German enterprises' profitability and financing in 2021

The profitability of non-financial enterprises in 2021 was marked by the economy recovering from the pandemic-induced slump in business activity experienced the previous year. Revenues expanded at an above-average pace, driven by catch-up effects. Price increases also played a very important role in this regard, with enterprises' pre-tax profit margin rising to a historically high 5.1%. The long-term debt ratio came back down again. By contrast, enterprises' preference for liquidity eased only slightly. On the cost side, spending on materials rose considerably, fuelled by a sharp rise in prices for intermediate goods and industrial raw materials. Increased costs were largely passed on to consumers but, for the most part, relief in other areas was not. As a result, enterprises expanded their margins substantially during the economic recovery in the reporting year. On balance, the profit situation in 2021 was extremely favourable in virtually all sectors.

While the annual financial statements we have on file are for the year before the Russian war of aggression against Ukraine and the resulting intensification of the energy crisis, they nevertheless reveal how the corporate sector and, in particular, the energy-intensive sectors were faring when the 2022 crisis hit. Liquidity and stability were both relatively high in the corporate sector. The corresponding ratios exceeded those recorded for years immediately preceding earlier recessions or crises, including the coronavirus pandemic. On average, the energy-intensive sectors were no worse off in terms of their profitability and financing than other sectors. Overall, they are therefore likely to be able to withstand the immediate effects of the energy price shock, partly on account of the gas and electricity price brakes and, more recently, lower energy prices.

Given the continuing, albeit somewhat weaker, economic growth, non-financial enterprises are likely to have seen their business activity expand again in 2022. However, the sharply increased energy costs will probably have had a significant impact, especially on annual financial statements in energy-intensive sectors. Cost-side pressures increased across all sectors. On balance, enterprises' profit margin is therefore likely to have been somewhat lower in 2022 than in the reporting year.

Underlying trends

2021: German economy recovered from slump at beginning of coronavirus crisis

2021 saw the German economy claw back from the slump into which it was plunged by the outbreak of the coronavirus crisis, aided in no small part by the gradual easing of protective measures to combat the pandemic at home and abroad. Driven by catch-up effects, real gross domestic product expanded by 2.6% on the year. German exporters benefited from growing foreign demand as global economic activity picked up. Easing pandemic-related restrictions boosted private consumption considerably. Business investment also shot up. However, construction investment stagnated on the back of the sharply increased construction prices. Fiscal policy, which was still strongly expansionary as a result of the extensive temporary coronavirus support measures, had a stabilising effect. The recovery would have been even more pronounced if, in particular, industry had not been hampered by global supply bottlenecks for intermediate inputs and sharp rises in commodity prices. Although growth in output was well above potential growth, medium-term aggregate production capacity remained significantly underutilised.

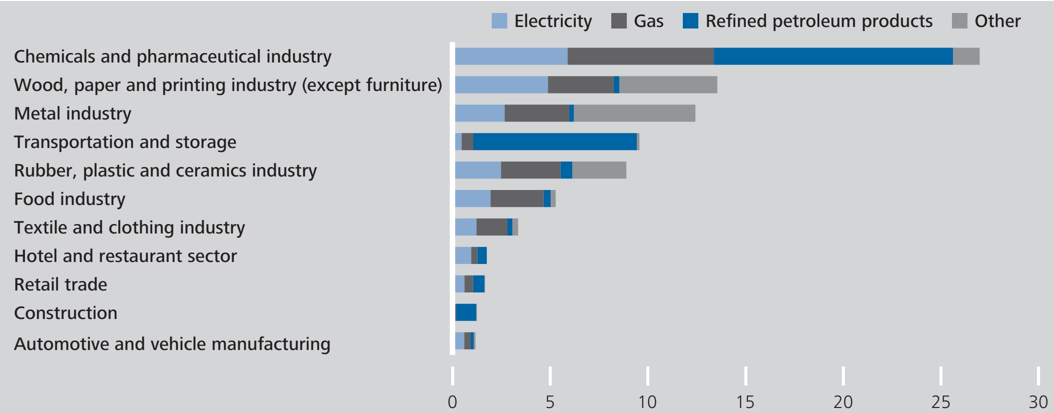
Pre-tax profit margin up sharply

The pre-tax profit margin improved sharply in 2021. At 5.1% – based on the annual financial statements we currently have on file – it reached its highest level since 2007.[1] In 2020, it barely registered a decline, despite the coronavirus pandemic being in full swing. The sharp price increases for intermediate goods and industrial raw materials significantly pushed up the cost of materials in 2021. However, these cost increases were largely passed on to consumers. By contrast, this was not always the case for falling costs for other items. Savings here instead bolstered or boosted enterprises' margins. Amongst other things, reported personnel expenses as a share of gross revenue declined. Thus, while consumers mostly had to bear the strain of cost increases, they were largely denied the relief afforded in other areas. As a result, enterprises expanded their margins substantially during the economic recovery in the reporting year. On the earnings side, other operating income also climbed steeply, likely in part as a result of government financial assistance measures during the coronavirus crisis. In line with this, the number of corporate insolvencies continued to decline in almost all sectors in 2021. Even after the temporary suspension of the obligation to file for insolvency, which was tied to certain conditions, had been phased out in 2021, insolvency applications did

1 The analysis for 2021 is based on some 23,000 corporate annual financial statements, which were roughly extrapolated based on the evaluation of aggregate revenue data from the business register.

Energy intensity in selected sectors in Germany*

Ratio of energy use in terajoules to value added in € million



Source: Federal Statistical Office. * Sectors other than energy production and processing, for which energy intensity exceeds the value 1 in 2019.

