Seeds product sales, and a country risk premium is applied only to those CGUs where the geographical scope of operations and cash flows is limited. The pre-tax discount rates used for all segments, CGUs and groups of CGUs ranged from 8.2 percent to 14.3 percent (2014: 7.4 percent to 16.0 percent).

At December 31, 2015 and 2014, the largest amounts of goodwill were allocated to the Asia Pacific segment (2015: $338 million; 2014: $355 million) and the North America corn and soybean CGU (2015 and 2014: $315 million). The pre-tax discount rate used to test Asia Pacific goodwill for impairment was 8.8 percent (2014: 8.0 percent) and the forecast terminal growth rate was 2.0 percent (2014: 2.0 percent). The pre-tax discount rate used to test the North America corn and soybean CGU for impairment was 8.5 percent (2014: 7.9 percent) and the forecast terminal growth rate was 2.0 percent (2014: 2.0 percent).

In the opinion of Syngenta, the outcomes of the impairment tests are not sensitive to reasonably likely changes in any of the assumptions underlying the cash flow projections used for the impairment tests or in the discount rate in the periods presented for any segment, CGU or group of CGUs for which the carrying amount of goodwill is significant.

For the year ended December 31, 2015, impairment losses for intangible assets were $22 million (2014: $nil), relating to a discontinued trademark, a termination of distribution rights and one CGU where expectation of future profitability has reduced. The $68 million recoverable amount of this CGU at December 31, 2015, which supports the remaining $17 million carrying amount of non-current assets, is its value in use and was measured using a 8.2 percent pre-tax discount rate. Impairments of property, plant and equipment were $43 million (2014: $21 million) as a result of business development and restructuring proposals that do not require future use of the associated assets.

2. Significant accounting policy judgments and estimates continued

Adjustments to revenue and trade receivables

Syngenta's products are consumed mainly by growers. The timing and amount of cash inflows received by growers is impacted by a broad range of economic and political risks, including crop yields and prices, the availability of credit, and the cost of agricultural inputs such as the products sold by Syngenta and its competitors. The cash flows of distributors that supply Syngenta's products to growers and represent the majority of Syngenta's customers are also impacted by these factors. These distributors vary in size and nature from large publicly owned entities to small or medium sized owner-managed businesses. Syngenta's customer base reflects the geographical diversity of its operations, which encompass more than 90 countries and all significant agriculture areas. Considerable management effort and judgment is applied to actively manage and mitigate the risks to Syngenta from these factors and to determine the accounting estimates associated with them, which include:

– the estimated cost of incentive programs that provide rebates and discounts dependent upon achievement of sales targets, as well as cash discounts for punctual payment of accounts receivable. Syngenta records the estimated cost of these programs when the related sales are made, based on the programs' terms, market conditions and historical experience. At December 31, 2015, trade accounts payable includes $1,549 million (2014: $1,485 million) of accruals for rebates and returns.
– accruals for estimated product returns, which are based on contractual sales terms and on historical experience of actual returns where Syngenta considers these to be reliable estimates of future returns. Recognition of revenue and the related trade receivables is deferred in cases where past experience shows that actual returns can vary significantly from estimates. This may arise in market segments where the distribution channel holds several months' sales of Syngenta products at the reporting date, forecast consumption of those products by growers could be materially affected if market or weather conditions after the reporting date were significantly different from those expected and the volume of products returned by distributors varies with changes in grower consumption. In such cases, Syngenta estimates the amounts to be deferred by collecting from its distributors data that shows the quantities of Syngenta products held by them at the reporting date and applying average actual sales prices to those quantities. At December 31, 2014, $437 million of revenue and trade receivables was deferred, of which $372 million related to Brazil. In 2015, Syngenta changed its contractual sales terms in Brazil to reduce the flexibility of distributors to return crop protection products. This change, together with the introduction of enhanced processes for forecasting and handling product returns, reduced the uncertainty over the amount of sales returns that may ultimately occur. Sales made after the change in terms have been recognized in accordance with delivery terms, subject to an allowance for returns, which amounted to $106 million at December 31, 2015. Substantially all sales made before the change have also been recognized in 2015 in line with distributors' sales of Syngenta products on to growers. The effect of earlier revenue recognition due to the change in contractual sales terms, as measured by the difference between the $345 million balance of receivables that had not yet been recognized as sales at the date Syngenta announced the change to customers and the $106 million sales returns provision at December 31, 2015, was $239 million. Syngenta has estimated that the consequent effect on net income was $80 million. At December 31, 2015, recognition of $35 million of sales to distributors was deferred in certain other markets in Latin America, where the volume of returns is still subject to significant uncertainty.
– allowances for doubtful receivables, which are estimated by critically analyzing individual receivable account balances, taking into account historical levels of recovery and the value of any security held, the economic condition of individual customers, and the overall economic and political environment in relevant countries. As shown in Note 9 below, the provision for doubtful receivables at December 31, 2015 amounted to $319 million, or 7 percent (2014: $251 million or 6 percent) of total trade receivables, of which $140 million and $47 million (2014: $67 million and $33 million) related to sales made to the Brazilian and Argentinian markets respectively. In 2015, Syngenta reported $75 million bad debt expense (2014: $63 million). In 2015, oil and commodity price and local currency weakness led to greater constraints on the availability of credit and foreign currency at both customer and country level in Brazil, Venezuela and Argentina than in 2014. These factors, as well as general changes in local crop conditions, as mitigated by barter programs and appropriate security, resulted in higher bad debt expense, partly offset by improved collections in the CIS.

Syngenta records these estimates as separate allowances, but its estimation process recognizes their interdependency, as the level of credits to accounts receivable for discounts and product returns may affect the probability of receiving full payment of the net receivable balances.

Seeds inventory valuation and allowances

Inventories of $4,345 million (2014: $4,861 million) reported in Note 11 include $1,252 million (2014: $1,496 million) of seeds, which are subject to the risk of loss through physical deterioration at all stages of the operating cycle. Syngenta accounts for normal losses that occur during production, both in the pre-harvest growing and the post-harvest processing stages, as part of the cost of inventories of in-process and finished seeds. Normal losses in production, which include the cost of seeds discarded before processing because they do not meet Syngenta's quality standards, are therefore expensed when the related finished seed is sold to customers. Losses of finished seeds are expensed as incurred. Syngenta records allowances against the cost of seeds inventories for both quality and obsolescence. Syngenta records allowances for quality for finished seed which is currently of defective quality and for finished seed which is expected to deteriorate physically before sale, based on past experience. Syngenta records allowances for obsolescence for excess seed for which there is insufficient forecast customer demand over the expected remaining commercial life of each seed variety. For excess seeds that Syngenta is likely to be able to sell in the commodity market, the allowance is the cost of the seed minus its net realizable value, which is estimated as the expected net proceeds of commodity sale. If commodity sale is not probable, the allowance is the full cost of the excess seed inventories.

2. Significant accounting policy judgments and estimates continued

To determine the allowances required, management effort and judgment is applied to analyze at crop, variety and batch level seed inventory quantity, quality and forecast sales data, developing commercial practices, available markets and the speed of expected product portfolio changes. The rapidly evolving combination of corn seed genetics and trait stacks in North America and Latin America result in shorter commercial lives of a typical hybrid seed variety than in other crops and regions, with variation between actual and previously forecast sales and consequent greater risk of excess seed at individual hybrid level. Excess seed quantities are also affected by harvest yield, which is influenced by unpredictable weather and growing conditions. Seeds inventory allowance expense for 2015 was $181 million (2014: $177 million), with the impact of lower demand and soybean commodity prices compared to 2014 being offset by currency translation effects, and the allowance balances reduced from $357 million at December 31, 2014 to $279 million at December 31, 2015 due to discards of obsolete and unsaleable inventories and to currency translation.

Environmental provisions

At December 31, 2015, Syngenta reported in Note 19 provisions for environmental remediation of $210 million (2014: $239 million). Remediation of environmental damage at sites with which Syngenta is associated typically takes a long time to complete due to the substantial amount of planning and regulatory approvals normally required before remediation activities can begin. The assumptions used by Syngenta to estimate its environmental provisions may change significantly before or during the remediation period due to changes in the extent of remediation required or the method used to remediate the damage. In addition, increases in or releases of environmental provisions may be necessary whenever new developments occur or additional information becomes available. The major uncertainties that impact the outcome of remediation are:

- the extent of the contaminated land area, which is not always limited to land occupied by the Syngenta site. Ongoing monitoring or remediation work may identify changes in the area believed to be contaminated.
- the nature of the work Syngenta will be obliged to perform or pay for. This depends upon the current or proposed use of contaminated land, substantively enacted legislation, and land zoning by and negotiation with the relevant regulatory authorities. In Switzerland, proposed remediation plans at certain sites may be subject to public referenda.
- sharing of costs with other past and present occupiers of Syngenta's sites. At certain shared sites, Syngenta is responsible for an agreed proportion of remediation costs, which may change following discussions with authorities and the affected third parties. At other sites, third parties have agreed to reimburse Syngenta for some or all of the costs it incurs.

Consequently, environmental provisions can change significantly. Because of the inherent uncertainties in estimating such long-term future obligations, Syngenta periodically supplements its internal expertise with external expertise when determining environmental provisions.

IAS 37 requires reimbursements of provisions to be recognized only when they are virtually certain to be received. No reimbursements are recognized if the third parties are disputing the reimbursement. Syngenta has recorded a reimbursement asset of $2 million at December 31, 2015 (2014: $3 million). In 2014, the reimbursement asset decreased by $20 million in line with the associated underlying provision as described below, with no net effect on profit or loss.

In 2015, except for $28 million of cash outflows reflecting remediation activity, there were no significant changes to environmental provisions. In 2014, environmental provisions of $22 million were released, mainly in relation to a site covered by a third party indemnity agreement for which future payment is now estimated to be highly unlikely. In connection with this release, the above-mentioned $20 million reimbursement recoverable from the previous owners of the site was derecognized. Cash payments and the effect of the stronger $ on currency translation through OCI reduced the provisions by $33 million and $16 million, respectively.

Proposals have been made suggesting remediation of the existing contamination on certain shared sites in preference to monitoring and containment. Syngenta will negotiate the proposals with the relevant authorities but the final adopted solution is subject to regulatory uncertainty and the ultimate liability may be higher or lower than the amount provided. Taken together, the provisions at December 31, 2015, for these shared sites comprise approximately 20 percent of total environmental provisions. The top ten exposures at the end of 2015 comprise approximately 75 percent of the total environmental provisions. In the opinion of management, reasonably possible increases in the provisions related to these top 10 exposures would not exceed 60 percent of the total environmental provision recognized at December 31, 2015.

At Syngenta's Monthey, Switzerland, production site, the work needed to remediate groundwater and soil contamination that exists under and around the site, including investigation, assessment, control and monitoring activities, is ongoing. The responsibility for these activities lies with Syngenta and one other chemical enterprise. In management's opinion, based on its current knowledge, Syngenta's environmental provisions are adequate to cover Syngenta's share of the expected costs to perform this remediation and no significant change to the provision has been made in 2015. However, the extent of the remediation work required, the cost estimates and their allocation are subject to uncertainty.

2. Significant accounting policy judgments and estimates continued

Defined benefit post-employment benefits

At December 31, 2015, Syngenta has reported other non-current assets of $21 million (2014: $8 million) and provisions of $408 million (2014: $376 million) as net defined benefit (DB) pension assets and liabilities, respectively, as set out in Note 22. These amounts may change significantly from one accounting period end to another due not only to expense recognized in profit and loss and cash payments, but also to changes in the actuarial assumptions used to measure the defined benefit obligation (DBO) and to variances between those assumptions and actual outcomes ("experience variances"), both of which are recognized in OCI. Significant judgment is required when selecting key assumptions for measuring post-employment benefit expense for a period and the DBO at the period end for each defined benefit plan. The specific assumptions used and experience variances are disclosed in Note 22. These variances were caused principally by external financial market movements in corporate bond yields used to benchmark the discount rate, and in asset prices affecting the actual return on assets. These factors are outside Syngenta's direct control, and it is reasonably possible that future variances will be at least as great as past variances.

At December 31, 2015 and 2014, for each of Syngenta's three largest defined benefit pension plans, the sensitivity of the DBO to a change in each significant actuarial assumption is as follows:

($m)	2015			2014		
Increase (decrease) in DBO	**Switzerland**	**UK**	**USA**	Switzerland	UK	USA
Discount rate – 25 basis point decrease in rate	**102**	**111**	**18**	83	133	22
Discount rate – 25 basis point increase in rate	**(96)**	**(109)**	**(17)**	(77)	(131)	(21)
Pension increase – 25 basis point increase in rate	**n/a**	**83**	**n/a**	n/a	97	n/a
Pension increase – 25 basis point decrease in rate	**n/a**	**(81)**	**n/a**	n/a	(96)	n/a
Interest credit rate – 25 basis point increase in rate	**22**	**n/a**	**n/a**	20	n/a	n/a
Interest credit rate – 25 basis point decrease in rate	**(21)**	**n/a**	**n/a**	(21)	n/a	n/a
Life expectancy[1]	**70**	**91**	**8**	54	97	12

1 The life expectancy sensitivity is calculated using the difference between the reported DBO amount and the DBO amount projected using a one year increase, compared with the assumptions actually used, in the life expectancy for each plan member. This alternative projection is calculated using mortality rates that produce an immediate increase of one year for a plan member at normal retirement date, with corresponding changes at other ages

Each sensitivity amount is calculated assuming that all other assumptions are held constant. It should be noted that economic factors and conditions often affect multiple assumptions simultaneously. For the UK pension plan, the discount rate and pension increase sensitivities shown are relative to price inflation, because limited price indexation of pensions in payment and deferred pension rights is required both by the Syngenta UK pension plan rules and by UK statutory pension regulations. For Syngenta's Swiss and US plans, the sensitivities are for changes in the nominal discount rates, because the rules and statutory regulations applicable to those plans contain no inflation linkage and indexation of benefits to inflation is not general market practice in those countries. Syngenta is not able to predict the extent of likely future changes in the discount rate or life expectancy assumptions, but based on past experience, the discount rate for each plan could change by up to 100 basis points (bp) within a twelve month period. Pensionable pay is now permanently frozen for the UK DB pension plan as explained below, and the sensitivity of the DBO to the assumed rate of increase in pensionable pay is not material for the Swiss or US plans.

To select the discount rate, Syngenta uses yields of AA rated corporate bonds. The relevant yield is determined either by analyzing a population of bonds whose cash flows collectively approximate the estimated cash flow profile of benefit payments by a Syngenta plan (UK and USA), or by using the yield of a published bond index and adjusting it in line with the relevant market yield curve to the extent that the average maturity of the bonds in the index is different from that of the relevant Syngenta benefits (Switzerland). Nominal discount rates at December 31, 2015 are as follows:

Switzerland	0.75 percent	(2014: 1.25 percent)
UK	3.70 percent	(2014: 3.60 percent)
USA	4.35 percent	(2014: 4.00 percent)

In valuing the UK DBO at December 31, 2015, the UK long-term rate of retail price inflation (RPI) is assumed to be 3.05 percent (2014: 3.05 percent). Future statutory pension increases are based on consumer price inflation (CPI). Most Syngenta UK pension plan members have benefits specifically linked to RPI in accordance with the plan rules, but some members will see increases linked to CPI. CPI is assumed to be 100 basis points (2014: 100 basis points) below RPI.

In recent years, life expectancy has increased in all major countries in which Syngenta sponsors pension plans. Syngenta sets mortality assumptions after considering the most recent statistics practicable. Syngenta uses generational mortality tables to estimate probable future mortality improvements. These tables assume that the trend of increasing life expectancy will continue, resulting in pension benefit payments to younger members being likely to be paid for longer time periods than older members' pensions, given that assumed retirement ages are those defined in the rules of each plan. In 2015, as the Syngenta UK Pension Fund (UK Fund) underwent its triennial statutory valuation, Syngenta has updated its mortality assumptions and now uses current mortality rates based on the UK Institute and Faculty of Actuaries' CMI SAPS Pensioner Amounts Light tables reflecting long cohort improvements from 2002–2012, with assumed future improvement of 1.25 percent per annum in line with the CMI Core Projections model 2015 (2014: CMI Core Projections model 2014). Syngenta's adoption of these mortality assumptions reduced the benefit obligation by $17 million (less than one percent). No significant changes to UK mortality assumptions were necessary in 2014.

2. Significant accounting policy judgments and estimates continued

At December 31, 2015 and 2014, Syngenta valued the benefit obligation for its Swiss pension plan using mortality assumptions from the BVG 2010 generational mortality table. An update of this table was published in December 2015. Because of this timing, Syngenta will consider the updated data for its 2016 financial statements. Syngenta's adoption of the BVG 2010 table in 2011 increased the DBO by $66 million (4.4 percent). At December 31, 2015 and 2014, Syngenta valued the benefit obligation for its US pension plan using mortality assumptions from the RP-2014 generational mortality table published in October 2014 with modified Scale MP-2014 mortality improvements using a 0.5 percent per annum long-term improvement rate for all purposes other than calculation of lump sums. Syngenta's adoption of this table in 2014 increased the DBO by $15 million (2.2 percent).

Syngenta's major pension plans give members lump sum or annuity benefit payment options. Syngenta values its pension liabilities on the assumption that the choices made by members who will retire in the future will be consistent with choices made by members who have retired recently. For the US pension plan, the benefit obligation has been valued assuming that current eligible members will take the lump sum option at normal retirement or other permissible commencement dates. This assumption is consistent with historical and expected future member choices.

From September to November 2014, Syngenta consulted with its UK employees and their representatives on proposals to freeze pensionable pay for defined benefit members of the UK pension plan. Following this consultation, Syngenta amended the benefits so that pensionable pay will be frozen at January 1, 2016 levels. The defined benefit fund remains open to existing members, and pay increases after January 1, 2016, which are not part of defined benefit pensionable pay will be pensionable under the Syngenta Group Personal Pension (GPP), a separate defined contribution plan, for those who choose to join. Employees who choose to leave the defined benefit section of the UK pension plan will also be able to join the GPP. As a result of this amendment to the defined benefit in the UK Fund, Syngenta recognized a $143 million past service gain in the 2014 consolidated income statement. Syngenta estimated this gain using the following key actuarial assumptions at the date of the change to revalue its existing defined benefit obligation (DBO) and to measure the DBO for the amended benefit:

Discount rate: 3.8 percent
Inflation: 3.1 percent (RPI), 2.1 percent (CPI)
Mortality assumptions were the same as those used at December 31, 2014, described above
Opt-outs from defined benefit under the amended plan: 15 percent of members

Opt-outs were estimated by modeling and comparing for each individual member, based on the data held for pension administration, the benefits that will be payable to them if they opt out of and if they remain in defined benefit membership. This comparison was based on the following assumptions:

– amounts excluded from defined benefit pensionable pay are pensionable under the GPP;
– GPP annual investment returns are 4 percent; and
– each member chooses the alternative that gives the highest benefit.

This gain amount is sensitive to the opt-out assumption. Had Syngenta assumed zero opt-outs, it would have recorded an additional $14 million gain in the 2014 consolidated income statement. Actual member decisions may vary from the estimate and any variance will be accounted for as an actuarial gain or loss in OCI in 2016 and future years.

At December 31, 2015, Syngenta has reduced the opt-out assumption to 10 percent because during 2015 it agreed to increase benefit accrual rates for service in 2016 and future years, thus providing an additional incentive for existing members to remain in the defined benefit section of the plan. The effect of this change was not material.

Deferred tax assets

At December 31, 2015, Syngenta's deferred tax assets are $783 million (2014: $1,008 million), as further analysed in Note 7. Included in this balance are deferred tax assets for unused tax losses and tax credits of $40 million (2014: $38 million). The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible or in which tax losses can be utilized. The tax effect of unused tax losses is recognized as a deferred tax asset when it becomes probable that the tax losses will be utilized. In making assessments regarding deferred tax assets, management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies. At December 31, 2015, based upon the level of historical taxable income and projections for future taxable income over the periods in which deferred tax assets are deductible, management believes that it is more likely than not that Syngenta will realize the benefits of these deductible differences. The amount of deferred tax assets considered realizable could however be reduced in subsequent years if estimates of future taxable income during their carry forward periods are reduced, or rulings by the tax authorities are unfavorable. Estimates are therefore subject to change due to both market related and government related uncertainties, as well as Syngenta's own future decisions on restructuring and other matters. Syngenta is unable to accurately quantify the future adjustments to deferred income tax expense that may occur as a result of these uncertainties.

2. Significant accounting policy judgments and estimates continued

The principal jurisdictions where deferred tax assets have not been recognized are Argentina, Belgium and Brazil (2014: Argentina, Russia and Ukraine). For Argentina, no net deferred tax assets have been recognized at December 31, 2015 or 2014. Non-recognition in Belgium relates to the impact of post-acquisition integration of Devgen on actual tax losses and expected future taxable profits. For Russia and Ukraine, the criteria for recognizing deferred tax assets were not met at December 31, 2014, because of local currency weakness and developments in the economic and political environment during 2014, but are met at December 31, 2015 because of improved local profitability. At December 31, 2014, net deferred tax assets in Brazil were fully recognized. Local profitability in Brazil was reduced in 2015 by challenging market conditions and local currency weakness, both of which are expected to continue in 2016. As a result, future taxable profits are expected to be lower than was estimated in 2014 and are no longer sufficient to recognize the deferred tax asset in full. In making this assessment, for one Syngenta main subsidiary in Brazil, the forecast horizon used for taxable profits is five years. During this period, Syngenta has projected that local profitability will recover from current levels but will not achieve the levels forecast in 2014. Taxable profits that may arise beyond the five year horizon are subject to greater uncertainty and have not been considered. Consequently, for Brazil, at December 31, 2015 Syngenta has recognized $167 million of net deferred tax assets and has not recognized $46 million of deferred tax assets.

Uncertain tax positions

Syngenta's supply chain is international, and intellectual property rights owned by Syngenta are used internationally within the Group. Transfer prices for the delivery of goods and charges for the provision of services by one Syngenta subsidiary to another, and arrangements to share research and development costs, may be subject to challenge by the national tax authorities in any of the jurisdictions in which Syngenta operates. Interpretation of taxation rules relating to financing arrangements between Syngenta entities and to foreign currency translation differences may also give rise to uncertain tax positions. Where a distribution of subsidiary retained earnings would incur withholding taxes, Syngenta also makes a management judgment as to whether a future distribution is probable.

Syngenta estimates and accrues taxes that will ultimately be payable when reviews or audits by tax authorities of tax returns are completed. These estimates include significant management judgments about the eventual outcome of the reviews and audits of all open years based on the latest information available about the positions expected to be taken by each tax authority. Actual outcomes and settlements may differ significantly from the estimates recorded in these consolidated financial statements. This may affect income tax expense reported in future years' consolidated income statements. At December 31, 2015, Syngenta's balance sheet includes assets of $124 million (2014: $89 million) included within other accounts receivable, and liabilities of $444 million (2014: $706 million) shown separately on the face of the balance sheet, for current income taxes. These liabilities include $382 million in respect of the uncertain tax positions described above (2014: $381 million). The liability for uncertain income tax positions that Syngenta expects will be resolved in 2016 is approximately 12 percent of total recognized current income tax liabilities.

3. Acquisitions, divestments and other significant transactions

The following significant transactions occurred during 2015 and 2014.

2015

On October 15, 2015, Syngenta acquired 100 percent of the shares of Land.db Enterprises Inc. in exchange for cash, including contingent consideration. The primary reason for the acquisition was to gain exclusive control of the AgriEdge Excelsior® farm management software program, which integrates products, services, risk management and technology for growers. The assets, liabilities, acquisition-date fair value of consideration and related costs for the acquisition are not material. Due to on-going valuation activity, the amounts recognized are all provisional.

Payments and receipts in 2015 of deferred and contingent consideration related to acquisitions and divestments completed in prior periods were not material.

2014

On April 4, 2014, Syngenta acquired 100 percent of the shares of Società Produttori Sementi S.p.A. ("PSB") in exchange for cash. PSB is one of Italy's oldest seed companies and a leader in durum wheat breeding and production. The primary reasons for the acquisition were to gain access to PSB's durum wheat breeding expertise and its links to the food industry, which will be complemented by Syngenta's cereals research and development and global presence. Goodwill was $6 million, which represents commercial and research and development synergies resulting from integrating PSB's business into Syngenta's operations and the enabling of expansion in the cereals seed market.

On July 21, 2014, Syngenta acquired the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen, the Swedish food, energy and agriculture group, in exchange for cash. The acquired business consists of 100 percent of the shares of Lantmännen SW Seed Hadmersleben GmbH, Lantmännen SW Seed GmbH, SW Winter Oilseed AB and certain sites in Germany. The primary reasons for the acquisition were to give Syngenta access to high-quality germplasm, a seeds pipeline and commercial varieties which complement Syngenta's portfolio and will support the continued development of hybrid cereals for growers worldwide. Goodwill was $12 million and mainly represents synergies expected in combining operations for the breeding and commercialization of high performing cereals and oilseed rape varieties. Measurement period adjustments to the provisional asset and liability amounts recognized at December 31, 2014 were not material.

The assets, liabilities and acquisition-date fair value of consideration recognized for these 2014 acquisitions are as follows:

($m)	
Property, plant and equipment	56
Intangible assets	46
Other assets	37
Deferred tax liabilities	(19)
Other liabilities	(54)
Net assets acquired	66
Purchase price	84
Goodwill	18

3. Acquisitions, divestments and other significant transactions continued

Costs related to these acquisitions were not material.

Cash flow from these 2014 acquisitions was as follows:

($m)	
Total cash paid for shares	84
Net cash acquired	(4)
Net cash outflow	80

Payments and receipts in 2014 of deferred and contingent consideration related to acquisitions and divestments completed in prior periods were not material.

4. Segmental breakdown of key figures for the years ended December 31, 2015 and 2014

Syngenta is organized on a worldwide basis into five operating segments: the four geographic regions, comprising the integrated Crop Protection and Seeds business, and the global Lawn and Garden business. Income and expense transactions in the integrated business have been attributed to the geographic regions based on the market destination to which they relate, rather than on the region in which they originated. Some costs of the integrated organization do not relate to a geographic destination and are reported as non-regional. Segment performance is managed based on segment operating income, which is the measure of segment profit or loss presented, and is based on the same accounting policies as consolidated operating income. No operating segments have been aggregated to form the reportable segments.

2015 ($m)	Europe, Africa, Middle East	North America	Latin America	Asia Pacific	Non-regional	Total integrated	Lawn and Garden	Group
Product sales – to third parties	3,843	3,117	3,569	1,830	–	12,359	645	13,004
Royalty and license income – from third parties	41	293	63	7	–	404	3	407
Total segment sales	3,884	3,410	3,632	1,837	–	12,763	648	13,411
Cost of goods sold	(1,889)	(1,779)	(2,118)	(1,012)	54	(6,744)	(298)	(7,042)
Gross profit	1,995	1,631	1,514	825	54	6,019	350	6,369
Marketing and distribution	(586)	(537)	(557)	(286)	(83)	(2,049)	(161)	(2,210)
Research and development	–	–	–	–	(1,310)	(1,310)	(52)	(1,362)
General and administrative:								
Restructuring	(128)	(37)	(28)	(20)	(168)	(381)	(7)	(388)
Other general and administrative	(126)	(84)	(39)	(35)	(274)	(558)	(10)	(568)
Operating income/(loss) – continuing operations	1,155	973	890	484	(1,781)	1,721	120	1,841
Included in the above operating income from continuing operations are:								
Personnel costs	(590)	(446)	(469)	(267)	(1,042)	(2,814)	(158)	(2,972)
Depreciation of property, plant and equipment					(332)	(332)	(17)	(349)
Amortization of intangible assets					(175)	(175)	(15)	(190)
Impairment of property, plant and equipment, intangible and financial assets	(3)	(11)		(1)	(51)	(66)	–	(66)
Other non-cash items including charges in respect of provisions					(270)	(270)	(15)	(285)
Gains/(losses) on hedges reported in operating income	1	(14)	30	–	(31)	(14)	24	10

During 2015, Syngenta refined its method for allocating personnel costs to segments for disclosure purposes to take advantage of improved availability of personnel cost data. This had no impact on segment operating income.

Segment operating income/(loss) reconciles to consolidated income before taxes as follows:

2015 ($m)	
Segment operating income	1,841
Income from associates and joint ventures	7
Financial expense, net	(256)
Income before taxes	1,592

4. Segmental breakdown of key figures for the years ended December 31, 2015 and 2014 continued

2014 ($m)	Europe, Africa, Middle East	North America	Latin America	Asia Pacific	Non-regional	Total integrated	Lawn and Garden	Group
Product sales – to third parties	4,492	3,458	4,273	2,024	–	14,247	690	14,937
Royalty and license income – from third parties	55	124	6	9	–	194	3	197
Total segment sales	4,547	3,582	4,279	2,033	–	14,441	693	15,134
Cost of goods sold	(2,180)	(2,003)	(2,492)	(1,107)	(92)	(7,874)	(318)	(8,192)
Gross profit	2,367	1,579	1,787	926	(92)	6,567	375	6,942
Marketing and distribution	(720)	(564)	(615)	(314)	(110)	(2,323)	(174)	(2,497)
Research and development	–	–	–	–	(1,376)	(1,376)	(54)	(1,430)
General and administrative:								
Restructuring	(30)	(22)	(26)	(4)	(96)	(178)	(15)	(193)
Other general and administrative	(161)	(92)	(77)	(48)	(307)	(685)	(32)	(717)
Operating income/(loss) – continuing operations	1,456	901	1,069	560	(1,981)	2,005	100	2,105
Included in the above operating income from continuing operations are:								
Personnel costs	(651)	(473)	(536)	(304)	(696)	(2,660)	(144)	(2,804)
Depreciation of property, plant and equipment					(348)	(348)	(17)	(365)
Amortization of intangible assets					(227)	(227)	(16)	(243)
Impairment of property, plant and equipment, intangible and financial assets					(24)	(24)	(1)	(25)
Other non-cash items including charges in respect of provisions					(83)	(83)	(7)	(90)
Gains/(losses) on hedges reported in operating income	(1)	1	(11)	–	16	5	8	13

Segment operating income/(loss) reconciles to consolidated income before taxes as follows:

2014 ($m)	
Segment operating income	2,105
Income from associates and joint ventures	7
Financial expense, net	(217)
Income before taxes	1,895

Revenues by product group for the years ended December 31, 2015 and 2014 are as follows:

($m)	**2015**	2014
Crop Protection	**9,925**	11,286
Seeds	**2,838**	3,155
Lawn and Garden	**648**	693
Total	**13,411**	15,134

Summarized additional information on the nature of expenses for the years ended December 31, 2015 and 2014 is as follows:

($m)	**2015**	2014
Salaries, short-term employee benefits and other personnel expense	**2,685**	2,733
Pension and other post-employment benefit expense	**220**	8
Share based payment expense	**67**	63
Total personnel costs	**2,972**	2,804
Depreciation of property, plant and equipment	**349**	365
Impairment of property, plant and equipment	**43**	21
Amortization of intangible assets	**190**	243
Impairment of intangible assets	**22**	–

Pension and other post-employment benefit expense for 2015 includes $10 million of losses on amendment and settlement of pension plans (2014: gains of $175 million), recognized within General and administrative and allocated across the segments (2014: Cost of goods sold $93 million; Marketing and distribution $11 million; Research and development $49 million; and General and administrative $22 million. These gains were included within Non-regional, except for immaterial amounts). Further information relating to these gains is given in Notes 2 and 22.

