

# The BASF Group business year

## Economic environment

**2.3%**

Growth in global gross domestic product

**1.9%**

Growth in global industrial production

**3.4%**

Growth in global chemical industry

The global economy grew only moderately in 2016 but was subject to regional fluctuations. While growth in the emerging markets remained almost unchanged in comparison with 2015, it decelerated in the industrialized countries due to the U.S. economy's initially weak dynamic. In the European Union, growth in gross domestic product was just marginally below the previous year's level despite the heightened uncertainty before and after the British referendum on leaving the E.U. Gross domestic product in China grew only slightly more slowly thanks to governmental economic measures. Overall, global gross domestic product grew by 2.3%, as we had anticipated, remaining behind the level of 2015 (+2.7%). The average price for a barrel of Brent blend crude oil fell to \$44 per barrel (2015: \$52 per barrel).

For the outlook for the economic environment in 2017, see page 119 onward

### Gross domestic product

(Real change compared with previous year<sup>1</sup>)

World	2016	2.3%	
	2015	2.7%	
European Union	2016	1.9%	
	2015	2.2%	
United States	2016	1.6%	
	2015	2.6%	
Emerging markets of Asia	2016	6.0%	
	2015	6.3%	
Japan	2016	1.0%	
	2015	1.2%	
South America	2016	(2.5%)	
	2015	(1.8%)	

<sup>1</sup> Figures that refer to previous years may deviate from last year's report due to statistical revisions.

## Trends in the global economy in 2016

The global economic environment was marked in 2016 by expansive monetary policy, low raw materials prices that nevertheless stabilized over the course of the year, and a modest growth dynamic. The especially low price of oil during the first half of the year dampened growth in the oil-producing countries and reduced the propensity to invest there, including the United States. Small levels of inflation, historically low interest rates and a weak euro supported growth in Europe.

The currencies of many emerging economies that export raw materials were weaker than in the previous year, but appreciated considerably over the course of 2016. This was due in part to a gradual rise in oil and precious metal prices in addition to the U.S. Federal Reserve's cautious interest rate policy. Economic uncertainty increased considerably as the year progressed, largely as an effect of the British vote to exit the E.U., but also because of continuing geopolitical conflicts and unpredictability before and after the U.S. presidential elections.

## Economic trends by region

- Economic growth somewhat slower in the E.U.
- Weaker growth in the U.S.
- Slowdown in China lighter than expected; stable growth in emerging markets of Asia
- Further decline of GDP in South America

In 2016, growth in the **European Union's** gross domestic product slowed slightly, from 2.2% in 2015 to 1.9%. Development in the region continued to be marked by widely divergent trends in 2016: In northwestern Europe, growth rates remained at a solid level overall. In the United Kingdom, the increase in gross domestic product slackened only marginally after the referendum on a British exit from the E.U. Germany's economic growth was at a comparatively robust 1.8% while that of France was more moderate, at 1.1%. In southwestern Europe, Spain continued its dynamic pace (+3.2%). By contrast, Italy (+1.0%) and Portugal (+1.4%) were not able to boost their economies to such a considerable extent. The central and eastern E.U. countries also boasted above-average growth (+2.8%), helped along by low inflation rates, ongoing low unemployment levels and the stable development of exports. In Russia, the economy shrank only slightly (–0.2%) after the previous year's sharp decline (–2.8%), partly thanks to the stabilization in oil prices over the course of the year.

Growth in the **United States** during the first two quarters was considerably below the average for the year. Reasons included weak investment activity in the oil industry and cyclical inventory effects. Private consumption bolstered the economy. In the second half of the year, growth picked up thanks to increased investment and positive development in agricultural exports. Overall, the U.S. economy grew by only 1.6% in 2016 (2015: +2.6%), remaining behind its medium-term pace of around 2%.

Economic output in the **emerging markets of Asia** saw a somewhat slower increase as compared with the previous year (2016: +6.0%, 2015: +6.3%). This was largely attributable to the only slightly slower growth in China (2016: +6.7%; 2015: +6.9%). The construction and automotive industries benefited from government investments as well as impetus provided by monetary and fiscal policy. In this environment, the neighboring Asian countries grew at a relatively stable rate; India once again saw rapid expansion, at 6.8% (2015: +7.9%).

At 1.0%, growth remained modest in **Japan**. The appreciation of the yen against the U.S. dollar (around 10% compared with the previous year) and lower demand from China reduced both the year's average exports and private companies' propensity to invest. Lower imports, weakly growing private consumption, expanding housing investment and public expenditures compensated for these negative effects, so that the Japanese economy's overall growth was about as strong as in the previous year.

Gross domestic product shrank once again in **South America**, by 2.5% (2015: -1.8%). Economic performance in Brazil remained 3.4% behind the previous year (2015: -3.8%). Gross domestic product declined in Argentina, as well, shrinking by 2.3% against the backdrop of high inflation and fiscal consolidation measures (2015: +2.6%). Venezuela and Ecuador suffered from the low price of crude oil; gross domestic product declined in both countries. The other countries in the region grew moderately on average.

## Trends in key customer industries

- **Global industrial production increases at rate similar to 2015**
- **Development in key customer industries improves on average**

Global industrial production grew by around 1.9% in 2016, about the same as in the previous year (+2.0%). Growth in the advanced economies slowed slightly (2016: +0.8%, 2015: +1.0%) but remained constant in the emerging markets (2016: +3.0%, 2015: +3.0%).