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Impact of higher energy costs on the profitability of German industrial enterprises

Soaring energy prices are placing a burden on the German corporate sector. High energy costs weigh on firms' profitability if they are unable to pass the increased costs on or sufficiently improve their energy efficiency. The vulnerability of German enterprises' profitability to the sharp rises in energy costs can be measured using simulations which draw on extrapolated data from the Bundesbank's corporate financial statement statistics. The calculations are based on the accounting relationships in the profit and loss (P&L) account, into which rises in energy costs are fed. These data can be used to compute hypothetical energy price-related changes in the gross profit margin.[1]

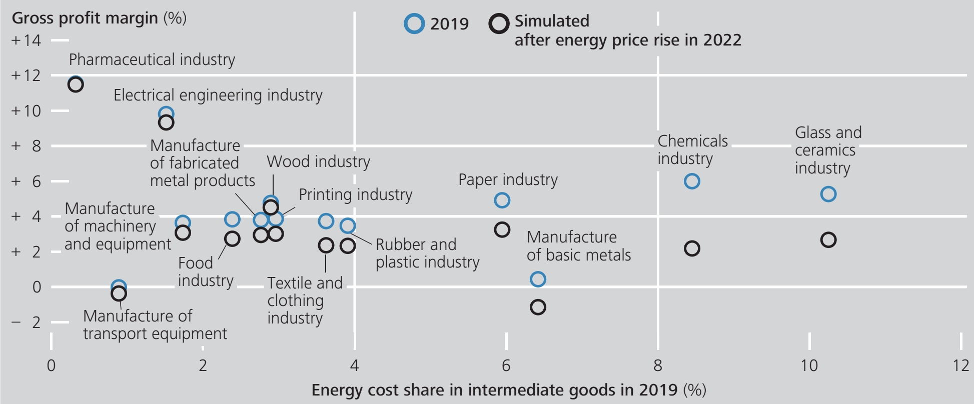
However, the simulations do not shed any light on actual developments in enterprises' profitability, as the design of the calculations means that only the cost of materials changes, while all other P&L positions are left unchanged. Additional burdens, such as reduced sales revenue due to energy savings or losses in households' purchasing power, or higher personnel expenses caused by rising wages, are not reflected in the calculations. Nor do they take account of adjustments made by enterprises, such as passing on costs or taking measures to improve energy efficiency, which mitigate the burdens caused by rising energy prices. Moreover, the results merely illustrate the direct impact on the profit situation and do not provide any insight into the medium-term repercussions for German enterprises.[2]

The analysis focuses on the manufacturing sector, which is particularly affected by energy price increases because of its high average energy intensity. Based on the sector-specific ratio of energy inputs to total inputs, the firms' cost of materials is increased in the calculations in accordance with the price rises for electricity, gas and oil.[3] The price increases for electricity (+28%) and gas (+109%) are based on the latest year-on-year figures from the Federal Statistical Office for the first half of 2022. The rise in oil prices (+81%) is based on the world market price for Brent oil, converted into euro. The profitability results are compared with their figure for 2019 without a change in energy costs.[4]

The results show that the rise in energy prices places a particularly strong drag on gross profit margins in the chemicals industry, in the glass and ceramics industry, in the manufacture of basic metals and in the paper industry. In the manufacture of fabricated metal products, the textile and clothing industry, the rubber and plastic industry, the food industry and the printing industry, profitability appears to be less vulnerable to higher energy costs than is the case on average in the industrial sectors. The manufacture of machinery and equipment, the electrical engineering industry, the wood industry and the pharmaceutical industry – the latter not being energy-intensive any-

1 See German Council of Economic Experts (2022) for similar simulations for manufacturing firms using individual data.
2 The P&L data in the calculations primarily correspond to domestic business activity. First, the calculations relate to the individual financial statements of German enterprises, without data from consolidated financial statements. Second, the sales figures in the extrapolated data from the Bundesbank's corporate financial statement statistics are consistent with the Federal Statistical Office's figures on gross output in Germany.
3 The ratio of energy expenditure to total expenditure on materials was calculated using the data on sector-specific inputs from the Federal Statistical Office's input-output tables for 2019. It was assumed that the sector-specific shares of expenditure on electricity, gas or oil in total energy expenditure correspond to the shares of electricity, gas or oil consumption in total energy consumption according to data from the Federal Statistical Office. This is a simplified assumption, as the price per kilowatt hour typically also varies according to the energy source.
4 A comparison with 2020 would be confounded by the exceptionally weak corporate profits in that year. Detailed sectoral data are not yet available for 2021.

Gross profit margin by energy cost share*



Sources: Federal Statistical Office and Bundesbank calculations. * Extrapolated results from the corporate financial statement statistics.
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way – appear to be broadly resilient. Given that profit margins are estimated to be positive in most sectors despite the sharp rise in energy prices, the direct profit losses in the manufacturing sector appear manageable. However, the picture is somewhat more critical for the manufacture of basic metals and also for the manufacture of transport equipment, as profitability in these sectors had already been below-average previously.[5]

When interpreting the results, it is important to note that energy prices had already risen sharply before the end of 2021. This primarily reflected the recovery of global demand from the impact of the pandemic. Considering only the energy price increases since the second half of 2021, which was shortly before war broke out in Ukraine, gross profit margins fell by only around half as much in each case.