5. Regional breakdown of key figures for the years ended December 31, 2015 and 2014

The following countries individually accounted for more than 5 percent of one or more of the respective Syngenta totals for the years ended December 31, 2015 and 2014 or at December 31, 2015 and 2014.

($m, except %)	Sales[1]				Total non-current assets[2]			
Country	2015	%	2014	%	2015	%	2014	%
Brazil	**2,519**	**19**	2,945	19	**226**	**3**	268	4
France	**605**	**4**	743	5	**128**	**2**	144	2
Switzerland	**63**	**–**	69	–	**2,680**	**39**	2,827	38
UK	**204**	**2**	239	2	**530**	**8**	567	8
USA	**3,303**	**25**	3,292	22	**1,968**	**28**	1,894	26
Others	**6,717**	**50**	7,846	52	**1,400**	**20**	1,620	22
Total	**13,411**	**100**	15,134	100	**6,932**	**100**	7,320	100

1 Sales by location of third party customer
2 Excluding deferred tax assets, defined benefit pension assets and derivative financial assets

No single customer accounted for 10 percent or more of Syngenta's total sales.

6. Restructuring

Restructuring for the years ended December 31, 2015 and 2014, broken down into the main restructuring initiatives, consists of the following:

($m)	2015	2014
Accelerating operational leverage programs:		
Cash costs		
Charged to provisions	**166**	7
Expensed as incurred	**62**	42
Pension curtailment gain	**(21)**	–
Non-cash costs		
Impairments	**33**	14
Integrated crop strategy programs:		
Cash costs		
Charged to provisions	**6**	17
Expensed as incurred	**21**	44
Operational efficiency programs:		
Cash costs		
Charged to provisions	**–**	1
Expensed as incurred	**–**	17
Acquisition, divestment and related costs:		
Cash costs		
Charged to provisions	**–**	2
Expensed as incurred	**91**	25
Non-cash items		
Fixed asset impairment	**1**	–
Reversal of inventory step-ups	**–**	13
Other non-cash restructuring:		
Non-current asset impairment	**29**	24
Total restructuring	**388**	206

Restructuring for the years ended December 31, 2015 and 2014 is presented within the consolidated income statement as follows:

($m)	2015	2014
Reported as:		
Cost of goods sold	**–**	13
General and administrative	**388**	193
Total restructuring	**388**	206

2015

Accelerating operational leverage programs

Cash costs of $228 million, including $127 million of severance and pension charges, consist of $77 million for initiatives to restructure marketing and commercial operations, $43 million for projects to drive efficiencies in territory commercial operations, $48 million to rationalize logistical operations and optimize production capacity, $36 million for Research and Development productivity projects, $17 million for projects to increase the effectiveness of back office support services and $7 million for project management. The pension curtailment gain consists of the difference between the cash contributions payable on early retirements and the calculation of net pension curtailment costs according to IFRS, with regards to the Swiss defined benefit pension plan. Cash costs for early retirements are included in the cash costs of various projects described above. Non-cash impairment costs of $33 million consist of tangible asset write-downs at three sites resulting from projects to rationalize logistical operations and optimize production capacity.

Integrated crop strategy programs

Cash costs of $27 million include $20 million of charges for the transfer of certain system and process management activities to the internal service center in India, including $11 million for information system projects, $1 million to restructure the integrated Research and Development function, $1 million to restructure the Human Resource organization and $5 million of corporate headquarter and other costs.

6. Restructuring continued

Acquisition, divestment and related costs
Cash costs of $91 million include $8 million incurred to integrate previous acquisitions, mainly the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen, PSB and MRI. A further $83 million represents transaction charges, including costs related to potential industry consolidation transactions, such as the proposals received from Monsanto Company, as well as costs associated with the separation and planned divestment of the Flowers and Vegetables Seeds businesses announced during 2015. The impairment relates to fixed assets acquired with the German and Polish winter wheat and winter oilseed rape breeding and business operations of Lantmännen.

Other non-cash restructuring
Other non-current asset impairment of $29 million includes $20 million to impair the assets of a seeds crop where expectations of future operating profitability have reduced, $7 million of impairment of exclusive distribution rights where the distribution agreement has been terminated and $2 million for two other intangible asset impairments.

2014

Accelerating operational leverage programs
In February 2014, Syngenta commenced the restructuring program to drive further improvements in operating income margins and accelerate delivery of operational leverage as sales grow. 2014 cash costs of $49 million included $14 million for initiatives to restructure marketing and commercial operations, $13 million for projects to drive efficiencies in territory commercial operations, particularly in Latin America, $11 million to rationalize logistical operations and optimize production capacity, $5 million for Research and Development productivity projects, and $6 million for project management. Non-cash charges consisted of $1 million for the impairment of a site, which is closed, and $13 million for inventory write-downs due to a significant rationalization of the Vegetables product range.

Integrated crop strategy programs
Cash costs of $61 million included $24 million of charges for the transfer of certain system and process management activities to a new internal service center in India, including severance and pension costs of $11 million, $25 million for the development and rollout of processes and training programs for marketing the integrated Crop Protection and Seeds product offers and related commercial reorganization, $4 million for information system projects, $4 million to restructure the integrated Research and Development function, $2 million to restructure the Human Resource organization and $2 million for legal entity rationalization projects.

Operational efficiency programs
The operational efficiency restructuring programs announced in 2004 and 2007 were substantially complete. The final expenditures of $18 million in 2014 largely related to the rollout of standardized and outsourced human resource support services.

Acquisition, divestment and related costs
Cash costs of $27 million included $21 million incurred to integrate previous acquisitions, mainly Devgen, MRI, PSB, and the Polish and German winter wheat and oilseed rape breeding and business operations of Lantmännen. A further $6 million consisted of transaction costs, including those related to uncompleted transactions. Reversal of inventory step-up related to the MRI and PSB acquisitions.

Other non-cash restructuring
Other non-cash restructuring consisted of $20 million of fixed asset impairments, including $14 million for plant and machinery in Brazil and Canada due to significant changes in production processes and $6 million for development costs of major plant expansion projects that were subsequently aborted, and $4 million for the impairment of loan notes related to strategic venture capital investments.

7. Income taxes

Income before taxes from continuing operations for the years ended December 31, 2015 and 2014 consists of the following:

($m)	2015	2014
Switzerland	849	624
Foreign	743	1,271
Total income before taxes	**1,592**	1,895

Income tax (expense)/benefit on income from continuing operations for the years ended December 31, 2015 and 2014 consists of the following:

($m)	2015	2014
Current income tax (expense):		
Switzerland	(47)	(99)
Foreign	(117)	(355)
Total current income tax (expense)	**(164)**	(454)
Deferred income tax (expense)/benefit:		
Switzerland	(4)	60
Foreign	(80)	121
Total deferred income tax (expense)/benefit	**(84)**	181
Total income tax (expense):		
Switzerland	(51)	(39)
Foreign	(197)	(234)
Total income tax (expense)	**(248)**	(273)

7. Income taxes continued

The components of current income tax (expense) on income from continuing operations for the years ended December 31, 2015 and 2014 are:

($m)	2015	2014
Current tax (expense) relating to current years	(271)	(521)
Adjustments to current tax for prior periods	90	10
Utilization of tax losses against taxable income	15	54
Benefit of previously unrecognized tax losses	2	3
Total current income tax (expense)	**(164)**	(454)

The components of deferred income tax (expense)/benefit on income from continuing operations for the years ended December 31, 2015 and 2014 are:

($m)	2015	2014
Origination and reversal of temporary differences	27	272
Changes in tax rates or legislation	5	4
Other adjustments to deferred tax for prior periods	(50)	–
Utilization of tax losses previously recognized as deferred tax assets	(15)	(54)
Benefit of previously unrecognized deferred tax assets	34	22
Non-recognition of deferred tax assets	(85)	(63)
Total deferred income tax (expense)/benefit	**(84)**	181

OCI and income tax relating thereto, for each component of equity, for the years ended December 31, 2015 and 2014 is as follows:

	2015			2014		
($m)	Pre-tax	Tax	Post-tax	Pre-tax	Tax	Post-tax
Items that will not be reclassified to profit or loss:						
Fair value reserves: Equity investments at fair value through OCI	(3)	(1)	(4)	(33)	4	(29)
Retained earnings: Actuarial gains/(losses)	(61)	11	(50)	(511)	123	(388)
Items that may be reclassified to profit or loss:						
Fair value reserves: Cash flow and net investment hedges	38	(10)	28	(37)	5	(32)
Currency translation effects	(698)	(64)	(762)	(625)	(70)	(695)
Total	**(724)**	**(64)**	**(788)**	(1,206)	62	(1,144)

The following tax was (charged)/credited to shareholders' equity for the years ended December 31, 2015 and 2014:

($m)	2015	2014
Current tax [1]	12	(1)
Deferred tax [1]	(3)	(5)
Total income tax (charged)/credited to equity	**9**	(6)

1 Current and deferred tax related to share based payments

Analysis of tax rate

The table below presents the main elements causing Syngenta's effective tax rate to differ from the statutory tax rate for the years ended December 31, 2015 and 2014. Syngenta's statutory rate consists of the domestic Swiss tax rate. Syngenta applies the domestic Swiss tax rate as it is more meaningful than using the weighted average tax rate.

The domestic Swiss tax rate consists of the Swiss federal income tax rate (8.50 percent) and the income tax rate of the canton Basel (20.00 percent). Federal and canton tax rates are deductible from the tax basis, therefore the Swiss domestic tax rate is 22.18 percent in 2015 and 2014.

	2015 %	2014 %
Statutory tax rate	22	22
Effect of income taxed at different rates	(8)	(4)
Tax deduction for amortization and impairments not recognized for IFRS	(2)	(3)
Effect of other disallowed expenditures and income not subject to tax	(3)	(1)
Effect of recognition of previously unrecognized deferred tax assets	(2)	(1)
Changes in prior year estimates and other items	4	(2)
Effect of non-recognition of deferred tax assets	5	3
Effective tax rate	**16**	14

7. Income taxes continued

Effect of income taxed at different rates includes rate differences from the domestic Swiss tax rate attributable to income generated from intellectual property that is taxed at reduced rates and the effect of lower tax rates in certain countries with regard to treasury, investment, group funding and regional management activities as well as logistical operations management. In most of these countries, Syngenta has entered into advanced pricing agreements.

The movements in deferred tax assets and liabilities during the year ended December 31, 2015 are as follows:

2015 ($m)	January 1	Recognized in net income	Recognized in equity and OCI	Currency translation effects	Other movements and acquisitions	December 31
Assets associated with:						
Inventories	544	5	(100)	(36)	–	413
Accounts receivable	264	(40)	–	(45)	–	179
Pensions and employee costs	161	9	8	(16)	(1)	161
Provisions	342	30	–	(32)	(2)	338
Unused tax losses	38	–	–	4	(2)	40
Financial instruments, including derivatives	21	(5)	–	2	–	18
Other	24	6	–	(9)	15	36
Deferred tax assets	1,394	5	(92)	(132)	10	1,185
Liabilities associated with:						
Property, plant and equipment	(322)	(19)	–	5	(9)	(345)
Intangible assets	(293)	19	–	5	(8)	(277)
Inventories	(147)	(24)	35	32	–	(104)
Financial instruments, including derivatives	(42)	(1)	1	–	–	(42)
Other provisions and accruals	(183)	(13)	–	1	–	(195)
Other	(64)	(51)	–	7	1	(107)
Deferred tax liabilities	(1,051)	(89)	36	50	(16)	(1,070)
Net deferred tax asset/(liability)	343	(84)	(56)	(82)	(6)	115

The movements in deferred tax assets and liabilities during the year ended December 31, 2014 are as follows:

2014 ($m)	January 1	Recognized in net income	Recognized in equity and OCI	Currency translation effects	Other movements and acquisitions	December 31
Assets associated with:						
Inventories	622	16	(72)	(20)	(2)	544
Accounts receivable	242	65	–	(43)	–	264
Pensions and employee costs	96	(45)	118	(8)	–	161
Provisions	269	100	–	(27)	–	342
Unused tax losses	90	(54)	–	(2)	4	38
Financial instruments, including derivatives	14	(1)	2	–	6	21
Other	7	(6)	–	23	–	24
Deferred tax assets	1,340	75	48	(77)	8	1,394
Liabilities associated with:						
Property, plant and equipment	(327)	–	–	15	(10)	(322)
Intangible assets	(282)	8	–	10	(29)	(293)
Inventories	(162)	(14)	–	33	(4)	(147)
Financial instruments, including derivatives	(19)	6	(23)	–	(6)	(42)
Other provisions and accruals	(325)	121	–	21	–	(183)
Other	(59)	(15)	4	6	–	(64)
Deferred tax liabilities	(1,174)	106	(19)	85	(49)	(1,051)
Net deferred tax asset/(liability)	166	181	29	8	(41)	343

7. Income taxes continued

The deferred tax assets and liabilities at December 31, 2015 and 2014 reconcile to the amounts presented in the consolidated balance sheet as follows:

($m)	2015	2014
Deferred tax assets	**1,185**	1,394
Adjustment to offset deferred tax assets and liabilities[1]	**(402)**	(386)
Adjusted deferred tax assets	**783**	1,008
Deferred tax liabilities	**(1,070)**	(1,051)
Adjustment to offset deferred tax assets and liabilities[1]	**402**	386
Adjusted deferred tax liabilities	**(668)**	(665)

1 Deferred tax assets and liabilities relating to income taxes levied by the same taxation authority on the same taxable entity or on entities which intend to settle current tax assets and liabilities on a net basis or to realize the assets and settle the liabilities simultaneously are offset for presentation on the face of the consolidated balance sheet where a legal right of set-off exists

The gross value at December 31, 2015 and 2014 of unused tax loss carry forwards for which no deferred tax asset has been recognized, by expiration date, is as follows:

($m)	2015	2014
One year	**2**	3
Two years	**2**	3
Three years	**–**	6
Four years	**3**	4
Five years	**13**	5
More than five years	**772**	614
No expiry	**64**	12
Total	**856**	647

The above losses consist mainly of US state tax loss carry forwards. The applicable tax rate for these US state tax carry forwards is 5 percent of the gross amounts.

Deferred tax assets, other than those related to unused tax losses, are not subject to expiry.

A deferred tax asset or liability has not been recognized at December 31, 2015 and 2014 on the following items:

($m)	2015	2014
Temporary differences for which no deferred tax assets have been recognized	**342**	373
Temporary differences associated with investments in subsidiaries for which deferred tax liabilities have not been recognized	**695**	822

There are no income tax consequences for Syngenta of paying a dividend to its shareholders.

8. Earnings per share

Basic earnings per share amounts are calculated by dividing net income for the year attributable to ordinary shareholders of Syngenta AG by the weighted average number of ordinary shares outstanding during the year.

Diluted earnings per share amounts are calculated by dividing the net income attributable to ordinary shareholders of Syngenta AG by the sum of the weighted average number of ordinary shares outstanding during the year plus the weighted average number of ordinary shares that would be issued on the conversion of all the dilutive potential ordinary shares into ordinary shares. For each year presented, unvested share awards subject to Syngenta specific performance conditions are included in potential ordinary shares only if those conditions would have been met based on cumulative actual performance from the start of the performance period up to December 31 in the year concerned.

Treasury shares are deducted from total shares in issue for the purposes of calculating earnings per share.

The calculation of diluted earnings per share for the year ended December 31, 2015 excluded 713,803 (2014: 588,865) of Syngenta AG shares and options granted to employees, as their inclusion would have been antidilutive.

($m, except number of shares)	2015	2014
Net income attributable to Syngenta AG shareholders	**1,339**	1,619
Weighted average number of shares		
Weighted average number of shares – basic	**91,908,128**	91,674,127
Adjustments for dilutive potential ordinary shares:		
Grants of options over Syngenta AG shares under employee share participation plans	**120,317**	116,338
Grants of Syngenta AG shares under employee share participation plans	**178,090**	216,624
Weighted average number of shares – diluted	**92,206,535**	92,007,089

9. Trade and other accounts receivable

Trade receivables at December 31, 2015 and 2014 are as follows:

($m)	2015	2014
Trade receivables, gross	**4,447**	3,949
Provision for doubtful trade receivables	**(319)**	(251)
Trade receivables, net	**4,128**	3,698

Movements in the provision for doubtful trade receivables for the years ended December 31, 2015 and 2014 are as follows:

($m)	2015	2014
January 1	**(251)**	(226)
Amounts charged to income	**(75)**	(63)
Amounts written off	**7**	13
Currency translation effects and other	**–**	25
December 31	**(319)**	(251)

The ages of trade and other accounts receivable at December 31, 2015 and 2014 that were past due, but not impaired, are as follows:

2015 ($m)	**Total past due**	**0–90 days**	**90–180 days**	**More than 180 days**
Trade receivables, gross	**670**	**277**	**109**	**284**
Provision for doubtful trade receivables	**(259)**	**(8)**	**(26)**	**(225)**
Other accounts receivable	**395**	**277**	**49**	**69**
Total	**806**	**546**	**132**	**128**

2014 ($m)	Total past due	0–90 days	90–180 days	More than 180 days
Trade receivables, gross	575	306	91	178
Provision for doubtful trade receivables	(184)	(9)	(26)	(149)
Other accounts receivable	332	182	18	132
Total	723	479	83	161

At the reporting date there are no indications that debtors whose accounts are neither overdue nor impaired will not meet their payment obligations. The carrying amount of trade receivables includes $46 million (2014: $35 million) that are due more than one year from the balance sheet date.

The carrying amount of trade receivables transferred in full and partial recourse factoring arrangements, but not derecognized is $144 million (2014: $187 million). Related liabilities of $144 million (2014: $187 million) are disclosed in Note 16. The amount of these receivables before the transfer transactions was $151 million (2014: $361 million). Additionally, in 2015 Syngenta transferred $102 million of trade receivables to a securitization entity and received $81 million cash from third party investors in that entity. Those investors have recourse for repayment of their investment only to the cash flows from the securitized Syngenta receivables. Syngenta is exposed to expected losses on these receivables through its subordinated first loss interest in the securitization issuance and has continued to recognize the full $102 million carrying amount of the receivables at December 31, 2015. The net position of $21 million represents Syngenta's maximum exposure to losses, subject to compliance with the terms of this arrangement. Syngenta has recognized the $81 million cash received in current financial debt. The fair value of these receivables and liabilities at December 31, 2015 is not significantly different from their carrying amounts.

The fair value of trade receivables containing embedded exchange rate options that Syngenta has classified as at fair value through profit or loss at December 31, 2015 was $105 million (2014: $191 million). These amounts represent Syngenta's maximum exposure to credit risk relating to these types of trade receivables. Amounts charged to profit or loss in relation to these trade receivables for the years ended December 31, 2015 and 2014 were not material.

Other accounts receivable of $845 million (2014: $747 million) include income taxes recoverable of $124 million (2014: $89 million) and are net of immaterial provisions for doubtful accounts.

10. Other current assets

Other current assets at December 31, 2015 and 2014 are as follows:

($m)	2015	2014
Prepaid expenses	**168**	155
Non-current assets classified as held for sale	**39**	5
Assets held under barter agreements	**81**	60
Other	**50**	24
Total	**338**	244

Non-current assets classified as held for sale relate to assets at one manufacturing site.

11. Inventories

Inventories at December 31, 2015 and 2014 are as follows:

($m)	2015	2014
Raw materials and consumables	**895**	1,034
Biological assets	**29**	31
Work in progress	**1,019**	970
Finished products	**2,402**	2,826
Total	**4,345**	4,861

Movements in inventory write-downs for the years ended December 31, 2015 and 2014 are as follows:

($m)	2015	2014
January 1	**(422)**	(457)
Additions charged to income	**(285)**	(289)
Reversals of inventory write-downs	**74**	50
Amounts utilized on disposal of related inventories	**259**	306
Currency translation effects and other	**41**	(32)
December 31	**(333)**	(422)

Reversals of inventory write-downs arise in the normal course of business when actual outcomes are more favorable than assumptions made in prior periods about Syngenta's future ability to sell inventories that are subject to risks of degradation and obsolescence, such as germination of seeds.

Movements in biological assets for the years ended December 31, 2015 and 2014 are as follows. These include amounts classified as other non-current assets.

($m)	2015	2014
January 1	**32**	36
Changes in fair value	**135**	151
Additions to cost	**7**	4
Sales and harvest	**(140)**	(156)
Currency translation effects and other	**(3)**	(3)
December 31	**31**	32
Of which: carried at fair value less costs to sell	**29**	28

Syngenta's inputs for measuring the fair value of those assets that are carried at fair value less costs to sell include both market data from actual sales and inputs based on the stage of growth of immature assets, which is not observable in the market. The fair values therefore represent a level 3 measurement in the fair value hierarchy as defined by IFRS 13. Their sensitivity to changes in the unobservable inputs is not material to the consolidated financial statements.

Quantities of biological assets in inventories at December 31, 2015 and 2014 are:

	2015	2014
(Millions of plants)		
Plants	**65**	72
Cuttings	**530**	482
(Thousands of hectares cultivated)		
Growing crops	**1**	–

12. Property, plant and equipment

Movements in property, plant and equipment for the year ended December 31, 2015 are as follows:

2015 ($m)	Land	Buildings	Machinery and equipment	Assets under construction	Total
Cost					
January 1	181	2,012	4,961	552	7,706
Additions	2	47	200	229	478
Disposals	(2)	(8)	(130)	(4)	(144)
Classified as held-for-sale	(1)	(17)	(74)	(6)	(98)
Transfers between categories	6	75	222	(303)	–
Currency translation effects and other	(8)	(98)	(294)	(56)	(456)
December 31	178	2,011	4,885	412	7,486
Accumulated depreciation and impairment losses					
January 1	–	(1,072)	(3,072)	–	(4,144)
Depreciation charge	–	(66)	(283)	–	(349)
Impairment losses	–	(8)	(35)	–	(43)
Depreciation on disposals	–	6	113	–	119
Classified as held-for-sale	–	6	49	–	55
Currency translation effects and other	–	54	205	–	259
December 31	–	(1,080)	(3,023)	–	(4,103)
Net book value – December 31	178	931	1,862	412	3,383

Additions to property, plant and equipment of $478 million (2014: $713 million) comprise $453 million (2014: $600 million) of cash purchases and $25 million (2014: $113 million) of other additions, including business combinations, initial recognition of finance leases and capitalized borrowing costs.

The net book value of property, plant and equipment accounted for as finance lease assets at December 31, 2015 was $72 million (2014: $101 million) of which $61 million is classified as Machinery and equipment (2014: $87 million) and $11 million is classified as Buildings (2014: $14 million).

Movements in property, plant and equipment for the year ended December 31, 2014 were as follows:

2014 ($m)	Land	Buildings	Machinery and equipment	Assets under construction	Total
Cost					
January 1	157	2,049	4,940	501	7,647
Additions	43	74	203	393	713
Disposals	(1)	(31)	(90)	(5)	(127)
Transfers between categories	8	68	215	(291)	–
Currency translation effects and other	(26)	(148)	(307)	(46)	(527)
December 31	181	2,012	4,961	552	7,706
Accumulated depreciation and impairment losses					
January 1	–	(1,124)	(3,017)	–	(4,141)
Depreciation charge	–	(67)	(298)	–	(365)
Impairment losses	–	–	(21)	–	(21)
Depreciation on disposals	–	31	82	–	113
Currency translation effects and other	–	88	182	–	270
December 31	–	(1,072)	(3,072)	–	(4,144)
Net book value – December 31	181	940	1,889	552	3,562

13. Intangible assets

Movements in intangible assets for the year ended December 31, 2015 are as follows:

2015 ($m)	Goodwill	Product rights	Trademarks	Patents	Software	Other intangibles	Total
Cost							
January 1	1,934	2,958	85	52	399	358	5,786
Additions from business combinations	8	16	1	–	16	(16)	25
Other additions	–	13	–	–	41	38	92
Retirements and disposals	–	(2)	(1)	(4)	(10)	(10)	(27)
Currency translation effects	(33)	(18)	(1)	–	(5)	(6)	(63)
December 31	1,909	2,967	84	48	441	364	5,813
Accumulated amortization and impairment losses							
January 1	(274)	(1,858)	(38)	(27)	(289)	(114)	(2,600)
Amortization charge	–	(125)	(5)	(4)	(28)	(28)	(190)
Impairment losses	–	–	(9)	(3)	–	(10)	(22)
Retirements and disposals	–	–	1	5	10	8	24
Currency translation effects	4	4	–	1	3	3	15
December 31	(270)	(1,979)	(51)	(28)	(304)	(141)	(2,773)
Net book value – December 31	1,639	988	33	20	137	223	3,040

Other additions in 2015 and 2014 include intangible assets arising from license agreements involving non-monetary exchanges or where the cash flows related to the acquisition of the asset are payable over several years. Internally developed intangible assets of $62 million (2014: $37 million) are included within other additions. Cash paid to acquire and develop intangible assets was $90 million (2014: $82 million).

Amortization is included partly within cost of goods sold and partly within general and administrative expenses.

Other intangibles consist principally of values assigned to leases, supply contracts, production know-how and customer relationships acquired in business combinations.

Movements in intangible assets for the year ended December 31, 2014 were as follows:

2014 ($m)	Goodwill	Product rights	Trademarks	Patents	Software	Other intangibles	Total
Cost							
January 1	1,949	3,361	90	68	414	379	6,261
Additions from business combinations	35	25	–	–	–	4	64
Other additions	–	30	–	–	34	45	109
Retirements and disposals	–	(338)	–	(8)	(9)	(51)	(406)
Currency translation effects	(50)	(120)	(5)	(8)	(40)	(19)	(242)
December 31	1,934	2,958	85	52	399	358	5,786
Accumulated amortization and impairment losses							
January 1	(280)	(2,084)	(36)	(36)	(300)	(144)	(2,880)
Amortization charge	–	(175)	(5)	(4)	(30)	(29)	(243)
Retirements and disposals	–	338	–	8	9	51	406
Currency translation effects	6	63	3	5	32	8	117
December 31	(274)	(1,858)	(38)	(27)	(289)	(114)	(2,600)
Net book value – December 31	1,660	1,100	47	25	110	244	3,186

13. Intangible assets continued

The net book value at December 31, 2015 and 2014 of goodwill is allocated to Syngenta's operating segments and other CGUs as summarized below:

($m)	2015	2014
Allocated to operating segments:		
Europe, Africa and Middle East (EAME)	235	235
North America	197	197
Latin America	173	173
Asia Pacific	338	355
Lawn and Garden	35	37
Total allocated to operating segments	**978**	997
Allocated to other individual CGUs:		
North America Corn and Soybean seed	315	315
Other, not individually significant	346	348
Total allocated to other individual CGUs	**661**	663
Total goodwill	**1,639**	1,660

Goodwill on recent acquisitions which had not yet been allocated to a CGU was not material at December 31, 2015 or 2014.

14. Financial and other non-current assets

Financial and other non-current assets at December 31, 2015 and 2014, are as follows:

($m)	2015	2014
Equity securities at fair value through OCI (Note 28)	73	71
Other non-current receivables	259	313
Defined benefit post-employment benefit asset (Note 22)	35	8
Long-term derivative financial assets (Note 28)	29	28
Total financial and other non-current assets	**396**	420
Investments in associates and joint ventures	177	188
Total	**573**	608

None of Syngenta's investments in associates and joint ventures are publicly quoted. At December 31, 2015, these investments consist mainly of $101 million (2014: $108 million) for a 50 percent ownership of CIMO Compagnie Industrielle de Monthey SA, Switzerland (CIMO), which provides utilities services to Syngenta and other occupants of the Monthey manufacturing site, $41 million (2014: $40 million) for a 49 percent ownership of Sanbei Seeds Co. Ltd., China and $27 million (2014: $31 million) for a 40 percent ownership of Maisadour Semences SA, France (Maisadour). The latter two entities produce and sell seeds. Maisadour sells seeds to Syngenta.

During 2015, Syngenta's share of CIMO's actuarial losses recognized in OCI is $12 million (2014: actuarial losses of $10 million). Other effects on Syngenta's consolidated income statement for the periods presented, or any financial statement line items of the above associates and joint ventures themselves, are not material.

Transactions between Syngenta and its associates and joint ventures during the year ended December 31, 2015 are as follows:

- Goods and services provided by Syngenta to its associates and joint ventures $14 million (2014: $6 million)
- Goods and services provided by associates and joint ventures to Syngenta $117 million (2014: $120 million)
- Non-current assets and research and development provided by Syngenta to an associate of $3 million (2014: $nil).

At December 31, 2015 Syngenta has accounts receivable and accrued income from associates and joint ventures of $4 million (2014: $nil) and accrued liabilities to associates and joint ventures of $15 million (2014: $10 million).

A bank overdraft guarantee of $7 million (2014: $7 million) has been provided to an associate.