Industrial growth in the European Union increased marginally to 1.4% from 1.3%. In the United States, industrial production nearly stagnated (2016: +0.3%; 2015: +1.3%). At 5.5%, industrial growth in the emerging markets of Asia roughly

matched the prior year's level. Industry in China cooled down only slightly, thanks to governmental stimulus. The recession continued in South America: Industrial production shrank in Brazil by 6.0% (2015: -8.2%).

The chemical industry's key customer sectors developed better on average than industrial production. Global **automotive production** grew by 4.5%, outpacing the previous year. In western Europe and North America, the sector continued its economic upswing. Tax incentives in China boosted demand; however, production fell drastically in South America and Russia. The global rate of growth in the **construction industry** was 2.8%, down from the previous year's +3.5%. In western Europe, construction saw slightly higher growth than in 2015; in the eastern countries of the European Union, the expiration of E.U. funding programs led to decreased activity. Growth in the United States slowed considerably. In China, construction volumes rose at around the same rate as 2015 as a result of governmental support measures. Globally, **agriculture** grew by 1.4%, behind the level in previous years; production weakened in South America especially.

### Growth in key customer industries

(Real change compared with previous year<sup>1</sup>)

Industry total	2016	1.9%	
	2015	2.0%	
Transportation	2016	3.0%	
	2015	1.2%	
Energy and resources	2016	(0.3%)	
	2015	1.4%	
Construction	2016	2.8%	
	2015	3.5%	
Consumer goods	2016	2.6%	
	2015	2.0%	
Electronics	2016	4.7%	
	2015	3.8%	
Health and nutrition	2016	3.5%	
	2015	2.8%	
Agriculture	2016	1.4%	
	2015	2.1%	

<sup>1</sup> Figures that refer to previous years may deviate from last year's report due to statistical revisions.

### BASF sales by industry<sup>2</sup>

(Direct customers)

>20%	Chemicals and plastics
10–20%	Consumer goods   Transportation
5–10%	Agriculture   Construction   Energy and resources
<5%	Health and nutrition   Electronics

<sup>2</sup> Changes in percentages from the previous year are mainly a result of the asset swap with Gazprom.

## Trends in the chemical industry

### ■ Global growth corresponds to our expectations

The chemical industry (excluding pharmaceuticals) grew at the rate we had anticipated, by 3.4%. The fastest growth was seen in chemical production in the emerging markets of Asia (2016: +6.3%, 2015: +6.6%). Chemical production increased only marginally in the European Union (2016: +0.4%, 2015: +0.9%). There were substantial regional differences. Production fell considerably in Belgium and the United Kingdom, while the Netherlands saw a sharp increase. Chemical production declined slightly in Germany. Growth in the United States was weaker than in the previous year (2016: +0.6%, 2015: +1.9%<sup>1</sup>). Thanks to significant production expansion in Mexico, overall growth for North America shrank at a slower rate (2016: +0.9%, 2015: +1.8%). South America saw a marginal decline in chemical production (2016: -0.8%, 2015: -3.8%). Production volumes grew slightly in Japan, at 1.5% (2015: +1.6%).

**Chemical production (excluding pharmaceuticals)**  
(Real change compared with previous year<sup>2</sup>)

World	2016	3.4%	
	2015	3.6%	
European Union	2016	0.4%	
	2015	0.9%	
United States	2016	0.6%	
	2015	1.9%	
Emerging markets of Asia	2016	6.3%	
	2015	6.6%	
Japan	2016	1.5%	
	2015	1.6%	
South America	2016	(0.8%)	
	2015	(3.8%)	

<sup>2</sup> Figures that refer to previous years may deviate from last year's report due to statistical revisions.

## Important raw material price developments

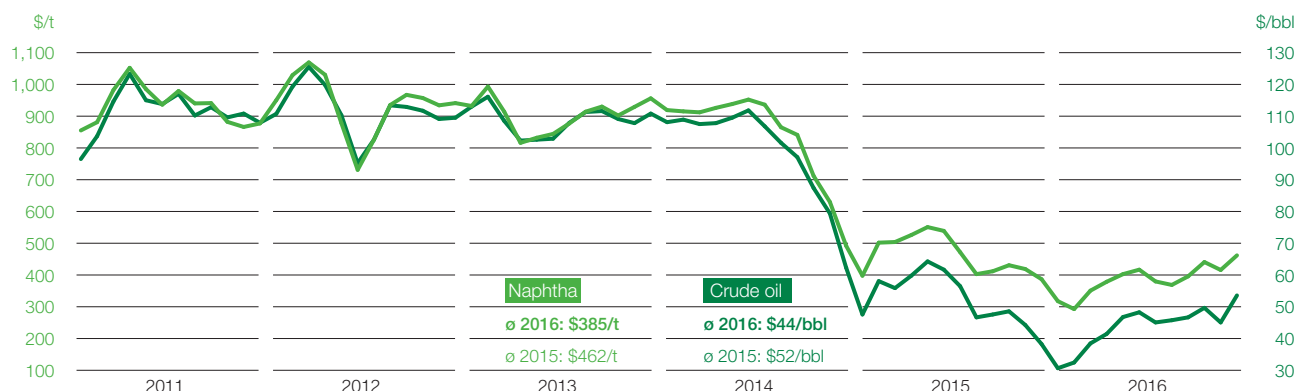
- Prices continue to fall for crude oil and naphtha
- Gas prices below previous year's level, but with wide regional variance

Averaging around \$44 per barrel in 2016, the price of Brent blend **crude oil** dropped by about 15% compared with the previous year (\$52 per barrel). The oil price fluctuated over the course of the year between \$31 per barrel in January and \$54 per barrel in December.

