German enterprises' profitability and financing in 2017

In keeping with the extremely favourable overall economic environment in 2017, non-financial corporations were once again able to improve on their very strong profitability of the preceding year. Sales grew much more strongly than in the previous five years, driven by lively demand on the sales markets at home and abroad as well as by price effects. In the reporting year, the increases in sales revenues are likely to have been caused by volume and price effects in equal measure, as prices for goods and services rose roughly half as much as sales. Moreover, the widespread upturn in aggregate economic activity in the reporting year was reflected in the strong sales growth observed across a broad range of sectors. Despite the first rise in procurement prices in several years and the additional pension provisions made necessary by the further decline in the discount rate, enterprises' average pre-tax returns in the reporting year reached their highest level since the record high in 2007.

The equity ratio of non-financial enterprises, which had been rising sharply since the end of the 1990s, increased only moderately in the major sectors of the economy in 2017. The fact that the most recent growth was below the average for the last two decades could indicate saturation tendencies not only in the equity bases of large enterprises in particular, but lately of smaller and medium-sized enterprises, too. After the lull in the previous year caused by the extension of the reference period used to calculate the discount rate, the discount rate-related increase in pension provisions was up again in 2017. Overall, provisions remained largely constant, however, owing to one-off effects in other provisions in the energy and automotive sectors.

Internal financing in 2017 remained at the high level seen in the last few years. External financing, meanwhile, expanded strongly, not least due to the additional liabilities to affiliated companies. Moreover, it is worth noting that enterprises also raised their liabilities to banks considerably for the first time again after the subdued activity of the preceding years. These developments were also linked to a rise in the enterprises' need for financing for their ongoing efforts to expand by acquiring other long-term equity investments. Thus, the long-term trend persisted of enterprises increasing the share of financial assets on their balance sheets, thereby reducing tangible assets.

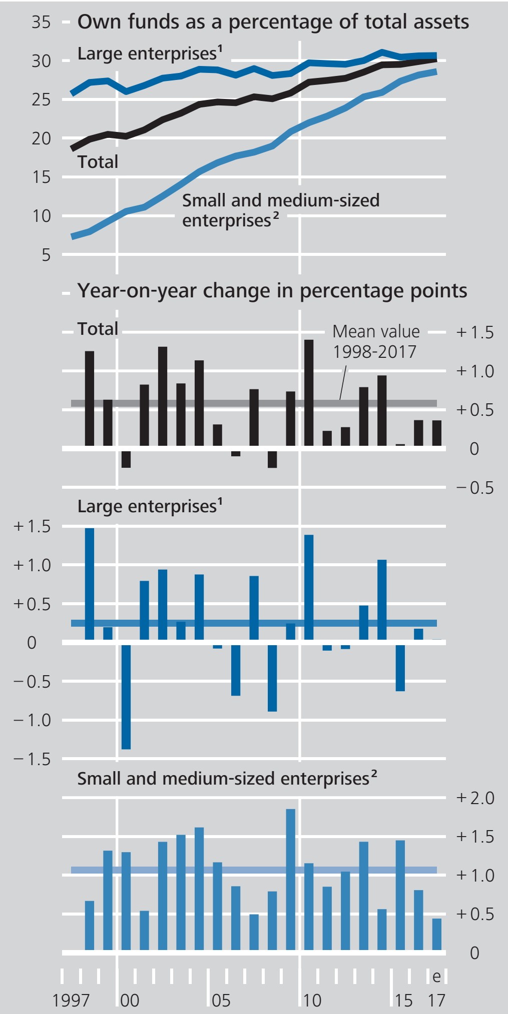
With the continued favourable, albeit less dynamic, underlying economic environment, the profitability of non-financial enterprises in 2018 is likely to have remained advantageous. Nevertheless, a similarly high level of sales growth to that of 2017 is not to be expected given the more subdued growth dynamic on the demand side and the group accounts available for the current year.

Underlying trends

Extremely positive overall economic environment reflected in enterprises' higher profitability

Germany's economic boom continued apace in 2017 – driven, amongst other things, by buoyant foreign demand. Investment in machinery and equipment also gained considerable momentum. Together with the ongoing brisk private consumption and the prevailing high level of construction investment, this contributed to real gross domestic product expanding more strongly than in the preceding year, at 2.5%. The rate of growth was thus again higher than that of potential output. This resulted in the positive output gap from the previous year widening even further, and the utilisation rate of macroeconomic capacities rose to a high level. Against the backdrop of this vigorous global activity, however, headwinds came in the shape of price increases for industrial raw materials and intermediate goods. Wage growth per employee was also slightly higher in the corporate sector than in the previous year, even though it remained moderate when measured in terms of the increasing domestic bottlenecks on the supply side of the labour market. On balance, the extremely favourable economic environment enabled enterprises to augment both their sales and their profitability considerably.[1] At 4.8%, pre-tax sales returns achieved their highest level since the peak figure in 2007. After comparatively moderate rates in previous years, sales growth in the reporting year also stood within the range of values seen during the expansion phase prior to the start of the Great Recession of 2008-09.[2]

Equity ratios of non-financial enterprises*



* Extrapolated results from corporate financial statements statistics. **1** Enterprises with sales of €50 million or higher. **2** Enterprises with sales below €50 million.

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Equity ratios gradually tending towards saturation

The equity ratio of non-financial enterprises continued to rise moderately in 2017 in almost all major sectors of the economy. The trend of increasing the own funds position of retained profits likely reflects the efforts of enterprises to expand their future scope for decision-making and to ensure stable distributions even in years of low profitability. In the reporting year – as in the year before – the rise in own funds was below the historical average, despite the extremely favourable level of profitability and comparatively low adjustments to occupational pensions, suggesting that enterprises' capital

1 The analysis for 2017 is based on some 21,000 financial statements, which were roughly extrapolated based on the evaluation of aggregate sales data from the company register. For details on the current procedure, see Deutsche Bundesbank, Financial statements statistics with broader sectoral coverage and a new basis of extrapolation, Monthly Report, December 2011, pp. 32-33.