On November 12, 2013 Syngenta agreed to advance EUR 9 million ($10 million at December 31, 2015 currency translation rates) to its associated company Maisadour for 7 years to help finance the planned expansion of corn seed processing capacity in Maisadour Ukraine LLC, a subsidiary of Maisadour, which is a supplier of corn seeds to Syngenta. This current account advance will be made in instalments when called by Maisadour and bears a market rate of interest. At December 31, 2015 the balance outstanding was $6 million (2014: $7 million). By a deed between Syngenta, Maisadour and the European Bank for Reconstruction and Development (EBRD), repayment of the principal is subordinated to a loan between the EBRD and Maisadour Ukraine LLC which is guaranteed by Maisadour.

15. Trade accounts payable

The contractual maturities of trade accounts payable at December 31, 2015 and 2014 are as follows:

($m)	Total	0–90 days	90–180 days	180 days–1 year
2015	**3,311**	**2,167**	**212**	**932**
2014	3,472	2,430	124	918

16. Current financial debt and other financial liabilities

Current financial debt at December 31, 2015 and 2014 is as follows:

($m)	2015	2014
Bank and other short-term financial debt	308	325
Receivables factored with recourse	225	187
Current portion of long-term financial debt (Note 18)	14	625
Total current financial debt	**547**	1,137
Short-term derivative and other financial liabilities	183	192
Total	**730**	1,329

16. Current financial debt and other financial liabilities continued

The following table presents additional information related to short-term borrowings at December 31, 2015:

2015 ($m)	Amount outstanding at December 31	Weighted average interest rate on outstanding balance	Average amount outstanding for the year	Weighted average interest rate on average outstanding balance	Maximum month-end amount during the year
Bank and other short-term financial debt	**308**	**4.3%**	**788**	**2.3%**	**1,827**
Receivables factored with recourse	**225**	**18.5%**	**170**	**18.5%**	**231**
Current portion of financial debt (Note 18)	**14**	**n/a**	**159**	**5.4%**	**568**
Total	**547**	**10.2%**	**1,117**	**5.2%**	
2014	1,137	6.6%	1,643	5.2%	

The contractual maturities of current financial debt at December 31, 2015 and 2014 are as follows:

($m)	Total	0–90 days	90–180 days	180 days–1 year
2015	**547**	**216**	**136**	**195**
2014	1,137	271	704	162

The maturities of short-term derivative and other financial liabilities are presented in Note 27.

Information about fair values of financial liabilities is presented in Note 28.

17. Other current liabilities

Other current liabilities at December 31, 2015 and 2014 consist of the following:

($m)	2015	2014
Accrued short-term employee benefits	**303**	331
Taxes other than income taxes	**132**	120
Accrued interest payable	**–**	29
Accrued utility costs	**56**	70
Social security and pension contributions	**74**	97
Liabilities related to barter agreements	**73**	47
Other payables	**111**	135
Other accrued expenses	**234**	155
Total	**983**	984

The maturities of other current liabilities are as follows. For liabilities without a contractual maturity date, the analysis represents the estimated timing of cash outflows.

($m)	Total	0–90 days	90–180 days	180 days–1 year
2015	**983**	**644**	**147**	**192**
2014	984	744	76	164

18. Financial debt and other non-current liabilities

Financial debt and other non-current liabilities at December 31, 2015 and 2014 are as follows:

($m)	2015	2014
4.125% Eurobond 2015	**–**	608
Floating Eurobond 2017	**272**	303
0.750% CHF bond 2019	**353**	354
$ private placement notes	**260**	262
1.875% Eurobond 2021	**543**	605
3.125% $ Notes 2022	**519**	519
1.625% CHF bond 2024	**251**	252
1.250% Eurobond 2027	**540**	–
2.125% CHF bond 2029	**151**	151
4.375% $ Notes 2042	**248**	248
Unsecured bond issues and US private placement notes	**3,137**	3,302
Liabilities to banks and other financial institutions	**1**	4
Finance lease obligations	**59**	71
Total financial debt (including current portion)	**3,197**	3,377
Less: current portion of financial debt (Note 16)	**(14)**	(625)
Non-current derivative financial liabilities	**267**	175
Other non-current liabilities and deferred income	**51**	49
Total	**3,501**	2,976

Information about fair values of financial liabilities is presented in Note 28.

Other non-current liabilities and deferred income relates to license and acquisition agreements with several counterparties. Related cash flows of $14 million (2014: $14 million) are payable between one and five years and $37 million of deferred income at December 31, 2015 (2014: $35 million) will be recognized in income as related licensed product sales occur.

The weighted average interest rate on non-current bank and other financial debt outstanding at December 31, 2015 is 3.2 percent per annum (2014: 2.9 percent).

The weighted average interest rate on the combined current and non current bank and other financial debt outstanding at December 31, 2015 is 4.4 percent per annum (2014: 3.7 percent). The weighted average interest rates include the cost of financing emerging market borrowings.

Interest paid on non-current financial debt was $93 million (2014: $109 million). All non-current debt ranks equally.

18. Financial debt and other non-current liabilities continued

Syngenta AG has fully and unconditionally guaranteed on a senior unsecured basis the due and punctual payment of the principal of and any premium and interest on the debt securities issued by Syngenta Finance NV, which is an indirect, wholly-owned finance subsidiary. The guarantees will rank equally with all of Syngenta's other unsecured and unsubordinated debt. No other subsidiary of Syngenta guarantees such debt securities.

19. Provisions

Provisions at December 31, 2015 and 2014 are as follows:

($m)	2015	2014
Restructuring provisions	**84**	36
Employee benefits:		
Pensions (Note 22)	**383**	374
Other post-retirement benefits (Note 22)	**20**	19
Other long-term employee benefits	**63**	66
Environmental provisions	**209**	237
Provisions for legal and product liability settlements	**108**	108
Other provisions	**53**	52
Total	**920**	892

($m)	2015	2014
Current portion of:		
Restructuring provisions	**72**	27
Employee benefits	**45**	100
Environmental provisions	**28**	37
Provisions for legal and product liability settlements	**27**	33
Other provisions	**21**	19
Total current provisions	**193**	216
Total non-current provisions	**727**	676
Total	**920**	892

The timing of payment in respect of non-current provisions is, with few exceptions, not contractually fixed and cannot be estimated with certainty. Key assumptions and sources of estimation uncertainty are discussed in Note 2.

At December 31, 2015, Syngenta recognized $16 million (2014: $14 million) in Financial and other non-current assets in respect of virtually certain reimbursements related to the above provisions.

Syngenta has recorded provisions for environmental liabilities at some currently or formerly owned, leased and third party sites throughout the world. These provisions are estimates of amounts payable or expected to become payable and take into consideration the number of other potentially responsible parties at each site and the identity and financial positions of such parties in light of the joint and several nature of certain of the liabilities. The material components of Syngenta's environmental provisions are based on a risk assessment involving investigation of the various sites.

Provisions for legal and product liability settlements, all of which are individually immaterial, relate to various legal proceedings incidental to the normal conduct of Syngenta's business, including proceedings involving product liability claims, commercial claims, employment and wrongful termination claims, patent infringement claims, competition law claims, tax assessment claims, regulatory compliance claims, waste disposal claims and tort claims relating to the release of chemicals into the environment. Other provisions mainly comprise provisions for long-term contractual obligations under license and other agreements.

Movements in provisions for the year ended December 31, 2015 are as follows:

($m)	January 1	Charged to income	Release of provisions credited to income	Payments	Actuarial (gains)/losses	Transfers offset in defined benefit assets	Currency translation effects/other	December 31
Restructuring provisions:								
Employee termination costs	26	101	(2)	(66)	–	–	16	75
Other third party costs	10	52	–	(59)	–	–	6	9
Employee benefits:								
Pensions	374	148	–	(156)	36	5	(24)	383
Other post-retirement benefits	19	3	(1)	(8)	3	7	(3)	20
Other long-term employee benefits	66	6	(4)	(4)	–	–	(1)	63
Environmental provisions	237	3	(1)	(28)	–	–	(2)	209
Provisions for legal and product liability settlements	108	39	(8)	(25)	–	–	(6)	108
Other provisions	52	23	(4)	(15)	–	–	(3)	53
Total	892	375	(20)	(361)	39	12	(17)	920

Provisions for employee termination costs include severance, pension and other costs directly related to affected employees.

Provisions for other third party costs principally include payments for early termination of contracts with third parties related to redundant activities.

20. Share capital

Each Syngenta ordinary share carries one vote at the shareholders' meetings of Syngenta. Voting rights may be exercised only after a shareholder has been registered in Syngenta's share register. Registration as a shareholder with voting rights is subject to certain declarations on the ownership of Syngenta shares. The number of ordinary shares of par value CHF 0.10 that were authorized, issued, fully paid and outstanding at, and the movements during the years ended, December 31, 2015 and 2014 are presented in the table below.

The Board of Directors of Syngenta AG was authorized on April 24, 2012 to repurchase registered shares up to a maximum value of 10 percent of the company's share capital, for the purpose of capital reduction. On the basis of this authorization, Syngenta established a second trading line on the SIX Swiss Exchange ("SIX"), which was closed on October 15, 2015. At that date, 303,000 shares, out of an authorized maximum of 9,312,614 registered shares, had been repurchased. None of the repurchases were made during 2015.

On September 3, 2015, Syngenta announced its intention to return more than $2 billion of capital to shareholders through a new share repurchase program and consequently, Syngenta announced on October 16, 2015 the opening of a new second trading line on the SIX. Up to December 31, 2015, 231,500 shares have been repurchased through this new second trading line.

	2015		2014	
(Millions of shares)	Shares in issue	Treasury shares held	Shares in issue	Treasury shares held
January 1	92.9	(1.3)	93.1	(1.4)
Cancellation of treasury shares	–	–	(0.2)	0.2
Share repurchases	–	(0.4)	–	(0.4)
Issue of ordinary shares under employee share purchase and option plans	–	0.5	–	0.3
December 31	**92.9**	**(1.2)**	92.9	(1.3)

At December 31, 2015 and 2014 Syngenta had no open options accounted for as equity instruments.

21. Non-cash items included in income before taxes

The following table analyzes non-cash items included in income before taxes for the years ended December 31, 2015 and 2014:

($m)	2015	2014
Depreciation, amortization and impairment of:		
Property, plant and equipment	392	386
Intangible assets	212	243
Financial assets	1	4
Deferred revenue and gains	(19)	(34)
(Gains)/losses on disposal of non-current assets	(51)	(23)
Charges in respect of equity-settled share based compensation	74	63
Charges/(credits) in respect of provisions (Note 19)	355	(48)
Reduction in reimbursement receivable in respect of a provision	–	20
Financial expense, net	256	217
Gains on hedges reported in operating income	(10)	(13)
Income from associates and joint ventures	(7)	(7)
Total	**1,203**	808

22. Post-employment benefits

Syngenta has, apart from legally required social security arrangements, numerous independent pension plans, which are either "defined contribution" plans where company contributions and resulting benefit costs are a set percentage of employees' pay or "defined benefit" plans where benefits are generally based on employees' length of service and pensionable pay. Syngenta's contributions to defined contribution plans were $53 million for the year ended December 31, 2015 (2014: $42 million). Approximately 30 percent of Syngenta's employees are members of defined benefit plans and a significant proportion of these are members of both defined benefit and defined contribution plans. All of Syngenta's major defined benefit plans are funded through legally separate trustee administered funds. The cash funding of these plans, which may from time to time involve special payments, is designed to ensure that present and future contributions should be sufficient to meet future liabilities. Syngenta's main defined benefit pension plans are in the UK, Switzerland and the USA.

22. Post-employment benefits continued

UK

In accordance with its rules, Syngenta's UK Fund is governed by a company (the Trustee) that is controlled by a publicly listed independent professional trustee corporation. That corporation appoints the Trustee's directors, including its own representative, Syngenta nominated and member nominated directors. The Trustee manages the UK Fund and appoints professional advisers independently to assist it in doing so. The UK Fund is subject to UK pensions legislation, is regulated by the UK Pensions Regulator and is exempt from most UK taxation through its registered status. The defined benefit section of the UK Fund has been closed to new members since 2002. New employees since 2002 instead join a defined contribution pension plan. The defined benefit section of the UK Fund is open to future accrual for employees who were members before that date; however, effective January 1, 2016, pensionable pay for these employees will be frozen, as described in Note 2. At retirement date, defined benefit members have the right to take up to 25 percent of the value of their benefits as a lump sum, with the balance being paid as an annuity. Alternatively, after taking appropriate advice, members may transfer their defined benefits to a different pension arrangement.

The Trustee is required by the UK Fund's rules to increase pensions in payment and accrued deferred pension rights each year by the lower of 5 percent and price inflation, as measured by the UK Retail Price Index (RPI) or Consumer Price Index (CPI), as applicable. An independent actuary is required to value the UK Fund's liabilities in accordance with UK pension regulations and certify the required contributions, both for future service and elimination of any deficit, at least every three years. Following each such valuation, employer contribution amounts must be formally agreed between Syngenta and the Trustee, subject to review by the Pensions Regulator, and remain binding until re-assessed in the following valuation. The solvency of the UK Fund, defined as its ability to pay benefits as they fall due, is guaranteed by the sponsoring subsidiary, Syngenta Ltd. Syngenta AG has irrevocably and unconditionally undertaken to ensure Syngenta Ltd. will honor that guarantee. In addition, certain benefits under the UK Fund are guaranteed by the UK Pension Protection Fund.

The Trustee agrees the investment strategy for the UK Fund's assets and implements it through an investment sub-committee (the UK Investment Committee) it appoints from among the Trustee directors. The investment objectives are to ensure the assets are appropriately diversified and liquid to generate sufficient returns to meet the benefit liability and control the long term costs of the UK Fund. These objectives are achieved through appointing and monitoring a number of third party investment managers, each with specific investment mandates that collectively cover a wide range of investment classes and geographical markets and utilize both asset liability matching and return seeking strategies. Asset liability matching is achieved both through underlying investment class selection (e.g. fixed interest) and through using derivatives to limit the potential impact of changes in interest rates, price inflation and foreign currency exchange rates on the benefits payable by and assets of the UK Fund.

Switzerland

The Swiss federal law on occupational old age, survivors' and disability pensions ("BVG") sets minimum standards for occupational pension plans, which Syngenta's Swiss pension fund (the Swiss Fund) exceeds. All employees having had an employment contract for more than three months with any of Syngenta's Swiss subsidiaries or with its CIMO joint venture entity (see Note 14) and whose age and income exceed the minimum stipulated by BVG are automatically insured in the Swiss Fund. The benefits payable on retirement are calculated according to the capital sums that each member accumulates through transfer of benefits from previous employments, employer and employee contributions during service with Syngenta, interest and member voluntary contributions. Disability and survivors' death in service benefits are defined on the basis of the member's insured remuneration. Leavers before retirement are required to transfer their accumulated retirement and capital savings to the occupational pension plan of their new employment. The Swiss Fund is governed by a twelve member Board of Trustees. Six members, including the President, are nominated by Syngenta, and six are elected by insured plan members from among the employees. Its decisions regarding certain items, including rates of service and interest credits, conversion rates on retirement and plan asset investment strategy require a two-thirds majority vote. Legal conformity of the Swiss Fund's regulations is verified by the Swiss Pension Inspectorate. Syngenta's legal obligations, including required employer contributions, are defined in the pension fund rules which are agreed by the Board of Trustees.

Employer and employee contributions are payable according to an age related scale of percentages of pay. Under BVG, the Swiss Fund guarantees the vested benefit amount as confirmed annually to members. Interest may be added to member balances at the discretion of the Board of Trustees. Members have the right to take their retirement benefit as a lump sum, an annuity or part as a lump sum with the balance converted to a fixed annuity at the rates defined in the Fund's rules. The Board of Trustees may increase the annuity at their discretion subject to the Swiss Fund's funded status including sufficient free funds as determined according to Swiss statutory valuation rules. Syngenta accounts for the Swiss Fund as a defined benefit pension plan.

An actuarial balance sheet is usually drawn up annually, but at least every three years by the Swiss Fund's actuary. If the balance sheet reveals a deficit, the Board of Trustees defines appropriate measures to eliminate the deficit. If necessary, and after consultation with the actuary, the contributions payable by employees and by Syngenta may be increased or the benefits, including current pensions, may be adjusted to the funds available. The Board of Trustees manages the Swiss Fund's assets in conformity with the investment policy rules laid down by Swiss law, with the objectives of achieving investment that is secure, produces an appropriate yield and meets the liquidity needs of the Swiss Fund. This is implemented through an investment sub-committee similar to the UK Investment Committee mentioned above.

22. Post-employment benefits continued

USA

Syngenta's main US defined benefit pension plan (the US Plan) is a non-contributory defined benefit pension plan subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA) and the US Internal Revenue Code of 1986, as amended (Code). In addition, certain benefits under the US Plan are guaranteed by the US Pension Benefit Guaranty Corporation. The US Plan was closed to new members effective January 1, 2009. Employees joining Syngenta after that date participate in a defined contribution pension plan. The defined benefits of existing members of the US Plan were not affected by this change. The US Plan offers members the choice of taking their retirement benefits, which are generally based on their age, pay and years of service, as a full lump sum at retirement date or as a fixed annuity. In these financial statements, the benefit obligation has been valued assuming that current eligible members will take the lump sum option at normal retirement or other permissible commencement dates. This assumption is consistent with historical and expected future member choices.

US plan assets are held in a separate trust with State Street Bank and Trust Company as trustee and custodian. The assets must generally remain in the trust until all pension benefits are paid. An Investment Committee of Syngenta employees (the US Investment Committee), appointed by the Board of Directors of Syngenta Corporation, a wholly owned subsidiary of Syngenta AG, oversees the investment of the plan assets, either directly or through the appointment of investment managers. The US Investment Committee develops and implements an investment strategy that takes into account the liability profile of the US Plan. Asset classes are selected that include equities, fixed income and alternative assets. Interest rate derivatives may be used to hedge the interest rate risk of the US Plan. The Plan's key risks include interest rate risk that impacts the value of the liability and the fixed income assets of the US Plan, investment performance volatility, and to a lesser degree inflation and longevity risk. An actuarial valuation is required each year and is used to determine the valuation and characteristics of the liability of the US Plan.

Syngenta Corporation's funding policy is to contribute to the US Plan amounts necessary on an actuarial basis to at least satisfy the minimum funding requirements of the Code. Additional discretionary contributions above the minimum funding requirements can be made and are generally based on the annual service cost along with an adjustment for any over/under funding.

In 2015, the US Plan made a one-time lump sum payment offer to terminated vested participants who otherwise had no lump sum option, and made $52 million in lump sum benefit payments to terminated vested participants as a result. Syngenta accounted for this as a settlement of these participants' DBO, which was $57 million at the 4.25% discount rate at the settlement date.

Other plans

Within other plans, Syngenta recorded a one-time $33 million gain in 2014 for the settlement of its defined benefit obligation in the Netherlands. The revised pension plan meets the criteria for classification as a defined contribution plan.

The status of Syngenta's defined benefit plans at December 31, 2015 and 2014 using actuarial assumptions determined in accordance with IAS 19 is summarized below. The following tables provide reconciliations of benefit obligations, plan assets and funded status of the defined benefit pension plans to the amounts recognized in the consolidated balance sheet at December 31, 2015 and 2014:

($m)	**2015**	2014
Benefit obligations		
January 1	**6,198**	6,104
Current service cost	**147**	134
Past service cost/(gain)	**–**	(145)
Curtailments and settlements	**(42)**	(288)
Employee contributions	**39**	42
Interest cost	**164**	212
Actuarial (gains)/losses:		
From changes in demographic assumptions	**(20)**	22
From changes in financial assumptions	**54**	710
From actual experience compared to assumptions	**(130)**	49
Benefit payments	**(282)**	(218)
Currency translation effects and other	**(196)**	(424)
December 31	**5,932**	6,198
Of which arising from:		
Funded plans	**5,777**	6,009
Wholly unfunded plans	**155**	189

($m)	**2015**	2014
Plan assets at fair value		
At January 1	**5,841**	5,994
Actual return on plan assets	**59**	497
Employer contributions	**168**	185
Employee contributions	**39**	42
Curtailments and settlements	**(52)**	(256)
Benefit payments	**(282)**	(218)
Currency translation effects and other	**(165)**	(403)
December 31	**5,608**	5,841

Actual return on plan assets can be analyzed as follows:

($m)	**2015**	2014
Interest on plan assets	**156**	204
Actuarial gains/(losses)	**(97)**	293
Total	**59**	497

Funded status	**(324)**	(357)
Effect of asset ceiling[1]	**(63)**	(11)
Net accrued benefit liability	**(387)**	(368)
Amounts recognized in the balance sheet:		
Prepaid benefit costs (Note 14)	**21**	8
Accrued benefit liability	**(408)**	(376)
Net amount recognized	**(387)**	(368)

1 All material changes in the amount shown for the asset ceiling arose from the effect of applying the ceiling at each period end. Changes due to interest and foreign currency translation were immaterial

22. Post-employment benefits continued

Of the accrued benefit liability for pensions of $408 million at December 31, 2015, $383 million is included in Note 19 as pension provisions and $25 million as restructuring provisions (2014: $374 million as pension; $2 million as restructuring).

The following table shows the estimated undiscounted future defined benefit payments that are projected to occur within ten years from the balance sheet date. Actual payments may differ from those shown because of uncertain future events, including members' choice of benefit options as described above.

($m)	
2016	240
2017	245
2018	253
2019	269
2020	284
Years 2021–2025	1,519
Total 2016–2025	**2,810**

Syngenta's estimate of employer contributions to be paid to defined benefit plans in 2016 is $160 million, excluding restructuring costs. Actual payments could differ materially from this estimate if any new funding regulations or laws are enacted or due to business and market conditions, which may result in Syngenta prepaying contributions. Additional contributions, the amount and timing of which are uncertain, may also be required as Syngenta's restructuring programs are implemented.

In accordance with UK pension regulations, during the 2015 valuation Syngenta agreed with the UK pension plan Trustee to pay fixed contributions of $44 million in 2016, $41 million per year from 2017 to 2019 and $38 million in 2020 to meet the valuation deficit at March 31, 2015, administration costs and part of the costs of employee service in those years. The balance of the costs of employee service is payable as a percentage of pensionable pay in those years. In 2015 and 2014, $40 million of fixed contributions were paid. Additional variable contributions of up to $68 million in 2018 and $46 million in 2020 are also required to be paid if the actual percentage return on plan assets is less than the agreed assumption. No additional variable contributions were required to be made in 2015 or 2014 as the actual percentage return on plan assets during these years exceeded the agreed assumption in the applicable valuation.

The fair values of assets and liabilities of the major defined benefit pension plans, together with aggregated data for other defined benefit plans are as follows. Unquoted investments represent investments in pooled funds in which the underlying investments are unquoted or those where the pooled fund does not have liquidity on at least a weekly basis:

	Fair value ($m, except assumptions)					
At December 31, 2015	**Switzerland**	**UK**	**USA**	**Other plans**	**Total**	**%**
Investments quoted in active markets:						
Equities	559	331	154	22	1,066	19
Real estate funds	229	–	–	–	229	4
Bonds	774	628	267	25	1,694	30
Other assets	32	104	1	15	152	3
Unquoted investments:						
Equities	36	532	42	–	610	11
Real estate	28	138	–	–	166	3
Bonds	3	390	–	–	393	7
Other assets	372	478	201	–	1,051	19
Cash and cash equivalents	77	159	10	1	247	4
Fair value of assets	2,110	2,760	675	63	5,608	100
Benefit obligation	(2,343)	(2,717)	(655)	(217)	(5,932)	
of which:						
Active members	(1,402)	(554)	(371)			
Deferred members	n/a	(575)	(87)			
Pensioners and dependants	(941)	(1,588)	(197)			
Funded status	(233)	43	20	(154)	(324)	
Significant actuarial assumptions:						
Discount rate (%)	0.8	3.7	4.4	–	2.5	
Inflation (RPI) (%)	n/a	3.0	n/a			
Pensionable pay increase (%)	1.5	–	4.0			
Pension increase (%)	–	3.0	n/a			
Interest credit rate (%)	1.0	n/a	n/a			
Remaining life expectancy (years)						
male aged 63 in 2015	23.0	25.9	22.7			
female aged 63 in 2015	25.5	27.4	24.8			
male aged 63 in 2035	23.4	27.6	24.4			
female aged 63 in 2035	25.7	29.2	26.5			
Weighted average duration of benefit obligation (years)	23	17	9			

22. Post-employment benefits continued

Other assets include investments in private equity funds, diversified hedge funds, infrastructure funds, insurance funds and inflation, interest rate and foreign currency derivatives.

	Fair value ($m, except assumptions)					
At December 31, 2014	Switzerland	UK	USA	Other plans	Total	%
Investments quoted in active markets:						
Equities	509	406	186	27	1,128	19
Real estate funds	170	–	–	–	170	3
Bonds	805	648	346	28	1,827	31
Other assets	38	157	1	7	203	3
Unquoted investments:						
Equities	26	604	39	1	670	11
Real estate	23	87	–	–	110	2
Bonds	64	376	–	–	440	8
Other assets	329	446	187	–	962	17
Cash and cash equivalents	130	180	19	2	331	6
Fair value of assets	2,094	2,904	778	65	5,841	100
Benefit obligation	(2,141)	(3,032)	(794)	(231)	(6,198)	
of which:						
Active members	(1,321)	(559)	(423)			
Deferred members, pensioners and dependants	(820)	(2,473)	(371)			
Funded status	(47)	(128)	(16)	(166)	(357)	
Significant actuarial assumptions:						
Discount rate (%)	1.3	3.6	4.0	–	2.8	
Inflation (RPI) (%)	n/a	3.1	n/a			
Pensionable pay increase (%)	1.5	3.6	4.0			
Pension increase (%)	–	3.1	n/a			
Interest credit rate (%)	1.5	n/a	n/a			
Remaining life expectancy (years)						
male aged 63 in 2014	23.0	26.0	22.8			
female aged 63 in 2014	25.4	27.5	25.1			
male aged 63 in 2034	23.4	27.8	23.7			
female aged 63 in 2034	25.7	29.4	25.9			
Weighted average duration of benefit obligation (years)	21	17	11			

The following table provides an analysis of the benefit costs recorded in the consolidated income statement for the defined benefit pension plans for the years ended December 31, 2015 and 2014:

($m)	**2015**	2014
Current service cost	**147**	134
Past service cost/(gain)	**–**	(145)
Curtailments and settlements	**10**	(32)
Interest on the net defined benefit liability/(asset)	**8**	7
Net periodic benefit cost	**165**	(36)

Amounts recognized in OCI were as follows for the years ended December 31, 2015 and 2014:

($m)	**2015**	2014
Actuarial (gains)/losses	**1**	488
Effect of asset ceiling	**53**	2

The sensitivity of the benefit obligation to the significant actuarial assumptions is discussed in the "Critical accounting estimates" section of Note 2.

Other post-retirement benefits

Syngenta's net liability for other post-retirement benefits at December 31, 2015 was $7 million (December 31, 2014: $19 million) which comprised a defined benefit obligation of $153 million (2014: $167 million) and plan assets of $146 million (2014: $148 million). $20 million is reported within Other post-retirement benefits provision in Note 19 (2014: $19 million) and $14 million within Defined benefit post-employment benefit asset in Note 14 (2014: $nil). Actuarial gains recognized in OCI for the period were $5 million (2014: actuarial losses of $11 million). Expense recognized in the consolidated income statement, contributions to the other post-retirement benefit plans and benefit payments by the plans were not material for 2015 or 2014.

The assumed healthcare cost trend rate at December 31, 2015 was 7.0 percent, decreasing in each successive year from 2015 onwards, to reach an ultimate rate of 5.0 percent in 2022 (December 31, 2014: 7.2 percent decreasing to 5.0 percent in 2021).

23. Employee share participation plans

Employee and management share participation plans exist as follows. All plans are equity-settled except where stated.

Syngenta Long-Term Incentive Plans (LTI)

The Syngenta Long-Term Incentive Plans provide selected executives and key employees of Syngenta with the opportunity to obtain the right to purchase shares of Syngenta AG, or the equivalent American Depositary Shares (ADS) that are offered to selected executives and key employees in the USA. The grant of options for Syngenta shares is at the discretion of the Compensation Committee of Syngenta's Board of Directors ("Compensation Committee"), whose members are appointed by the Board of Directors of Syngenta ("Board").

In 2015, Syngenta created a new LTI plan for members of the Syngenta Executive Committee ("Executive Committee"). Except as described below, the terms of the Syngenta LTI plan and the Syngenta LTI plan for members of the Executive Committee have the same terms. With effect from the 2015 award, awards of shares and share options to members of the Executive Committee are subject to additional performance conditions, as well as a required three year service period. The Compensation Committee sets the performance conditions before the grant date of the awards. The performance achieved during the three year performance period, which starts on January 1 in the year of grant and ends on the third December 31 following, determines the number of shares and options that vest, subject to the approval of the Compensation Committee. In the event that the financial results used to calculate the vesting of the shares and options need to be restated subsequently, Syngenta retains the right to claw back a portion of the awards.

Until the 2012 award, the exercise prices were equal to either the weighted average share price on the SIX for the five business days preceding the grant date, or the share price on the SIX at the grant date, with the Compensation Committee having determined which of the two exercise prices were used for each grant year. For subsequent awards, the closing share price on the SIX at the grant date was used to set the equity grant value and exercise price. Options over ADSs are converted to US dollars at the exchange rate at the grant date, which may vary from the exchange rate at the exercise date. Standard options vest in full and are exercisable after completion of three years of service and terminate after 10 years from the grant date. Vesting can occur after less than three years in particular circumstances including redundancy and retirement. None of the options vest on a pro rata basis during the vesting period.

For share option awards to Executive Committee members, the number of options vesting varies from 0% to 125% of the award, depending on the quartile in which Syngenta's Total Shareholder Return (TSR), defined as share price movement plus dividends, has ranked relative to the TSR of a comparator group of 16 public international quoted companies, including Syngenta and its major competitors. Performance is calculated in US dollars and share prices and dividends quoted in currencies other than US dollars are translated into US dollars using the average exchange rate in each year ending December 31.