The average monthly price for the chemical raw material **naphtha** ranged over the course of 2016 between \$293 per metric ton in February and \$462 per metric ton in December. At \$385 per metric ton, the annualized average price of naphtha in 2016 was below the level of 2015 (\$462 per metric ton).

The average **price of gas** in the United States was \$2.49 per mmBtu, under the previous year's level (\$2.61 per mmBtu). In Europe, the average price of gas on spot markets remained substantially higher, at \$4.58 per mmBtu (2015: \$6.49 per mmBtu). Gas prices in China averaged around \$6.54 per mmBtu nationally (2015: \$9.81 per mmBtu), while the average price in the coastal regions was \$7.72 per mmBtu (2015: \$11.20 per mmBtu).

**Price trends for crude oil (Brent blend) and naphtha (\$/barrel, \$/metric ton)**



<sup>1</sup> This figure deviates significantly from last year's report due to statistical revisions.

## Results of operations

In 2016, our market environment continued to be volatile and challenging; the global economy and the chemical industry saw slower growth. Overall, BASF Group business developments unfolded in line with our expectations. We posted a considerable sales decline compared with the previous year and a slightly lower income from operations (EBIT) before special items. These developments were largely the result of the divestitures completed in 2015 as well as price declines due to further drops in raw material prices. Increased sales volumes and reduced fixed costs helped counter this effect, even allowing us to achieve considerably higher EBIT before special items in the chemicals business<sup>1</sup>.

📖 Business reviews by segment can be found from page 59 onward

### Sales

#### ■ Sales down 18% to €57,550 million

Sales for 2016 decreased by €12,899 million to €57,550 million. This was mainly attributable to the divestiture of the gas trading and storage business as part of the asset swap with Gazprom at the end of September 2015. This business had contributed €10.1 billion to sales in 2015. In addition, lower oil, gas and other raw material prices led to a drop in sales prices, reducing sales in the chemicals business – especially the Chemicals segment – as well as in the Oil & Gas segment. We were able to continually raise sales volumes over the course of the year, and achieved slight volumes growth overall. Volumes grew slightly in the Chemicals, Performance Products and Oil & Gas segments. The Functional Materials & Solutions segment posted a significant increase, and Agricultural Solutions a slight decrease. Currency effects slightly dampened sales.

Sales (million €)

2016	57,550	
2015	70,449	
2014	74,326	
2013	73,973	
2012	72,129	

#### Factors influencing sales of the BASF Group

	Change in million €	Change in %
Volumes	1,689	2
Prices	(3,166)	(4)
Currencies	(767)	(1)
Acquisitions	63	0
Divestitures	(10,718)	(15)
Changes in scope of consolidation	–	–
<b>Total change in sales</b>	<b>(12,899)</b>	<b>(18)</b>

### Income from operations

- EBIT before special items 6% below 2015 level, at €6,309 million
- At €6,275 million, EBIT matches prior-year level
- EBIT after cost of capital rises considerably

At €6,309 million, **income from operations (EBIT) before special items** was €430 million below the level of the previous year. This was largely a consequence of the considerable decline in the Oil & Gas segment resulting mainly from falling prices and the divestiture of the natural gas trading and storage business. The activities transferred to Gazprom had contributed around €260 million to EBIT before special items in 2015. In the Agricultural Solutions segment, EBIT before special items matched the previous year's level. We achieved a considerable increase in the chemicals business thanks to sharply improved contributions from the Performance Products and Functional Materials & Solutions segments.

📖 For an explanation of the figure EBIT before special items, see page 28

EBIT before special items (million €)

2016	6,309	
2015	6,739	
2014	7,357	
2013	7,077	
2012	6,647	

**Special items** in EBIT amounted to minus €34 million in 2016, compared with minus €491 million in the previous year.

This development was mainly due to the special items recognized in other charges and income, which amounted to minus €44 million in 2016. In the previous year, other charges and income totaled minus €729 million, mostly comprising impairments on assets in the Oil & Gas segment.

Special charges from various restructuring measures came out to minus €394 million compared with minus €223 million in the previous year.

Divestitures in 2016 resulted in an earnings contribution of €431 million, after €476 million in the previous year, especially from the sale of the industrial coatings business and the polyolefin catalysts business in the Functional Materials & Solutions segment.

Integration costs for acquired businesses amounted to €27 million, compared with €15 million in 2015.

📖 For the definition of special items, see page 28

<sup>1</sup> Our chemicals business comprises the Chemicals, Performance Products und Functional Materials & Solutions segments.

**Sales and earnings** (million €)

	2016	2015	Change in %
Sales	57,550	70,449	(18.3)
Income from operations before depreciation and amortization (EBITDA) and special items	10,327	10,508	(1.7)
EBITDA	10,526	10,649	(1.2)
EBITDA margin %	18.3	15.1	–
Amortization and depreciation <sup>1</sup>	4,251	4,401	(3.4)
Income from operations (EBIT)	6,275	6,248	0.4
Special items	(34)	(491)	93.1
EBIT before special items	6,309	6,739	(6.4)
Financial result	(880)	(700)	(25.7)
Income before taxes and minority interests	5,395	5,548	(2.8)
Income before minority interests	4,255	4,301	(1.1)
Net income	4,056	3,987	1.7
Earnings per share €	4.42	4.34	1.8
Adjusted earnings per share €	4.83	5.00	(3.4)