2 One-off effects relating to the new accounting rules under the German Accounting Directive Implementation Act (*Bilanzrichtlinie-Umsetzungsgesetz* – BilRUG) had an impact on the way sales were reported in the financial statements for the 2016 financial year, with the result that sales growth was marginally higher than without the new rules. In the reporting year, this only affected those enterprises whose financial year starts during rather than at the beginning of the year. See Deutsche Bundesbank, German enterprises' profitability and financing in 2016, Monthly Report, December 2017, pp. 30-46.

bases are gradually approaching saturation.[3] With regard to the size of the enterprises, smaller and medium-sized enterprises continued to expand their equity ratios, falling only two percentage points behind those of large enterprises, whose equity ratios, meanwhile, appear to have stabilised, remaining essentially unchanged since 2014. This could be connected to a certain extent to the sharp rise in long-term provisions in recent years, which became necessary for large enterprises in particular.[4]

Further interest-related increase in pension provisions

The average discount rate for the valuation of long-term provisions such as post-employment benefit obligations fell by 0.3 percentage point in 2017 compared to the end of the previous year on account of the multi-year smoothing mechanism. While the longer-term interest rate was up slightly in 2017 in line with the zero-coupon euro swap curve, which forms the basis for the discount rate, the interest rate level of 2007, which fell out of the ten-year average, was well above that of 2017. In 2016, the average discount rate rose for the first time since the changes that took place under the Act to Modernise Accounting Law (*Bilanzrechtsmodernisierungsgesetz* – BilMoG) in 2009, because legislators had extended the reference period for calculating the average discount rate from seven to ten years.[5] As expected, the increase in pension provisions, including assets which are offset against pension obligations, was again higher in 2017 than in the previous year, while still remaining below the figures for the years 2012 to 2015. For the current year, the need for adjustment due to the discount rate is likely to be larger than in the reporting year given the marked decrease in the discount rate this year so far.

Significant expansion of external financing for acquiring new long-term equity investments

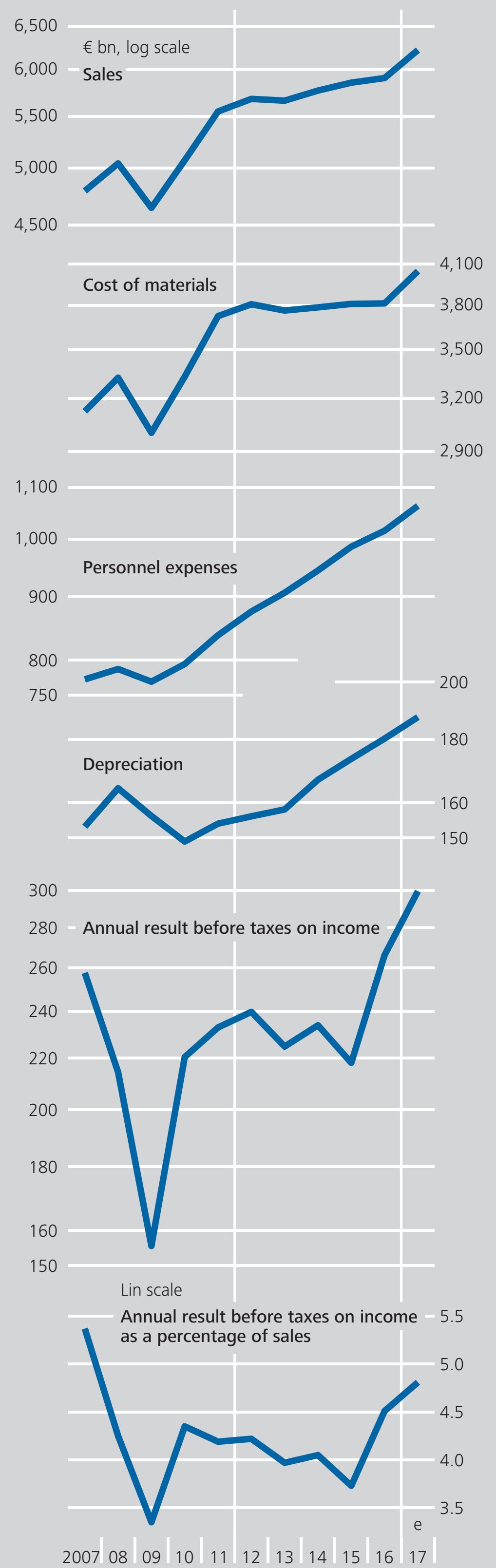
In 2017, the inflow of funds to non-financial enterprises grew significantly, while internal financing remained largely constant thanks to the injection of external funds. A key factor in this was the expansion of liabilities to affiliated companies which, given the funding volumes, likely also involved foreign financing subsidiaries to a substantial degree. It is worth noting that the enterprises again also incurred significantly more liabilities to banks, especially with short-term maturities, following the subdued developments of the preceding years. Enterprises used the increased inflow of funds primarily to acquire new long-term equity investments, the amount of which returned to the 2014 and 2015 levels after the dip in 2016. In addition to the formation of financial assets, enterprises also stepped up their formation of non-financial assets. Construction projects that had been started but not completed – which are recorded under inventories – played a significant role in this regard.