The following table sets out share option activity under these plans during 2015 and 2014, including the equivalent ADS, and summarizes information about share options outstanding at December 31, 2015 and 2014.

	Exercise price	Exercise price	Outstanding at January 1	Granted	Exercised	Forfeited/ other	Outstanding at December 31	Exercisable	Remaining contractual life
	(CHF)	($ equivalent [1])			(thousands of options)				(years)
Year ended December 31, 2015									
Awarded in 2004	89.3	90.0	7.3	–	(7.3)	–	–	–	–
Awarded in 2005	127.4	128.4	12.7	–	(12.6)	(0.1)	–	–	–
Awarded in 2006	185.0	186.4	34.4	–	(20.0)	–	14.4	14.4	0.25
Awarded in 2007	226.7	228.4	45.9	–	(14.1)	–	31.8	31.8	1.25
Awarded in 2008	301.5	303.8	64.8	–	(23.4)	–	41.4	41.4	2.25
Awarded in 2009	233.4	235.2	110.4	–	(28.2)	(0.1)	82.1	82.1	3.25
Awarded in 2010	283.7	285.9	70.1	–	(21.2)	–	48.9	48.9	4.25
Awarded in 2011	308.7	311.1	144.6	–	(51.2)	–	93.4	93.4	5.25
Awarded in 2012	300.4	302.7	248.2	–	(87.5)	(1.5)	159.2	159.2	6.25
Awarded in 2013	391.4	394.4	244.8	–	(5.7)	(12.3)	226.8	34.5	7.25
Awarded in 2014	325.9	328.4	340.2	–	(5.2)	(13.1)	321.9	43.7	8.25
Awarded in 2015	332.2	334.7	–	486.9	–	(6.4)	480.5	4.3	9.25
Total for year ended December 31, 2015			1,323.4	486.9	(276.4)	(33.5)	1,500.4	553.7	

1 At the December 31, 2015 exchange rate

23. Employee share participation plans continued

	Exercise price	Exercise price	Outstanding at January 1	Granted	Exercised	Forfeited/ other	Outstanding at December 31	Exercisable	Remaining contractual life
	(CHF)	($ equivalent[1])			(thousands of options)				(years)
Year ended December 31, 2014									
Awarded in 2003	59.7	60.4	6.9	–	(6.9)	–	–	–	–
Awarded in 2004	89.3	90.3	10.6	–	(9.6)	(1.0)	–	–	–
Awarded in 2004	89.3	90.3	19.3	–	(12.0)	–	7.3	7.3	0.25
Awarded in 2005	127.4	128.8	30.4	–	(17.7)	–	12.7	12.7	0.25
Awarded in 2006	185.0	187.0	43.2	–	(8.8)	–	34.4	34.4	1.25
Awarded in 2007	226.7	229.2	54.5	–	(8.6)	–	45.9	45.9	2.25
Awarded in 2008	301.5	304.8	75.4	–	(10.6)	–	64.8	64.8	3.25
Awarded in 2009	233.4	236.0	129.1	–	(18.5)	(0.2)	110.4	110.4	4.25
Awarded in 2010	283.7	286.8	80.1	–	(10.0)	–	70.1	70.1	5.25
Awarded in 2011	308.7	312.1	172.6	–	(27.2)	(0.8)	144.6	144.6	6.25
Awarded in 2012	300.4	303.7	264.0	–	(8.1)	(7.7)	248.2	10.0	7.25
Awarded in 2013	391.4	395.7	257.8	–	–	(13.0)	244.8	9.5	8.25
Awarded in 2014	325.9	329.5	–	347.8	–	(7.6)	340.2	7.3	9.25
Total for year ended December 31, 2014			1,143.9	347.8	(138.0)	(30.3)	1,323.4	517.0	

1 At the December 31, 2014 exchange rate

All fully vested options are exercisable.

The Long-Term Incentive Plan also grants selected executives and key employees of Syngenta restricted share units (RSUs) (or equivalent restricted ADSs for relevant Syngenta employees in the USA). RSUs (or equivalent restricted ADSs) are rights to receive the equivalent number of Syngenta AG shares for no payment at the end of a three-year vesting period. RSUs do not carry rights to dividends and the grant date fair value is reduced to reflect this. None of the RSUs or equivalent ADSs vest on a pro rata basis during the vesting period.

The Long-Term Incentive Plan for Syngenta Executive Committee members grants Syngenta performance share units (PSUs). PSUs are rights to receive the equivalent number of Syngenta AG shares for no payment at the end of a three-year vesting period, subject to performance. The number of PSUs vesting varies from 0% to 100% of the award, depending on achievement of defined targets for four specified long term metrics relating to financial and non-financial performance, each of which carries equal weighting for on target performance. Each year the Compensation Committee assesses performance against the targets for each metric, and the weighted sum of the assessment outcome represents one third of the eventual payout, subject to completion of the required service period.

The following table sets out RSU and PSU activity under these plans during 2015 and 2014 (including the equivalent restricted ADS for relevant Syngenta employees in the USA), and summarizes information about RSUs and PSUs outstanding at December 31, 2015 and 2014.

RSUs and PSUs	**Grant date fair value**	**Grant date fair value**	**Outstanding at January 1**	**Granted**	**Distributed**	**Forfeited/ other**	**Outstanding at December 31**	**Remaining life**
	(CHF)	**($ equivalent[1])**			**(thousands of shares)**			**(years)**
Year ended December 31, 2015								
Awarded in 2012	**277.0**	**305.6**	**76.0**	**–**	**(75.4)**	**(0.6)**	**–**	**–**
Awarded in 2013	**359.7**	**389.0**	**69.5**	**–**	**(8.5)**	**(3.1)**	**57.9**	**0.25**
Awarded in 2014	**298.5**	**332.6**	**95.6**	**–**	**(7.6)**	**(4.3)**	**83.7**	**1.25**
Awarded in 2015	**303.6**	**323.3**	**–**	**108.1**	**(0.9)**	**(2.1)**	**105.1**	**2.25**
Total for year ended December 31, 2015			**241.1**	**108.1**	**(92.4)**	**(10.1)**	**246.7**	
Year ended December 31, 2014								
Awarded in 2011	287.4	302.9	74.4	–	(74.4)	–	–	–
Awarded in 2012	277.0	305.6	83.9	–	(5.2)	(2.7)	76.0	0.25
Awarded in 2013	359.7	389.0	74.8	–	(2.4)	(2.9)	69.5	1.25
Awarded in 2014	298.5	332.6	–	98.4	(0.9)	(1.9)	95.6	2.25
Total for year ended December 31, 2014			233.1	98.4	(82.9)	(7.5)	241.1	

1 At the grant date exchange rate

23. Employee share participation plans continued

Share option valuation assumptions

The fair value of options granted was measured using the Black Scholes-Merton formula, except for the fair value of performance options awarded under the Executive Committee LTI plan, which was measured using the Monte Carlo method, adjusting the fair value for the relative TSR market condition. Except for the TSR adjustment, the measurement of fair value was not adjusted for any other feature of the option grant and no option grant was subject to a market condition. The effect of early exercise has been incorporated into the model by using an estimate of the option's expected life rather than its contractual life.

The weighted average assumptions used in determining the fair value of options granted were as follows:

	2015	2014
Dividend yield	**2.9%**	2.8%
Volatility	**19.2%**	20.1%
Risk-free interest rate – shares (CHF)	**0.0%**	1.0%
Risk-free interest rate – ADSs ($)	**2.1%**	2.8%
Risk-free interest rate – TSR adjustment	**(0.8)%**	n/a
Expected life	**7 years**	7 years
Exercise price (CHF per share)	**332.2**	325.9
Exercise price ($ equivalent per share[1])	**353.7**	363.1

1 At the grant date exchange rate

The dividend yield and volatility are management estimates for the life of the option, as no warrants or options over Syngenta AG shares for this period are widely traded. Both actual dividend yield and volatility may vary from the assumptions used above. The estimate of volatility takes into account the historical volatility of the Syngenta AG share price and the implied volatilities of such longer dated warrants that have been traded in the market. The volatility assumption for 2015, as measured at the grant date, was based on the 36-month historical volatility of Syngenta AG shares on the SIX. For the TSR adjustment, the correlation of the share prices of comparator companies has been measured using their historical daily returns over three years.

Syngenta Deferred Share Plan

The Syngenta Deferred Share Plan provides selected senior executives with an opportunity to obtain shares of Syngenta AG. The plan entitles participants to defer part of their annual short-term incentive awards in favor of Syngenta shares and to receive matching shares according to the rules of the plan. The grant date fair value of a deferred share and the corresponding matching share is the Syngenta share price on the grant date adjusted for the absence of dividend entitlement during the deferral period. Shares are deferred for a period of three years starting on the grant date. At the end of the deferral period, Syngenta matches the deferred shares on a one-for-one basis. A mandatory part of the short-term incentive is allocated as deferred shares. Additional voluntary deferrals within the limits of the plan can be made at the discretion of the participants. Vesting can occur before the end of three years in particular circumstances including retirement. None of the shares vest on a pro rata basis during the vesting period.

The following table sets out activity under this plan during 2015 and 2014 including the equivalent ADSs that are offered to Syngenta employees in the USA:

	Outstanding at January 1	Granted	Distributed	Outstanding at December 31	Remaining life
Year ended December 31, 2015		(thousands of shares)			(years)
Awarded in 2012	**45.9**	**–**	**(45.9)**	**–**	**–**
Awarded in 2013	**24.7**	**–**	**(6.2)**	**18.5**	**0.25**
Awarded in 2014	**1.2**	**–**	**(0.1)**	**1.1**	**1.25**
Awarded in 2015	**–**	**27.7**	**(3.1)**	**24.6**	**2.25**
Total for year ended December 31, 2015	**71.8**	**27.7**	**(55.3)**	**44.2**	
Year ended December 31, 2014					
Awarded in 2011	25.0	–	(25.0)	–	–
Awarded in 2012	51.5	–	(5.6)	45.9	0.25
Awarded in 2013	26.7	–	(2.0)	24.7	1.25
Awarded in 2014	–	1.3	(0.1)	1.2	2.25
Total for year ended December 31, 2014	103.2	1.3	(32.7)	71.8	

At the end of the deferral period, employees would be entitled to the following additional shares:

	Grant date fair value (CHF)	Grant date fair value ($ equivalent[1])	Thousands of shares
Awarded in 2013	359.7	389.0	18.5
Awarded in 2014	298.5	332.6	1.1
Awarded in 2015	**303.6**	**323.3**	**24.6**
Total			**44.2**

1 At the grant date exchange rate

None of these shares are vested as at December 31, 2015.

Employee share purchase plans

Syngenta has employee share purchase plans in various countries, which entitle employees to subscribe for shares in Syngenta AG with the benefit of either discounts from market value varying between 33 percent and 50 percent or a matching share. Shares issued under the plans vest immediately and are subject to blocking periods of between two and three years, with the exception of the UK plan, for which completion of three years' service is required before vesting. Maximum annual subscription amounts per employee vary between $500 and $3,000. In 2015, a total of 73,031 (2014: 73,840) shares were subscribed under these plans and settled through a release of treasury shares.

23. Employee share participation plans continued

Compensation expense

The compensation expense associated with employee share participation plans, which is measured indirectly by reference to the fair value of the equity instruments granted, is as follows for the years ended December 31, 2015 and 2014:

($m)	2015	2014
Long-Term Incentive Plan	45	42
Deferred Share Plan	6	7
Employee Share Purchase Plans	16	14
Total	67	63

Other information regarding the plans is as follows:

	2015	2014
Weighted average fair value of options granted during year (CHF per option)	36.8	46.4
Weighted average fair value of options granted during year ($ equivalent per option [1])	40.0	51.3
Weighted average share price at exercise date for options exercised during year (CHF per option)	370.9	329.4
Weighted average share price at exercise date for options exercised during year ($ equivalent per option [2])	392.7	366.3
Fair value of shares granted during year:		
Deferred Share Plan (CHF per unit) – combined value of basic and matching share award	607.2	597.0
Deferred Share Plan ($ equivalent per unit [1]) – combined value of basic and matching share award	646.5	665.2
Employee Share Purchase Plans (CHF per share)	165.3	166.6
Employee Share Purchase Plans ($ equivalent per share [1])	169.5	177.3
Employee Share Purchase Plan ($ per ADS)	25.7	21.8
Cash received from exercise of options and subscription for shares ($m)	85	53

1 At the grant date exchange rate
2 At the exercise date average exchange rate for the month

Syngenta has a policy of utilizing treasury shares to satisfy share option exercises and to meet share subscriptions and entitlements.

24. Transactions and agreements with related parties

Key management personnel are considered to be the members of the Syngenta Executive Committee and the Board of Directors. Their compensation is as follows for the years ended December 31, 2015 and 2014:

($m)	2015	2014
Fees, salaries and other short-term benefits	13	12
Post-employment benefits	2	2
Payments to end of contractual notice period	3	–
Share based compensation	15	12
Total	33	26

Members of the Syngenta Executive Committee and Board of Directors receive their cash compensation in Swiss francs. The compensation amounts presented above have been converted into US dollars using the average currency exchange rate in effect during each year reported. The average Swiss franc per US dollar exchange rate for the year ended December 31, 2015 is 0.96 (2014: 0.91).

Post-employment benefits includes healthcare, disability, death in service and pension costs.

The amount disclosed for share based compensation is the expense for the period calculated in accordance with IFRS 2, "Share Based Payment" and as described in Note 29, relating to key management personnel. The cost of a share based compensation award is spread over the vesting period of the award. Therefore the charge for each year comprises parts of that year's awards and those of preceding years that had not already vested at the start of the year.

Members of the Board, excluding the Chairman and the Chief Executive Officer, are eligible for the share plan for non-executive Directors. Eligible Directors define a percentage of their annual fee for compensation in shares and, in addition, choose between blocked shares or freely tradable shares. The Chairman receives a fixed part of his compensation in the form of blocked shares. Under these plans, members of the Board were allocated a total of 2,543 shares in lieu of cash compensation. These shares vest immediately and had a combined fair value at grant of $1 million (2014: $1 million).

Members of the Executive Committee are required to hold a minimum number of Syngenta AG shares. Depending on their date of appointment to the Executive Committee, members who do not currently have the minimum holding have until December 31, 2017 or December 31, 2018 to fulfil this requirement. Unvested share and option awards that are subject to performance conditions are excluded when determining the member's actual holding.

Detailed disclosures regarding executive remuneration required by Swiss Company Law are included in the Syngenta Corporate Governance Report.

Transactions and balances between Syngenta and its employee post retirement benefit plans are disclosed in Note 22.

25. Commitments and contingencies

Commitments

Minimum future lease payments at December 31, 2015 for finance leases are $60 million (2014: $74 million), of which $18 million is due within one year (2014: $21 million), $34 million after more than one but less than five years (2014: $41 million) and $8 million thereafter (2014: $12 million).

Fixed-term, non-cancelable operating lease commitments total $120 million at December 31, 2015 (2014: $91 million) of which $61 million is due within one year (2014: $28 million), $52 million after more than one and less than five years (2014: $55 million) and $7 million thereafter (2014: $8 million). Operating lease payments relate to leases of buildings, office equipment and vehicles. Operating lease expense in 2015 is $44 million (2014: $33 million).

Commitments for the purchase of property, plant and equipment at December 31, 2015 are $134 million (2014: $188 million).

At December 31, 2015 and 2014, Syngenta had entered into long-term commitments to purchase minimum quantities of certain raw materials, long-term research agreements with various institutions to fund various research projects, and other commitments. The estimated timing of minimum future committed payments is as follows:

	2015		2014	
($m)	Materials purchases	Other	Materials purchases	Other
Within one year	483	55	511	69
From one to two years	214	21	136	30
From two to three years	165	20	76	21
From three to four years	36	12	161	18
From four to five years	9	10	12	12
After more than five years	40	17	45	28
Total	**947**	**135**	941	178

Syngenta has no material contingent liabilities related to associates and joint ventures.

Syngenta's sales are made subject to normal warranties, which cover product technical specifications and, in some cases, products' performance effect on grower crop yields. Certain license agreements indemnify the other party against liabilities arising from claims related to the intellectual property licensed to or by Syngenta. Leases may require indemnification for liabilities Syngenta's actions may create for the lessor or lessee. Syngenta has also issued warranties to purchasers of businesses or product lines relating to events that arose before the sales. It is not possible to predict the maximum future payments possible under these or similar provisions because it is not possible to predict whether any of these contingencies will occur.

Syngenta has obtained licenses from others for the rights to sell certain products, or products containing certain technology, under agreements which require Syngenta to pay royalties based on its future sales of those products or that technology.

Contingencies

Litigation matters

Litigation is subject to many uncertainties, and the outcome of individual matters cannot be predicted with certainty. Consequently, it is reasonably possible that the final resolution of some of these matters could require Syngenta to make expenditures in excess of the established provisions that are reported in Note 19. Further, the range of amounts involved, as well as the period of time over which many of these expenditures may be made, cannot be reasonably estimated.

Syngenta maintains general liability insurance, including product liability insurance, covering claims on a worldwide basis with coverage limits and retention amounts which management believes to be adequate and appropriate in relation to Syngenta's businesses and the risks to which it is subject.

Significant recent or on-going legal proceedings are described below.

VIPTERA™

Since September 12, 2014, a total of 3,929 lawsuits (as of January 25, 2016) have been filed against Syngenta in state and federal courts in the United States by plaintiffs seeking damages from Syngenta for commercializing its AGRISURE VIPTERA® (MIR162) and DURACADE™ corn seed in the US without having obtained import approval from China for those products. Virtually all of the lawsuits were filed by individual plaintiffs (including growers, grain elevators and exporters such as Cargill and Archer Daniels Midland), and approximately 70 by putative classes of growers and of exporters, ethanol plants, and others affected, on the theory that China's 2013 rejection of US corn based on the alleged presence of MIR162 caused increased costs and US commodity prices to drop. The cases are pending in multiple jurisdictions, including (1) a federal court multi-district litigation ("MDL") in the District of Kansas; (2) a consolidated state court proceeding in Hennepin County, Minnesota; (3) federal court in the Southern District of Illinois; and (4) various state courts in Illinois, Indiana, Louisiana and Ohio. Certain of these cases also name additional defendants including ADM, Bunge, Cargill, Louis Dreyfus and Gavilon. Certain of the cases currently pending in state court may be removed to federal court.

The allegations include claims that Syngenta issued misleading statements concerning the status of or timetable for approval of import of VIPTERA™ corn into China and that the public had a right to expect that corn sold to the general public was free from "contamination" with VIPTERA™ corn. The Cargill lawsuit refers to damages of in excess of $90 million and one of the exporter lawsuits specifies damages of $41 million. The federal court presiding over the MDL in Kansas issued a Scheduling Order on October 21, 2015, setting the first case for trial in June 2017. The court presiding over the consolidated state court proceeding in Minnesota issued a Scheduling Order on November 4, 2015, anticipating that the first trial will occur in March 2017. No other trial dates have been set. Syngenta strongly believes that the claims in these cases are without merit and will vigorously defend the lawsuits, and has filed counterclaims against ADM, Cargill and other grain companies.

25. Commitments and contingencies continued

On December 1, 2015, a claim was filed in Ontario, Canada by a proposed representative plaintiff on behalf of a putative class comprising all farmers in Canada against Syngenta Canada Inc. and Syngenta AG seeking damages from Syngenta for commercializing its AGRISURE VIPTERA® (MIR162) and DURACADE™ corn seed in the North American corn market without having obtained import approval from China for those products. Syngenta Canada Inc. has been served with the claim. Syngenta AG has not been served with the claim to date. The causes of action referred to in the lawsuit include negligence and negligent misrepresentations. The allegations include claims that Syngenta actively misled farmers about the importance of the Chinese market, the timing and substance of the application for approval in China, its ability to channel VIPTERA™ corn into non-Chinese markets and its ability to contain the infiltration of VIPTERA™ corn to the North American corn supply. The proposed representative plaintiff is seeking on behalf of the putative class general and special damages of 300 million Canadian dollars ($216 million at the December 31, 2015 exchange rate), punitive and aggravated damages of 100 million Canadian dollars ($72 million at the December 31, 2015 exchange rate), the costs of distributing all monies awarded to class members, pre-judgment interest, and costs on a substantial indemnity basis. No steps have been taken in the action except for the service of the claim on Syngenta Canada Inc. After Syngenta AG is served with the claim, and subject to any preliminary motions that Syngenta determines should be brought, the next step in these proceedings will be a certification motion brought by the proposed representative plaintiff. Syngenta strongly believes that the claims in this action are without merit and will vigorously defend the action.

Canada Beekeeper Lawsuits

In September 2014, a claim was filed in Ontario, Canada by two proposed representative members on behalf of a putative class comprising all beekeepers who have owned or continue to own and operate honey producing, pollinating, and/or queen bee rearing businesses in Canada since January 1, 2006, against a number of Syngenta legal entities together with certain entities of a second manufacturer of neonicotinoid insecticides. Plaintiffs allege negligence through the sale by that manufacturer and by Syngenta of products containing such insecticides in the knowledge that they would be injurious to bees and by virtue of misrepresentations and concealment relating thereto. Plaintiffs claim 400 million Canadian dollars ($288 million at the December 31, 2015 exchange rate) general and 50 million Canadian dollars ($36 million at the December 31, 2015 exchange rate) punitive damages. The pleadings in the Ontario proceedings have subsequently been amended by plaintiffs' counsel to add waiver of tort and unlawful conspiracy to the single cause of action, negligence, which was previously pleaded. Both of the additional causes of action are ancillary to and largely dependent on the negligence claim. The Syngenta defendant legal entities (Syngenta Canada Inc. and Syngenta International AG) have filed appearances in the proceedings. Subject to any preliminary motions, the next step in these proceedings will be a certification motion brought by the proposed representative plaintiffs. No dates have been scheduled for any motions at this time. In October 2014, a Motion for Authorization was filed by the same firm of plaintiffs' counsel in Montréal, Quebec seeking permission to bring a similar class proceeding in that province. The proposed representative plaintiff operates a family business specialized in the breeding of queen bees. The Quebec litigation closely resembles the original Ontario lawsuit claiming negligence except that, rather than a nationwide class, it alleges a class limited to Quebec. At this preliminary motion stage damages are unspecified. Notices of appearance have been entered on behalf of the Syngenta defendant legal entities in Quebec. A case management judge has been appointed in the Quebec proceedings. No date has been scheduled for the Motion for Authorization. A preliminary motion will be scheduled early in 2016 to address evidentiary issues related to any Motion for Authorization. Syngenta believes the claims in these cases are without merit and will vigorously defend the lawsuits.

Atrazine related litigation

In August 2013, a personal injury Complaint relating to atrazine was filed under seal in the Circuit Court for the Twentieth Judicial Circuit, St. Clair County, Illinois, on behalf of an unnamed minor (the case being brought under the alias James Doe) and his parents, against Syngenta Crop Protection LLC, Syngenta AG, a distributor, Growmark Inc., and three local dealers, M&M Service Company, Hamel Seed & Farm Supply, Inc. and St. Clair Service Company. The Complaint alleges public nuisance, strict liability and negligence, and seeks unspecified damages together with the costs of suit. Answers and Affirmative Defenses were filed on January 21, 2014 for Syngenta Crop Protection LLC as well as the non-Syngenta defendants, and on February 25, 2014 the Answer and Affirmative Defenses of Syngenta AG were also filed. Documentary fact discovery in the litigation opened in March 2014 and is continuing. The claims in the lawsuit have no grounding in fact or science and Syngenta will vigorously defend the lawsuit.

Tax matters

Significant management judgment is required to estimate the tax provisions related to the eventual outcome of reviews and audits by tax authorities of tax returns filed by Syngenta's subsidiaries. Tax returns filed by many of Syngenta's subsidiaries during the past several years are either currently under examination by tax authorities or are open for future examination until expiry under statutes of limitation. Syngenta is also subject to certain tax claims pending before the judiciary. In Syngenta's opinion, the likelihood is remote that a material amount in excess of current provisions will result from the resolution of any such examination or case. However, it is reasonably possible that actual outcomes and settlements may differ significantly from the estimated liabilities shown in the consolidated balance sheet for income taxes and in Note 17 for other taxes.

25. Commitments and contingencies continued

Environmental matters

It is reasonably possible that Syngenta may be required to make expenditures in excess of the established provisions that are reported in Note 19 to remediate environmental liabilities at some currently or formerly owned, leased and third party sites throughout the world. Further, in cases where it is not possible to estimate reliably the remediation costs that may be incurred in the future for environmental damage that has occurred at sites currently in operation and having no present obligation for environmental damage remediation, no provisions have been made. This is because it is neither possible to determine a time limit beyond which the sites will no longer be operated, nor what remediation costs may be required upon their eventual closure.

In the USA, Syngenta and/or its indemnitors or indemnitees, have been named under federal legislation (the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) as a potentially responsible party ("PRP") in respect of several sites. Syngenta expects to be indemnified against a proportion of the liabilities associated with a number of these sites by the sellers of the businesses associated with such sites and, where appropriate, actively participates in or monitors the clean-up activities at the sites in respect of which it is a PRP.

Contingencies summary

Given the inherent difficulties in estimating liabilities relating to litigation, tax, environmental and certain other matters due to uncertainty concerning both the amount and timing of future expenditures, it is reasonably possible that additional costs may be incurred materially in excess of provisions recorded for such liabilities. Such expenditures, in excess of established provisions, could have a material effect on Syngenta's consolidated operating results and cash flows for a particular reporting period, but management does not believe they will have a materially adverse effect on Syngenta's consolidated financial position or liquidity, although there can be no assurances in this regard.

26. Principal currency translation rates

Year end rates used for the consolidated balance sheets at December 31, to translate the following currencies into $, are:

	2015 per $	2014 per $
Swiss franc	**0.99**	0.99
British pound sterling	**0.68**	0.64
Euro	**0.92**	0.82
Brazilian real	**3.90**	2.66
Russian ruble	**73.89**	59.22
Ukrainian hryvnia	**23.79**	15.82

Average rates during the years ended December 31, used for the consolidated income and cash flow statements, to translate the following currencies into $, are:

	2015 per $	2014 per $
Swiss franc	**0.96**	0.91
British pound sterling	**0.65**	0.61
Euro	**0.90**	0.75
Brazilian real	**3.33**	2.35
Russian ruble	**61.05**	37.29
Ukrainian hryvnia	**21.45**	11.57

27. Risk management of financial risks

Risk management framework

The nature of Syngenta's business and its global presence exposes it to a range of financial risks. These risks include (i) market risks, which include potential unfavorable changes in foreign exchange rates, interest rates, commodity prices and other market prices (equities, credit spreads etc.), (ii) counterparty risk and (iii) liquidity and refinancing risk.

A financial risk management framework is in place in the form of a Treasury policy approved by the Board of Directors. This policy provides guidance over all Treasury and finance related matters, is underpinned by delegated authority guidelines and is additionally supported by detailed procedures in place across Syngenta. In accordance with its Treasury policy, Syngenta actively monitors and manages financial risk with the objectives of reducing fluctuations in reported earnings and cash flows from these risks and providing economic protection against cost increases. These objectives are achieved through (a) a monthly assessment of the impact of market risks against defined risk limits (see following section), which take into account the risk appetite of Syngenta and (b) the use of a variety of derivative and non-derivative financial instruments.

Financial instruments available for use to mitigate these risks are selected by Syngenta according to the nature of the underlying risk. These instruments are designed to economically hedge underlying risks arising from operational activities and from funding and investment positions. Syngenta does not enter into any speculative financial transactions.

The fair values and the volumes of the derivatives (including the time periods being hedged and the average strike/price achieved) used to manage financial market risks are below, classified by accounting treatment: CF and FV indicate derivatives where cash flow hedge and fair value hedge accounting is applied, respectively; and M2M indicates derivatives that are marked to market through profit or loss and hedge accounting is not specifically required. The transactions are managed to minimize the potential adverse movement for the entire portfolio of the net transactional flows, rather than on an individual currency basis. As such, there is no single average strike or price of the derivatives.

27. Risk management of financial risks continued

2015			Fair value of outstanding derivatives[1]		Maturity profile in $m			
Risk	Accounting treatment	$m quantity	Assets	Liabilities	0-90 days	90 days–1 year	1-5 years	>5 years
Foreign exchange risk ($m)								
Trading transaction – committed	M2M	7,133	81	(81)	(21)	18	3	–
Trading transaction – uncommitted	CF	1,456	33	(21)	8	4	–	–
Trading transaction – uncommitted	M2M	127	16	–	–	16	–	–
Issued financial debt and interest	CF	2,234	–	(267)	–	–	(107)	(160)
Interest rate risk	FV	500	25	–	–	–	–	25
Commodity price risk								
Gas[2]	CF	6	–	(2)	(1)	(1)	–	–
Soft commodities[3]	M2M	87	2	(10)	(6)	(2)	–	–
Soft commodities[4]	CF	82	6	–	–	6	–	–
Total		11,625	163	(381)	(20)	41	(104)	(135)

2014			Fair value of outstanding derivatives[1]		Maturity profile in $m			
Risk	Accounting treatment	$m quantity	Assets	Liabilities	0-90 days	90 days–1 year	1-5 years	>5 years
Foreign exchange risk ($m)								
Trading transaction – committed	M2M	5,670	136	(90)	30	13	3	–
Trading transaction – uncommitted	CF	1,667	45	(60)	7	(22)	–	–
Trading transaction – uncommitted	M2M	–	–	–	–	–	–	–
Issued financial debt and interest	CF	2,316	–	(200)	–	(25)	(66)	(109)
Interest rate risk	FV	500	26	–	–	–	–	26
Commodity price risk								
Gas[2]	CF	13	–	(3)	(1)	(2)	–	–
Soft commodities[3]	M2M	189	36	–	22	14	–	–
Soft commodities[4]	CF	3	2	–	–	2	–	–
Total		10,358	245	(353)	58	(20)	(63)	(83)

1 The fair values of derivatives are reported in the consolidated Balance Sheet as shown in Note 28
2 1,888,464 million (2014: 3,176,070 million) British thermal units
3 Mainly 1,637,089 lbs (2014: 1,331,575 lbs) of coffee
4 5,500,000 bushels (2014: 595,000 bushels) of soybean and 7,580,000 bushels of corn (2014: no hedge accounting designations for corn)

Of the derivatives listed in the table above, hedge accounting is applied wherever possible. Exceptions to this are derivatives where the fair value movements of the hedges and the retranslation of the underlying exposures are largely offset in profit or loss (hedging foreign exchange risk of committed monetary items); or derivatives placed, which do not fulfil the specific requirements of the accounting standard to achieve hedge accounting (hedging foreign exchange risk of uncommitted forecast transactions; commodity price risk: soft commodities, principally Brazil coffee purchases as part of barter programs).