One important factor in the macroeconomic impact of the higher energy costs – which, to some extent, are likely to persist – is the high global competitive pressure that many manufacturing sectors face.[6] This limits the scope for price adjustments if foreign competitors are less affected by higher energy prices. In that case, it could be more advantageous for firms to wind down their business activities in Germany than to continue producing. Among those sectors most exposed to surging energy prices, this is especially true of the manufacture of basic metals, the chemicals industry and the paper industry. These sectors are likely to have difficulty passing higher energy costs on to their customers to a sufficient extent. However, the high level of competition also means that the products made by these sectors – some of which are important intermediate goods for other sectors – can be fairly easily replaced by imported goods. Some key intermediate goods at the beginning of the domestic value chain could therefore, in principle, be substituted in part by imports. This would mitigate any spillovers from production cuts to downstream sectors. Nevertheless, there could be a negative impact on employment, as the manufacturing sectors most affected by this account for a substantial share of employment.

5 These results depend mainly on the sector-specific share of energy in total expenditure on materials and less so on price increases broken down by energy source.
6 International competitiveness can be approximated at the sectoral level using a measure of sector-specific import substitutability. It is defined as the ratio of inputs in Germany to the sum of imports and exports of the world's 43 largest economies according to the World Input-Output Database (WIOD). See Mertens and Müller (2022) for a more differentiated measure at the product level.

not rise above the level prior to the outbreak of the coronavirus pandemic.

Energy-intensive sectors on sound financial footing before outbreak of energy crisis

Energy-intensive enterprises with high financing needs last year, …

The energy price shock triggered by the Russian war of aggression against Ukraine left the energy-intensive sectors facing major challenges last year. Soaring prices for gas, electricity and crude oil have put pressure on manufacturers of metals, chemicals, glass, ceramics and paper, in particular – industries characterised by high gas, electricity and oil intensity levels. Construction, in and of itself, is not a particularly energy-intensive sector. However, it likewise has rather high exposure to the energy crisis, indirectly via energy-intensive construction materials. Besides the manufacturing sector, levels of energy consumption are also high in the transportation sector, which is almost exclusively fuelled by refined petroleum products. The energy price shock intensified both the pressure on firms to adjust their production processes as well as production and sales losses, resulting in high needs for short and medium-term financing. The annual financial statements we have on file are for the year before the energy crisis. However, they can be used to assess the liquidity and stability of energy-intensive sectors, individual sectors and the corporate sector as a whole prior to the crisis.

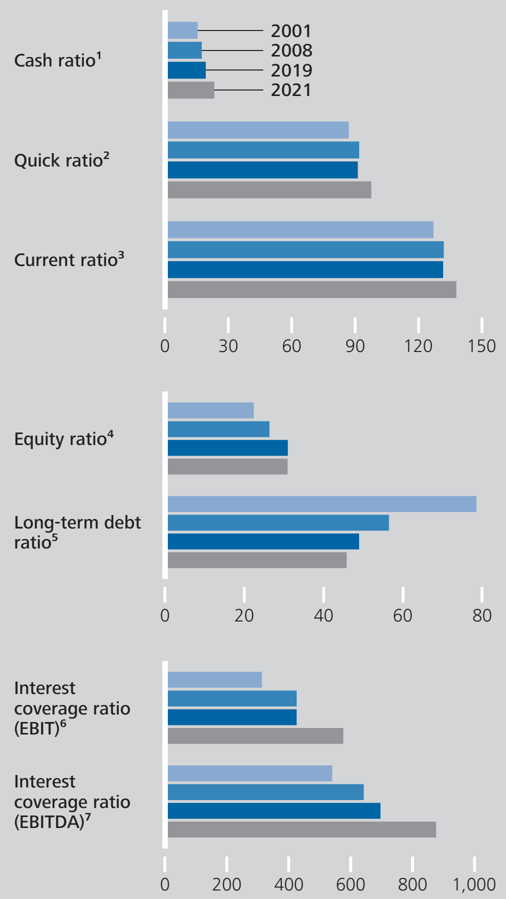
… but financing conditions and capital structure in corporate sector sound prior to energy crisis …

Compared with the years preceding the economic downturns of 2002-03 and 2009 – and even the coronavirus pandemic – non-financial enterprises were more robust in terms of their financing conditions and capital structure in 2021. These metrics were thus left virtually untouched by the coronavirus crisis. However, the impact of measures to preserve liquidity and stability, implemented in the wake of the coronavirus pandemic by government or by enterprises themselves, continued to be felt. On balance, liquidity levels in the corporate sector in 2021 were very good by historical standards. A similar picture emerges with regard to stability ratios. The long-term debt ratio (long-term liabilities to equity) was lower and the equity base stronger than before previous economic downturns and at least roughly as high as before the outbreak of the coronavirus pandemic. The aggregate interest coverage ratio was also extremely high in 2021 in view of favourable profitability levels and the ongoing low interest rate environment.

At the sectoral level, there are differences in enterprises' structural liquidity and stability

German enterprises' liquidity and stability ratios*

%



* Extrapolated results from corporate financial statement statistics. **1** (Cash + short-term securities) / short-term liabilities. **2** (Cash + short-term securities + short-term receivables) / short-term liabilities. **3** (Cash + short-term securities + short-term receivables + inventories) / short-term liabilities. **4** Equity / total assets. **5** Long-term liabilities / equity. **6** EBIT / interest expense. **7** EBITDA / interest expense.