Corporate insolvencies at historical low

The total number of corporate insolvencies fell in 2017 for the eighth year in succession, reaching an all-time low since the new Bankruptcy Act was passed in 1999. The number of cases has therefore almost halved compared to the last peak in 2003. Besides the favourable financing and debt restructuring conditions, the fact that enterprises have a sound capital base and a stable cash flow is likely to have been a factor here.[6] While there was no further drop in the number of defaulting enterprises in the manufacturing sector, insolvencies were down in all other economic sectors in 2017. The decline in the construction sector, in transportation and storage and in hotel and restaurant services was especially pronounced, though looking at the economy as a whole, these sectors still have a comparatively high insolvency rate. The

3 For more information on the long-term trends of non-financial corporations' equity ratios, see Deutsche Bundesbank, Trends in the financing structures of German non-financial corporations as reflected in the corporate financial statement statistics, Monthly Report, July 2018, pp. 57-67.
4 See Deutsche Bundesbank, German enterprises' profitability and financing in 2015, Monthly Report, December 2016, pp. 57-76.
5 See Deutsche Bundesbank, Potential effects of the increase in pension provisions as a result of changes to the discount rate on non-financial enterprises' savings, Monthly Report, December 2016, pp. 60-63.
6 For more information on the effects of the low interest rate environment on the occurrence of inefficient or insolvent corporate borrowers, see Deutsche Bundesbank, The emergence of zombie firms in Germany in the low-interest-rate environment, Monthly Report, December 2017, pp. 37-40.

Selected indicators from German enterprises' income statement*



* Extrapolated results from corporate financial statements statistics.
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decline in the other services sectors levelled out, however.

Sales and income

Strongest sales growth since 2011 due also to price effects

At slightly over 5%, the rise in sales reported by non-financial enterprises in 2017 represented the strongest rise to occur during the current upturn since 2011. However, sales growth had been exceptionally high that year owing to catch-up effects during the economic recovery that followed the 2008-09 recession. Nevertheless, even during the expansion phase that preceded the Great Recession, only 2006 experienced higher sales growth. In the reporting year, the increases in sales revenues are likely to have been attributable to volume and price effects in equal measure, as prices for goods and services rose roughly half as much as sales. For example, domestic prices of manufactured goods went up by 2.7% and foreign trade prices climbed moderately by 1.7% compared to 2016. In the reporting year, the growth in volume is likely to have been more or less as high as in the preceding year, when it rose against the backdrop of price concessions by enterprises on domestic and foreign sales markets.

Sales growth broadly based across sectors

A broad-based upswing characterised the reporting year, which was reflected in positive sales growth across all sectors of the economy. Import prices rose moderately by 2.1%, meaning that the sectors that are more heavily integrated into international value chains also saw their sales rise. In manufacturing, for instance, the metal-working industry grew especially strongly. The large-scale price increases for industrial metals are likely to have played an important role in this context.[7] Sales in international wholesale trade (excluding motor vehicles) also rose sharply following relatively sluggish growth the year before. Moreover,

7 The rapid rise in world market prices for industrial metals at the end of 2016 by approximately 20% led to high compound annual growth rates in 2017.

Enterprises' income statement*

Item	2015	2016	2017e	Year-on-year change 2016	Year-on-year change 2017e
Income	€ billion			%	
Sales	5,855.1	5,905.2	6,218.5	0.9	5.5
Change in finished goods1	27.6	31.9	49	15.5	53
Gross revenue	5,882.7	5,937.1	6,267	0.9	5.5
Interest and similar income	18.1	17.5	19	– 3.3	9.5
Other income2	287.7	213.8	215	– 25.7	0.5
of which: from long-term equity investments	45.3	41.7	51	– 8.0	22
Total income	6,188.5	6,168.4	6,501.5	– 0.3	5.5
Expenses					
Cost of materials	3,809.9	3,813.3	4,048	0.1	6
Personnel expenses	986.3	1,015.9	1,063.5	3.0	4.5
Depreciation	173.6	180.2	187.5	3.8	4
of tangible fixed assets3	156.2	164.3	170.5	5.1	4
Other4	17.3	15.9	17	– 8.2	8
Interest and similar expenses	79.1	56.3	61	– 28.8	8.5
Operating taxes	68.6	8.2	4	– 88.0	– 52
of which: Excise duties	64.2	4.0	0	– 93.8	– 100
Other expenses5	852.9	828.3	837.5	– 2.9	1
Total expenses before taxes on income	5,970.4	5,902.3	6,202	– 1.1	5
Annual result before taxes on income	218.1	266.2	299.5	22.0	12.5
Taxes on income6	51.0	55.6	62	9.0	11.5
Annual result	167.1	210.6	237.5	26.0	12.5
Memo item:					
Cash flow7	388.9	409.0	424	5.2	3.5
Net interest paid	61.0	38.8	42	– 36.4	8
	As a percentage of sales			Percentage points	
Gross income8	35.4	36.0	35.7	0.6	– 0.3
Annual result	2.9	3.6	3.8	0.7	0.3
Annual result before taxes on income	3.7	4.5	4.8	0.8	0.3
Net interest paid	1.0	0.7	0.7	– 0.4	0.0

* Extrapolated results; differences in the figures due to rounding. **1** Including other own work capitalised. **2** Excluding income from profit transfers (parent company) and loss transfers (subsidiary). **3** Including write-downs of intangible fixed assets. **4** Predominantly write-downs of receivables, securities and other long-term equity investments. **5** Excluding cost of loss transfers (parent company) and profit transfers (subsidiary). **6** In the case of partnerships and sole proprietorships, trade earnings tax only. **7** Annual result, depreciation, and changes in provisions, in the special tax-allowable reserve and in prepaid expenses and deferred income. **8** Gross revenue less cost of materials.

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non-financial corporations in the business services sector also managed to exceed marginally the high level of sales growth from the previous year. By contrast, motor vehicle sales were up only moderately after increasing strongly one year earlier. However, this below-average growth in sales of motor vehicles is probably to be explained by sector-specific causes, especially the emissions scandal.