For those transactions which are not designated for hedge accounting purposes where the transactions do not fulfil the specific requirements of the accounting standard to achieve hedge accounting, the gains and losses on those hedging instruments for the year 2015 were as follows:

- Foreign currency forward contracts that are effective economic hedges of forecast cash flows arising from anticipated sales and purchases between Syngenta affiliates and third parties. The amount recorded in profit or loss in 2015 is $nil (2014: loss of $23 million).
- Commodity derivative contracts that are effective economic hedges of the anticipated purchases of raw materials or purchases, principally purchases related to corn in North America and corn and soybean in Latin America, and the resale of various crops in barter arrangements. The amount recorded in profit or loss in respect of these derivatives in 2015 is a loss of $1 million (2014: loss of $4 million). The profit or loss impact from the corresponding forecasted transactions occurs when the related finished product inventories are sold, which is generally in the year following recognition of the gain or loss on the hedge.

27. Risk management of financial risks continued

Assessment of the impact of market risks

The impact of market risks is assessed using a variety of Value-at-Risk (VaR) and Earnings-at-Risk (EaR) methods. These methods are adjusted to reflect the nature of the exposures and the impact of the exposures on profit or loss of the financial year. The specific methods used to assess the impact of financial risks are described below:

Risk	Method	Exposure (financial statement item)	Time horizon (months)
Foreign exchange risk			
Trading transaction – committed	VaR	Monetary asset and liability carrying amounts	1
Trading transaction – uncommitted	EaR	Operating income	12
Issued financial debt and interest	VaR	Monetary liability carrying amounts	1
Translation	VaR	Cumulative translation adjustment in OCI	1
Interest rate risk	EaR	Interest expense	12
Commodity price risk	EaR	Operating income	12

VaR and EaR calculations are risk management tools designed to statistically estimate with a pre-set probability the maximum amount of potential losses in value (VaR) or earnings (EaR) over a specific (holding) time period given current and forecast positions and possible movements in market prices. The VaR and EaR methods used by Syngenta estimate the gross impact on the consolidated financial statements if the underlying items were not hedged and the net impact of the combined underlying hedged items and the related hedging instruments. VaR and EaR calculations attempt to recognize that holding different assets and liabilities or incurring different future cash flow exposures may reduce portfolio risk through diversification. Such diversification effects are captured within the calculations, which aim to present the risk based on Syngenta's currency exposure as a whole, rather than the sum of the exposures to the individual currency pairs within the portfolio of exposures. Using historical data, the VaR and EaR calculations are designed to predict possible changes in the markets in the future at a 99 percent confidence level, with a 1 percent probability that actual results will be worse than calculated. The time horizon used to calculate the VaR figures for each risk is determined by the time period over which management forecasts and monitors changes in the risk and in Syngenta's exposure to it and takes mitigating actions in response to those changes.

The assessment of the impact of market risks is performed monthly and the results are compared against annually defined risk limits. In cases where the net impact is higher than a risk limit, Syngenta enters into derivative financial instrument transactions in order to stay within the risk limits approved in the risk management policy. Breaches of risk limits, should they occur, are immediately reported to senior management.

Syngenta cannot predict future movements in risk variables precisely, therefore calculations of the impact of market risks neither represent actual losses nor consider the effects of potential favorable movements in underlying risk variables. Accordingly, these calculations may only be an indication of future movements to the extent the historic market patterns repeat in the future.

Foreign exchange risk

Operating worldwide exposes Syngenta to foreign exchange transaction and translation risk at both the Group and subsidiary level. Syngenta's policy is to hedge the effect of foreign exchange translation risk on shareholders' equity only in specific circumstances, for example to protect the value of temporary excess foreign currency denominated cash positions.

Foreign exchange transaction risk – committed

Syngenta's individual subsidiaries predominantly transact their operational activities in their respective functional currencies. However, the globally integrated nature of Syngenta's business results in its subsidiaries bearing some amount of transactional balance sheet risk, because some monetary items (including financial liabilities) are denominated in foreign currencies.

Such committed foreign currency exposures are largely generated by the routing of products from Syngenta's central manufacturing sites to its foreign locations. The risk management strategy is to ensure that these committed exposures are fully hedged, unless otherwise approved by Group Treasury, for example where not deemed cost-effective or where there is no forward market for a specific currency.

The derivative instruments that Syngenta's risk management policy allows to be used to manage the risk are foreign exchange forward contracts and cross currency swaps with the same risk (foreign exchange currency index), where the fair value movements of the hedges and the retranslation of the underlying committed exposures are largely offset in profit or loss.

The derivative instruments are placed with the same maturity as the expected cash flows of the hedged transactions so that the timing of the cash flows of the items within the hedged exposure effectively matches the timing of the cash flows of the derivative instrument.

Net committed transactional currency exposures are identified and reported on a monthly basis by business units. The impact of the hedging program can be illustrated in the VaR calculations for committed exposures, which relate to the revaluation of exposures relative to spot rates over a monthly period. The impact of interest differentials and other factors is not included in these calculations.

27. Risk management of financial risks continued

($m, except risk reduction %)	December 31, 2015 Value-at-Risk			December 31, 2014 Value-at-Risk		
Underlying currency (1-month holding period)	Gross impact	Net impact	Risk reduction	Gross impact	Net impact	Risk reduction
Swiss franc	40	20	50%	47	15	69%
Brazilian real	96	–	100%	54	–	100%
British pound sterling	24	8	68%	36	6	84%
Russian ruble	23	–	99%	17	1	95%
Rest of world	83	24	71%	104	26	75%
Total undiversified	266	52	80%	258	48	81%
Diversification	(155)	(32)	79%	(178)	(33)	82%
Net VaR	111	20	82%	80	15	81%

At December 31, 2015, the Value-at-Risk for a one month holding period, after hedges, at a 99 percent confidence level was $20 million (December 31, 2014: $15 million).

The largest exposures arise in Swiss franc, Brazilian real, British pound sterling and Russian ruble. Switzerland and Great Britain house large research and manufacturing sites. In recent years, due to the growth of Syngenta sales, exposures in emerging markets (particularly Brazil) have become significant.

Foreign exchange transaction risk – uncommitted
Uncommitted transactions are expected, highly probable future transactions for which Syngenta does not yet have a contractual right or obligation (mainly sales and costs).

The US dollar represents the biggest single currency for both sales and costs. However, currency mismatches arise from Syngenta having a centralized cost base, denominated mainly in Swiss francs, British pounds and US dollars, against a local selling base, denominated mainly in US dollars, Euros and various other currencies, including those in emerging markets. In addition, due to the seasonality of Syngenta's business, the majority of sales occur during the first half of the year whereas costs tend to occur more linearly throughout the year.

The risk management objective is to minimize the impact of changes in foreign exchange rates on the operating income forecasted to result from these transactions. Syngenta considers hedging this exposure unless it can reliably expect that operating income could, without significant adverse economic impact, be protected by adjusting the pricing of forecast transactions for changes in foreign exchange rates before those transactions occur.

Hedging transactions are managed to minimize the potential adverse movement for the entire portfolio of the net transactional flows, rather than on an individual currency basis. Transactions in a specific calendar year are managed cumulatively in separate portfolios.

The cumulative diversified risk of the whole portfolio can be reduced by entering into derivative transactions for a portion or the full amount of the individual transactions so that the remaining risk of the whole portfolio is at acceptable levels within clearly defined risk limits. The risk management objective is applicable for transactions in the following 24 months. Currently transactions for the next 12 month period are being hedged.

The derivative instruments that Syngenta's risk management policy allows to be used to manage the risk are:

- foreign exchange forward contracts and net purchased currency options with the same risk (foreign exchange currency index) which are eliminating or reducing the uncertainty in the cash flows.
- placed mainly with the same or (to a lesser extent) with shorter maturity than the timing of the cash flows being hedged so that the timing of the cash flows of the hedged transactions effectively matches the timing of the cash flows of the derivative instrument.

The impact of the hedging program on operating income can be illustrated in the Earnings-at-Risk calculation performed for anticipated net transactional currency flows for the following year taking into account related currency hedges.

($m, except risk reduction %)	December 31, 2015 Earnings-at-Risk			December 31, 2014 Earnings-at-Risk		
Underlying currency (12-month holding period)	Gross impact	Net impact	Risk reduction	Gross impact	Net impact	Risk reduction
Swiss franc	199	90	55%	192	110	43%
Argentine peso	500	500	0%	14	14	–
Brazilian real	94	94	–	79	75	5%
Russian ruble	10	8	–	52	52	–
Euro	40	39	3%	46	47	(1)%
British pound sterling	40	25	38%	26	14	48%
Rest of world	191	159	17%	179	161	10%
Total undiversified	1,074	915	15%	588	473	20%
Diversification	(498)	(387)	22%	(373)	(315)	16%
Net EaR	576	528	8%	215	158	27%

At December 31, 2015, the total potential adverse movement for 2016 net transactional flows after hedges relative to year-end, at a 99 percent confidence level, was $528 million (December 31, 2014: $158 million).

27. Risk management of financial risks continued

The net resulting Earnings-at-Risk figures at December 31, 2015 increased compared with December 31, 2014 mainly due to the risk arising from the Argentine peso, which increased to $500 million at December 31, 2015 from $14 million at December 31, 2014 due to the significant devaluation that occurred in late December 2015 following the election of the new government in Argentina. The risk calculation method used by Syngenta puts more weight on events occurring closer to the date of the risk calculation. In order for the $500 million net risk relating to the Argentine peso to be realized, the currency would have to appreciate to a rate of 2.6 to the US dollar from the 13.0 rate at December 31, 2015.

For the remaining risk figures excluding the Argentine peso, the risk is similar to 2014 levels with the greatest exposures being the Swiss franc, where Syngenta has a significant cost base in Switzerland with no material offsetting sales, and the Brazilian real, where a significant cost base is only partially offset by sales because sales in Brazil are largely dollarized.

Foreign exchange transaction risk – issued financial debt and interest

Syngenta has a funding strategy which involves securing a diversification of funding sources in different markets and maintaining an optimal currency mix of debt.

This additional foreign currency exposure arises from the debt issuances in Euro and in Swiss franc under the Euro Medium Term Note (EMTN) program. The risk management objective is to minimize the impact of changes in foreign exchange rates on these foreign currency denominated debt interest and principal repayments.

The foreign exchange risk on the foreign currency denominated debt is managed mostly by derivative instruments, and to a lesser extent within a portfolio of other committed transactions, so that no material foreign currency risk remains as a result of the foreign currency denominated debt.

The derivative instruments which Syngenta's risk management policy allows to be used to manage the risk are:

– cross currency swaps designated as hedges of foreign exchange risk of future interest and principal payments on foreign currency financial debt which are eliminating or reducing the uncertainty in the cash flows.
– placed mainly with the same terms as the items being hedged so that the timing of the interest and principal repayments of the hedged transactions effectively matches the timing of the cash flows of the derivative instrument.

Foreign exchange translation risk

Translation exposure arises from the consolidation of foreign currency denominated financial statements of Syngenta's subsidiaries. This is reported as currency translation effects in OCI.

Translation risk can be significant; however, Syngenta regards its equity base to be of sufficient magnitude generally to absorb the short- to medium-term impact of exchange rate movements.

Syngenta can use both foreign currency denominated debt and net investment hedging to manage this exposure. The latter incorporates specific actions to protect the value of temporary excess foreign currency denominated cash positions. No hedging was undertaken for exposures of this type during the years ended December 31, 2015 or 2014. The exposure is deemed to be mitigated by the large net asset base of Syngenta and consequently no additional management of the exposure was undertaken in 2015 or 2014.

The table below presents the 1-month translation Value-at-Risk:

($m)	**December 31, 2015 Value-at-Risk**	December 31, 2014 Value-at-Risk
Currency of net investment in subsidiary (1-month holding period)	**Gross impact**	Gross impact
Brazilian real	**164**	139
Swiss franc	**287**	102
Euro	**56**	31
British pound sterling	**61**	44
Rest of world	**128**	123
Total undiversified	**696**	439
Diversification	**(277)**	(222)
Net VaR	**419**	217

At December 31, 2015, the Value-at-Risk for a one month holding period at a 99 percent confidence level was $419 million (December 31, 2014: $217 million). The Value-at-Risk at December 31, 2015 is higher than as of December 31, 2014 due to overall increase in foreign exchange volatility.

The two largest single currency exposures arise in the Swiss franc and Brazilian real, driven by the large operations and investments in facilities in Switzerland and Brazil.

Interest rate risk

Syngenta is exposed to fluctuations in interest rates on its borrowings (including forecasted borrowings) and excess cash. While the majority of Syngenta's borrowings have fixed interest rates, portions of Syngenta's net borrowings, including its short-term commercial paper program and local borrowings, are subject to changes in short-term interest rates.

Syngenta monitors its interest rate exposures and analyzes the potential impact of interest rate movements on net interest expense. The risk management strategy involves ensuring an efficient fixed/floating mix of total debt within approved interest rate limits.

The derivative instruments allowed to manage the risk are interest rate swaps relating to future interest payments of financial debt liabilities. The derivative instruments are placed with the same maturity as the expected cash flows of the hedged transactions so that the timing of the cash flows of the hedged transactions effectively matches the timing of the cash flows of the derivative instrument.

At December 31, 2015, the net amount of Earnings-at-Risk on floating rate debt due to potential changes in interest rates (a parallel shift of 100 bps was applied) was $10 million (2014: $6 million). The net amount of Earnings at Risk on net debt, as defined under "Capital structure" below, due to potential changes in interest rates was immaterial at December 31, 2015 and 2014.

27. Risk management of financial risks continued

Commodity price risks

Operating in the agribusiness sector, changes in certain commodity prices affect Syngenta's reported operating results and cash flows. On a limited basis, Syngenta enters into derivative transactions to hedge the exposure of its cost base to commodity prices. This activity comprises oil and natural gas hedging in the UK and USA, as well as soft commodity hedging for corn and soybean purchases by the Seeds business in the USA, Canada, Brazil and Argentina, where Syngenta contracts to purchase various seed crops from growers and hedges the cost of the purchases. In barter arrangements where Syngenta sells products in exchange for receiving a certain amount of a commodity crop, Syngenta hedges the value of the crop. At December 31, 2015, there were no open hedging transactions for Brazil and Argentina corn and soybean price risk.

Syngenta has indirect exposure to oil price fluctuations mainly through the impact of oil prices on the cost of both raw materials, especially chemical intermediates in the Crop Protection business, and distribution activities. At December 31, 2015, there was no hedge protection in place for oil for 2016 (December 31, 2014: no hedge protection in place for oil for 2015). As the exposure to oil is indirect, Syngenta does not calculate the Earnings-at-Risk due to potential changes in oil prices.

Natural gas exposure occurs in Syngenta's primary manufacturing sites and Syngenta is managing the exposure by hedging the main risk component, which is the natural gas market price, contractually linked to the NYMEX natural gas benchmark price. The other risk components within the exposure are immaterial.

The main objective of managing commodity price risk is to reduce the impact of commodity price changes on operating income and to provide economic protection against future cost increases. Syngenta uses fixed price contracts and derivatives (both Over-the-Counter (OTC) and exchange traded instruments, including commodity option and futures contracts) to achieve this objective. The derivative instruments are placed with the same maturity as the expected cash flows of the hedged transactions so that the timing of the cash flows of the hedged transactions effectively matches the timing of the cash flows of the derivative instrument.

At December 31, 2015, the net amount of Earnings-at-Risk due to potential changes in natural gas prices was not material. Earnings-at-Risk due to potential changes in prices of soft commodities, principally corn and soybean, assuming a 12-month holding period are presented below.

($m, except risk reduction %)	December 31, 2015 Earnings-at-Risk			December 31, 2014 Earnings-at-Risk		
Soft commodities	Gross impact	Net impact	Risk reduction	Gross impact	Net impact	Risk reduction
Total undiversified [1]	**40**	**16**	**60%**	30	27	12%

1 As the main soft commodities are largely correlated to each other, the impact of diversification is immaterial

The Earnings-at-Risk of soft commodities is driven by their high price volatility compared to other asset classes. The hedging program reduces overall 12-month Earnings-at-Risk at December 31, 2015 to $16 million (December 31, 2014: $27 million). The decrease in net risk in 2015 is mainly due to higher hedge ratios.

Derivatives and hedge accounting

Syngenta seeks to apply, wherever possible, hedge accounting to present its financial statements in accordance with the economic purpose of the hedging activity. Hedges for which hedge accounting is not adopted either (a) do not meet the requirements for hedge accounting treatment under IFRS or (b) when combined with the accounting for the underlying hedged items, impact the financial statements in a manner aligned with the economic purpose of the hedging transaction without the need to adopt hedge accounting treatment, for example hedges of monetary items denominated in foreign currency.

Syngenta determines the economic relationship between the hedged items and the hedging instruments by reviewing the critical terms of the hedged items and the hedging instruments. As a result Syngenta concludes that the risk being hedged for the hedged items and risk inherent in the hedging instruments are sufficiently aligned, there is no inherent mismatch in the hedging relationship and a 100% hedge ratio applies both for the actual quantities hedged and for the hedge accounting, except as described below.

For the hedging of foreign currency risk of uncommitted forecasted trading transactions, because the exposures are largely generated by the routing of products from Syngenta's central manufacturing sites to its foreign locations, the profit or loss impact from the corresponding transactions occurs when the related finished product inventories are sold to third parties. When entering into derivative hedging contracts, Syngenta selects maturity dates based on the forecast period that Syngenta holds inventories of its products for each commercial market by hedged currency exposure. Limited variability in the holding period occurs mainly due to timing of the third party sales transactions ("inventory holding period mismatch").

For the hedging of commodity price risk of soy and corn, there is variability between the index being hedged (CBOT) and the drivers of the actual exposures (local soy elevator prices based on CBOT and Syngenta seeds production and selling prices based on CBOT). The variability is, however, limited to individual transactions within the group of transactions in this hedging program – and a hedge ratio of 100% is observed for the whole group of transactions.

27. Risk management of financial risks continued

The following table summarizes the accounting treatment, sources of ineffectiveness and the effectiveness assessment method for the identified financial market risks:

Risk	Accounting treatment	Potential sources of ineffectiveness	Effectiveness assessment: Method	Effectiveness assessment: Frequency
Foreign exchange risk:				
Trading transaction – uncommitted	CF	Lower volume of hedged items; Inventory holding period mismatch	Critical terms match	Quarterly
Issued financial debt and interest	CF	Lower volume of hedged items	Critical terms match	Quarterly
Interest rate risk	FV	Lower volume of hedged items	Critical terms match	Quarterly
Commodity price risk:				
Gas	CF	Lower volume of hedged items	Critical terms match	Semi-annually
Soft commodities	CF	Lower volume of hedged items; index mismatch	Regression analysis	Quarterly

Ineffectiveness is recognized in the consolidated income statement in Other general and administrative for hedges of uncommitted foreign currency forecast transactions, in Financial expense, net for hedges of committed foreign currency monetary items, in Financial expense, net for hedges of interest rate risk and in Cost of goods sold for hedges of commodity price risk. For the years ended December 31, 2015 and 2014 none of the above potential sources of ineffectiveness, individually or collectively, resulted in material amounts of actual ineffectiveness being reported for any hedge accounting relationships.

Fair Value Hedge Accounting

The amounts being reported in the statement of financial position for the fair value hedging relationships at December 31, 2015 and 2014 are as follows:

	Carrying amount of hedged item		Accumulated amount of fair value adjustment	
	Liabilities		Liabilities	
Risk ($m)	2015	2014	2015	2014
Interest rate risk – for continuing hedging relationships	519	519	(21)	(22)
Interest rate risk – for hedged items that have ceased to be adjusted	85	683	(10)	(12)
Total	**604**	1,202	**(31)**	(33)

The carrying amounts of the hedged items, including the fair value adjustments to the hedged items, are reported under Current financial debt and other financial liabilities and Financial debt and other non-current liabilities.

The change in the value of the hedged items during the period for hedge effectiveness purposes was $4 million (2014: $3 million).

Cash flow hedges

The gains/(losses) on derivative instruments recognized into and classified out of the cash flow hedge reserve during the years ended December 31, 2015 and 2014 were as follows:

	Continuing hedging relationships					Hedge accounting no longer applied			
	Foreign exchange risk		Commodity price risk						
2015 ($m)	Trading transaction – uncommitted	Issued financial debt and interest	Gas	Soft commodities	Subtotal	Foreign exchange risk – translation	Issued financial debt and interest	Subtotal	Total
Opening balance	31	(60)	(3)	14	(18)	(69)	(2)	(71)	(89)
Income taxes	(7)	(1)	–	(2)	(10)	–	–	–	(10)
(Losses)/gains recognized in OCI:									
on hedges as designated	(12)	1	(2)	(21)	(34)	–	(5)	(5)	(39)
undesignated hedging costs recognized in OCI	(9)	–	–	–	(9)	–	–	–	(9)
Transferred directly to assets or liabilities	–	–	–	(4)	(4)	–	–	–	(4)
Reclassifications to profit or loss:									
(Losses)/gains on hedges as designated:									
Cost of goods sold	–	–	5	4	9	–	–	–	9
General and administrative	(21)	–	–	–	(21)	–	–	–	(21)
Financial expense, net	–	97	–	–	97	–	5	5	102
Closing balance	**(18)**	**37**	**–**	**(9)**	**10**	**(69)**	**(2)**	**(71)**	**(61)**

27. Risk management of financial risks continued

2014 ($m)	Continuing hedging relationships: Foreign exchange risk: Trading transaction – uncommitted	Continuing hedging relationships: Foreign exchange risk: Issued financial debt and interest	Continuing hedging relationships: Commodity price risk: Gas	Continuing hedging relationships: Commodity price risk: Soft commodities	Subtotal	Hedge accounting no longer applied: Foreign exchange risk – translation	Hedge accounting no longer applied: Issued financial debt and interest	Subtotal	Total
Opening balance	63	(69)	1	15	10	(73)	6	(67)	(57)
Income taxes	27	(25)	–	3	5	–	–	–	5
(Losses)/gains recognized in OCI	(21)	(243)	(3)	(6)	(273)	4	(16)	(12)	(285)
Reclassifications to profit or loss:									
Cost of goods sold	–	–	(1)	2	1	–	–	–	1
General and administrative	(38)	–	–	–	(38)	–	–	–	(38)
Financial expense, net	–	277	–	–	277	–	8	8	285
Closing balance	31	(60)	(3)	14	(18)	(69)	(2)	(71)	(89)

Amounts reclassified from the cash flow hedge reserve into profit or loss are recognized in the consolidated income statement in Other general and administrative for hedges of uncommitted foreign currency forecast transactions, in Financial expense, net for hedges of committed foreign currency monetary items and for hedges of interest rate risk and in Cost of goods sold for hedges of commodity price risk.

Credit risk

Credit risk arises from the possibility that counterparties involved in transactions with Syngenta may default on their obligation, resulting in financial losses to Syngenta. Credit risk relates both to financial assets (including derivatives, marketable securities and money market contracts) as well as to operational assets managed by Syngenta's businesses (such as trade receivables).

Syngenta's maximum exposure to credit risk is the carrying values of its financial assets and receivables, including derivatives with positive market values. These amounts are disclosed in Note 28.

Syngenta has policies and operating guidelines in place to ensure that financial instrument transactions are only entered into with high credit quality banks and financial institutions. These include limits in respect of counterparties to ensure that there are no significant concentrations of credit risk. Syngenta continuously monitors the creditworthiness of its counterparties based on credit ratings and credit default swap data.

At December 31, 2015, Syngenta had no treasury or derivative transactions representing a significant concentration of credit risk. No credit losses have been incurred from investments in derivative financial instruments during the years ended December 31, 2015 and 2014.

To minimize its exposure to derivative positions, Syngenta enters into netting agreements under an International Swaps and Derivatives Association (ISDA) master agreement with its respective counterparties. In addition, for almost all derivative positions, Syngenta has entered into Credit Support Annex contracts (CSAs) under which cash is exchanged as collateral. The CSA contracts cumulatively limit either Syngenta's or the counterparty's aggregate credit risk exposure to no more than $1 million per counterparty on a weekly settlement basis for the positions for which CSA contracts have been agreed.

There are no constraints on the cash exchanged and held between counterparties and the collateral can be used as part of operations. At December 31, 2015, an asset amounting to $267 million (2014: $160 million), and a liability amounting to $43 million (2014: $14 million) were recorded representing cash paid and received by Syngenta as collateral under these CSAs.

The impact of credit risk on the fair value of derivatives is considered through market observable credit default swap spreads for Syngenta and its counterparties. The impact on the fair value of Syngenta's derivative positions at December 31, 2015 and 2014 of the risk of default by financial counterparties was not material.

The credit risk to operational assets is managed through the use of credit limits and is partially mitigated through commercial activities, which include barter operations, cash sales incentives and obtaining other security from customers where appropriate.

The following tables show the effect of set off rights that apply to financial assets and liabilities under the above ISDA and CSA agreements at December 31, 2015 and 2014. Syngenta's rights under these arrangements would become enforceable in the event of a future default of the respective counterparty.

($m)	**2015 Assets**	**2015 Liabilities**	2014 Assets	2014 Liabilities
Gross recognized derivative financial instrument fair values (Note 28)	**163**	**(381)**	245	(353)
Amounts offset in consolidated balance sheet	**–**	**–**	–	–
Net amounts per consolidated balance sheet	**163**	**(381)**	245	(353)
Amounts subject to conditional set-off rights but not offset in consolidated balance sheet:				
ISDA Master netting agreements for derivative financial instruments	**(65)**	**65**	(135)	135
Collateral (received)/paid by Syngenta under CSA agreements	**(43)**	**267**	(14)	160
Net amounts in the event that all conditional set-off rights are applied	**55**	**(49)**	96	(58)

27. Risk management of financial risks continued

Liquidity risk and refinancing risk

Within Syngenta's risk management framework, liquidity risk is defined as the risk of being unable to raise funds to meet payment obligations when they fall due.

Refinancing or funding risk is defined as the risk of being unable, on an ongoing basis, to borrow in the market to fund actual or proposed commitments. Syngenta mitigates its liquidity and refinancing risk by maintaining: a committed unsecured funding facility; ongoing discussions with its core banks to best monitor its funding capacity; simulations; and diversification of its debt portfolio.

Syngenta's liquidity risk policy is to maintain at all times sufficient liquidity reserves both at Group and subsidiary level in order to meet payment obligations as they become due and also to maintain an adequate liquidity margin. The planning and supervision of liquidity is the responsibility of the subsidiaries and Group Treasury. Liquidity requirements are forecasted on a weekly basis. Syngenta operates regional or country cash pools to allow efficient use of its liquidity reserves.

Short-term liquidity

Two of Syngenta's largest markets are Europe, Africa and the Middle East and North America. Both sales and operating profit in these two regions are seasonal and are weighted towards the first half of the calendar year, reflecting the northern hemisphere planting and growing cycle. Latin America is another large market for Syngenta and sales and operating profit there are weighted towards the second half of the calendar year, reflecting the southern hemisphere planting and growing cycle. This seasonal operating activity results in seasonal working capital requirements.

Syngenta's principal source of liquidity consists of cash generated from operations. Working capital fluctuations due to the seasonality of the business are supported by short-term funding available from a $2.5 billion Global Commercial Paper program supported by a committed, revolving, multi-currency syndicated credit facility, the amount of which was $1.5 billion at December 31, 2015. In 2014, the credit facility was extended by one year and will now mature in 2019. There were no amounts drawn under the Global Commercial Paper program at December 31, 2015 (2014: $nil). The average outstanding balance under the Global Commercial Paper program for the year 2015 was $500 million (2014: $360 million).

The maturity analyses for Syngenta's current financial liabilities other than short-term derivative liabilities are presented in Notes 15 to 17.

The maturities of short term derivatives are as follows:

($m)	Total	0-90 days	90-180 days	180 days–1 year
2015	**115**	**90**	**16**	**9**
2014	178	78	73	27

Long-term financing

Long-term capital employed is currently financed through eight unsecured bonds, one unsecured floating rate note, and unsecured notes issued under the Note Purchase Agreement in the US Private Placement market. During 2015, the 4.125 percent Eurobond 2015 with the principal of EUR 500 million matured and during 2014, the 4 percent Eurobond 2014 with the principal of EUR 500 million matured.

During 2015, Syngenta issued an unsecured non-current 12 year EUR 500 million security with a fixed interest rate of 1.25%.

During 2014, Syngenta issued five unsecured non-current bonds denominated in Euro and Swiss franc with varying maturities and notional amounts under the Euro Medium Term Note (EMTN) program. The issuances in the Swiss market consisted of a 5 year CHF 350 million security with a fixed interest rate of 0.75 percent, a 10 year CHF 250 million security with a fixed interest rate of 1.63 percent, and a 15 year CHF 150 million security with a fixed interest rate of 2.13 percent. The Euro-denominated debt consisted of a 7 year EUR 500 million security with a fixed interest rate of 1.88 percent and a 3 year EUR 250 million floating rate note with a 0.25 percent interest mark-up on EURIBOR.

The following table shows Syngenta's contractually agreed (undiscounted) interest and principal repayments on long-term financing-related non-derivative financial liabilities and the related derivatives held at December 31, 2015 and 2014. Non-derivative financial liabilities are recorded at amortized cost (less related issuance costs) unless subject to fair value hedge accounting, in which case the liability is adjusted for the change in fair value of the hedged risk to the extent the hedge relationship is effective. Derivative financial liabilities are recorded at fair value. The table therefore shows the total carrying amount of Syngenta's financial debt adjusted for the effect, if any, of applying fair value hedge accounting.