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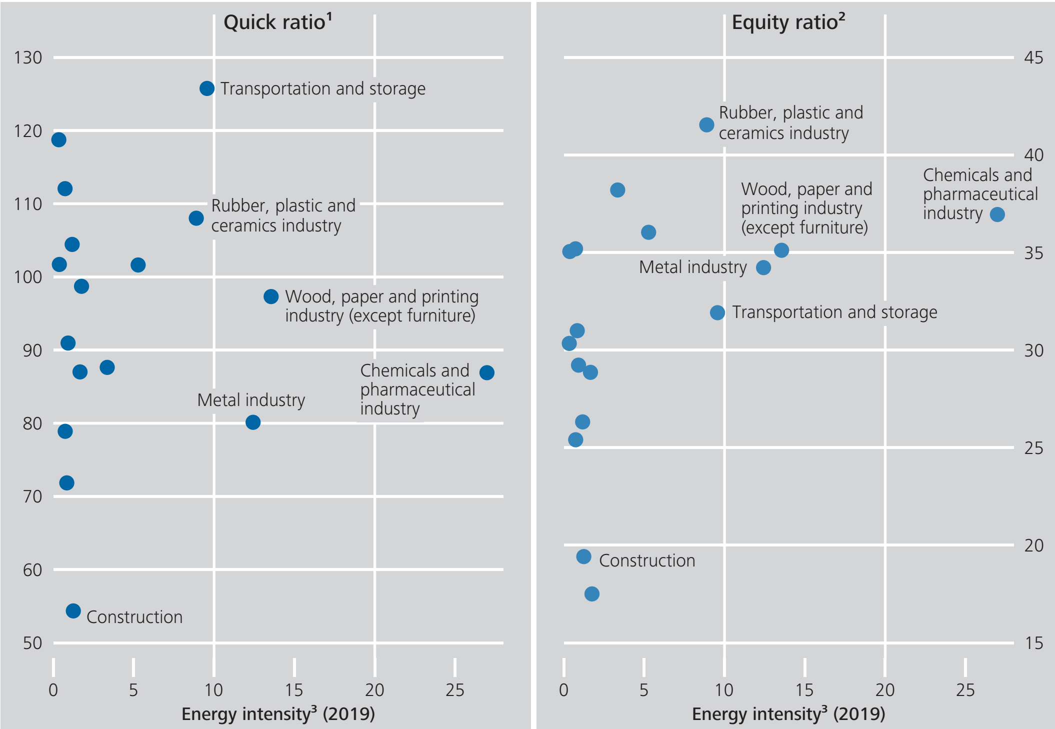
German enterprises' liquidity and stability ratios in 2021 by sector*

%



Source: Federal Statistical Office. * Extrapolated results from corporate financial statement statistics. **1** (Cash + short-term securities + short-term receivables) / short-term liabilities. **2** Equity / total assets. **3** Ratio of energy use in terajoules to value added in € million.
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… in energy-intensive economic sectors, too, despite larger sectoral differences

ratios as well as their profit situation. On average, however, energy-intensive sectors were no worse off than non-energy-intensive ones in terms of their profitability and financing. Their liquidity levels and equity ratios even tended to be above average. On average, the gross profit margin was similarly high. While liquidity levels and equity ratios were lower in the construction sector than in other sectors, given the construction boom in previous years, this sector was much more solidly positioned than in the past. The energy-intensive sectors are therefore likely to be able to withstand the immediate financial impact of the energy price shock for the time being. Profit losses in the manufacturing sector as a result of higher energy costs also appear to be manageable from today's perspective (see the box on pp. 69 f.). The recent fall in energy prices as well as the gas and electricity price brakes for enterprises will also provide a helping hand in this regard this and next year. Nevertheless, as higher energy costs look likely to be here to stay, these and the associated necessary adjustment of production processes will probably weigh on the German corporate sector and potential output in the medium term.[2]

Sales and income

Strong sales growth, mainly due to price effects

The economic recovery in the reporting year drove sales up considerably. Revenue growth averaged 12%, following a decline of 3.7% in the previous year. The catch-up effect after the crisis year of 2020 consequently led to the largest increase in sales since data collection started in 1997. Higher prices are likely to have been a greater factor in the increase in sales revenues than volume growth, as the prices of goods and services rose particularly sharply. As enterprises also expanded their inventories sharply, production outpaced sales in value terms. Other operating income rose less than in the

2 See Deutsche Bundesbank (2022).

previous year, but remained at a high level relative to sales, in part because of the ongoing use of crisis assistance measures.

Sales growth in most sectors; decline in construction sector due to strong stockpiling

Sales rose sharply in almost all sectors. The strongest sales growth was recorded by energy companies, partly because energy prices rose considerably, even in 2021. The high increases in the prices of intermediate goods are also likely to have contributed to the above-average rates of sales growth for intermediate goods producers in the metal and wood industries as well as in the chemicals and pharmaceutical sectors. Looking at service providers, sales grew most strongly in the transportation and storage sector, particularly in water and air transport, mainly owing to catch-up effects following the crisis year of 2020 and a sharp rise in the prices of these services. As restrictions designed to contain the pandemic were still in place in 2021, sales in the hotel and restaurant sector, by contrast, did not yet recover following the sharp decline in the previous year. Sales also stagnated in the food industry. However, unlike in the hotel and restaurant sector, for example, sales there had not plummeted in the preceding year. Only the construction sector recorded a drop in sales, though this sector did see an exceptionally sharp rise in the stock of finished and unfinished products.