Growth in other income from other long-term equity investments

With regard to enterprises' other income, income from other long-term equity investments, which was just over one-fifth higher in the reporting year, continued the upward trend that has persisted since around the start of the current upturn. As a result, the return expectations, which were linked to the increased activity in the acquisition of participating interests in previous years, are likely to have been met at least in part. By contrast, non-financial corporations' interest income, like the average rate of interest paid on their assets, has remained at more or less the same low level since 2013. Furthermore, other operating income recorded another marked decline, which was somewhat smaller than the preceding year, however, and should also be viewed in connection with the lagged effects of the introduction

Enterprises' sources and uses of funds*

€ billion

Item	2015	2016	2017e	Year-on-year change 2016	Year-on-year change 2017e
Sources of funds					
Capital increase from profits and contributions to the capital of non-corporations1	40.1	55.2	69.5	15.1	14
Depreciation (total)	173.6	180.2	187.5	6.6	7.5
Increase in provisions2	54.0	18.6	− 0.5	− 35.4	− 19
Internal funds	267.7	254.0	256.5	− 13.6	2.5
Increase in capital of corporations3	21.6	11.1	23.5	− 10.5	12
Change in liabilities	85.8	86.0	160	0.3	74
Short-term	64.5	69.8	107.5	5.3	38
Long-term	21.2	16.2	52.5	− 5.0	36.5
External funds	107.4	97.2	183.5	− 10.2	86
Total	375.0	351.2	439.5	− 23.8	88.5
Uses of funds					
Increase in tangible fixed assets (gross)4	201.0	193.0	208.5	− 8.1	15.5
Memo item:					
Increase in tangible fixed assets (net)	44.8	28.7	38	− 16.1	9.5
Depreciation of tangible fixed assets	156.2	164.3	170.5	8.0	6
Change in inventories	21.6	24.9	46	3.3	21.5
Non-financial asset formation (gross investments)	222.6	217.8	255	− 4.8	37
Change in cash	12.0	19.2	4.5	7.2	− 15
Change in receivables5	61.2	75.3	97	14.1	21.5
Short-term	63.1	56.7	73	− 6.4	16
Long-term	− 1.9	18.6	24	20.5	5
Acquisition of securities	7.7	3.7	10.5	− 4.0	7
Acquisition of other long-term equity investments	71.5	35.2	73	− 36.4	38
Financial asset formation	152.4	133.4	185	− 19.0	51.5
Total	375.0	351.2	439.5	− 23.8	88.5
Memo item:					
Internal funds as a percentage of gross investments	120.2	116.6	100.5	.	.

* Extrapolated results; differences in the figures due to rounding. **1** Including "GmbH und Co KG" and similar legal forms. **2** Including change in the balance of prepaid expenses and deferred income. **3** Increase in nominal capital through the issue of shares and transfers to capital reserves. **4** Change in tangible fixed assets (including intangible assets) plus depreciation. **5** Including unusual write-downs of current assets.

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of the German Accounting Directive Implementation Act.[8]

Strong growth in the cost of materials

The total expenditure of non-financial corporations experienced 5% growth in the reporting year, which was almost as steep as the increase in total income. The growth in the largest item, cost of materials, was especially strong at 6%, after having virtually stagnated since 2012. Apparently, the buoyant demand on the sales markets meant that, in 2017, enterprises were not anxious to offset the effects of the prices for raw materials and intermediate goods, which had risen for the first time in a long while, on their cost of materials by reducing their input volumes. For example, the steep rise in industrial metal prices prompted a significant increase in the cost of materials in the metalworking industry. The cost of materials rose almost as steeply in the business services sector, the chemicals industry and the food industry. Volume effects are likely to have prevailed in the food industry in particular, as the raw material prices for food and beverages fell slightly in the reporting period. On the other

8 Other operating income includes, inter alia, income from currency conversion, from the reversal of provisions and from the sale of tangible fixed assets.

Enterprises' balance sheet*

Item	2015	2016	2017e	Year-on-year change 2016	Year-on-year change 2017e
Assets	€ billion			%	
Intangible fixed assets	94.3	90.5	94	– 4.0	4
Tangible fixed assets	975.7	1,008.1	1,042.5	3.3	3.5
Inventories	652.8	677.7	724	3.8	7
Non-financial assets	1,722.8	1,776.3	1,860.5	3.1	5
Cash	283.5	302.7	307	6.8	1.5
Receivables	1,306.2	1,377.1	1,470.5	5.4	7
of which:					
Trade receivables	389.6	408.9	434	4.9	6
Receivables from affiliated companies	755.1	803.7	858.5	6.4	7
Securities	93.7	97.5	108	4.0	11
Other long-term equity investments[1]	711.3	735.0	794.5	3.3	8
Prepaid expenses	20.2	20.6	23	2.0	11.5
Financial assets	2,415.0	2,532.9	2,703	4.9	6.5
Total assets[2]	4,137.8	4,309.2	4,563.5	4.1	6
Capital					
Equity[2, 3]	1,221.1	1,287.4	1,380	5.4	7
Liabilities	2,196.6	2,282.6	2,442.5	3.9	7
of which:					
to banks	475.2	463.4	488.5	– 2.5	5.5
Trade payables	303.0	316.9	337	4.6	6.5
to affiliated companies	902.5	948.3	1,030.5	5.1	8.5
Payments received on account of orders	227.8	236.6	251.5	3.9	6.5
Provisions[3]	689.9	706.5	706	2.4	0
of which:					
Provisions for pensions	235.8	232.0	239.5	– 1.6	3
Deferred income	30.2	32.6	34.5	7.9	6.5
Liabilities and provisions	2,916.7	3,021.7	3,183.5	3.6	5.5
Total capital[2]	4,137.8	4,309.2	4,563.5	4.1	6
Memo item:					
Sales	5,855.1	5,905.2	6,218.5	0.9	5.5
Sales as a percentage of total assets	141.5	137.0	136.5	.	.

* Extrapolated results; differences in the figures due to rounding. **1** Including shares in affiliated companies. **2** Less adjustments to equity. **3** Including half of the special tax-allowable reserve.
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hand, the cost of materials rose comparatively moderately in the motor vehicle trade.