27. Risk management of financial risks continued

2015 ($m)	Non-derivative financial liabilities (Unsecured bonds and notes) Fixed rate interest	Variable rate interest	Principal repayment	Total	Derivative financial liabilities (Interest rate and cross-currency swaps) Fixed rate interest	Variable rate interest	Repayment[1]	Total
Less than 1 year	**67**	**1**	**–**	**68**	**38**	**4**	**–**	**42**
1-3 years	**134**	**1**	**273**	**408**	**76**	**6**	**72**	**154**
3-5 years	**131**	**–**	**427**	**558**	**68**	**–**	**43**	**111**
5-10 years	**196**	**–**	**1,372**	**1,568**	**113**	**–**	**131**	**244**
More than 10 years	**257**	**–**	**1,047**	**1,304**	**40**	**–**	**32**	**72**
Total payments	**785**	**2**	**3,119**	**3,906**	**335**	**10**	**278**	**623**
Net carrying amount				**3,137**				**267**

2014 ($m)	Non-derivative financial liabilities (Unsecured bonds and notes) Fixed rate interest	Variable rate interest	Principal repayment	Total	Derivative financial liabilities (Interest rate and cross-currency swaps) Fixed rate interest	Variable rate interest	Repayment[1]	Total
Less than 1 year	69	2	608	679	18	2	33	53
1-3 years	123	4	304	431	51	10	41	102
3-5 years	122	–	354	476	51	–	42	93
5-10 years	198	–	1,436	1,634	68	–	87	155
More than 10 years	269	–	577	846	21	–	18	39
Total payments	781	6	3,279	4,066	209	12	221	442
Net carrying amount				3,302				201

1 The repayments above (and the net carrying amount of the derivative financial liabilities) do not include the amounts paid as collateral

Forecast data for liabilities that may be incurred in the future is not included in the table above. Amounts in foreign currency were translated to US dollars at the closing rate at the reporting date. Variable payments at each year end arising from financial instruments were calculated based on the forward interest rate yield curve and the spread that Syngenta pays on its outstanding debt and open derivatives at December 31, 2015 and 2014, respectively. Non derivative financial liabilities, repayment of which can be demanded by the counterparty at any time, have been assigned to the earliest repayment period.

Capital structure

Absent major acquisitions, Syngenta targets maintaining a solid investment grade credit rating, as recognized by major third-party rating agencies, which it currently believes provides an optimal balance between financial flexibility and the cost of capital. Syngenta manages capital by monitoring levels of net debt, as calculated below, and equity against targets. During 2015, Syngenta redefined net debt to exclude financing-related derivatives as these are now offset by the financial assets and liabilities arising from collateral paid and received under CSA agreements. Capital is returned to shareholders primarily through dividend payments, with the aim of continuous dividend growth, complemented by tactical share repurchases.

The net debt to equity ratio was 31 percent at December 31, 2015 (25 percent at December 31, 2014[1]).

The components of net debt at December 31, 2015 and 2014 are as follows:

($m)	2015	2014[1]
Current financial debt	**547**	1,137
Non-current financial debt	**3,183**	2,752
Cash and cash equivalents	**(1,141)**	(1,638)
Marketable securities[2]	**(3)**	(3)
Net debt at December 31	**2,586**	2,248

1 Under the definition of net debt used in 2014, net debt was $2,423 million, including $175 million of financing-related derivatives, and the net debt to equity ratio was 27 percent

2 Included within "Derivative and other financial assets" and "Financial and other non-current assets"

28. Financial assets and liabilities

The following tables show the carrying amounts and fair values of financial assets and liabilities by category of financial instrument and reconciliation to where they are presented in the balance sheet at December 31, 2015 and 2014. The fair value hierarchy level is shown for those financial assets and liabilities that are carried at fair value in the balance sheet.

	Carrying amount (based on measurement basis)				
2015 ($m)	Amortized cost	Fair value level 1	Fair value level 2[1]	Total[1]	Comparison fair value
Cash and cash equivalents	1,141	–	–	1,141	1,141[2]
Trade receivables, net:					
At amortized cost	4,023	–	–	4,023	4,023[2]
Mandatorily measured at fair value through profit or loss	–	–	105	105	105
Total				4,128	4,128
Other accounts receivable:					
Financial assets	384	–	–	384	384[2]
Non-financial assets	–	–	–	461	–[3]
Total				845	
Derivative and other financial assets:					
Derivative financial assets[4]	–	6	128	134	134
Other current financial assets	267	–	–	267	267[2]
Total				401	401
Financial and other non-current assets:					
Loans, receivables and pooled investments	45	51	7	103	103[5]
Equity investments at fair value through OCI	–	2	71	73	73
Other, not carried at fair value	–	–	–	191	–[3]
Derivative financial assets[4]	–	–	29	29	29
Total				396	
Trade accounts payable	3,311	–	–	3,311	3,311[2]
Current financial debt and other financial liabilities:					
Non-derivative financial liabilities	615	–	–	615	615[2]
Derivative financial liabilities[4]	–	–	115	115	115
Total				730	730
Other current liabilities:					
Financial liabilities	209	–	–	209	209[2]
Non-financial liabilities	–	–	–	774	–[3]
Total				983	
Financial debt and other non-current liabilities:					
Non-derivative financial liabilities	3,197	–	–	3,197	3,218[6]
Derivative financial liabilities[4]	–	–	267	267	267
Non-financial liabilities	–	–	–	37	–[3]
Total				3,501	

1 The totals for equity investments at fair value through OCI include $71 million of level 3 investments, mainly within Syngenta's venture business unit, presented in the level 2 column in the table above. The main valuation input for these investments is the price from their most recent shareholder financing transactions. Gains, losses, additions to and disposals of these investments were immaterial

2 Carrying amount approximates the estimated fair value due to the short-term nature of the financial instruments

3 Fair value is not required to be disclosed for non-financial assets and non-financial liabilities, including defined benefit pension assets

4 Derivative financial assets and liabilities are measured at fair value through profit or loss except that gains and losses on cash flow hedges of forecast transactions are not recognized in profit or loss until the hedged transaction is recognized in profit or loss

5 Fair values of these receivables are measured by discounting their cash flows at interest rates derived using observable yields on government bonds with maturities and currencies that match those of the respective receivable and the estimated credit risk of each receivable. The total fair value disclosed is due from counterparties that have not issued traded bonds and represents a level 3 fair value measurement

6 Financial liabilities represent both exchange traded bonds and non-exchange traded private placement notes issued by Syngenta. The fair value disclosed consists of level 2 fair value measurements derived from observable price quotations for these bonds, except for one private placement note with a fair value of $147 million, which is a level 3 measurement because market interest rates and credit rates are not observable for the full period through to its maturity date in 2035

28. Financial assets and liabilities continued

	Carrying amount (based on measurement basis)				
2014 ($m)	Amortized cost	Fair value level 1	Fair value level 2 [1]	Total [1]	Comparison fair value
Cash and cash equivalents	1,638	–	–	1,638	1,638[2]
Trade receivables, net:					
At amortized cost	3,507	–	–	3,507	3,507[2]
Mandatorily measured at fair value through profit or loss	–	–	191	191	191
Total				3,698	3,698
Other accounts receivable:					
Financial assets	321	–	–	321	321[2]
Non-financial assets	–	–	–	426	–[3]
Total				747	
Derivative and other financial assets:					
Derivative financial assets [4]	–	5	212	217	217
Other current financial assets	160	–	–	160	160[2]
Total				377	377
Financial and other non-current assets:					
Loans, receivables and pooled investments	237	–	7	244	261[5]
Equity investments at fair value through OCI	–	5	66	71	71
Other, not carried at fair value	–	–	–	77	–[3]
Derivative financial assets [4]	–	–	28	28	28
Total				420	
Trade accounts payable	3,472	–	–	3,472	3,472[2]
Current financial debt and other financial liabilities:					
Non-derivative financial liabilities	1,151	–	–	1,151	1,151[2]
Derivative financial liabilities [4]	–	1	177	178	178
Total				1,329	1,329
Other current liabilities:					
Financial liabilities	258	–	–	258	258[2]
Non-financial liabilities	–	–	–	726	–[3]
Total				984	
Financial debt and other non-current liabilities:					
Non-derivative financial liabilities	2,766	–	–	2,766	2,877[6]
Derivative financial liabilities [4]	–	–	175	175	175
Non-financial liabilities	–	–	–	35	–[3]
Total				2,976	

1 The totals for equity investments at fair value through OCI include $66 million of level 3 investments, mainly within Syngenta's venture business unit, presented in the level 2 column in the table above. The main valuation input for these investments is the price from their most recent shareholder financing transactions. Gains, losses, additions to and disposals of these investments were immaterial

2 Carrying amount approximates the estimated fair value due to the short-term nature of the financial instruments

3 Fair value is not required to be disclosed for non-financial assets and non-financial liabilities, including defined benefit pension assets

4 Derivative financial assets and liabilities are measured at fair value through profit or loss except that gains and losses on cash flow hedges of forecast transactions are not recognized in profit or loss until the hedged transaction is recognized in profit or loss

5 Fair values of these receivables are measured by discounting their cash flows at interest rates derived using observable yields on government bonds with maturities and currencies that match those of the respective receivable and the estimated credit risk of each receivable. Of the total fair value disclosed, $136 million represents a level 2 fair value measurement because credit risk was determined from yields on actively traded bonds issued by the counterparty, and $125 million, which is due from counterparties that have not issued traded bonds, represents a level 3 fair value measurement

6 Financial liabilities represent both exchange traded bonds and non-exchange traded private placement notes issued by Syngenta. The fair value disclosed consists of level 2 fair value measurements derived from observable price quotations for these bonds, except for one private placement note with a fair value of $127 million, which is a level 3 measurement because market interest rates and credit rates are not observable for the full period through to its maturity date in 2035

28. Financial assets and liabilities continued

The levels of fair value hierarchy used above are defined as follows:

- Level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 fair value measurements are those derived from inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data.

The fair values of equity shareholdings subject to a lock-up period where the underlying shares are actively traded on a stock exchange is derived by applying a discount to the market price and are classified as level 2. They are reclassified as level 1 on expiry of the lock-up period. In 2015, there were no transfers between level 1 and level 2 of the fair value hierarchy or between the fair value and amortized cost categories. In 2014, one equity shareholding of $35 million was reclassified from level 2 to level 1; part of this shareholding was then sold for $13 million. There were no transfers during the years ended December 31, 2015 and 2014 into or out of level 3 of the fair value hierarchy.

Income, expense, gains and losses relating to financial instruments recognized in profit or loss during the years ended December 31, 2015 and 2014 are as follows:

2015 ($m)	Amortized cost loans and receivables[1]	Derivative assets and liabilities	Liabilities carried at amortized cost	Total
Recognized within Financial expense, net[2]:				
Interest income	150	–	–	150
Interest expense	(6)	(31)	(132)	(169)
Currency gains/(losses), net	–	(215)	–	(215)
Recognized within Operating income:				
Impairment charges	(76)	–	–	(76)
Total	68	(246)	(132)	(310)

2014 ($m)	Amortized cost loans and receivables[1]	Derivative assets and liabilities	Liabilities carried at amortized cost	Total
Recognized within Financial expense, net[2]:				
Interest income	152	–	–	152
Interest expense	(6)	(18)	(171)	(195)
Currency gains/(losses), net	–	(139)	–	(139)
Recognized within Operating income:				
Impairment charges	(67)	–	–	(67)
Total	79	(157)	(171)	(249)

1 Includes immaterial amounts relating to financial assets classified as at fair value through profit or loss
2 Financial expense, net also includes $22 million of bank charges (2014: $35 million)

Reported gains and (losses) recognized in OCI on revaluation of equity investments that were designated at fair value through OCI were $(3) million and $(33) million for the years ended December 31, 2015 and 2014, respectively.

29. New IFRSs and accounting policies

New IFRSs

Syngenta has adopted the "Annual Improvements" amendments to IFRSs, 2010–2012 and 2011–2013 cycles, with effect from January 1, 2015. The adoption of these amendments had no impact on these consolidated financial statements.

The relevant new or revised IFRSs that Syngenta has not yet adopted are the following:

- IFRS 9 "Financial Instruments" was published in July 2014. IFRS 9 was published in stages and Syngenta early adopted an earlier version, IFRS 9 (December 2013) in 2014. The July 2014 version of IFRS 9 is the complete and final version and contains certain revisions to the financial asset classification and measurement requirements in the December 2013 version, the most important being the addition of a third business model for asset classification with objectives of both collecting contractual cash flows from the assets and selling the assets. On the basis of the financial assets it holds at December 31, 2015, Syngenta does not believe these revisions will have a material impact on its consolidated financial statements. The July 2014 version of IFRS 9 also contains requirements for financial asset impairment that will replace the currently applicable equivalent IAS 39 guidance. Under the new impairment requirements, Syngenta will record allowances for expected credit losses on its financial assets. Syngenta's largest category of financial assets is its trade receivables, which, except for immaterial amounts, have credit terms of less than 12 months. Under the new requirements, an allowance will be recognized equal to the credit losses Syngenta expects to incur over the lifetime of the trade receivables. This may result in earlier recognition of loss allowances, because under the current guidance credit losses are not recognized until they are incurred. IFRS 9 (July 2014) is effective January 1, 2018 and the new impairment requirements must be applied retrospectively, but restatement of prior periods upon adoption is not required. Syngenta is assessing the impact that the new impairment requirements will have on its financial statements. However, it is not possible at this time to assess whether that impact is likely to be material.
- IFRS 15 "Revenue from Contracts with Customers" was published in May 2014, and contains a single comprehensive set of requirements for the recognition of revenue. Under IFRS 15, reported revenue will represent the transfer of promised goods or services to customers in an amount that reflects the consideration to which Syngenta expects to be entitled in exchange for those goods or services. The recognition requirements relating to contracts where revenue is variable, which for Syngenta include both product sales and licensing agreements, have been expanded significantly in IFRS 15. Each licensing contract Syngenta enters into has unique terms and certain licensing contracts may involve significant upfront or milestone payments. Based on the current text of IFRS 15 and Syngenta's existing contracts with its customers, Syngenta believes that those sales which it currently recognizes when distributors sell Syngenta products to their customers, as described in its revenue recognition accounting policy below, will be recognized earlier in accordance with IFRS 15, at the time Syngenta sells to the distributor, subject to provision for sales returns. At January 1, 2015, the unrecognized amount of these sales was $437 million. At December 31, 2015, the amount had reduced to $35 million, mainly because of the change in sales terms in Brazil described in Note 2.
  On adopting IFRS 15, Syngenta will account for these sales in accordance with the transitional requirements of that standard, which are currently subject to the outcome of the IASB's Exposure draft proposals. IFRS 15 allows transition either by retrospective application to and restatement of prior periods, or by a one-time catch-up adjustment to retained earnings. Under the retrospective transition method, retained earnings would be increased by the net income resulting from the amount of unrecognized sales at the start of the earliest comparative period presented in the financial statements in which Syngenta first applies IFRS 15, and the comparative consolidated income statements presented in those financial statements would be restated accordingly. Under the catch-up method, retained earnings at the start of the year of adoption would be increased, and comparative income statements would not be restated. Syngenta must adopt IFRS 15 by January 1, 2018 at the latest. Early adoption is permitted. Syngenta has not made a final decision whether to adopt the standard early or which transition method to select. When the retrospective application transition model is applied, completed contracts which began and ended within the same annual reporting period need not be restated. In respect of all sales other than the distributor sales referred to above, Syngenta does not believe that adoption of the current text of IFRS 15 will have a material effect on its financial statements. Syngenta will, however, need to assess the effect of any amendments that may arise from the IASB's Exposure Draft of proposals to modify IFRS 15. Those proposals would modify the IFRS 15 guidance relating to licensing, identifying distinct promised goods or services within a contract and identifying whether Syngenta is a principal or an agent in contracts in which customers receive rights to third party products and services.
- IFRS 16 "Leases", was published in January 2016, and requires a lessee to account for all leases by recognizing an asset for the right to use the leased asset and a corresponding liability for lease payments during the lease term, which is defined as the non-cancellable period of the lease and any additional periods for which the lessee has an option to use the asset that it is reasonably certain to exercise. Leases with a term of less than one year and leases of certain small value assets are exempt from these requirements and will continue to be accounted for in the same way as operating leases under the current IAS 17. The liability for lease payments will be the present value of payments required over the lease term, excluding contingent payments and payments for services associated with the lease. Lease expense will be attributed to accounting periods in the same way as for finance leases under the current IAS 17. Syngenta must adopt IFRS 16 by January 1, 2019 at the latest. Early adoption is permitted on condition that IFRS 15 is also adopted on or before the date IFRS 16 is adopted. IFRS 16 allows transition either by retrospective application to and restatement of prior periods, or by a modified retrospective application method under which IFRS 16 is applied to all leases with a remaining term of more than one year upon adoption by making a one-time catch-up adjustment to retained earnings, and prior periods are not restated. Syngenta is currently assessing the impact on its financial statements of IFRS 16, including the requirement to recognize an asset and a liability for leases that it currently classifies as operating leases and for which it therefore does not recognize a lease asset or liability at present. Syngenta's minimum commitments under its existing operating leases are disclosed in Note 25.

29. New IFRSs and accounting policies continued

- "Accounting for Acquisitions of Interests in Joint Operations", Amendments to IFRS 11, was issued in May 2014 and clarifies that the acquisition accounting and disclosure requirements of IFRS 3 "Business Combinations" must be applied to the acquisitions of an interest in a joint operation. Syngenta is required to apply the amendments prospectively from January 1, 2016. After this date, it would be possible to assess the impact on Syngenta if it were to acquire an interest in a joint operation.
- "Clarification of Acceptable Methods of Depreciation and Amortization", Amendments to IAS 16 and IAS 38, was issued in May 2014. The amendments state that a unit of revenue depreciation method for property, plant and equipment is inappropriate, and that a unit of revenue amortization method for intangible assets is presumed to be inappropriate unless the economic benefits derived from the asset are highly correlated with revenues or the asset's use is conditional on a measure of revenue such as a threshold amount. Syngenta is required to apply the amendments prospectively from January 1, 2016. Syngenta does not expect the amendments to have a material impact on its consolidated financial statements.
- "Agriculture: Bearer Plants" Amendments to IAS 16 and IAS 41, issued June 2014, requires bearer plants to be accounted for and reported as property, plant and equipment instead of as biological assets. Syngenta is required to apply the amendments from January 1, 2016. At December 31, 2015, the amounts of bearer plants reported by Syngenta were not material and Syngenta does not expect the amendments to have a material impact on its consolidated financial statements.
- The "Annual Improvements to IFRSs" amendments for the 2012–14 annual improvement cycles were issued in September 2014, Syngenta must adopt the amendments with effect from January 1, 2016. Syngenta does not believe that the amendments will have a material impact on its consolidated financial statements.
- "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture", Amendments to IFRS 10 and IAS 28, was issued in September 2014 and requires Syngenta to recognize gains and losses on such sales or contributions only to the extent they relate to the interest in the Associate or Joint Venture that is held by investors other than Syngenta. Syngenta is required to apply the amendments prospectively from January 1, 2016, although the IASB has published an Exposure Draft proposing to postpone mandatory application indefinitely. Based on the Associates and Joint Ventures in which it has investments at December 31, 2015, Syngenta does not believe that the amendments will have a material impact on its consolidated financial statements.
- "Disclosure Initiative", amendments to IAS 1, was issued in December 2014, and amends guidance for presenting gains and losses recognized in OCI by associates and joint ventures, presenting the notes to the financial statements and including additional line items and subtotals in financial statements. Syngenta is required to apply the amendments from January 1, 2016. Syngenta does not believe that the amendments will have a material impact on the presentation of its consolidated financial statements.
- "Recognition of Deferred Tax Assets for Unrealised Losses", Amendments to IAS 12, was published in January 2016, and clarifies that for deferred income tax accounting purposes an entity may assume that an asset will be realized for more than its carrying amount if that outcome is supported by sufficient evidence. Syngenta must adopt the amendments by January 1, 2017. Syngenta is currently assessing the impact on its financial statements of the amendments.
- "Disclosure Initiative", amendments to IAS 7, was issued in January 2016, and introduces a new requirement for Syngenta to disclose changes in liabilities arising from financing activities, including separate disclosure of changes arising from cash flows and non-cash changes. Syngenta is required to apply the amendments from January 1, 2017.

Principles of consolidation

Subsidiaries

Subsidiaries are those entities which Syngenta controls. Syngenta controls all its subsidiaries through ownership of a majority of their voting rights. Syngenta fully consolidates the income, expenses, assets, liabilities and cash flows of subsidiaries from the date it acquires control up to the date control ceases. Intercompany transactions and balances are eliminated upon consolidation.

Associates and joint ventures

Syngenta has no interests in entities that it does not consolidate that would meet the definition of joint operations. Syngenta accounts for both associates and joint ventures using the equity method.

Business combinations

Syngenta accounts for business combinations in accordance with IFRS 3, (revised January 2008), using the acquisition method. At the date it acquires control of another business, Syngenta records the fair value of the agreed consideration payable, including the estimated fair value of any contingent consideration and of any pre-existing ownership interest it holds in the acquired entity. Directly attributable acquisition transaction costs are expensed as incurred. The assets and liabilities of acquired businesses are identified and recorded in the consolidated financial statements at their acquisition date fair values, with certain exceptions as set out in IFRS 3. Acquired intangible assets are generally valued based on the income approach: the relief from royalty method is generally used for brand names and product technology rights, and the residual income method for customer relationships. Acquired land and buildings are valued based on the market approach and specialized plant and equipment based on the cost approach. Non-controlling interests which either consist of actively traded financial instruments or which do not represent a proportionate ownership interest in the acquired entity to which they relate are recorded at their fair value. All other non-controlling interests are recorded at their proportionate share of the fair value of the acquired business's net assets.

29. New IFRSs and accounting policies continued

Other accounting policies

Foreign currencies

Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the rate prevailing at the balance sheet date. Non-monetary assets and liabilities denominated in foreign currencies, stated at historical cost or fair value, are translated into the functional currency at the foreign exchange rate prevailing at the date of the transaction or the date the fair value was determined, respectively. Foreign currency transactions are translated into the relevant functional currency at the exchange rate prevailing at the date of the transaction. With exceptions for certain regional supply centers, holding and finance subsidiaries, each Syngenta subsidiary uses the local currency of its country of operations as its functional currency. Unrealized gains or losses related to equity loans, designated cash flow and net investment hedging arrangements and gains and losses on remeasuring equity investments designated at fair value through OCI are recognized in OCI. All other resulting foreign exchange transaction gains and losses are recognized in profit or loss. Equity loans are intercompany loans to subsidiaries that are not expected to be repaid in the foreseeable future and therefore considered part of Syngenta's net investment in the subsidiary.

Income, expense and cash flows of foreign operations are translated into US dollars using average exchange rates prevailing during the period. Assets and liabilities of foreign operations are translated to US dollars using exchange rates prevailing at the balance sheet date. Foreign exchange differences arising on these translations are recognized directly in OCI. The consolidated historical cost of inventories that have been transferred between Syngenta group entities since their initial purchase or manufacture is measured by translating the currencies in which the costs of purchase or manufacture were incurred into US dollars at the exchange rates prevailing at the date when those costs were incurred, and foreign exchange differences arising on retranslating these amounts to US dollars at the rates at the balance sheet date or the date the inventories were sold, as applicable, are recognized in OCI. Upon disposal or loss of control of a foreign subsidiary, the cumulative currency translation difference relating to the subsidiary is reclassified from equity to profit or loss as part of the gain or loss on disposal.

Revenue

Revenue is measured as the fair value of the consideration received or receivable. If the consideration is receivable more than 12 months after the transaction date and the effect of discounting is material, the revenue amount recognized is discounted to its present value at the transaction date and the unwinding of this discount is recognized as financial income over the period until the date the consideration is due. Revenue from sales of goods is recognized in the income statement when the significant risks and rewards of ownership have been transferred to the buyer, which is usually upon delivery, at a fixed or determinable price, and when collectability is reasonably assured. Delivery is defined based on the terms of the sale contract. Revenue is reported net of sales taxes, returns, discounts and rebates. Rebates to customers are provided for in the same period that the related sales are recorded based on the contract terms.

In certain markets, sales terms allow customers to exchange purchased products at a later date for other Syngenta products of their choice, to the same value. Revenue is recognized upon delivery of the original products, and is reduced by a provision for products expected to be exchanged. This provision is released, and the corresponding revenue is recorded, when the substitute products are delivered or the period available to exchange the products expires, whichever is earlier.

In certain markets, sales terms allow customers the option of a one time, non-repeatable extension of credit, for a defined additional period, in respect of a defined proportion of purchases made during a defined period, if the customers still have the inventories on hand upon expiration of the initial agreed credit period. Customers have no right to return these inventories, and must pay unconditionally when the additional credit period expires. In accordance with IAS 18, revenue for these sales is recognized upon product delivery.

Where a right of return exists, revenue is recognized when a reasonable estimate of returns can be made, or when the right of return expires, whichever is earlier. Where Syngenta's distributors hold inventories and have the right of return, or Syngenta's commercial practice is to accept returns from distributors, and it is not possible to make a reasonable estimate of returns, Syngenta recognizes revenue when its distributors sell the inventories to their customers.

Where third parties hold Syngenta inventories on a consignment basis, revenue is recognized in the period that inventories are withdrawn from consignment and delivered to customers.

Syngenta periodically enters into prepayment contracts with customers whereby it receives advance payments for products to be delivered in a future period. These advance payments are recorded as liabilities and presented as part of Trade accounts payable. Advance payment liabilities are released and revenues associated with such advance payment transactions are recognized upon delivery of and transfer of title, ownership, and risk of loss of the related products to the customer.

Royalty and license income is recognized when earned. If the license agreement contains performance obligations for Syngenta, the related income is considered earned when Syngenta has performed the obligations. Contractual minimum royalty income and non-refundable lump sum payments are considered earned when there are no substantive performance obligations or contingencies associated with their receipt other than the passage of time. Amounts received in advance of performance or which may be refundable dependent on future performance are deferred in the consolidated balance sheet. If the license agreement provides for royalties based on sales made by the licensee, the related income is considered earned in the period that the related sales occur.

29. New IFRSs and accounting policies continued

Cash rebates and discounts granted to customers are classified as a reduction of revenue. Awards of free or discounted products or services supplied by Syngenta in connection with customer loyalty programs are recognized as revenue when the customer redeems the credits. Awards supplied by a third party are recognized as revenue when the third party becomes obliged to supply the awards if Syngenta is an agent for the third party, and when Syngenta has performed its obligations to the customer if Syngenta is a principal. Net profit from programs where Syngenta is an agent is shown as part of Sales. Revenue related to programs where Syngenta is a principal is presented as part of Sales, and associated costs are presented within Cost of goods sold or Marketing and distribution expense as appropriate. Syngenta determines whether it is a principal or an agent according to whether it is exposed to the risks and rewards of supplying the third party products or services, in particular inventory holding risk. Liabilities associated with customer loyalty programs are classified within Trade accounts payable.

Barter transactions

For certain customers in certain markets, trade receivables are settled either with proceeds from sales by such customers of agricultural commodities or by delivery of commodities to Syngenta by such customers. For these arrangements, Syngenta recognizes revenue when it has a legally enforceable receivable, the amount of which is reliably measurable based on an agreed price for the Syngenta products. Where Syngenta has a contract with the customer for physical delivery of a commodity at a fixed price, an embedded derivative is recognized for the fair value of the contract until physical delivery. When it subsequently sells the commodity, Syngenta classifies additional revenue as sales only to the extent that the original contract for the sale of Syngenta products included revenue that was contingent upon the commodity sales proceeds. Any remaining gains or losses on the commodity sale are recorded in Marketing and distribution expense in the consolidated income statement.

Research and development

Research expenses are charged to the consolidated income statement when incurred. Internal development costs are capitalized as intangible assets only when there is an identifiable asset that can be completed and is expected to generate future economic benefits and when the cost of such an asset can be measured reliably. Costs incurred internally to develop new chemical or biological crop protection products based on active ingredients that have not yet obtained regulatory approval, or to develop new seed varieties which contain new traits that have not yet obtained regulatory approval, are expensed as incurred because of the uncertainty inherent in the outcome of the regulatory approval process. Costs incurred in the design, construction and testing of new or improved production processes that do not themselves require regulatory approval and that can be applied to products which have already obtained approval are capitalized if the processes are technically feasible, Syngenta intends and has sufficient resources to complete the development, the process will generate future economic benefits, and expenditure attributable to developing the process can be measured reliably. Development expenses Syngenta incurs to develop technology on behalf of a third party under a collaboration agreement are capitalized and amortized over the agreement term if Syngenta expects to recover the costs under the terms in that agreement.

Costs of purchasing distribution rights, patent rights and licenses to use or sell products, or technology or registration data are capitalized as intangible assets. Costs of applying for patents for internally developed products, costs of defending existing patents and costs of challenging patents held by third parties where these are considered invalid, are considered part of development expense and expensed as incurred.

Expenses by function

Cost of goods sold includes costs of purchasing and producing inventories that have been sold to third parties, inbound and inter-site distribution expenses, impairment of inventories, environmental remediation costs associated with ongoing Syngenta manufacturing sites, and general overhead expenses of Syngenta's Production and Supply function which are expensed as incurred. Marketing and distribution includes costs of selling products, providing technical support for products sold, marketing and promotional expenses, distribution of finished products to third party customers, and impairment of trade and other receivables. Research and development includes the expenses of Syngenta's research sites and third party research collaboration agreements, expenses incurred during the regulatory process for Syngenta products and the costs of Syngenta's global field trials organization. General and administrative includes expenses of general management, finance, human resources, information systems, legal affairs and taxes, corporate affairs and communications, business planning and corporate development functions. Services provided by these departments to the Production and Supply, Marketing and Distribution and Research and Development functions are allocated to and included within those other functions. Gains and losses arising on routine asset disposals and gains and losses reclassified from OCI when hedged forecast foreign currency trading transactions affect profit or loss are also reported within General and administrative. Restructuring is a separate general and administrative function as it is managed through a project management office which is accountable to the Executive Committee. Impairment of property, plant and equipment that results from restructuring plans, rather than ongoing activities of the functions responsible for the assets, is included in Restructuring. Impairment of goodwill and intangible assets is also included in Restructuring unless a specific function is accountable for the impairment loss. Non-current asset depreciation and amortization are charged to the functions responsible for the related assets.