Large rise in expenditure mainly due to higher cost of materials but also to increase in personnel costs

Non-financial enterprises boosted their profits significantly again in 2021 and more than offset the slight decline in profits in the preceding year. As overall expenditure did not climb as fast as income, the annual result before tax rose by around half. The sharp rise in commodity prices in particular, but also heightened demand for intermediate goods, contributed to the nonetheless large increase in expenses. Viewed in isolation, personnel expenses and other expenses also picked up as a result of the rise in employment, the partial recovery in working hours due to the reduced use of short-time work arrangements, and significant wage increases. The profitability of non-financial enterprises increased in virtually all sectors. In many sectors, the gross profit margin was not

Indicators from German enterprises' income statement*

* Extrapolated results from corporate financial statement statistics.
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Enterprises' income statement*

Item	2019	2020	2021e	Year-on-year change 2020	Year-on-year change 2021e
Income	€ billion			%	
Sales	6,735.7	6,483.3	7,261.4	− 3.7	12.0
Change in finished goods1	42.9	7.9	91.1	− 81.5	1,046.4
Gross revenue	6,778.6	6,491.3	7,352.5	− 4.2	13.3
Interest and similar income	19.2	17.6	18.2	− 8.1	3.3
Other income2	250.6	282.0	309.2	12.5	9.6
of which: from long-term equity investments	56.7	58.6	59.0	3.3	0.8
Total income	7,048.4	6,790.9	7,679.9	− 3.7	13.1
Expenses					
Cost of materials	4,381.2	4,182.7	4,863.7	− 4.5	16.3
Personnel expenses	1,171.5	1,150.3	1,209.9	− 1.8	5.2
Depreciation	204.9	213.4	215.8	4.1	1.1
of tangible fixed assets3	185.4	192.3	194.3	3.7	1.0
Other4	19.5	21.2	21.5	8.6	1.7
Interest and similar expenses	68.5	70.6	64.8	3.1	− 8.2
Operating taxes	4.6	4.6	5.2	0.4	12.8
Other expenses5	940.5	924.0	949.7	− 1.8	2.8
Total expenses before taxes on income	6,771.1	6,545.6	7,309.1	− 3.3	11.7
Annual result before taxes on income	277.2	245.3	370.8	− 11.5	51.2
Taxes on income6	60.1	58.8	79.7	− 2.1	35.4
Annual result	217.1	186.4	291.1	− 14.1	56.1
Memo items:					
Cash flow7	455.8	448.4	587.6	− 1.6	31.0
Net interest paid	49.3	53.0	46.6	7.5	− 12.0
	As a percentage of sales			Percentage points	
Gross income8	35.6	35.6	34.3	0.0	− 1.3
Annual result	3.2	2.9	4.0	− 0.3	1.1
Annual result before taxes on income	4.1	3.8	5.1	− 0.3	1.3
Net interest paid	0.7	0.8	0.6	0.1	− 0.2

* 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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far off the highs of the past two decades. The sectors trade, business services, construction and the chemicals and pharmaceutical industries even exceeded these peaks.

Sources and uses of funds

Sources and uses of funds rose exceptionally sharply

As the economy recovered, enterprises' sources and uses of funds rose exceptionally sharply. On the revenue side, the additional funds were sourced internally and externally in roughly equal parts. Internal financing rose, with increased transfers to provisions, mainly as a result of retained profits. The increase in external financing was driven by significantly higher short-term liabilities, while long-term liabilities were scaled back. On the expenditure side, non-financial asset formation doubled as the stock of finished and unfinished goods rose sharply. The increase in tangible fixed assets recovered somewhat, but remained below the pre-crisis level of 2019. Financial asset formation rose sharply on the back of significantly higher short-term receivables. The build-up of liquidity in the form of cash remained at an elevated level.

Enterprises' sources and uses of funds*

€ billion

Item	2019	2020	2021e	Year-on-year change 2020	Year-on-year change 2021e
Sources of funds					
Capital increase from profits and contributions to the capital of non-corporations1	26.4	22.4	115.1	– 4.0	92.7
Depreciation (total)	204.9	213.4	215.8	8.5	2.3
Increase in provisions2	33.7	48.7	80.8	14.9	32.2
Internal funds	265.0	284.5	411.7	19.5	127.2
Increase in capital of corporations3	29.7	34.3	27.2	4.6	– 7.0
Change in liabilities	77.3	80.1	234.0	2.8	153.8
Short-term	73.8	– 1.6	275.8	– 75.4	277.4
Long-term	3.5	81.7	– 41.9	78.2	– 123.6
External funds	107.0	114.4	261.2	7.4	146.8
Total	372.1	398.9	672.9	26.9	273.9
Uses of funds					
Increase in tangible fixed assets (gross)	239.2	213.6	230.5	– 25.6	17.0
Increase in tangible fixed assets (net)4	53.7	21.3	36.3	– 32.5	15.0
Depreciation of tangible fixed assets	185.4	192.3	194.3	6.8	2.0
Change in inventories	29.1	– 27.9	136.0	– 57.0	163.8
Non-financial asset formation (gross investments)	268.3	185.7	366.5	– 82.6	180.8
Change in cash	– 3.6	81.3	51.5	84.9	– 29.8
Change in receivables5	52.8	48.0	193.9	– 4.9	146.0
Short-term	27.6	52.4	211.0	24.8	158.6
Long-term	25.3	– 4.4	– 17.0	– 29.7	– 12.6
Acquisition of securities	– 1.2	12.0	4.0	13.2	– 7.9
Acquisition of other long-term equity investments6	55.7	72.0	56.9	16.3	– 15.1
Financial asset formation	103.7	213.2	306.4	109.5	93.1
Total	372.1	398.9	672.9	26.9	273.9
Memo item: Internal funds as a percentage of gross investments	98.8	153.2	112.3	.	.