Clear growth in personnel expenses, too

The second largest expenditure item, personnel expenses, saw a growth rate of 4½%, which was somewhat higher than the average of recent years. The sharp rise in employment is likely to have played a key role given the moderate wage dynamics. The relatively high increases in employment in the information and communication sector and in the business services sector thus led to above-average growth in personnel expenses. Moreover, the further reduction in the discount rate for long-term provisions probably also contributed slightly to this rise. Only some enterprises report the interest-related increase in pension liabilities under personnel expenses, while others record it under interest expenditure, meaning that the negative effect of provisions was felt in both accounts in the reporting year. In the case of personnel expenses, however, this effect had only a limited impact on the growth rate due to the relatively large size of the other items under this cost heading. By contrast, the decrease in the reference interest rate and the steep rise in liabilities resulted in a fairly sharp increase of 8½% in the relatively small "interest expenditure" cost item.

Enterprises' balance sheet ratios*

Item	2015	2016	2017e
	As a percentage of total assets[1]		
Intangible fixed assets	2.3	2.1	2
Tangible fixed assets	23.6	23.4	23
Inventories	15.8	15.7	16
Short-term receivables	29.1	29.2	29
Long-term equity and liabilities[2]	49.8	49.6	50
of which:			
Equity[1]	29.5	29.9	30
Long-term liabilities	14.5	14.3	14.5
Short-term liabilities	38.5	38.6	39
	As a percentage of tangible fixed assets[3]		
Equity[1]	114.1	117.2	121.5
Long-term equity and liabilities[2]	192.5	194.6	201.5
	As a percentage of fixed assets[4]		
Long-term equity and liabilities[2]	106.3	106.4	106.5
	As a percentage of short-term liabilities		
Cash resources[5] and short-term receivables	95.7	96.2	94
	As a percentage of liabilities and provisions[6]		
Cash flow[7]	14.8	15.0	14.5

* Extrapolated results; differences in the figures due to rounding. **1** Less adjustments to equity. **2** Equity, provisions for pensions, long-term liabilities and the special tax-allowable reserve. **3** Including intangible fixed assets. **4** Tangible fixed assets, intangible fixed assets, other long-term equity investments, long-term receivables and long-term securities. **5** Cash and short-term securities. **6** Liabilities, provisions, deferred income and half of the special tax-allowable reserve less cash. **7** Annual result, depreciation, and changes in provisions, in the special tax-allowable reserve and in prepaid expenses and deferred income.

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Low growth in other expenses

The relatively weak growth in other expenses in the year under review was also attributable to trailing effects from the changes brought about by the German Accounting Directive Implementation Act to the detriment of other operating expenses and in favour of cost of materials. In addition, the recording of excise taxes on manufacture of food products and beverages and tobacco products was scrapped on account of the German Accounting Directive Implementation Act.

Marked increase in enterprises' profitability

Owing to a heightened level of business activity, enterprises' pre-tax returns on sales improved overall from 4.5% in the previous year to 4.8% in the reporting year. This is the highest figure since 2007 – the peak of the previous upswing. In view of the burden from the continued decrease in the discount rate, the profitability of non-financial enterprises without the effect of these provisions is likely to have risen somewhat more strongly in the reporting year. Excluding transport equipment, pre-tax returns on sales climbed from 4.7% in 2016 to 4.9% in the reporting year. Even without the contribution from transport equipment, the similarly high and slightly rising return indicates that, at the very least, the impact of car manufacturers' financial burdens from the emissions scandal on the profitability of non-financial enterprises in Germany was limited. However, based on the information available, it is difficult to quantify the spillover effects from potential value added losses experienced in this sector.

Sources and uses of funds

Sources of funds expanded strongly on the back of external financing

In 2017, the volume of funds raised by enterprises was up by around one-quarter, the main reason being the considerable jump in external financing. The significant build-up of liabilities and the simultaneous increase in capital injections was also linked to the renewed brisk acquisition of enterprises' other long-term equity investments. In this context, short-term and long-term liabilities were accumulated in equal measure. By contrast, internal financing remained at the high level seen in the preceding years. Owing to one-off effects, enterprises in 2017 formed virtually no new provisions on balance. In statistical terms, this was offset by the increase in funds stemming from the capital injection from profits and contributions to the capital of non-corporations.

Sharp rise in tangible fixed assets also on account of one-off effects

As in the previous two years, enterprises used around 60% of their funds for expenditure on non-financial asset formation. The increase in gross tangible fixed assets was relatively sharp in 2017. This was, however, also due to higher depreciation and a substantial rise in intangible assets in the chemical and pharmaceutical sector, which was probably linked to corporate acquisitions. The significant change in inventories was mainly attributable to the construction sector, where unfinished buildings not yet recorded as sales resulted in a very high volume of inventories being reported compared with other sectors.

Highly dynamic acquisition of other long-term equity investments

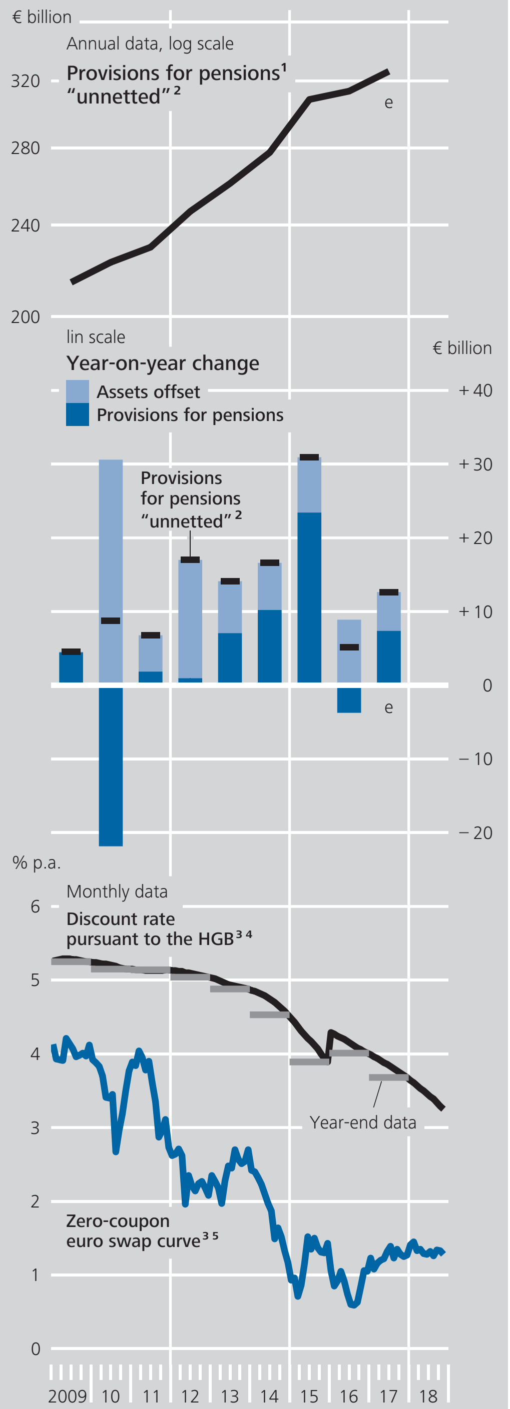
In the reporting year, the acquisition of financial assets accounted for a larger share of the use of funds than in previous years. After a decline in the previous year, the acquisition of other long-term equity investments in 2017 re-attained the high level of 2014 and 2015. This was essentially down to large enterprises in the manufacture of transport equipment. Compared with the depressed level one year earlier, transport equipment manufacturers tripled their acquisition of other long-term equity investments, setting a new all-time high. Companies in the energy sector likewise expanded their equity investment considerably on the year. However, compared with previous years, the increase of liquid funds in the form of cash slowed markedly, suggesting a sufficient level of liquidity as a result of the precautionary measures taken over the past few years.