**Sales and earnings by quarter in 2016<sup>2</sup>** (million €)

	1st quarter	2nd quarter	3rd quarter	4th quarter	Full year
Sales	14,208	14,483	14,013	14,846	57,550
Income from operations before depreciation and amortization (EBITDA) and special items	2,843	2,674	2,490	2,320	10,327
EBITDA	2,812	2,790	2,437	2,487	10,526
Amortization and depreciation <sup>1</sup>	946	1,072	973	1,260	4,251
Income from operations (EBIT)	1,866	1,718	1,464	1,227	6,275
Special items	(40)	11	(52)	47	(34)
EBIT before special items	1,906	1,707	1,516	1,180	6,309
Financial result	(188)	(177)	(283)	(232)	(880)
Income before taxes and minority interests	1,678	1,541	1,181	995	5,395
Net income	1,387	1,092	888	689	4,056
Earnings per share €	1.51	1.19	0.97	0.75	4.42
Adjusted earnings per share €	1.64	1.30	1.10	0.79	4.83

**Sales and earnings by quarter in 2015<sup>2</sup>** (million €)

	1st quarter	2nd quarter	3rd quarter	4th quarter	Full year
Sales	20,067	19,078	17,424	13,880	70,449
Income from operations before depreciation and amortization (EBITDA) and special items	2,949	2,952	2,502	2,105	10,508
EBITDA	2,890	2,994	2,872	1,893	10,649
Amortization and depreciation <sup>1</sup>	895	955	983	1,568	4,401
Income from operations (EBIT)	1,995	2,039	1,889	325	6,248
Special items	(75)	(4)	286	(698)	(491)
EBIT before special items	2,070	2,043	1,603	1,023	6,739
Financial result	(164)	(152)	(175)	(209)	(700)
Income before taxes and minority interests	1,831	1,887	1,714	116	5,548
Net income	1,174	1,265	1,209	339	3,987
Earnings per share €	1.28	1.38	1.31	0.37	4.34
Adjusted earnings per share €	1.43	1.49	1.07	1.01	5.00






<sup>1</sup> Amortization of intangible assets and depreciation of property, plant and equipment (including impairments and write-ups)<sup>2</sup> Quarterly results not audited

### Special items (million €)

	2016	2015
Restructuring measures	(394)	(223)
Integration costs	(27)	(15)
Divestitures	431	476
Other charges and income	(44)	(729)
<b>Total special items in EBIT</b>	<b>(34)</b>	<b>(491)</b>
Special items reported in financial result	–	23
<b>Total special items in income before taxes and minority interests</b>	<b>(34)</b>	<b>(468)</b>

At €6,275 million, **EBIT** for the BASF Group in 2016 matched the level of the previous year (2015: €6,248 million). Included in this figure is income from companies accounted for using the equity method, which rose from €251 million to €307 million.

### EBIT (million €)

2016	6,275	
2015	6,248	
2014	7,626	
2013	7,160	
2012	6,742	

We once again earned a premium on our cost of capital in 2016. **EBIT after cost of capital** amounted to €1,136 million compared with €194 million in the previous year. The cost of capital fell by €809 million year-on-year. In addition to the reduction of the cost of capital percentage by one percentage point, this was primarily the result of the lower level of tied-up capital in inventories and operating receivables.






For an explanation of the figure EBIT after cost of capital, see page 28  
The calculation of EBIT as part of our income statement is shown in the Consolidated Financial Statements on page 155

### EBIT after cost of capital (million €)

	2016	2015
EBIT of BASF Group	6,275	6,248
– EBIT of Other	(1,091)	(985)
– Cost of capital <sup>1</sup>	6,230	7,039
<b>EBIT after cost of capital</b>	<b>1,136</b>	<b>194</b>

<sup>1</sup> In 2015, the cost of capital percentage was 11%, compared with 10% in 2016.

### EBIT after cost of capital (million €)

2016	1,136	
2015	194	
2014	1,368	
2013	1,768	
2012	1,164	

## Financial result and net income

- **Financial result considerably below, and net income slightly above, prior year**
- **Earnings per share rise from €4.34 to €4.42**

The **financial result** fell to minus €880 million in 2016, compared with minus €700 million in the previous year.

Income from shareholdings decreased from €9 million in 2015 to minus €17 million, predominantly due to lower income from the disposal of shareholdings.

The interest result declined from minus €425 million in 2015 to minus €482 million. This was predominantly from lower interest income, especially from investments in liquid funds, and higher interest expenses in connection with new bank loans outside of the eurozone.

Other financial result fell from minus €284 million in the previous year to minus €381 million in 2016, due mostly to the decline in interest payments capitalized as construction period interest and higher currency hedging costs.

**Income before taxes and minority interests** dipped from €5,548 million in 2015 to €5,395 million in 2016.

Income taxes were reduced from €1,247 million in 2015 to €1,140 million in 2016. At 21.1%, the tax rate was below the prior year's level (22.5%) primarily as a result of currency-related deferred tax income in Norway, whereas the previous year had included currency-related deferred tax expenses.

**Income before minority interests** decreased from €4,301 million to €4,255 million. Minority interests amounted to €199 million, compared with €314 million in 2015.

At €4,056 million, **net income** exceeded the previous year's level of €3,987 million. Earnings per share increased from €4.34 to €4.42.

For information on the items in the statement of income, see the Notes to the Consolidated Financial Statements from page 181 onward  
For information on the tax rate, see the Notes to the Consolidated Financial Statements from page 185 onward

## Additional figures for results of operations

- **EBITDA before special items and EBITDA slightly down**
- **Adjusted earnings per share dip from €5.00 to €4.83**

Aside from EBIT, EBIT before special items, and EBIT after cost of capital – figures drawn upon to steer the BASF Group – we also provide additional performance indicators in this report that are not defined by IFRS. They should not be viewed in isolation, but treated as supplementary information.