* 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 but excluding goodwill). **5** Including unusual write-downs of current assets. **6** Including change in goodwill.

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Balance sheet developments

Share of financial assets in total assets stable; ongoing shift from long-term to short-term receivables

In line with the high sales growth, the total assets of non-financial enterprises expanded considerably in 2021. As with sales, the 8.6% increase was the highest since records began, driven by rebound effects after the crisis year of 2020. On the assets side, the share of financial assets in total assets remained broadly unchanged. On balance, the shift from long-term to short-term receivables continued. The decline in long-term receivables was more pronounced than in the previous year and was again due to the reduction in receivables from affiliated enterprises. Short-term receivables also rose significantly more strongly than in the previous year. As in the preceding year, the desire to preserve liquidity was still a factor in some cases. In the energy sector, cash resources were stocked up considerably, by operators of power grids for example, possibly with a view to future investments in network expansion. While the recession had resulted in a drop in trade receivables in 2020, they expanded considerably in the reporting year in line with the high growth in sales. In addition, there was also an exceptionally large increase in other receivables and assets. This was, in large part, due to the strong expansion of energy sup-

Enterprises' balance sheet*

Item	2019	2020	2021e	Year-on-year change 2020	Year-on-year change 2021e
Assets	€ billion			%	
Intangible fixed assets1	76.8	83.3	84.5	8.4	1.4
Tangible fixed assets	1,214.0	1,228.8	1,263.9	1.2	2.9
Inventories	817.1	789.3	925.2	− 3.4	17.2
Non-financial assets	2,107.9	2,101.3	2,273.6	− 0.3	8.2
Cash	353.7	435.0	486.5	23.0	11.8
Receivables	1,654.3	1,695.8	1,883.5	2.5	11.1
of which:					
Trade receivables	457.0	438.8	519.4	− 4.0	18.4
Receivables from affiliated companies	1,008.0	1,054.2	1,103.4	4.6	4.7
Securities	105.4	117.3	121.3	11.3	3.4
Other long-term equity investments2	1,036.5	1,093.8	1,135.4	5.5	3.8
Prepaid expenses	27.3	26.8	40.0	− 1.7	49.1
Financial assets	3,177.1	3,368.7	3,666.7	6.0	8.8
Total assets3	5,285.0	5,470.0	5,940.3	3.5	8.6
Capital					
Equity3	1,637.0	1,693.6	1,835.9	3.5	8.4
Liabilities	2,827.7	2,907.8	3,141.8	2.8	8.0
of which:					
to banks	583.4	599.0	592.3	2.7	− 1.1
Trade payables	362.6	345.7	414.2	− 4.7	19.8
to affiliated companies	1,251.7	1,310.5	1,363.7	4.7	4.1
Payments received on account of orders	302.0	290.2	347.7	− 3.9	19.8
Provisions	775.2	821.4	901.5	6.0	9.7
of which:					
Provisions for pensions	278.7	299.6	316.8	7.5	5.7
Deferred income	45.2	47.2	61.1	4.3	29.5
Liabilities and provisions	3,648.1	3,776.4	4,104.4	3.5	8.7
Total capital3	5,285.0	5,470.0	5,940.3	3.5	8.6
Memo items:					
Sales	6,735.7	6,483.3	7,261.4	− 3.7	12.0
Sales as a percentage of total assets	127.4	118.5	122.2	.	.

* Extrapolated results; differences in the figures due to rounding. **1** Excluding goodwill. **2** Including shares in affiliated companies and goodwill. **3** Less adjustments to equity.
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pliers' business activities, especially in energy trading.

Non-financial assets increased sharply due to stockpiling

Non-financial assets rose in 2021, mainly because inventories expanded exceptionally sharply. In the previous year, they had been scaled back in a bid to conserve liquidity, in part in response to the crisis. Stockpiling was broadly spread across sectors. In addition to the impact of the economic recovery, this could be due, in part, to the desire, sparked by supply bottlenecks, to ensure that value-added chains are more resilient. Tangible fixed assets also grew markedly again. By contrast, intangible fixed assets, which had grown sharply in the pandemic year of 2020 in the information and communication sector, amongst others, displayed no particular momentum in 2021.

Equity ratio remains stable at high level

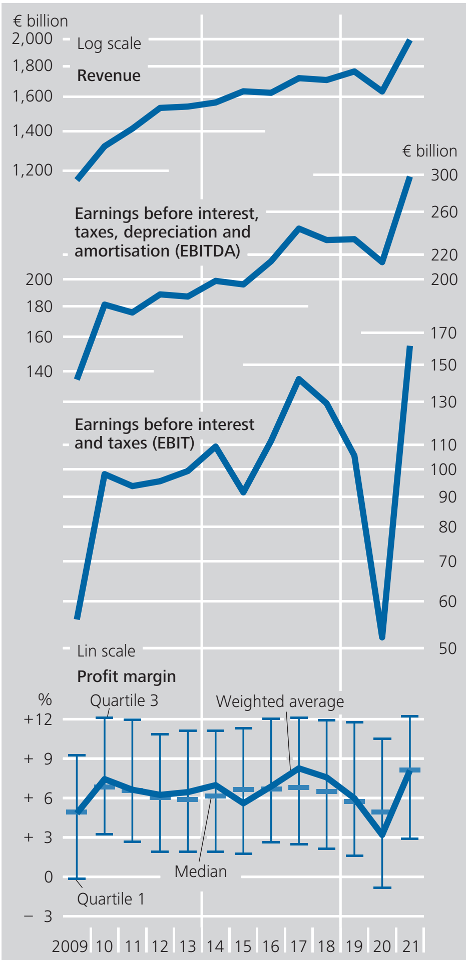
The equity ratio of non-financial enterprises remained stable at a high level in 2021 despite the headwinds of the pandemic and a degree of energy price inflation. The increase in equity, which was high in absolute terms, was spread broadly across sectors. Growth in equity was above average in the services sectors (except the wholesale trade) and in the construction sector.