Balance sheet developments

Considerable expansion in total assets

In line with the vigorous sales growth, total assets continued to rise at a somewhat higher rate in 2017. This was supported by enterprises' continuous efforts to expand, which, in addition to an increase in long-term equity investments, was accompanied by a major boost in both short and long-term financial assets and liabilities to affiliated companies. In this context, another sharp increase in trade payables and receivables was observed. The marked growth in payments received on account of orders was almost exclusively attributable to the construction sector, with these payments likely to be linked to the high level of inventories in this sector.

Indicators on occupational pension obligations



1 Extrapolated results from corporate financial statements statistics. 2 Estimated. Provisions for pensions plus financial assets which are used specifically to fulfil pension obligations and are therefore off-limits to all other creditors. 3 Residual maturity of 15 years. 4 Section 253 (2) of the German Commercial Code (HGB) requires pension obligations with a residual maturity of more than one year to be discounted at the average market interest rate of the past ten financial years (seven until end-2015) according to their residual maturity. 5 According to the Regulation on the Discounting of Provisions (*Rückstellungsabzinsungsverordnung*), the zero-coupon euro swap curve serves as a basis for determining the discount rates.

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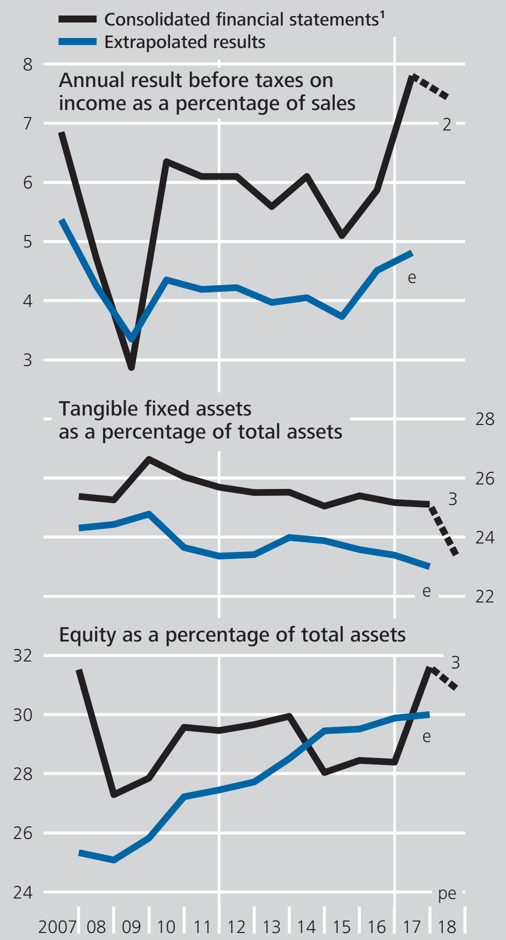
Selected ratios from consolidated and individual financial statements



1 The reporting population comprises approximately 230 non-financial groups listed in Germany in the Prime Standard Segment of the Frankfurt Stock Exchange. **2** Seasonally adjusted average for Q1 to Q3 2018. **3** Reporting date: 30 September 2018.

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Significant increase in financing via credit institutions

Following the subdued developments of the preceding years, enterprises in 2017 stepped up their liabilities to credit institutions. This was probably related to the increased need for external financing for the high level of activity in the acquisition of other long-term equity investments. However, the share of obligations to the banking sector in total liabilities remained stable. Moreover, enterprises entered mainly into short-term liabilities to credit institutions, indicating that those funds were primarily needed for bridging purposes. In addition, the trend increase in acquiring funds through corporate bonds continued.[9]

Pension provisions up again, …

The persistently low level of interest rates again facilitated a marked increase in pension provisions in 2017. In the previous year, a temporary decline in pension provisions was recorded in the balance sheet as the reference period for calculating the discount rate had been extended and because the assets which were offset against pension liabilities had gone up on balance. Since the introduction of the Act to Modernise Accounting Law in 2009, enterprises can reduce the pension provisions they report by setting aside own assets for occupational pension schemes and offsetting these against total pension obligations. Given that enterprises have increasingly made use of this option ever since, the growth in pension provisions in the balance sheet has been significantly weaker than that in “unnetted” – i.e. where there is no offsetting – pension obligations.