Restructuring

Restructuring represents the effect on reported performance of initiating and enabling business changes that are considered major and that, in the opinion of management, will have a material effect on the nature and focus of Syngenta's operations, and therefore require separate disclosure to provide a more thorough understanding of business performance. Restructuring includes the incremental costs of closing, restructuring or relocating existing operations, and gains or losses from related asset disposals. Restructuring also includes the effects of analyzing and preparing for potential industry consolidation transactions as well as completing and integrating significant business combinations and divestments, including related transaction costs, gains and losses. Recurring costs of normal business operations and routine asset disposal gains and losses are excluded.

29. New IFRSs and accounting policies continued

Income taxes

Income taxes for the year comprise current and deferred taxes, calculated using rates enacted or substantively enacted at the balance sheet date. Current tax is the expected tax payable on taxable income for the year and any adjustments to tax payable in respect of previous years. Deferred tax is recognized using the liability method and thus is calculated on temporary differences between the tax bases of assets and liabilities and their respective carrying amounts in the consolidated balance sheet.

Deferred tax is provided on temporary differences arising on investments in subsidiaries, associates and joint ventures, except where the timing of the reversal of the temporary difference can be controlled and it is probable that the difference will not reverse in the foreseeable future. Deferred tax liabilities are not recognized on the initial recognition of goodwill if the carrying amount of goodwill exceeds its tax base. Deferred tax assets, including those related to unused tax losses, are recognized to the extent that it is probable that future taxable profit will be available against which the assets can be utilized. Income tax expense, current and deferred, is recognized in profit or loss unless it relates to items recognized in OCI or in equity in which case the tax expense is also recognized in OCI or equity, respectively.

Syngenta's policy is to comply fully with applicable tax regulations in all jurisdictions in which Syngenta's operations are subject to income taxes. Syngenta's estimates of current income tax expense and liabilities are calculated assuming that all tax computations filed by Syngenta's subsidiaries will be subject to review or audit by the relevant tax authorities. Syngenta and the relevant tax authorities may have different interpretations of how regulations should be applied to actual transactions. Syngenta records provisions for taxes it estimates will ultimately be payable when the reviews or audits have been completed, including allowances for any interest and penalties which may become payable. Syngenta releases these provisions when the tax audit of the applicable year is completed or an Advance Pricing Agreement (APA) settlement is reached that impacts previous years' tax payments, or otherwise when the statute of limitations for the applicable year expires, unless there is evident reason for earlier release.

Financial Instruments

Syngenta early adopted IFRS 9 (2013) with effect from January 1, 2014.

Trade and other accounts receivable

Trade and other accounts receivable include invoiced amounts less adjustments for doubtful receivables which are estimated by taking into account whether receivables are past due based on contractual terms, payment history and other available evidence of collectability. Receivable balances are written off only when there is no realistic prospect of their being collected.

Factoring arrangements transferring substantially all economic risks and rewards associated with accounts receivable to a third party are accounted for by derecognizing the accounts receivable upon receiving the cash proceeds of the factoring arrangement. Factoring arrangements that transfer to a third party some, but not substantially all economic risks and rewards are accounted for by continuing to recognize Syngenta's continuing rights over the receivable and by recognizing any related obligation to the third party factor.

Trade receivables are classified as and measured at amortized cost, less adjustments for doubtful receivables as described above, in accordance with IFRS 9. Syngenta holds trade receivables to collect their contractual cash flows, which consist solely of payments of principal and, where applicable, interest, except for certain foreign currency sales transactions in which Syngenta offers to its customers a written exchange rate option embedded into the sales contract. Trade receivable/option contracts that result from these foreign currency sales transactions are classified as at fair value through profit or loss. The fair value of these trade receivables is measured by:

(a) remeasuring the embedded exchange rate option at fair value;

(b) retranslating the underlying trade receivable into the selling entity's functional currency using closing spot exchange rates at the balance sheet date; and

(c) adjusting the resulting carrying amount of the combined receivable contract to reflect changes in customer credit risk. Syngenta includes this adjustment in the provision for doubtful receivables.

Derivative and other financial instruments

Regular way purchases and sales of marketable securities are recognized at settlement date.

Financial assets and liabilities which have remaining contractual maturities of 12 months or less at the balance sheet date are presented within Total current assets and Total current liabilities, respectively. Financial assets and liabilities which have remaining contractual maturities of more than 12 months are presented within Financial and other non-current assets and Financial debt and other non-current liabilities, respectively.

Equity investments in other entities which are not subsidiaries, associates or joint ventures of Syngenta are included in Financial and other non-current assets. They are classified and measured at fair value through OCI and are revalued to fair value at each reporting date, with all changes in fair value recognized within OCI. In Syngenta's opinion, presenting gains and losses on these investments in OCI is more consistent with Syngenta's strategic investment objectives than presenting those gains and losses within profit and loss. The fair value of equity investments traded in active markets is measured at the quoted price at the balance sheet date, multiplied by the number of shares held by Syngenta. The fair value of other equity investments is based on recent observable market transactions for equity shares in the investee company or, where there are no recent transactions, on valuation multiples for equity shares in similar companies, which are traded.

Other non-current receivables represent royalty and license receivables, loans to employees and other third parties, and amounts recoverable from third parties in reimbursement of environmental remediation and other costs. These receivables are stated at amortized cost, less provision for impairment where appropriate.

Financial debt is recognized initially at its fair value less transaction costs, which represents the net proceeds from issuing the debt. Subsequently, financial debt is stated at amortized cost using the effective interest method, except where subject to a fair value hedge relationship, in which case the carrying amount of the debt is adjusted by the change in the fair value of the hedged exposure during the hedge relationship.

29. New IFRSs and accounting policies continued

Derivative financial instruments are recorded initially at their fair value when Syngenta becomes a party to the instrument. They are revalued to fair value at each reporting date and presented as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

Fair values of publicly traded derivatives are based on quoted market prices of the specific instruments held at the balance sheet date.

Fair values of non-publicly traded derivatives are valued using accepted economic methodologies for pricing these financial instruments, such as discounted cash flow analysis or option pricing models. The valuation models seek to make maximum use of market inputs existing at the balance sheet date. The methods used to determine the fair value of specific types of non-publicly traded derivatives are as follows:

- Interest rate and cross-currency swaps are calculated as the present value of the estimated future cash flows. The future cash flows are determined using relevant market forward interest rates at the balance sheet date and are discounted using the zero-coupon rates with equivalent maturities for AA rated entities at the balance sheet date, as adjusted for the counterparty's credit risk. These discount rates incorporate the impact of net credit risk present in those derivative instruments. For cross-currency swaps, the discount rates reflect the impact of the currency basis on the future cash flows denominated in different currencies;
- Forward contracts are determined using relevant market exchange rates at the balance sheet date;
- Currency options are valued using the Black-Scholes-Merton option pricing model, which incorporates spot exchange rates, zero coupon rates with equivalent maturities for entities with credit ratings which approximate Syngenta's counterparty credit risk, and implied volatility in the market forward exchange rates at the balance sheet date; and
- Commodity options are valued using the Black-Scholes-Merton option pricing model, which incorporates future commodity price curves with equivalent maturities and implied volatilities in the commodities markets at the balance sheet date, adjusted for counterparty credit risk.

Realized gains and losses on disposal of amortized cost financial assets, revaluation gains and losses on derivatives not designated as accounting hedges, and gains and losses corresponding to the ineffective portion of derivatives designated as accounting hedges are recorded in profit or loss as they arise.

Syngenta applies hedge accounting as follows:

Fair value hedges
The designated hedging instruments are remeasured to fair value and the underlying hedged items are remeasured by the amount of change in the fair value of the hedged risk. The resulting remeasurement gains or losses are recognized in profit or loss as they occur.

Cash flow hedges
For the effective portion of the hedge, gains and losses on remeasuring designated hedging instruments to fair value are recognized in OCI as part of the cash flow hedge reserve, and are reclassified into profit or loss in the period (or periods) during which the underlying hedged cash flows affect profit or loss.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for cash flow hedge accounting, any cumulative unrealized gain or loss on the hedging instrument remains in equity until the underlying hedged item affects profit or loss. However, if a hedged forecasted transaction is no longer expected to occur, the cumulative unrealized gain or loss on the hedging instrument is immediately reclassified into profit or loss.

Time value of options
When Syngenta designates a derivative financial instrument that is, or contains, an option as a hedging instrument in a hedge accounting relationship, the time value of the options as measured using the Black-Scholes-Merton option pricing model is excluded from the hedge designation and accounted for as a cost of hedging, as follows. The change in the fair value of the option during its term is recognized in OCI to the extent that the option terms are aligned with the attributes of the hedged exposure. If the hedged item is a transaction, the cumulative change in time value is included in the initial carrying amount of any non-financial asset or liability recognized when the hedged transaction occurs, or otherwise is recognized in profit and loss when the cash flows from the hedged transaction affect profit and loss. If the hedged item is a risk that may affect profit or loss during the option term, the cumulative amount recognized in OCI is amortized into profit and loss on a straight line basis over the option term.

Inventories
Purchased products are recorded at acquisition cost while own-manufactured products are recorded at manufacturing cost including a share of production overheads based on normal capacity. Cost of inventories is determined on a first-in-first-out basis. Allowances are made for inventories with a net realizable value less than cost, or which are slow moving. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and costs to sell. Costs to sell include direct marketing, selling and distribution costs. Unsaleable inventories are fully written off.

Biological assets
Biological assets represent growing plants and cuttings in Syngenta's Flowers business and sugar cane seedlings within its Sugar cane business. In Flowers, young plants and cuttings are measured at fair value less costs to sell, with key inputs being current average third party net selling prices, actual average selling costs and, for immature assets, estimated stage of growth relative to mature assets. Sugar cane seedlings are measured at cost less impairment because fair value is not reliably measurable due to the nature of the asset not corresponding to traded assets or products in the market. The carrying amount of current consumable biological assets measured using the cost model is tested for impairment by comparing it with the assets' net realizable value determined in accordance with IAS 2, "Inventories". Non-current bearer biological assets, which are measured using the cost model, are amortized over their productive lives on a straight-line basis. When indicators of impairment exist, their carrying amount is compared with the assets' recoverable amount determined in accordance with IAS 36, "Impairment of Assets". Syngenta classifies gains and losses from remeasuring biological assets to fair value, and impairment losses for biological assets measured at cost less impairment, within Cost of goods sold.

29. New IFRSs and accounting policies continued

Property, plant and equipment

Property, plant and equipment are recorded at acquisition or production cost, less accumulated depreciation and any impairment losses. Eligible borrowing costs are capitalized as part of the asset cost if construction is expected to take more than one year to complete. Capitalization ceases when the asset is ready for its intended use. Depreciation is charged on a straight-line basis to the income statement, starting from the date the asset is ready for use, over the following estimated useful lives:

Buildings	20 to 40 years
Machinery and equipment	10 to 25 years
Furniture and vehicles	5 to 20 years
Computer hardware	3 to 7 years

Land is recorded at acquisition cost and is not subject to depreciation.

Expenditures made for existing property, plant and equipment that will provide future economic benefit are capitalized and depreciated over the revised remaining useful life of the asset.

Leases

Property, plant and equipment financed by leases giving rights to use the leased assets as if they were owned by Syngenta are classified as finance leases and therefore are capitalized at the lower of fair value and the present value of minimum lease payments at the inception of the lease. Such leases are also embedded in contracts for goods or services provided by suppliers to Syngenta when the supplier can fulfil their obligations only by using a specific asset to supply Syngenta and the contract price is neither fixed per unit of output nor represents a market price. Finance lease assets and liabilities are recognized at the commencement of the lease, which is when the leased asset is ready for use and Syngenta has the right to use it. Finance lease assets are depreciated over the shorter of the remaining lease term and the estimated useful life of the leased asset. Leases that are not classified as finance leases are accounted for as operating leases. Operating lease payments are recognized as lease expense on a straight-line basis over the lease term irrespective of the timing of the payments. The lease term is the non-cancelable period according to the lease contract unless Syngenta has a right to extend the lease beyond the end of that period and believes it is reasonably certain to exercise that right.

Intangible assets other than goodwill

Intangible assets, other than goodwill, are recorded at cost less accumulated amortization and any impairment losses. Currently, all such intangible assets are assigned a finite estimated useful life. The cost of acquired intangible assets other than goodwill consists of the purchase price including transaction costs. The cost of internally generated intangible assets consists of direct internal and external design, development, and testing costs incurred to make the asset ready for use in the manner intended by management. Borrowing costs associated with internal software development projects are capitalized if the project is expected to take more than one year to complete. Capitalization ceases when the software is ready for its intended use.

Intangible assets are amortized starting from the date the asset is ready for use. In respect of product rights, this is when regulatory approval has been obtained. Asset lives are reviewed annually. The straight-line method of amortization is used except where another systematic basis better reflects the pattern of consumption of the economic benefits represented by the asset. Amortization is charged within the consolidated income statement to the function responsible for the asset, or to General and administrative.

Useful lives assigned to acquired product rights are based on the period over which Syngenta expects economic benefit from the product rights. Estimated lives assigned to most product rights upon acquisition are between 10 and 20 years and do not exceed 20 years for any asset.

Patents and trademarks are amortized over their estimated economic or legal life, whichever is shorter. Lives assigned are between 3 and 20 years for patents and between 5 and 30 years for trademarks.

Business combinations give Syngenta access to the distribution channels and customer relationships of the acquired business. These relationships normally continue to generate economic benefit to Syngenta following the acquisition. The useful lives of customer relationships are determined from management estimates of customer attrition rates. Estimated lives assigned are between 5 and 30 years.

Acquired in-process research and development (IPR&D), is valued at fair value at acquisition. It is assessed for impairment annually until it has been successfully developed and is available for use at which time it begins being amortized over its estimated useful life. Lives assigned are between 10 and 20 years.

Assets attributable to long-term supply agreements are amortized as part of cost of goods sold over the period of the supply agreements, which are between 5 and 12 years.

Purchased software licenses are amortized over their remaining license terms. Internally developed software is amortized from the date it is ready for use until the sooner of its expected replacement date or the date significant costs are expected to be incurred to upgrade it. Lives assigned are between 3 and 7 years.

Goodwill

Goodwill is the excess of the fair value of an acquired business over the fair value of its identifiable net assets at the acquisition date. Goodwill is recognized as an asset and presented within intangible assets. Goodwill is not amortized, but is tested annually for impairment and reduced by any impairment losses.

Impairment

Property, plant and equipment, intangible assets and investments in associates and joint ventures are tested for impairment ("tested") in accordance with IAS 36 unless classified as held-for-sale. Goodwill and intangible assets not yet ready for use are tested annually and are also reviewed at each interim and annual reporting date to determine whether conditions changed since the most recent review or annual test. Individual other non-current assets are reviewed at each reporting date to determine whether events or changes in conditions indicate that the carrying amount of each asset may not be recoverable. If any such indication exists, the asset is tested for impairment. Syngenta estimates an asset's recoverable amount as the higher of the asset's fair value less selling costs and value in use, which is the present value of the cash flows expected from the asset's use and eventual disposal.

29. New IFRSs and accounting policies continued

An impairment loss is recorded in the consolidated income statement to the extent that the carrying amount of the tested asset exceeds its recoverable amount. Impairment losses are not reversed for goodwill, but are reversed for other assets if their recoverable amounts subsequently increase.

Non-current assets held-for-sale

Non-current assets and groups of assets are reclassified as held-for-sale when the assets are available for immediate sale in their present condition and a sale within one year is highly probable. Property, plant and equipment and intangible assets held-for-sale are remeasured at the lower of fair value less costs to sell or carrying amount at the date they meet the held-for-sale criteria at which time depreciation and amortization also ceases. Any resulting impairment loss is recognized in profit or loss. Fair value is measured based on bids received from potential buyers of the assets.

Provisions

A provision is recognized in the balance sheet when Syngenta has a legal or constructive obligation to a third party or parties as a result of a past event, the amount of which can be reliably estimated and it is probable that an outflow of economic benefits will be required to settle the obligation. The amount recognized as a provision is the best estimate of the expenditure required to settle the obligation at the balance sheet date. Syngenta self-insures or uses a combination of insurance and self-insurance for certain risks. Provisions for these risks are estimated in part by considering historical claims experience and other actuarial assumptions and, where necessary, counterparty risk.

Environmental provisions

Provisions for remediation costs are made when there is a present obligation, it is probable that expenditures for remediation work will be required within ten years (or a longer period if specified by a legal obligation) and the cost can be estimated within a reasonable range of possible outcomes. The costs are based on currently available facts: technology expected to be available at the time of the clean up; laws and regulations presently or virtually certain to be enacted; and prior experience in remediation of contaminated sites.

Environmental liabilities are recorded at the estimated amount at which the liability could be settled at the balance sheet date, and are discounted if the impact is material and if cost estimates and timing are considered reasonably certain.

Syngenta's restructuring programs have involved closure of several sites to date. Remediation liabilities recognized when site closures are announced are accounted for as restructuring provisions.

Legal and product liability settlements

For claims for which, according to Syngenta's assessment, it is not probable that a liability exists or that there will be a future cash outflow or other sacrifice of economic benefits, Syngenta provides for the costs of defense only. For claims where an outcome unfavorable to Syngenta is assessed as more likely than not, provision is made for the estimated amount of damages and settlement, including directly attributable legal costs. No provision is made where the legal procedures are at too early a stage to estimate the outcome with any reliability.

Restructuring provisions and costs

Restructuring costs are accrued (charged to provisions) when Syngenta has approved a detailed and formal restructuring plan and the restructuring has either commenced or been announced publicly and they qualify for recognition in accordance with IAS 37. Provisions for severance payments and related employment termination costs that do not depend on future service, are made in full when employees are given details of the restructuring plan and the termination benefits that will apply to individual employees should their contracts be terminated. Retention and other payments that depend on future service are recognized over the required service period. Restructuring costs relating to ongoing activities, such as relocation, training and information systems, do not qualify for provisioning under IAS 37 and are expensed when incurred.

Post-employment benefits

For defined benefit plans, plan assets are measured at fair value. The plans' holdings in publicly quoted investments are valued at closing prices at the balance sheet date. The plans' holdings in pooled investment vehicles (PIVs) that are not publicly quoted are valued at the respective investment managers' current estimate of fair value, on a basis consistent with each PIV's most recent audited financial statements. Derivative contracts entered into directly by the pension plans are included within plan assets. Exchange traded derivatives are valued at quoted balance sheet date bid prices for contracts which are assets, or offer prices for contracts which are liabilities, at the balance sheet date. Fair values of over the counter derivatives are measured using independent third party pricing services. The defined benefit obligations are measured at the present value of future benefit payments attributable to employee service rendered up to the balance sheet date, according to the benefit formula set out in the relevant pension plan rules and employment terms at the balance sheet date. Where a surplus of plan assets over the benefit obligation exists at the balance sheet date or would arise upon payment of the minimum funding commitment applicable to the pension plan, Syngenta evaluates the extent to which the surplus is realizable over time through refund rights and reductions in the present value of its future contributions to the plan. To the extent that the surplus is not realizable, the net defined benefit asset is reduced and, where applicable, an additional liability for minimum funding contributions is recognized. Benefit expense charged to profit or loss comprises current service cost, which is the cost to Syngenta of the increase in benefits earned from employee service in the period, gains and losses arising from amendments to and settlements of benefits that occurred during the period, and interest on the net defined benefit asset or liability, which is the change in the present value of that asset or liability arising from the passage of time during the period, measured using the rate used to discount the defined benefit obligation at the previous period end. The benefit obligation and cost are attributed to periods using the projected unit credit actuarial method and are measured using long-term assumptions about expected future length of employee service, increases in pay and pensions, longevity, and for healthcare plans, medical costs. Assumptions are reviewed annually. Gains and losses arising from variances between assumptions and actual outcomes, and from changes to assumptions, are recognized in OCI in the period in which they arise.

Contributions to defined contribution pension plans are recognized as an expense in profit or loss when they are due.

29. New IFRSs and accounting policies continued

Share based payments

The fair value of equity-settled share and share option awards to employees is recognized as compensation expense, and as a corresponding increase in equity, over the period in which the shares or options vest. An award is granted when it has been approved by the Compensation Committee of Syngenta AG's Board of Directors and its terms have been communicated to share plan members. The fair value of grants of Syngenta AG ordinary shares is measured at market value on the grant date, less any cash amount payable by the employee. The fair value of grants of share awards and unvested shares that do not carry dividend rights until vesting is reduced by the present value of the expected dividends to which the holder will not be entitled. No discount is applied to grant date market value to reflect vesting conditions. As described in Note 23, vesting of certain share option awards is conditional on Syngenta's total share return over a three year period relative to a defined peer group of other companies. For these awards, compensation expense is calculated using a fair value per option and number of shares expected to vest that are derived using the Monte Carlo method at the time of grant and are not subsequently revised. The fair value of all other grants of options over Syngenta AG ordinary shares, where vesting is conditional only on completing a required period of service, is measured using the Black-Scholes-Merton formula. For all awards that do not have a performance condition related to the market price of Syngenta shares, compensation expense is measured using Syngenta's best estimate of the shares and options expected to vest, taking into account expected fulfilment of service requirements and, where applicable, performance conditions unrelated to Syngenta's share price. This estimate is adjusted subsequently so that final expense is based on the number of shares and options that actually vest. Except for the effect of adjusting the number of vesting shares and options in this way, compensation expense is recognised on a straight-line basis over the award's vesting period. Grants with a cash or equity alternative for plan members are accounted for as liabilities until the members' choice is known. The incremental fair value of members' equity option for these grants is zero. A member's choice to receive equity instruments is accounted for by transferring the fair value of the liability to shareholders' equity when the choice is made. For certain equity-settled share plans, Syngenta has withholding obligations in respect of plan members' personal income tax liabilities on vesting or exercise of awards. These plans are accounted for as fully equity-settled.

The fair value of equity settled and cash settled share grants awarded to customers in cash rebate sacrifice arrangements is recognized as a reduction in sales in the same way as the cash rebate.

Dividends and capital distributions

Dividends payable to shareholders of Syngenta AG are recorded as liabilities and as a reduction in shareholders' equity in the period in which they are approved by the shareholders of Syngenta AG.

Treasury shares

Share capital includes the par value of treasury shares held by Syngenta that have not been cancelled. Treasury shares are shown as a separate component of shareholders' equity and stated at the amount paid to acquire them. Differences between this amount and the amount received upon their disposal are recorded as a movement in consolidated shareholders' equity.

30. Subsequent events

In January 2016, the terms of Syngenta's $1.5 billion committed, revolving, multi-currency syndicated credit facility were amended to enable Syngenta to establish an additional $1 billion committed, syndicated facility. This additional facility was established in January 2016 and expires in 2019.

In the second half of 2015 Syngenta announced the intended divestment of its Vegetables and Flowers seeds businesses. In October the company launched a share buyback program, under which 231,500 shares were repurchased for a total amount of $79 million. On February 2, 2016, following internal review the Board of Directors decided not to pursue the divestments and the share buyback will consequently be discontinued.

On February 2, 2016, the Board of Directors decided to support a proposal by China National Chemical Corporation (ChemChina) to acquire 100 percent of the ordinary shares of Syngenta AG through a tender offer to shareholders at an offer price of $465 per share, to be paid in cash. A separate, equivalent offer will be made to holders of Syngenta American Depositary shares (ADSs). This offer would become binding on announcement by ChemChina of the offer terms, and would become unconditional upon fulfilment of regulatory approval by all competent merger control and other authorities and acceptance by shareholders owning 67 percent of Syngenta AG issued shares. ChemChina is not permitted to commence the offer until certain regulatory approvals have been obtained. Under the terms of the proposal, if the offer becomes unconditional, Syngenta AG will pay a special dividend of CHF 5.00 per share immediately before the first settlement of the offer. The offer price will not be adjusted for the special dividend, nor for the dividend of CHF 11.00 per share which the Board of Directors will propose to the AGM on April 26, 2016. On acceptance of the tender offer by shareholders owning 90 percent of Syngenta AG issued shares, it is intended that a squeeze-out procedure would be applied to shares that have not been tendered. Under the transaction agreement between Syngenta and ChemChina, in certain circumstances, if the Board of Directors were to withdraw its support for the offer and as a result the offer is not successful or does not become unconditional, Syngenta will pay ChemChina $1.5 billion. ChemChina will pay Syngenta $3 billion if, despite all conditions of the offer having been satisfied or being still capable of being satisfied, the offer does not become unconditional or is terminated as a result of the failure to obtain certain regulatory approvals.

Approval of the Consolidated Financial Statements

These consolidated financial statements were approved by the Board of Directors on February 2, 2016.

Report of Syngenta Management on Internal Control over Financial Reporting

Syngenta's Board of Directors and management are responsible for establishing and maintaining adequate internal control over financial reporting. Syngenta's internal control system was designed to provide reasonable assurance to Syngenta's management and Board of Directors regarding the reliability of financial reporting and the preparation and fair presentation of its published consolidated financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Syngenta's management assessed the effectiveness of Syngenta's internal control over financial reporting as of December 31, 2015. In making this assessment, it used the criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has concluded that, as of December 31, 2015, Syngenta's internal control over financial reporting was effective based on those criteria.

KPMG AG, Switzerland, an independent registered public accounting firm, has issued an opinion on the effectiveness of Syngenta's internal control over financial reporting which is included in this financial report.

/s/ John Ramsay
Chief Executive Officer and
Chief Financial Officer

Basel, February 2, 2016

Report of the Independent Auditor on Internal Control over Financial Reporting

The Board of Directors and Shareholders

Syngenta AG, Basel

We have audited Syngenta AG's internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Syngenta AG's Board of Directors and management are responsible for maintaining effective internal control over financial reporting and management is responsible for its assessment of the effectiveness of internal control over financial reporting, included in the *Report of Syngenta Management on Internal Control over Financial Reporting (page 91).* Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Syngenta AG maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with Swiss law, Swiss Auditing Standards, International Standards on Auditing, and the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements of Syngenta AG and subsidiaries, which comprise the consolidated balance sheet and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows, and notes (pages 30 to 90) for the year ended December 31, 2015, and our report dated February 2, 2016 expressed an unqualified opinion on those consolidated financial statements.

KPMG AG

/s/ Richard Broadbelt
Licensed Audit Expert
Auditor in Charge

/s/ Regula Wallimann
Licensed Audit Expert

Basel, February 2, 2016

Report of the Statutory Auditor

To the General Meeting of Shareholders of

Syngenta AG, Basel

Report of the Statutory Auditor on the Consolidated Financial Statements

As statutory auditor, we have audited the accompanying consolidated financial statements of Syngenta AG and subsidiaries ("Syngenta AG"), which comprise the consolidated balance sheet and the related consolidated statements of income, comprehensive income, changes in equity, and cash flows, and notes (pages 30 to 90) for the year ended December 31, 2015.

Board of Directors' Responsibility

The board of directors is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRS) and the requirements of Swiss law. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. The board of directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We conducted our audit in accordance with Swiss law, Swiss Auditing Standards, International Standards on Auditing, and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements for the year ended December 31, 2015, give a true and fair view of the financial position, the results of operations and the cash flows in accordance with International Financial Reporting Standards (IFRS), and comply with Swiss law.

Report on Other Legal and Regulatory Requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of consolidated financial statements according to the instructions of the board of directors.

We recommend that the consolidated financial statements submitted to you be approved.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Syngenta AG's internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee on Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 2, 2016 expressed an unqualified opinion on the effectiveness of Syngenta AG's internal control over financial reporting.

KPMG AG

/s/ Richard Broadbelt
Licensed Audit Expert
Auditor in Charge

/s/ Regula Wallimann
Licensed Audit Expert

Basel, February 2, 2016

Financial Statements of Syngenta AG

Income Statement

(for the years ended December 31, 2015 and 2014)

(CHF million)	Notes	2015	2014
Income:			
Dividend income	2	**1,217**	1,150
Other financial income	2	**54**	50
Total income		**1,271**	1,200
Expenses:			
Financial expenses		**(21)**	(6)
Operating expenses		**(13)**	(15)
Direct taxes		**(5)**	(5)
Total expenses		**(39)**	(26)
Net income		**1,232**	1,174

Balance Sheet (prior to earnings appropriation)

(at December 31, 2015 and 2014)

(CHF million)	Notes	2015	2014
Assets			
Current assets:			
Short-term receivables from subsidiaries		**2**	34
Short-term loans to subsidiaries	2	**2,001**	1,818
Total current assets		**2,003**	1,852
Non-current assets:			
Long-term loans to subsidiaries	2	**39**	39
Investments in subsidiaries	3	**4,098**	4,098
Total non-current assets		**4,137**	4,137
Total assets		**6,140**	5,989
Liabilities and shareholders' equity:			
Short-term liabilities:			
Short-term interest bearing loans from subsidiaries	2	**(300)**	(400)
Short-term liabilities to subsidiaries		**(10)**	(6)
Accrued expenses and deferred income		**(12)**	(12)
Total short-term liabilities		**(322)**	(418)
Equity			
Share capital	5	**(9)**	(9)
Legal reserves			
Legal reserves from capital contribution	4	**(27)**	(27)
Legal reserves from retained earnings	4	**(2)**	(2)
Voluntary retained earnings			
Other reserves	4	**(1,749)**	(1,749)
Retained earnings	4	**(3,186)**	(3,022)
Net income		**(1,232)**	(1,174)
Treasury shares	6	**387**	412
Total shareholders' equity		**(5,818)**	(5,571)
Total liabilities and shareholders' equity		**(6,140)**	(5,989)

Notes to the Financial Statements of Syngenta AG

1. Accounting policies

General aspects

These financial statements were prepared according to the provisions of the Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations). This new Law on Accounting and Financial Reporting (the "Law") has been applied for the first time in 2015. The previous year's figures were reclassified according to the Law in order to achieve a consistent representation and breakdown of the figures. The significant accounting and valuation principles applied that are not prescribed by the Law are described below.