Profitability and financial position of German listed groups in 2021 and an outlook for 2022

In 2021, German non-financial listed groups rapidly recovered from the setbacks of 2020 – a year dominated by the pandemic.[1] Their revenues and profits reached new highs, while rising energy prices already had a clear impact on energy suppliers. Estimates for 2022 suggest that earnings increased substantially across all economic sectors as a result of price and exchange rate effects. Owing to the accelerated growth in expenditure, profits are likely to have risen less sharply, particularly for energy suppliers.

Revenues grew by 20% in 2021.[2] This is mainly due to the base effect of the low figures in 2020 and price effects. The latter were a key factor in the doubling of energy suppliers' revenues. Overall, earnings before interest, taxes, depreciation and amortisation (EBITDA) rose by 38% on the year, while earnings before interest and taxes (EBIT) tripled. As a result, the weighted average profit margin rose sharply.[3] It increased by 5.0 percentage points to 8.1%, just shy of the peak seen in 2017. In contrast to 2017, the strong growth in 2021 was carried by the vast majority of groups. Accordingly, the distribution of the profit margin shifted significantly toward higher values. The profit margin of groups that previously had low profits recovered to a greater extent than that of groups with high profits. Furthermore, the profits of large groups with higher revenues rose more strongly than those of smaller groups. At the sector level, the profit margin in both the services sector and the production sector (excluding energy) reached new highs. Despite energy price-dependent revenue increases, energy suppliers were unable to improve their profits in 2021, as operating expenses increased by the same magnitude.

Revenue, earnings and profit margin of German non-financial groups



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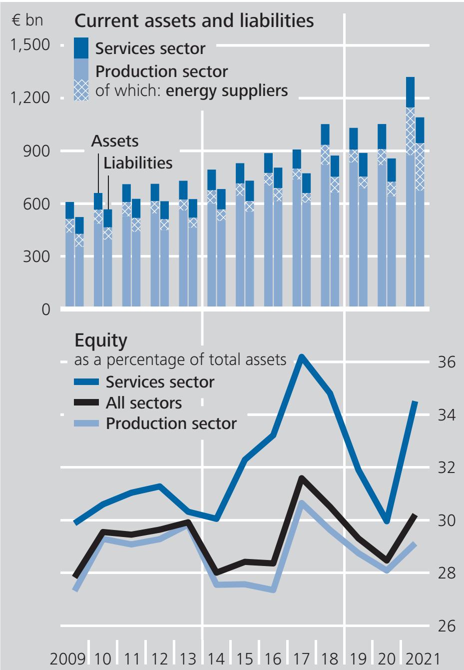
1 The reporting population comprises around 230 non-financial groups (excluding real estate activities) that are admitted to the Frankfurt Stock Exchange's Prime Standard segment and which publish IFRS consolidated financial statements on a quarterly or half-yearly basis and make a significant contribution to value added in Germany. For information on the profitability and financial structure of non-financial listed groups from other European countries, see the publications of the Working Group on European Records of IFRS Consolidated Accounts (ERICA WG) at https://www.eccbso.org/wba/publications#listEl2
2 The rates of change for the profit margin, revenue, EBITDA and EBIT are published with reporting and consolidation basis adjustments.
3 Defined as the revenue-weighted ratio of EBIT to revenue.

Assets and financing of German non-financial groups



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On the asset side, current assets grew by more than 25%, with more than two-thirds of this being attributable to energy suppliers. This was largely the result of valuation effects of derivatives held for hedging purposes. Inventories rose by 12% across all groups, partly reflecting developments in commodity prices. Cash holdings, which had already grown sharply in 2020, increased by 9% in 2021 on account of high inflows from current operations. Among non-current assets, intangible assets increased by 12%. The telecommunications sector made a significant contribution to this through the acquisition of licenses. Property, plant and equipment grew by 6% on a broad basis across groups. The 10% increase in financial assets was mainly attributable to growth in car manufacturers' financial services business and their acquisition of equity interests, and to derivatives positions of energy suppliers.

On the financing side, equity went up by 23%, partly on account of the high profits for the year. A large contribution was also made by the differences arising from currency translation and the remeasurements of defined benefit pension plans. The equity ratio climbed by 1.7 percentage point to 30.2%. It grew significantly more strongly in the services sector than in the production sector, where the aggregate equity ratio was dampened by the strong balance sheet growth among energy suppliers.

A considerable 27% rise in current liabilities set the tone for the debt position overall. This increase was largely due to changes in the valuation of energy price-dependent derivatives positions of energy suppliers. By contrast, the remainder of the production sector and service providers reduced their financial liabilities. Across all sectors, trade payables increased by 21%, which is likely to be due to both rising output and price changes. Non-current liabilities remained more or less stable. Low growth in long-term borrowings was almost entirely offset by the decline in pension obligations.

In the first half of 2022, revenue increased by around one-quarter compared with the first half of 2021. This development is estimated to have continued in the second half of 2022, partly as a result of price effects and the weaker euro, which increased group revenues generated in foreign currency and translated into euro. Owing to the further rise in energy prices, energy suppliers are likely to record the largest revenue increase in 2022, as was the case in the previous year.