… but other provisions down

Provisions as a whole remained unchanged as the increase in pension obligations was balanced out by a decrease in other provisions. This was due, for the most part, to the repricing of provisions for nuclear energy waste disposal in accordance with the statutory reorganisation of the financial responsibility shared by central government and enterprises for disposing of radioactive waste. The other provisions of the automotive industry were perceptibly lower, one of the reasons for this probably being the payments already made in connection with the diesel scandal. Given that the net decline in provisions was relatively low considering the volume of payments made, automotive groups appear to have built up new provisions as well.

Although the increase in non-financial investment was significant in 2017, it continued, as in previous years, to fall short of total asset growth. Besides the expansion in intangible

9 The fact that the share of bonds in total assets remains relatively low is, amongst other things, due to bonds often being issued via foreign financing entities and that intragroup funding is, in this case, recorded under obligations to affiliated enterprises. The actual volume of funding generated via bonds is thus higher than indicated in this category.

Net assets, financial position and results of operations of listed German non-financial groups in 2017

2017 was a very successful business year for German groups. The profitability of the around 230 German non-financial groups listed in the Prime Standard segment improved considerably again compared with the previous year. For example, the return on sales rose by 1.7 percentage points to 8.4% – the highest level since the start of the survey in 2007. More than half of these groups recorded an increase in this ratio. Groups specialising in the industrial sector, in particular, raised their return on sales substantially to 8.0%, thereby reducing the gap vis-à-vis groups in the services sector noticeably, where profitability rose to 9.5%.

Compared with the enterprises included in the separate financial statement statistics, German groups are more dependent on global demand given their international focus. According to the annual reports, the groups participated in the lively economic growth with a strong increase in sales both in the advanced and the emerging market economies in 2017. Meanwhile, the appreciation of the euro had a slightly dampening effect, which results from sales generated by subsidiaries reporting in foreign currency being translated into euros.[1] Overall, aggregate sales rose by 5.2% on the year. Groups in the industrial sector, including in particular the automotive sector, benefited from the exceptionally positive conditions on the sales markets and reported above-average growth (+5.5%).

The increase in sales was accompanied by even stronger growth in earnings. Operating profit before depreciation and amortisation (EBITDA) and operating profit (EBIT) grew by 14.5% and 33.2% respectively, rates not seen since the end of the most recent recession in 2010. Most of this development is attributable to the groups in the industrial sector. Volkswagen AG, in particular, benefited from market-related cost savings and reduced provisioning in connection with the emissions scandal totalling around €4.5 billion. Moreover, the need for write-downs fell significantly in the energy sector as compared with the previous year.

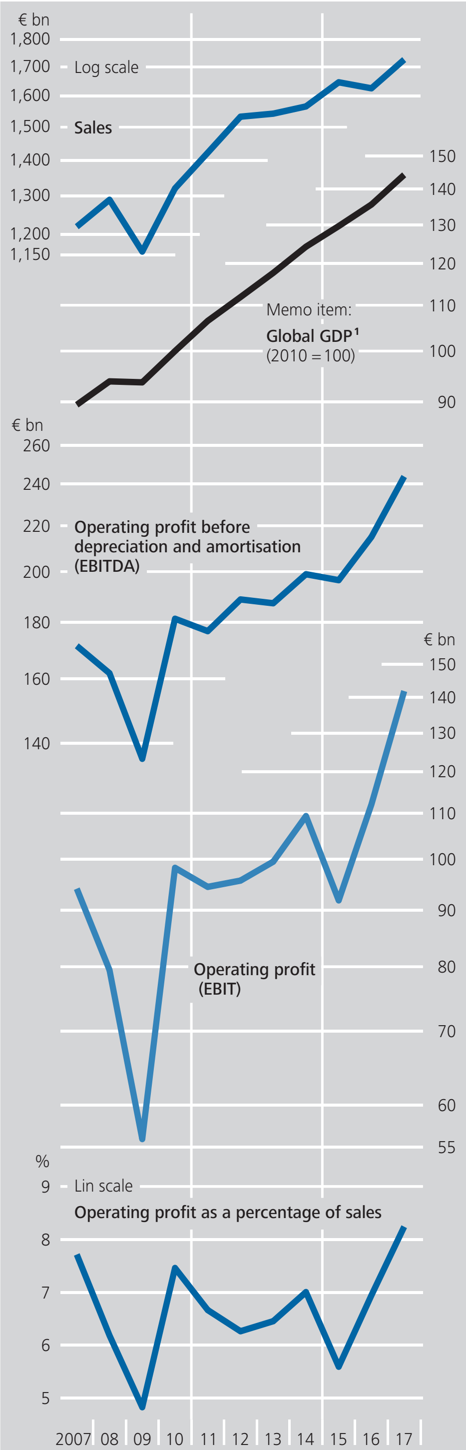
German groups' assets saw fairly moderate growth as compared to previous years, at just under 1.4%. This was mainly the result of slight increases in cash and cash equivalents, trade receivables and fixed assets.

On the financing side, the maturities on financial liabilities were longer, while their total volume was slightly lower. In 2017, asset gains were increasingly funded from own funds. As a result, the aggregate equity ratio rose markedly by 3.2 percentage points to 31.6%. This was mainly due to the retention of substantially higher net income, with motor vehicle manufacturers in particular recording strong growth. In addition, capital increases helped lift the equity ratio.[2]

Since German enterprises make commitments to occupational pension schemes more frequently than firms in other European countries, pension provisions have a key role to play in developments in liabilities. Pension-related valuation changes have a heightened impact on the equity ratio through the substitution of debt and

1 In 2017, the nominal effective exchange rate of the euro against the currencies of the 38 most important trading partners of the euro area (EER-38) appreciated by an annual average of 2.1% on the previous year.
2 For example, the 35 largest groups alone raised their capital by €7 billion.

Sales, earnings and return on sales of German non-financial groups*



* The reporting population comprises approximately 230 non-financial groups listed in Germany in the Prime Standard segment of the Frankfurt stock exchange. **1** Nominal GDP of selected industrial countries and emerging market economies which together make up four-fifths of global economic output, calculated using purchasing power parities based on data from Eurostat, IMF and IHS Markit.