**EBITDA before special items** (million €)

	2016	2015
EBIT	6,275	6,248
– Special items	(34)	(491)
<b>EBIT before special items</b>	<b>6,309</b>	<b>6,739</b>
+ Amortization, depreciation and valuation allowances on intangible assets and property, plant and equipment before special items	4,018	3,769
<b>EBITDA before special items</b>	<b>10,327</b>	<b>10,508</b>

**EBITDA** (million €)

	2016	2015
EBIT	6,275	6,248
+ Amortization, depreciation and valuation allowances on intangible assets and property, plant and equipment	4,251	4,401
<b>EBITDA</b>	<b>10,526</b>	<b>10,649</b>

Income from operations before depreciation, amortization and special items (EBITDA before special items) and income from operations before depreciation and amortization (EBITDA) are figures that describe operational performance independent of age-related amortization and depreciation of assets and extraordinary valuation allowances (impairments or write-ups). Both figures are therefore particularly useful in cross-company comparisons. EBITDA before special items is also highly useful in making comparisons over time.

At €10,327 million, **EBITDA before special items** in 2016 was down by €181 million compared with the previous year; **EBITDA** amounted to €10,526 million, or €123 million below the level of 2015.

**Return on assets** (million €)

	2016	2015
Income before taxes and minority interests	5,395	5,548
+ Interest expenses	661	638
<b>Income before taxes and minority interests and interest expenses</b>	<b>6,056</b>	<b>6,186</b>
Total assets as of January 1	70,836	71,359
Total assets as of December 31	76,496	70,836
<b>Average assets used</b>	<b>73,666</b>	<b>71,098</b>
<b>Return on assets</b> %	<b>8.2</b>	<b>8.7</b>

We calculate return on assets as income before taxes and minority interests, plus interest expenses, as a percentage of average assets used. This figure reflects the return independently of capital structure.

**Return on assets** was 8.2%, compared with 8.7% in the previous year. The decline was partly attributable to the acquisition of Chemetall in December 2016.

**Adjusted earnings per share** (million €)

	2016	2015
Income before taxes and minority interests	5,395	5,548
– Special items	(34)	(468)
+ Amortization and valuation allowances on intangible assets	560	801
– Amortization and valuation allowances on intangible assets contained in special items	52	200
<b>Adjusted income before taxes and minority interests</b>	<b>5,937</b>	<b>6,617</b>
– Adjusted income taxes	1,300	1,716
<b>Adjusted income before minority interests</b>	<b>4,637</b>	<b>4,901</b>
– Adjusted minority interests	197	312
<b>Adjusted net income</b>	<b>4,440</b>	<b>4,589</b>
Weighted average number of outstanding shares in thousands	918,479	918,479
<b>Adjusted earnings per share</b> €	<b>4.83</b>	<b>5.00</b>

Compared with earnings per share, this figure has been adjusted for special items as well as amortization of, and valuation allowances (impairments and write-ups) on, intangible assets. Amortization of intangible assets primarily results from the purchase price allocation following acquisitions. The amortization of intangible assets is therefore of a temporary nature. The effects of these adjustments on income taxes and on minority interests are also eliminated. This makes adjusted earnings per share a suitable measure for making comparisons over time and predicting future profitability.

In 2016, **adjusted earnings per share** amounted to €4.83 compared with €5.00 in the previous year.

For more information on the earnings per share according to IFRS, see the Notes to the Consolidated Financial Statements on page 181

## Forecast/actual comparison<sup>1</sup>

	Sales		Income from operations (EBIT) before special items	
	2016 forecast	2016 actual	2016 forecast	2016 actual
Chemicals	slight decline	considerable decline	considerable decline	slight decline
Performance Products	at prior-year level	slight decline	slight increase	considerable increase
Functional Materials & Solutions	at prior-year level	slight increase	slight increase	considerable increase
Agricultural Solutions	slight increase	slight decline	slight increase	at prior-year level
Oil & Gas	considerable decline	considerable decline	considerable decline	considerable decline
Other	considerable decline	considerable decline	considerable increase	considerable decline
<b>BASF Group</b>	<b>considerable decline</b>	<b>considerable decline</b>	<b>slight decline</b>	<b>slight decline</b>

<sup>1</sup> For sales, "slight" represents a change of 1–5%, while "considerable" applies to changes of 6% and higher. "At prior-year level" indicates no change (+/-0%). For earnings, "slight" means a change of 1–10%, while "considerable" is used for changes of 11% and higher. "At prior-year level" indicates no change (+/-0%).

## Actual development compared with outlook for 2016

In 2016, BASF Group sales and EBIT before special items developed in line with our forecast: Sales declined considerably and EBIT before special items was slightly below the level of 2015. We just barely missed the volumes growth expected in all segments excluding the effects of acquisitions and divestitures: In the Agricultural Solutions segment, volumes were slightly down, while they rose as anticipated in the chemicals business<sup>2</sup> and the Oil & Gas segment. EBIT did not decline slightly as forecast, but rather matched the prior-year level. This was largely the result of special income from the divestitures completed in 2016 in the Functional Materials & Solutions segment. The earnings contribution from the chemicals business increased considerably in 2016, counter to our assumption that it would slightly decline. Mainly because of this, BASF Group EBIT after cost of capital rose considerably rather than decreasing considerably as we had expected.

Sales in the **Chemicals** segment fell considerably in 2016, whereas we had expected the decline to be slight. Increased volumes were able to partly offset for the sharp drop in prices, but less so than we had foreseen. For EBIT before special items, we observed only a slight, rather than considerable, year-on-year decline, essentially through the higher margins for isocyanates in the Monomers division.