Exchange rate differences

Except for investments in subsidiaries, associates and joint ventures, which are translated at historical rates, all assets and liabilities denominated in foreign currencies are translated into Swiss francs (CHF) using year-end rates of exchange. Realized exchange gains and losses arising from these as well as those from business transactions denominated in foreign currencies are recorded in the income statement. Net unrealized exchange losses are recorded in the income statement; net unrealized gains, however, are deferred within accrued liabilities.

Investments in subsidiaries

Investments are recorded at acquisition cost less any impairment loss.

Treasury shares

Treasury shares are recognized at acquisition cost and deducted from shareholders' equity at the time of acquisition. The gain or loss on resale of treasury shares, if any, is recognized in the income statement as financial income or expense.

Foregoing a cash flow statement and additional disclosures in the notes

In accordance with the Law, Syngenta AG has decided to forego presenting additional information on interest-bearing liabilities and audit fees in the notes, as well as a cash flow statement, because it has prepared its consolidated financial statements in accordance with a recognized accounting standard (International Financial Reporting Standards as issued by the International Accounting Standards Board).

2. Information on income statement and balance sheet items

Dividend income

Dividend income in 2015 consists entirely of dividends received for the 2014 business year.

Other financial income

Other financial income consists mainly of income from treasury shares sold and guarantee fees received from subsidiaries.

Loans

Syngenta AG receives loans from group companies and gives loans to group companies.

3. Investments in subsidiaries, associates and joint ventures

The following are the significant legal entities in the Syngenta group of companies (the "Group"). In the context of the SIX Swiss Exchange Directive on Information relating to Corporate Governance, the disclosure criteria are as follows:

- companies directly owned by Syngenta AG
- companies indirectly owned by Syngenta AG with sales in excess of $100 million or equivalent or total assets in excess of one percent of total Group assets
- companies with a financing function.

None of the significant legal entities are listed. Please refer to Note 29 "New IFRSs and accounting policies" to the consolidated financial statements for the appropriate consolidation method applied to each type of entity.

3. Investments in subsidiaries, associates and joint ventures continued

Country	Municipality	Capital and voting rights owned by Syngenta[1]	Local currency	Share capital in local currency	Function of company
Argentina					
Syngenta Agro S.A.	Buenos Aires	100%	ARS	2,801,002,218	Sales/Production
Australia					
Syngenta Australia Pty Limited	North Ryde	100%	AUD	83,942,909	Sales/Production/Development
Brazil					
Syngenta Proteção de Cultivos Ltda.	São Paulo	100%	BRL	2,522,624,609	Sales/Production/Research
Canada					
Syngenta Canada Inc.	Guelph	100%	CAD	–	Sales/Research
China					
Syngenta (China) Investment Company Limited	Shanghai	100%	USD	46,660,810	Holding/Sales
France					
Syngenta France S.A.S.	Saint-Sauveur	100%	EUR	50,745,240	Sales/Production/Development
Syngenta Holding France SA[2]	Guyancourt	100%	EUR	99,965,085	Holding/Finance
Germany					
Syngenta Agro GmbH	Maintal	100%	EUR	2,100,000	Sales
Hungary					
Syngenta Hungary Kft.	Budapest	100%	HUF	280,490,000	Sales/Production/Development
India					
Syngenta India Limited	Pune	96%	INR	164,718,540	Sales/Production
Indonesia					
PT Syngenta Indonesia	Jakarta	100%	IDR	58,122,874,000	Sales/Production/Development
Italy					
Syngenta Italia S.p.A.	Milano	100%	EUR	5,200,000	Sales/Production/Development
Japan					
Syngenta Japan K.K.	Tokyo	100%	JPY	–	Sales/Production/Research
South Korea					
Syngenta Korea Ltd.	Seoul	100%	KRW	127,882,000,000	Sales/Production/Development
Mexico					
Syngenta Agro, S.A. de C.V.	México City, D.F.	100%	MXN	157,580,000	Sales/Production/Development
Netherlands					
Syngenta Seeds B.V.	Enkhuizen	100%	EUR	488,721	Holding/Sales/Production/Research
Syngenta Finance N.V.	Enkhuizen	100%	EUR	45,000	Finance
Syngenta Treasury N.V.	Enkhuizen	100%	EUR	90,001	Holding/Finance
Panama					
Syngenta Crop Protection S.A.	Panama City	100%	USD	101,000	Sales/Distribution
Paraguay					
Syngenta Paraguay S.A.	Asunción	100%	PYG	192,000,000,000	Sales/Production
Poland					
Syngenta Polska Sp.z.o.o.	Warsaw	100%	PLN	22,264,000	Sales
Russian Federation					
OOO Syngenta	Moscow	100%	RUB	895,619,000	Sales/Distribution

3. Investments in subsidiaries, associates and joint ventures continued

Country	Municipality	Capital and voting rights owned by Syngenta[1]	Local currency	Share capital in local currency	Function of company
Spain					
Syngenta España S.A.	Madrid	100%	EUR	7,544,828	Distribution/Development/ Production
Switzerland					
Syngenta Supply AG	Basel	100%	CHF	250,000	Sales
Syngenta Crop Protection AG[2]	Basel	100%	CHF	257,000	Holding/Sales/Production/ Research
Syngenta Crop Protection Monthey SA[2]	Monthey	100%	CHF	70,000,000	Production
Syngenta Crop Protection Münchwilen AG[2]	Münchwilen	100%	CHF	5,010,000	Production/Research
Syngenta Crop Protection Schweizerhalle AG in Liq.[2]	Muttanz	100%	CHF	103,000	In Liquidation
Syngenta Agro AG	Dielsdorf	100%	CHF	2,100,000	Sales/Production/Research
Syngenta Agroservices Asia AG[2]	Basel	100%	CHF	650,000	Distribution/Consulting
Syngenta Finance AG[2]	Basel	100%	CHF	10,000,000	Finance
Syngenta International AG[2]	Basel	100%	CHF	100,000	Management Services
Syngenta Participations AG[2]	Basel	100%	CHF	25,000,020	Holding
Syngenta South Asia AG[2]	Basel	100%	CHF	9,000,000	Holding/Finance
Ukraine					
TOV Syngenta	Kiev	100%	UAH	2,009,240,000	Sales/Research
United Kingdom					
Syngenta Limited	Guildford	100%	GBP	85,000,000	Holding/Production/Research
Syngenta UK Limited	Fulbourn	100%	GBP	500	Sales/Research
USA					
Syngenta Crop Protection, LLC	Greensboro	100%	USD	100	Sales/Production/Research
Syngenta Seeds, LLC	Minnetonka	100%	USD	–	Sales/Production/Research
Syngenta Corporation	Wilmington	100%	USD	100	Holding/Finance
GreenLeaf Genetics LLC	Minnetonka	100%	USD	100	For Liquidation
Vietnam					
Syngenta Vietnam Ltd.	Bien Hoa City	100%	USD	45,000,000	Sales/Production

1 The capital and voting rights in 2015 have not changed compared to 2014
2 Direct holding of Syngenta AG

4. Equity

(CHF million)	Share capital	General legal reserve	Reserve for treasury shares	Free reserves	Available earnings	Total
Balance at December 31, 2013	9	29	427	1,186	4,139	5,790
Appropriation of available earnings	–	–	–	200	(200)	–
Adjustment of reserve for treasury shares	–	–	(92)	92	–	–
Cancellation of own shares	–	–	(64)	–	–	(64)
Purchase of own shares	–	–	142	(142)	–	–
Dividend payment	–	–	–	–	(917)	(917)
Transfer to the reserve from capital contributions	–	–	–	–	–	–
Adjustment of reserves after transfer for capital contributions	–	–	–	–	–	–
Profit of the year	–	–	–	–	1,174	1,174
Balance at December 31, 2014	9	29	413	1,336	4,196	5,983

In order to comply with the disclosure requirements of the Law, the total legal reserves of CHF 29 million are split into the legal reserves from capital contribution of CHF 27 million and legal reserves from retained earnings of CHF 2 million. The available earnings of CHF 4,196 million are split into retained earnings of CHF 3,022 million and net income of CHF 1,174 million.

		Legal reserves			Voluntary retained earnings				
(CHF million)	**Share capital**	**From capital contribution**	**From retained earnings**	**Reserve for treasury shares**	**Other reserves**	**Retained earnings**	**Net income**	**Treasury shares**	**Total**
Balance at December 31, 2014	9	27	2	413	1,336	3,022	1,174	–	5,983
Transfer[1]				(413)	413				–
Reclassification of treasury shares[1]								(412)	(412)
Opening balance as of January 1, 2015, Article 957 of new Swiss Code of Obligations	**9**	**27**	**2**	**–**	**1,749**	**3,022**	**1,174**	**(412)**	**5,571**
Appropriation of available earnings						**1,174**	**(1,174)**		**–**
Sale of treasury shares								**154**	**154**
Cancellation of own shares									**–**
Purchase of own shares								**(129)**	**(129)**
Dividend payment						**(1,010)**			**(1,010)**
Net income of the period							**1,232**		**1,232**
Balance at December 31, 2015	**9**	**27**	**2**	**–**	**1,749**	**3,186**	**1,232**	**(387)**	**5,818**

1 According to new Swiss Code of Obligations treasury shares are reclassified from Assets to Equity and consequently reserves for treasury shares are transferred to other reserves

5. Share capital

	December 31, 2015	Movement in period	December 31, 2014
Total Syngenta AG registered shares	**92,945,649**	–	92,945,649
Nominal value per share (CHF)	**0.10**	–	0.10
Total share capital (CHF million)	**9.29**	–	9.29

6. Treasury shares

The number of treasury shares held by the Company and their movements are as follows:

	2015	2014
Total treasury registered shares held by Syngenta AG at January 1	**1,286,312**	1,375,688
Sold in the year under various Employee/Management Share Plans	**(514,415)**	(348,971)
Average sale price per share, CHF	**342.89**	330.15
Purchased during the year	**389,500**	440,095
Cancelled during the year	**–**	(180,500)
Average book value per cancelled share, CHF	**–**	356.99
Total treasury registered shares held by Syngenta AG at December 31	**1,161,397**	1,286,312
Average purchase price per share, CHF	**333.53**	320.99

7. Contingent liabilities

	Maximum amount December 31,		Amount in effect at December 31,	
(CHF million)	2015	2014	2015	2014
External borrowing activities:				
Euro medium-term notes	**2,103**	2,253	**2,103**	2,253
SEC registered US bonds	**744**	742	**744**	742
Private placement notes	**248**	247	**248**	247
Commercial paper	**2,481**	2,473	**–**	–
Credit facilities	**1,489**	1,484	**–**	–
Group treasury lending, borrowing and hedging activities	**18,309**	15,545	**10,699**	7,957
Total	**25,374**	22,744	**13,794**	11.199

External borrowing activities

Syngenta has fully and unconditionally guaranteed on a senior unsecured basis the due and punctual payment of the principal of and any premium and interest on the debt securities issued by Syngenta Finance N.V., which is an indirect, and Syngenta Finance AG, which is a direct, wholly-owned finance subsidiary. The guarantees rank equally with all other unsecured and unsubordinated debt of the Group. No other subsidiary of Syngenta AG guarantees such debt securities.

Treasury – intercompany lending, borrowing and hedging activities

At the request of the Dutch authorities, Syngenta AG guarantees credit risk arising on lending, borrowing and hedging activities between Syngenta Treasury N.V. (a limited liability company organized under the laws of the Netherlands and an indirectly wholly owned subsidiary) and other Group companies, subject to a threshold of EUR 10 million.

In addition, in 2015 Syngenta AG guaranteed a credit facility made available to Syngenta France S.A.S. by Syngenta Participations AG.

External hedging activities – Financial Instruments

External hedging activities refer to financial instruments where Syngenta Treasury N.V. is the contractual party hedging exposures arising in the Syngenta Group with external counterparties. Details of the nature of these transactions are disclosed in Notes 27 and 28 to the consolidated financial statements.

These financial instruments are transacted under International Swap and Derivative Association (ISDA) contracts. In addition, for certain financial instruments positions, Credit Support Annex (CSA) contracts are in place under which cash is exchanged as collateral. Syngenta AG guarantees the financial instruments transactions entered under these ISDA contracts. The contingent liabilities related to these financial instruments are significantly limited with the credit risk mitigation measures applicable under the ISDA and the CSA contracts and amount to CHF 10.9 million at December 31, 2015 (2014: CHF 36.7 million).

Litigation matters

In August 2013, a personal injury Complaint relating to atrazine was filed under seal in the Circuit Court for the Twentieth Judicial Circuit, St. Clair County, Illinois, on behalf of an unnamed minor (the case being brought under the alias James Doe) and his parents, against Syngenta Crop Protection LLC, Syngenta AG and certain dealers and distributors. The Complaint alleges public nuisance, strict liability, and negligence and seeks unspecified damages together with the costs of suit. Documentary fact discovery in the litigation opened in March 2014 and is continuing. The claims in the lawsuit have no grounding in fact or science and Syngenta will vigorously defend the lawsuit.

Since September 12, 2014, a number of lawsuits have been filed against various Syngenta legal entities, among them Syngenta AG, in state and federal courts in the United States by plaintiffs seeking damages from Syngenta for commercializing its AGRISURE VIPTERA® (MIR162) and DURACADE™ corn seed in the U.S. without having obtained import approval from China for those products. Syngenta strongly believes that the claims in these cases are without merit and will vigorously defend the lawsuits, and has filed counterclaims against ADM, Cargill, and other grain companies.

7. Contingent liabilities continued

On December 1, 2015, a claim was filed in Ontario, Canada, by a proposed representative plaintiff on behalf of a putative class comprising all farmers in Canada against Syngenta Canada, Inc. and Syngenta AG seeking damages from Syngenta for commercializing its AGRISURE VIPTERA® (MIR162) and DURACADE™ corn seed in the North American corn market without having obtained import approval from China for those products. Syngenta AG has not been served with the claim to date. Syngenta strongly believes that the claims in this action are without merit and will vigorously defend the action.

More details on these litigation cases are disclosed in Note 25 "Commitments and contingencies" to the consolidated financial statements.

Other

In a letter addressed to Syngenta Pensions Trustee Limited, dated July 2, 2013, and subsequently updated on January 24, 2014, Syngenta AG confirmed that it will ensure that Syngenta Limited will honor its obligation to guarantee the solvency and due payment of benefits of the Syngenta UK Pension Fund.

Syngenta AG is part of a group of Swiss entities of Syngenta which are jointly and severally liable for the whole Swiss VAT amount due to the Swiss Tax authorities by this group.

8. Significant shareholders

At December 31, 2015, to the knowledge of Syngenta AG, there are four (2014: three) significant shareholders exceeding the threshold of 5.00 percent voting rights in Syngenta's share capital, including voting rights to shares held as a nominee.

Significant Shareholders	**December 31, 2015 in % of total share capital**	December 31, 2014 in % of total share capital
JPM Chase Nominees Ltd., London	**13.03**	13.10
Nortrust Nominees Ltd., London	**6.04**	6.73
Mellon Bank N.A. as agent for its client (Nominee), Everett	**5.25**	–
BlackRock Inc., New York	**5.08**	5.08

At December 31, 2015, Syngenta itself holds 1,161,397 (2014: 1,286,312) shares in treasury corresponding to 1.25 percent (2014: 1.38 percent) of the share capital, as outlined in Note 6.

9. Holding of shares and options

The following tables detail the holding of shares and options by non-executive Directors and the Executive Committee at December 31, 2015 and 2014, including related parties. Related parties are spouses, parents, children living in the same household, legal entities they own or otherwise control, and any legal or natural person that acts as their fiduciary. At December 31, 2015 and 2014, no non-executive Directors held any options.

Holding of shares of non-executive Directors at December 31, 2015 and 2014

	Number of unrestricted shares		Number of restricted shares		% voting rights	
Non-executive Directors	**2015**	2014	**2015**	2014	**2015**	2014
Michel Demaré	**1,075**	1,075	**5,694**	4,081	**< 0.1%**	< 0.1%
Vinita Bali	**–**	–	**–**	–	**< 0.1%**	< 0.1%
Stefan Borgas	**826**	422	**1,546**	2,167	**< 0.1%**	< 0.1%
Gunnar Brock	**700**	700	**–**	–	**< 0.1%**	< 0.1%
Eleni Gabre-Madhin	**–**	–	**–**	–	**< 0.1%**	< 0.1%
David Lawrence	**12,966**	12,638	**–**	–	**< 0.1%**	< 0.1%
Eveline Saupper	**650**	–	**1,602**	1,304	**< 0.1%**	< 0.1%
Jacques Vincent	**2,682**	3,682	**–**	–	**< 0.1%**	< 0.1%
Jürg Witmer	**9,000**	6,000	**–**	–	**< 0.1%**	< 0.1%
Total unrestricted/restricted shares	**27,899**	24,517	**8,842**	7,552	**< 0.1%**	< 0.1%
Total shares	**36,741**	32,069				

Holding of shares by members of the Executive Committee at December 31, 2015

	Vested shares			Unvested shares				Total
Members of the Executive Committee[1]	Unrestricted	Restricted	% Voting rights	Unconverted DSP share awards	Unvested DSP matching rights	Unvested LTI RSU	Unvested LTI PSU	Vested/ unvested
Caroline Luscombe	2,065	27	< 0.1%	1,110	1,110	1,381	1,220	6,913
Christoph Mäder	12,174	1,211	< 0.1%	–	1,184	1,523	1,260	17,352
Patricia Malarkey	356	–	< 0.1%	476	476	931	1,370	3,609
Jonathan Parr	1,779	27	< 0.1%	745	745	791	1,694	5,781
Mark Peacock	13	27	< 0.1%	1,612	1,612	1,581	1,524	6,369
Davor Pisk	10,573	859	< 0.1%	1,192	2,024	2,080	1,834	18,562
John Ramsay	7,747	797	< 0.1%	1,064	1,834	1,870	1,637	14,949
Jonathan Seabrook	1,133	27	< 0.1%	1,067	1,067	1,342	1,201	5,837
Total Executive Committee shares	**35,840**	**2,975**	**< 0.1%**	**7,266**	**10,052**	**11,499**	**11,740**	**79,372**

1 Michael Mack, former CEO left Syngenta effective October 31, 2015. Michael Mack owned 69,268 vested shares and 27 restricted shares as at October 31, 2015. He continues to hold 4,742 unvested PSUs which will vest according to the original vesting schedule on a pro-rata basis for time served and subject to performance measures. According to the Executive LTI plan regulations and assuming the performance measures are met, a maximum of 988 PSUs could vest.

9. Holding of shares and options continued

Holding of shares by members of the Executive Committee at December 31, 2014

	Vested shares			Unvested shares			Total
Members of the Executive Committee	Unrestricted	Restricted	% Voting rights	Unconverted DSP share awards	Unvested DSP matching rights	Unvested LTI RSU	Vested/ unvested
Michael Mack	36,550	8,882	< 0.1%	–	8,842	10,073	64,347
John Atkin	4,136	3,408	< 0.1%	–	3,368	3,829	14,741
Caroline Luscombe	437	40	< 0.1%	853	853	1,866	4,049
Christoph Mäder	8,940	1,734	< 0.1%	–	1,694	2,452	14,820
Patricia Malarkey	193	–	< 0.1%	62	62	1,103	1,420
Mark Peacock	35	40	< 0.1%	2,148	2,148	2,393	6,764
Davor Pisk	8,556	2,876	< 0.1%	–	2,836	3,279	17,547
John Ramsay	2,914	2,658	< 0.1%	–	2,618	2,994	11,184
Jonathan Seabrook	1,084	27	< 0.1%	550	550	1,479	3,690
Total Executive Committee shares	62,845	19,665	< 0.1%	3,613	22,971	29,468	138,562

Holding of options by members of the Executive Committee at December 31, 2015

Year of allocation	**2015**	**2014**	**2013**	**2012**	**2011**	**2010**	**2009**	**2008**	**2007**
Underlying equity	**Share**	**Share**	**Share**	**Share**	**Share**	**Share**	**Share**	**Share**	**Share**
Term (years)	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
Exercise period (years)	**7**	**7**	**7**	**7**	**7**	**7**	**7**	**7**	**7**
Option: share/ADS ratio	**1:1**	**1:1**	**1:1**	**1:1**	**1:1**	**1:1**	**1:1**	**1:1**	**1:1**
Exercise price CHF	**332.20**	**325.90**	**391.40**	**300.40**	**308.71**	**283.70**	**233.43**	**301.50**	**226.70**
Vesting status		**unvested**				**vested**			
Options held at December 31, 2015:									
Members of the Executive Committee [1]									
Caroline Luscombe	**12,192**	**6,033**	**3,639**	**2,637**	**–**	**–**	**–**	**–**	**–**
Christoph Mäder	**12,598**	**6,234**	**4,387**	**5,057**	**3,518**	**3,304**	**–**	**–**	**–**
Patricia Malarkey	**13,697**	**5,664**	**772**	**782**	**617**	**–**	**–**	**–**	**–**
Jonathan Parr	**16,933**	**3,352**	**2,176**	**2,230**	**1,668**	**1,632**	**1,225**	**–**	**–**
Mark Peacock	**15,240**	**6,787**	**4,271**	**4,418**	**3,639**	**–**	**–**	**–**	**–**
Davor Pisk	**18,333**	**8,446**	**6,065**	**6,525**	**4,586**	**–**	**–**	**–**	**–**
John Ramsay	**16,369**	**7,541**	**5,497**	**6,117**	**4,491**	**–**	**4,506**	**–**	**2,453**
Jonathan Seabrook	**13,458**	**6,452**	**1,972**	**2,287**	**1,791**	**–**	**–**	**–**	**–**
Totals by grant year	**118,820**	**50,509**	**28,779**	**30,053**	**20,310**	**4,936**	**5,731**	**–**	**2,453**
Total unvested options	**198,108**								
Total vested options	**63,483**								
Total options on shares	**261,591**								

1 Michael Mack, former CEO left Syngenta effective October 31, 2015. Michael Mack owned 119,251 vested stock options as at October 31, 2015. He continues to hold 47,412 unvested stock options which will vest according to the original vesting schedule on a pro-rata basis for time served and subject to performance measures. According to the Executive LTI plan regulations and assuming the performance measures are met, a maximum of 16,463 stock options could vest.

9. Holding of shares and options continued

Holding of options by members of the Executive Committee at December 31, 2014

Year of allocation	2014	2013	2012	2011	2010	2009	2008	2007	2006
Underlying equity	Share	Share	Share	Share	Share	Share	Share	Share	Share
Term (years)	10	10	10	10	10	10	10	10	10
Exercise period (years)	7	7	7	7	7	7	7	7	7
Option: share/ADS ratio	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
Exercise price CHF	325.90	391.40	300.40	308.71	283.70	233.43	301.50	226.70	185.00
Vesting status		unvested				vested			
Options held at December 31, 2014:									
Members of the Executive Committee									
Michael Mack	25,135	18,953	20,388	15,207	12,398	16,426	4,669	6,075	–
John Atkin	9,551	7,202	7,748	6,114	–	–	–	–	–
Caroline Luscombe	6,033	3,639	2,637	–	–	–	–	–	–
Christoph Mäder	6,234	4,387	5,057	3,518	3,304	–	–	–	–
Patricia Malarkey	5,664	772	782	617	–	–	–	–	–
Mark Peacock	6,787	4,271	4,418	3,639	–	–	–	–	–
Davor Pisk	8,446	6,065	6,525	4,586	–	–	–	–	–
John Ramsay	7,541	5,497	6,117	4,491	–	4,506	–	2,453	3,059
Jonathan Seabrook	5,530	1,972	2,287	1,791	–	–	–	–	–
Totals by grant year	80,921	52,758	55,959	39,963	15,702	20,932	4,669	8,528	3,059
Total unvested options	189,638								
Total vested options	92,853								
Total options on shares	282,491								

10. Allocation of shares for members of the Board

Compensation of the Chairman

Two-thirds of the Chairman's annual fee is paid monthly in cash and one-third is paid quarterly in the form of restricted shares, which are blocked from trading for a period of three years. The number of restricted shares paid each quarter is determined by dividing the share portion of the fee by the market price of a Syngenta share at each quarterly grant date.

Compensation of non-executive Directors

Non-executive Directors have the option to receive part of their annual fee in the form of shares that are either freely tradable or blocked from trading for a period of five years. Shares are granted once a year with the grant value per share being the market price at the grant date.

	2015		2014	
	Quantity	**Value at grant (CHF)**	Quantity	Value at grant (CHF)
Shares allocated to members of the Board	**2,543**	**961,522**	2,644	868,788

No options were granted.

11. Full-time equivalents

Syngenta AG does not have any employees.

12. Subsequent events

On February 2, 2016, the Board of Directors decided to support a proposal by China National Chemical Corporation (ChemChina) to acquire 100 percent of the ordinary shares of Syngenta AG through a tender offer to shareholders at an offer price of $465 per share, to be paid in cash. A separate, equivalent offer will be made to holders of Syngenta American Depositary shares (ADSs). This offer would become binding on announcement by ChemChina of the offer terms, and would become unconditional upon fulfilment of regulatory approval by all competent merger control and other authorities and acceptance by shareholders owning 67 percent of Syngenta AG issued shares. ChemChina is not permitted to commence the offer until certain regulatory approvals have been obtained. Under the terms of the proposal, if the offer becomes unconditional, Syngenta AG will pay a special dividend of CHF 5.00 per share immediately before the first settlement of the offer. The offer price will not be adjusted for the special dividend nor for the dividend of CHF 11.00 per share which the Board of Directors will propose to the AGM on April 26, 2016. On acceptance of the tender offer by shareholders owning 90 percent of Syngenta AG issued shares, it is intended that a squeeze-out procedure would be applied to shares that have not been tendered. Under the transaction agreement between Syngenta and ChemChina, in certain circumstances, if the Board of Directors were to withdraw its support for the offer and as a result the offer is not successful or does not become unconditional, Syngenta will pay ChemChina $1.5 billion. ChemChina will pay Syngenta $3 billion if, despite all conditions of the offer having been satisfied or being still capable of being satisfied, the offer does not become unconditional or is terminated as a result of the failure to obtain certain regulatory approvals.

In October the company launched a share buyback program, under which 231,500 shares were repurchased for a total amount of $79 million. On February 2, 2016, the Board of Directors decided to discontinue the share buyback program.

Appropriation of Available Earnings of Syngenta AG

(CHF million)	2015	2014
Available earnings:		
Balance brought forward from previous year	**3,186**	3,022
Net profit of the year	**1,232**	1,174
Total available earnings	**4,418**	4,196
Appropriation of available earnings:		
Payment of a dividend proposed to the AGM[1]	**(1,018)**	(1,022)
Conditional payment of dividend[2]	**(463)**	
Transfer to free reserves	**–**	–
Total available earnings after appropriation	**2,937**	3,174
Dividend waived for treasury shares held by the Company	**–**	12
To be carried forward on this account	**2,937**	3,186

For fiscal year 2014, the AGM approved a dividend distribution out of the available earnings of CHF 11.00 per share. For 2015, the Board of Directors proposes to the AGM a dividend distribution out of the available earnings of CHF 11.00 per share.

The terms of the tender offer proposed by China National Chemical Corporation (ChemChina) described in Note 12 provide for Syngenta AG to pay a special dividend of CHF 5.00 per share if the offer becomes unconditional.

The dividend attributable to the treasury shares held by the Company at the date of the dividend payment will be waived, and therefore reduce the total dividend payment made, but not the amount of the dividend per share.

Report of the Statutory Auditor

To the General Meeting of Shareholders of

Syngenta AG, Basel

Report of the Statutory Auditor on the Financial Statements

As statutory auditor, we have audited the accompanying financial statements of Syngenta AG, which comprise the income statement, balance sheet and notes (pages 94 to 104) for the year ended December 31, 2015.

Board of Directors' Responsibility

The board of directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the company's articles of incorporation. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The board of directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements 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 the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements for the year ended December 31, 2015 comply with Swiss law and the company's articles of incorporation.

Report on Other Legal Requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of financial statements according to the instructions of the board of directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

KPMG AG

/s/ Richard Broadbelt
Licensed Audit Expert
Auditor in Charge

/s/ Regula Wallimann
Licensed Audit Expert

Basel, February 2, 2016

Switzerland
Investor Relations
T +41 61 323 5883
F +41 61 323 5880
E global.investor_relations@syngenta.com

Media Relations
T +41 61 323 2323
F +41 61 323 9044
E media.relations@syngenta.com

Share Register
T +41 41 798 4833
F +41 41 798 4849
E syngenta@devigus.com

Shareholder Services
T +41 61 323 2121
F +41 61 323 5461
E shareholder.services@syngenta.com

Corporate Responsibility
E csr@syngenta.com

Syngenta switchboard
T +41 61 323 1111
F +41 61 323 1212
E global.webmaster@syngenta.com

USA
Investor Relations
T +1 202 737 6520
T +1 202 737 6521
E global.investor_relations@syngenta.com

Media Relations
T +1 202 737 8913
E media.relations_us@syngenta.com

Contacts for ADS holders
T +1 888 269 2377 – from within the USA
T +1 201 680 6825 – from outside the USA
E shrrelations@cpushareownerservices.com

Syngenta AG
Corporate Affairs
Schwarzwaldallee 215
P.O. Box
CH-4002 Basel
Switzerland

www.syngenta.com

For the business year 2015, Syngenta has published three books: the Annual Review 2015 (including information about our non-financial performance), the Financial Report 2015, and the Corporate Governance Report and Compensation Report 2015.

All documents were originally published in English. The Annual Review 2015 and the Corporate Governance Report and Compensation Report 2015 are also available in German.

These publications are also available on the Internet: www.syngenta.com

Editorial completion: February 2016

Design and production: Radley Yeldar, London, UK

Printing: Stämpfli Ltd., Bern, Switzerland

Printed on Hello Silk, made with wood fiber from managed forests and manufactured at a mill that has achieved the ISO14001 and EMAS environmental management standards.

Article number SYN01004.EN

Bringing plant potential to life