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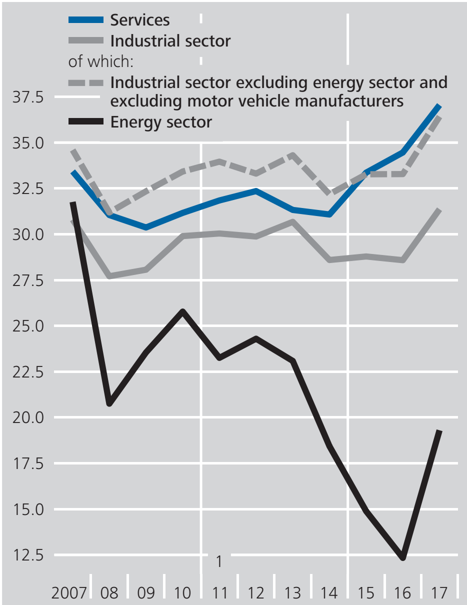
Equity ratios of German non-financial groups*

%



* The reporting population comprises approximately 230 non-financial groups listed in Germany in the Prime Standard segment of the Frankfurt stock exchange. **1** Decision to phase out nuclear energy following the Fukushima catastrophe.

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equity.[3] According to international accounting standards, pension claims are discounted to their present value using a plain interest rate as at the closing date. At the end of 2017, the discount rate for 15-year maturities had risen by around 0.2 percentage point to just over 1.9% as compared with the previous year.[4] This was a large factor in the drop in pension provisions by around €20 billion.[5]

Gains from fair value changes in cash flow hedges reported by several large groups also had a positive impact on the level of equity. By contrast, currency translation dif-

3 Changes in the valuation of provisions are recognised in equity, but do not affect cash.
4 In terms of valuations, the discount rate must be calculated according to the maturity of the provisions based on "high quality corporate bonds".
5 Extrapolated from the 35 largest groups to the 230 groups in the Prime Standard segment.

ferences, in particular, shaved €28 billion off the book value of equity in 2017.[6]

More than 60% of all groups increased their equity ratio. An analysis by sector shows that the equity ratios of both groups in the industrial sector and those in the services sector rose significantly. The equity base of groups in the industrial sector excluding the energy sector and without motor vehicle manufacturers is meanwhile almost on a par with that of the services sector.[7] In addition, the financial structure of the energy sector recovered noticeably following the setback one year earlier. This can be attributed to the need for fewer write-downs and particularly to extraordinary revenues in connection with the reimbursement of nuclear fuel tax.

6 In the consolidated balance sheet, this item arithmetically evens out discrepancies in the foreign currency translation methods used for asset and liability items on foreign subsidiaries' financial statements reported in foreign currencies.
7 The financial structure of automotive groups is heavily influenced by lending business such as customer financing and financial leasing and consequently leads to a structurally lower equity ratio.

Decline in tangible fixed asset ratio; share of financial assets in total assets larger

assets, this was attributable to the steady accumulation of tangible fixed assets and the significant stocking up of inventories in the construction sector. By contrast, as in the previous year, the information and communication sector saw a sharp decline induced by write-downs. Mirroring the share of non-financial assets, financial assets grew proportionally in the reporting year. The trend towards a higher share of long-term receivables and away from short-term receivables persisted, while cash holdings waned somewhat.

Trends for 2018

Still up-beat, albeit less favourable macroeconomic environment in 2018

Given the continued favourable, albeit less dynamic, underlying economic environment, non-financial enterprises are likely to have further expanded their business activity in 2018. However, a similarly high level of sales growth to that of 2017 is not to be expected against the backdrop of a more subdued growth dynamic on the demand side, with exports and private consumption particularly affected. In addition, temporary one-off effects in the automotive industry in connection with the introduction of a new EU-wide standard for measuring exhaust emissions may have had a dampening impact of sorts on enterprises' overall earnings in the current year. With regard to enterprises' profitability, the rising cost of materials and personnel is likely to have pushed down the return on sales. For instance, price developments for intermediate goods and raw materials – except for the sharp decline in oil prices since early October 2018 – continued on their upward trajectory in the current year after bottoming out in 2016. Personnel expenses, too, are likely to have risen markedly in 2018 amidst greater tension in the labour market, higher negotiated wages and an increase in payroll employment.

Using the consolidated financial statements of the current year to assess non-financial corpor-

Slight drop in group profitability in the current year, but still at a very high level

ations' profitability and financing situation brings with it a higher degree of uncertainty than usual. Changes in the basis of consolidation and the first-time application of new international accounting standards, in particular, limit the comparability of the consolidated financial statements for 2018 with those for 2017.[10] Nevertheless, there are indications that enterprises' profitability probably continued to perform very well in 2018. Although the gross return on sales reported in the financial statements of listed non-financial groups available to date declined slightly in the first nine months of 2018, it was still at an extremely high level. The decline was induced, amongst other things, by the topic of diesel engines burdening car manufacturers. It is not yet possible to estimate the sales growth of groups as a whole because of additions to and removals from corporate sub-sectors, although individual samples indicate that sales grew at a lower rate than in the previous year.[11]

10 In addition, a small number of groups applied the much discussed IFRS standard on leases early. For more on trends in German non-financial groups' net assets, financial position and results of operations in 2017, see the box on pp. 43 ff.
11 Special factors affect groups' current balance sheet pattern. Amongst other things, their capital base diminished as a result of a large cross-border acquisition in the agrochemical industry and due to the financing needs for the business volume in the automotive industry amidst, at the same time, a build-up of inventories caused by the delays in the emissions certification process. The pronounced decline in the tangible fixed asset ratio in the consolidated financial statements for 2018 is based on accounting procedures – with potentially temporary effects – in connection with the intended extensive switch in business activities and other investments in the energy sector, leading to a reclassification of balance sheet items on the assets side.

Long series of extrapolated results from the corporate financial statement statistics are available online at: https://www.bundesbank.de/en/statistics/enterprises-and-households/corporate-financial-statements/corporate-financial-statements-747080