Contrary to our expectations, sales in the **Performance Products** segment were slightly below the previous year's level instead of matching it. Volumes growth was less able than we had anticipated to offset price declines and negative portfolio and currency effects. EBIT before special items rose not only slightly, but rather considerably, in the Performance Products segment. In addition to significantly reduced fixed costs thanks to restructuring measures and strict cost management, improved margins also contributed to this development.

In the **Functional Materials & Solutions** segment, we were able to raise sales volumes in all divisions in 2016, more than compensating for price and currency effects. As a result, sales were not at the same level of the previous year, as forecast, but rose slightly instead. EBIT before special items likewise exceeded our expectations, with a considerable rather than slight increase.

For the **Agricultural Solutions** segment, we had anticipated slight growth in both sales and EBIT before special items. Due especially to dampened demand for insecticides in South America and fungicides in Europe, however, we posted a slight decrease in sales volumes instead of the expected increase. Negative currency effects also dampened sales. Through strict cost management, EBIT before special items reached the prior year's level despite the slight decline in sales.

In the **Oil & Gas** segment, sales and EBIT before special items fell considerably as expected. We expanded our production volumes in 2016 in line with our forecast.

Sales in **Other** declined considerably, corresponding to our expectations. EBIT before special items, however, was considerably below rather than considerably above the level of the previous year. This was largely attributable to valuation effects for our long-term incentive program.

In 2016, we invested a total of €3.9 billion in capital expenditures<sup>3</sup>, less than the anticipated level of around €4.2 billion. **Investments** in the Oil & Gas and Performance Products segments in particular were below the values considered in our planning.

For information on our expectations for 2017, see page 122 onward

<sup>2</sup> Our chemicals business comprises the Chemicals, Performance Products und Functional Materials & Solutions segments.

<sup>3</sup> Excluding additions to property, plant and equipment resulting from acquisitions, capitalized exploration, restoration obligations and IT investments



# Net assets

## Assets

	December 31, 2016		December 31, 2015	
	Million €	%	Million €	%
Intangible assets	15,162	19.8	12,537	17.7
Property, plant and equipment	26,413	34.5	25,260	35.7
Investments accounted for using the equity method	4,647	6.1	4,436	6.3
Other financial assets	605	0.8	526	0.7
Deferred taxes	2,513	3.3	1,791	2.5
Other receivables and miscellaneous assets	1,210	1.6	1,720	2.4
<b>Noncurrent assets</b>	<b>50,550</b>	<b>66.1</b>	<b>46,270</b>	<b>65.3</b>
Inventories	10,005	13.1	9,693	13.7
Accounts receivable, trade	10,952	14.3	9,516	13.4
Other receivables and miscellaneous assets	3,078	4.0	3,095	4.4
Marketable securities	536	0.7	21	.
Cash and cash equivalents	1,375	1.8	2,241	3.2
<b>Current assets</b>	<b>25,946</b>	<b>33.9</b>	<b>24,566</b>	<b>34.7</b>
<b>Total assets</b>	<b>76,496</b>	<b>100.0</b>	<b>70,836</b>	<b>100.0</b>

## Assets

- **Rise in both current and noncurrent assets**
- **Noncurrent assets especially boosted by Chemetall acquisition**

Amounting to €76,496 million, the level of total assets was €5,660 million above that of the previous year.

Noncurrent assets rose by €4,280 million to €50,550 million. The €2,625 million increase in intangible assets was mainly due to the Chemetall acquisition. Additions amounted to €2,881 million, €1,552 million of which was goodwill. Currency effects increased intangible assets by €409 million. Amortization<sup>1</sup> reduced them by €560 million and disposals by €91 million.

The value of property, plant and equipment rose by €1,153 million to €26,413 million. Additions amounted to €4,377 million, €4,222 million of which was to investments, putting them above the level of depreciation<sup>1</sup>, which amounted to €3,691 million. Additions from acquisitions amounted to €155 million and arose especially from the Chemetall acquisition. Currency effects increased property, plant and equipment by €570 million. Disposals reduced this item by €242 million, €97 million of which was attributable to divestitures.

Investments accounted for using the equity method rose by €211 million to €4,647 million, primarily as a result of additions and currency effects.

Other financial assets increased by €79 million to €605 million and deferred tax assets rose by €722 million to €2,513 million, especially from the increase in provisions for pensions and similar obligations.

Other receivables and miscellaneous assets were down by €510 million to €1,210 million year-on-year. This was largely the result of a decline in the positive fair value of derivatives and lower receivables from loans as well as a lower level of defined benefit assets.

The value of current assets rose by €1,380 million to €25,946 million. The €1,436 million increase in trade accounts receivable resulted mainly from higher year-on-year sales in the fourth quarter as well as from currency effects. Inventories grew by €312 million; other receivables and miscellaneous assets fell by €17 million. With the acquisition of Chemetall on December 14, 2016, these three items increased by €276 million. Marketable securities rose by €515 million due to the optimization of short-term financial investments.

At €1,375 million, cash and cash equivalents were €866 million below the level of December 31, 2015.