The slight normalisation of groups' profit margin[4] in 2022 was due to pre-tax profits not increasing to the same extent as rev-

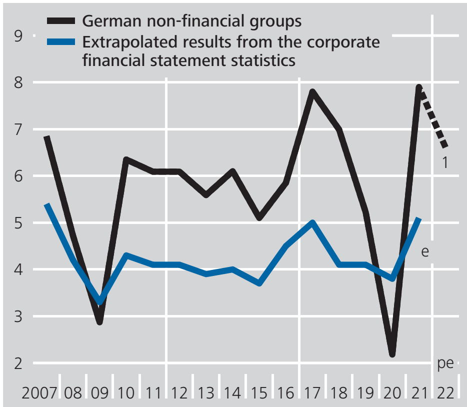
4 Profit margin is defined here as the revenue-weighted ratio of the annual result before taxes on income to revenue.

enues. This development was strongly influenced by energy suppliers, which – despite high revenue growth – recorded lower pre-tax profits on account of rising expenditure. In addition, pre-tax profits were weighed down by the direct consequences of the war in Ukraine. Several groups discontinued their production and distribution in Russia and Belarus, triggering impairments of group assets.

Compared with individual enterprises covered by the corporate financial statement statistics, the profitability of groups increased more strongly in 2021, albeit after having fallen more sharply in 2020. This is because – unlike single-entity financial statements, which mainly reflect business in Germany – the profitability of groups largely reflects global economic developments and the domestic conditions prevailing in the countries where the subsidiaries are located.[5]

Annual result before taxes on income

As a percentage of sales



1 Seasonally and calendar-adjusted average, Q1 to Q3 2022.
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5 Furthermore, the metrics derived from the financial statements are shaped materially by differences between the accounting standards applied (German GAAP for the corporate financial statement statistics, IFRS for the consolidated financial statement statistics).

Strong growth in liabilities; scaling back of long-term liabilities

Growth in liabilities was significantly stronger in the reporting year than in the previous year. The shift from short-term to long-term liabilities in the pandemic year of 2020 reversed in the reporting year. As business activity picked up again, trade payables and advance payments received rose sharply. Short-term liabilities to affiliated enterprises also expanded significantly. By contrast, short-term liabilities to credit institutions were virtually unchanged. Long-term liabilities were scaled back mainly to affiliated enterprises, but also to credit institutions. By contrast, more bonds were issued on balance. Provisions were also larger in 2021 than a year earlier. This was mainly attributable to other provisions, which were set aside in line with positive business developments. However, provisions for pensions and tax also continued to rise.

Trends for 2022

Further rise in business activities likely in 2022, with a slight decline in the profit margin

With economic growth higher year on year, non-financial enterprises are likely to have further expanded their business activities again in 2022. However, the business situation deteriorated over the course of the year, in particular owing to the sharp rise in energy prices as a result of Russia's war of aggression against Ukraine and the gradual end of reopening effects after measures to contain the pandemic were lifted. The loss of purchasing power associated with high inflation weighed on private consumption. The slowdown in the global economy and ongoing supply chain issues dampened German exporters' sales. Real government consumption grew less strongly as pandemic-related spending came to an end. High energy costs will probably have had a significant impact, especially on the annual financial statements in energy-intensive sectors. The decline in housing investment as a result of sharply higher construction costs and increased

Enterprises' balance sheet ratios*

Item	2019	2020	2021e
	As a percentage of total assets[1]		
Intangible fixed assets[2]	1.5	1.5	1.4
Tangible fixed assets	23.0	22.5	21.3
Inventories	15.5	14.4	15.6
Short-term receivables	27.6	27.5	28.8
Long-term equity and liabilities[3]	51.4	52.6	50.4
of which:			
Equity[1]	31.0	31.0	30.9
Long-term liabilities	15.2	16.1	14.2
Short-term liabilities	38.3	37.0	38.7
	As a percentage of tangible fixed assets[4]		
Equity[1]	126.8	129.1	136.2
Long-term equity and liabilities[3]	210.5	219.3	222.1
	As a percentage of fixed assets[5]		
Long-term equity and liabilities[3]	104.8	107.8	109.7
	As a percentage of short-term liabilities		
Cash resources[6] and short-term receivables	91.2	98.1	97.6
	As a percentage of liabilities and provisions[7]		
Cash flow[8]	13.8	13.4	16.2

* Extrapolated results; differences in the figures due to rounding. **1** Less adjustments to equity. **2** Excluding goodwill. **3** Equity, provisions for pensions, long-term liabilities and the special tax-allowable reserve. **4** Including intangible fixed assets (excluding goodwill). **5** Tangible fixed assets, intangible fixed assets, other long-term equity investments, long-term receivables and long-term securities. **6** Cash and short-term securities. **7** Liabilities, provisions, deferred income and proportionate special tax-allowable reserve less cash. **8** Annual result, depreciation, and changes in provisions, in the special tax-allowable reserve and in prepaid expenses and deferred income.

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financing costs is likely to have hurt the construction sector. The services sector, meanwhile, is likely to have fared better thanks to catch-up effects after measures taken to contain the pandemic were lifted. On the cost side, enterprises experienced pressure from strong increases in the prices of intermediate goods and industrial raw materials as well as from higher wage growth. On balance, enterprises' profit margin is likely to be somewhat lower in 2022 than the exceptionally high profit margin in the reporting year.

Long series with extrapolated results from the corporate financial statement statistics are available at https://www.bundesbank.de/en/statistics/enterprises-and-households/-/corporate-financial-statements-796226

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