For more on the composition and development of individual asset items, see the Notes to the Consolidated Financial Statements from page 189 onward

<sup>1</sup> Including impairments and write-ups

## Financial position

### Equity and liabilities

	December 31, 2016		December 31, 2015	
	Million €	%	Million €	%
Paid-in capital	4,306	5.6	4,317	6.1
Retained earnings	31,515	41.2	30,120	42.5
Other comprehensive income	(4,014)	(5.2)	(3,521)	(5.0)
Minority interests	761	1.0	629	0.9
<b>Equity</b>	<b>32,568</b>	<b>42.6</b>	<b>31,545</b>	<b>44.5</b>
Provisions for pensions and similar obligations	8,209	10.7	6,313	8.9
Other provisions	3,667	4.8	3,369	4.8
Deferred taxes	3,317	4.3	3,381	4.8
Financial indebtedness	12,545	16.4	11,123	15.7
Other liabilities	873	1.2	869	1.2
<b>Noncurrent liabilities</b>	<b>28,611</b>	<b>37.4</b>	<b>25,055</b>	<b>35.4</b>
Accounts payable, trade	4,610	6.0	4,020	5.7
Provisions	2,802	3.7	2,540	3.6
Tax liabilities	1,288	1.7	1,082	1.5
Financial indebtedness	3,767	4.9	4,074	5.7
Other liabilities	2,850	3.7	2,520	3.6
<b>Current liabilities</b>	<b>15,317</b>	<b>20.0</b>	<b>14,236</b>	<b>20.1</b>
<b>Total equity and liabilities</b>	<b>76,496</b>	<b>100.0</b>	<b>70,836</b>	<b>100.0</b>

### Equity and liabilities

- **Equity ratio at 42.6%, compared with 44.5% in previous year**
- **Net debt rises from €12,935 million to €14,401 million**

Equity rose by €1,023 million to €32,568 million compared with the previous year. Retained earnings increased by €1,395 million to €31,515 million. Other comprehensive income was reduced by €493 million to minus €4,014 million, primarily because of the remeasurement of defined benefit plans. The equity ratio was 42.6% (2015: 44.5%).

Compared with the end of 2015, noncurrent liabilities grew by €3,556 million to €28,611 million. Provisions for pensions and similar obligations increased by €1,896 million, mainly as a result of the reduced discount rate in all relevant currency zones. Noncurrent financial indebtedness rose by €1,422 million. A bond issued in 2013 with a maturity until 2021 was tapped, increasing its volume by €300 million to €1 billion; in addition, new bonds in EUR, GBP and HKD were issued with an equivalent value totaling €2.6 billion at the end of the year and maturities between 4 and 15 years, in part to finance the acquisition of Chemetall. Four bonds in EUR and GBP due in 2017 with an equivalent value totaling around €1.4 billion were reclassified to current financial indebtedness. Other provisions rose by €298 million while other liabilities matched the prior-year level. Deferred taxes decreased by €64 million.

Current liabilities grew by €1,081 million to €15,317 million. All items contributed to this development, with the exception of financial indebtedness. Trade accounts payable increased by €590 million, current provisions by €262 million, tax liabilities by €206 million and current other liabilities by €330 million. Current financial indebtedness fell by €307 million. This was largely on account of the €681 million year-on-year decrease in outstanding U.S. dollar commercial paper as of December 31, 2016, as well as the scheduled repayment of EUR bonds totaling €900 million. The previously mentioned reclassification of bonds had a counterbalancing effect.

In total, financial indebtedness grew by €1,115 million to €16,312 million. The average maturity of our financial indebtedness was 5.6 years (2015: 5.2 years). Net debt grew by €1,466 million to €14,401 million. This is calculated by subtracting marketable securities and cash and cash equivalents from current and noncurrent financial indebtedness. This balance-related indicator provides information on effective indebtedness.

For more on the composition and development of individual liability items, see the Notes to the Consolidated Financial Statements from page 196 onward

For more on the development of the balance sheet, see the Ten-Year Summary on page 234

**Net debt** (million €)

	Dec. 31, 2016	Dec. 31, 2015
Noncurrent financial indebtedness	12,545	11,123
+ Current financial indebtedness	3,767	4,074
<b>Financial indebtedness</b>	<b>16,312</b>	<b>15,197</b>
– Marketable securities	536	21
– Cash and cash equivalents	1,375	2,241
<b>Net debt</b>	<b>14,401</b>	<b>12,935</b>

**Financing policy and credit ratings**

- **Financing principles remain unchanged**
- **“A” ratings confirmed**

Our financing policy is aimed at ensuring our solvency at all times, limiting the risks associated with financing and optimizing our cost of capital. We preferably meet our external financing needs on international capital markets.

We strive to maintain at least a solid “A” rating, which allows us unrestricted access to money and capital markets. Our financing measures are aligned with our operative business planning as well as the company's strategic direction and also ensure the financial flexibility to take advantage of strategic options.

**Maturities of financial indebtedness** (million €)

2017	3,767	
2018	1,887	
2019	2,115	
2020	1,304	
2021	1,049	
2022 and beyond	6,190	

BASF has good credit ratings, especially in comparison with competitors in the chemical industry. Rating agency Moody's last confirmed their rating of “A1/P-1/outlook stable” on November 28, 2016. Standard & Poor's adjusted their BASF rating from “A+/A-1/outlook negative” to “A/A-1/outlook stable” on March 14, 2016, and confirmed it most recently on August 10, 2016. This adjustment was largely based on the weaker market environment, especially for basic and agricultural chemicals, limited overall volumes growth, and the considerable drop in the price of crude oil. Uncertainty with regard to economic development in China was taken into consideration, as well. Rating agency Scope has also been evaluating our creditworthiness since September 2016. They rated BASF at “A/S-1/outlook stable.”

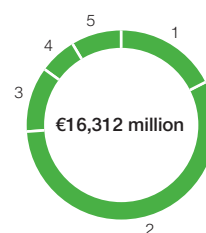
We have solid financing. Corporate bonds form the basis of our medium to long-term debt financing. These are issued in euros and other currencies with different maturities as part of our €20 billion debt issuance program. The goal is to create a balanced maturity profile and diverse range of investors, and to optimize our debt capital financing conditions.

For short-term financing, we use BASF SE's U.S. dollar commercial paper program, which has an issuing volume of up to \$12.5 billion. On December 31, 2016, \$1,089 million worth of commercial paper was outstanding under this program. Firmly committed, syndicated credit lines of €6 billion serve to cover the repayment of outstanding commercial paper, and can also be used for general company purposes.

These credit lines were not used at any point in 2016. Our external financing is therefore largely independent of short-term fluctuations in the credit markets.

**Financing instruments** (million €)

1	Bank loans	2,855
2	EUR bonds	9,243
3	USD bonds	1,790
4	USD commercial paper	1,033
5	Other	1,391



Off-balance-sheet financing tools, such as leasing, are of minor importance to us. BASF Group's most important financial contracts contain no side agreements with regard to specific financial ratios (financial covenants) or compliance with a specific rating (rating trigger).

For more on the financing tools used, see the Notes to the Consolidated Financial Statements from page 208 onward

To minimize risks and exploit internal optimization potential within the Group, we bundle the financing, financial investments and foreign currency hedging of BASF SE's subsidiaries within the BASF Group where possible. Foreign currency risks are primarily hedged centrally by means of derivative financial instruments in the market.

Our interest risk management generally pursues the goal of reducing interest expenses for the Group and limiting interest risks. Interest rate hedging transactions are therefore conducted with banks in order to turn selected liabilities to the capital markets from fixed interest to variable rate or vice versa.

## Statement of Cash Flows

### ■ Cash provided by operating activities significantly, and free cash flow slightly, down year-on-year

At €7,717 million, **cash provided by operating activities** in 2016 was €1,729 million below the level of the previous year. Contributing to this was the lower year-on-year level of cash inflow from changes in net working capital, which contains changes in inventories and receivables as well as in operating liabilities and other provisions. This resulted primarily from the targeted reduction of inventories in 2015. Miscellaneous items especially included the transfer of disposal gains into cash used in investing activities. In 2015, this item had primarily included the reclassification of gains from the asset swap with Gazprom.

**Cash used in investing activities** amounted to €6,490 million in 2016 compared with €5,235 million in 2015. Payments made for property, plant and equipment and intangible assets were at €4,145 million, below both the prior year's level (€5,812 million) and the level of amortization and depreciation of intangible assets and property, plant and equipment and financial assets (€4,291 million).

Acquisitions and divestitures in 2016 resulted in net payments made of €2,164 million compared with €436 million in net payments received in 2015. The acquisition of Chemetall was primarily responsible.

Cash outflow of €181 million from financial assets and other items in 2016 was mainly attributable to the acquisition of marketable securities. In 2015, the decline in loan receivables in particular had led to €141 million in payments received.

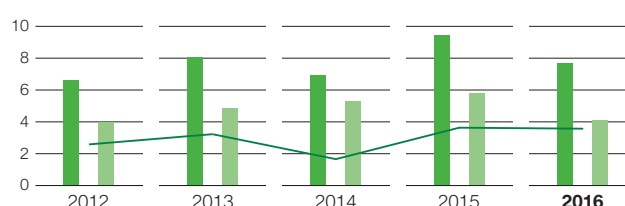
For more on investments and acquisitions, see page 37 onward

**Cash used in financing activities** amounted to €2,160 million in 2016, compared with €3,673 million in the previous year. Contributions from minority interests to capital increases in Group companies led to a cash inflow of €28 million in 2016. Changes in financial liabilities resulted in cash inflow of €579 million. This was largely the result of issuing new bonds as well as of tapping an existing bond; the scheduled repayment of three bonds and scaling back BASF SE's U.S. dollar commercial paper program both had a counterbalancing effect. In 2016, dividends of €2,664 million were paid to shareholders of BASF SE and €103 million to minority interests.

Cash and cash equivalents fell by €933 million, amounting to €1,375 million as of December 31, 2016.

**Free cash flow**, which is what remains after subtracting payments made for property, plant and equipment and intangible assets from cash provided by operating activities, fell to €3,572 million compared with €3,634 million in 2015. The decline in cash provided by operating activities was nearly offset by lower payments made for property, plant and equipment and intangible assets.

Cash flow (billion €)



■ Cash provided by operating activities  
■ Payments made for property, plant and equipment and intangible assets<sup>1</sup>  
— Free cash flow

<sup>1</sup> Including investments to the extent that they already had an effect on cash

### Statement of cash flows (million €)

	2016	2015
Net income	4,056	3,987
Depreciation and amortization of intangible assets, property, plant and equipment, and financial assets	4,291	4,448
Changes in net working capital	104	1,347
Miscellaneous items	(734)	(336)
<b>Cash provided by operating activities</b>	<b>7,717</b>	<b>9,446</b>
Payments made for property, plant and equipment and intangible assets	(4,145)	(5,812)
Acquisitions/divestitures	(2,164)	436
Financial assets and other items	(181)	141
<b>Cash used in investing activities</b>	<b>(6,490)</b>	<b>(5,235)</b>
Capital increases/repayments and other equity transactions	28	66
Changes in financial liabilities	579	(933)
Dividends	(2,767)	(2,806)
<b>Cash used in financing activities</b>	<b>(2,160)</b>	<b>(3,673)</b>
Net changes in cash and cash equivalents	(933)	538
Cash and cash equivalents at the beginning of the year and other changes	2,308	1,703
<b>Cash and cash equivalents at the end of the year</b>	<b>1,375</b>	<b>2,241</b>