German enterprises' profitability and financing in 2008

This article analyses the Bundesbank's corporate balance sheet statistics for 2008 from a macroeconomic perspective. These statistics show that it was mainly the sharp increase in the price of raw materials in the first half of 2008 that led to a fall in profits for the first time since 2003, and that the return on sales before taxes on earnings declined by ½ percentage point to 4½%, although business growth was still quite buoyant on an annual average. Despite the lower annual result, retained earnings continued to rise significantly. As a result, enterprises' internal financing options improved again; equity soared to 25½% of the balance sheet total.

Overall, the escalating financial and economic crisis in the final quarter of 2008 had, at that point, no more than a minor impact on the studied financial statements of German enterprises. However, the strains are likely to have increased considerably during the course of 2009. Analysing the income statement and balance sheet data for 2008 nevertheless clearly shows that the non-financial corporate sector entered the cyclical downturn with a higher cash flow, a more favourable earnings situation and a greater financial resilience than in earlier slowdowns.

This article presents the first analysis of the Bundesbank's corporate balance sheet statistics for 2008. It draws on initial estimates which are based on the financial statements of 24,000 enterprises from the production, manufacturing, retail, transport, and business-related services sectors. The data of the corporate balance sheet statistics are available only with a greater time lag than the figures from the national accounts (VGR). Nevertheless, studying enterprises' past balance sheet data also provides valuable insights for the ongoing analysis of the economy and financial stability. In addition to revealing how far the momentous events and contrasts of 2008 were reflected in corporate balance sheets, which is an interesting question in itself, the available data make it possible to draw conclusions about the financial position in which enterprises in Germany found themselves at the start of the current economic slowdown. This, in turn, provides indications of insolvency risks. Moreover, it is also possible to make a better assessment of the impact of potential financing restrictions in the non-financial corporate sector.

Overall economic environment for enterprises in 2008

Clear slowdown in economic activity in 2008 and massive price shocks ...

After a buoyant first quarter, the German economy contracted slightly in the second and third quarters of 2008 and then shrunk severely in the final quarter. The retarding forces in the global economy became stronger as the year progressed and reached an extraordinary new level in the final quarter, when the financial markets were shaken by the insolvency of US investment bank Lehman Brothers. As a result, after two years of major expansion, enterprises' investment growth also slowed over the course of the year. The fall in demand, for one thing, eased the pressure to expand production capacity. Secondly, in the wake of the escalating international financial crisis, there was a significant deterioration in the external financing conditions, especially of large enterprises, in the second half of the year. This made it more difficult both to raise capital and issue new bonds.

In 2008, private consumption was initially hit hard by price shocks triggered by sharp increases in the cost of energy and food on the global markets. Towards the end of the year, households' propensity to purchase is likely to have been additionally curbed by substantial losses in confidence and asset values. In this setting, households' saving ratio went up sharply to 11¼% of disposable income. The resulting retarding effects on private consumption were only partly offset by the positive income effects of employment growth, which had been very buoyant up to the start of the final quarter.

... but growth still moderate on an annual average

Given the favourable start to the year and the fact that the severe economic downturn did not set in until the final quarter, real gross domestic product (GDP) nonetheless rose by 1¼% on an annual average in 2008, compared with 2½% in 2006 and 3¼% in 2007. Domestic demand contributed 1½ percentage points to this growth while, in nominal terms, foreign trade dragged the GDP expansion rate down by ¼ percentage point. At 1¼%, real gross value added of the economic sectors captured in the corporate balance sheet statistics increased at the same pace as GDP in 2008.

Corporate insolvencies likely to have fallen again in 2008

Against this background, 2008 is likely to have seen a further marked fall in the number of corporate insolvencies, which, as experience shows, respond to the economic situation only with a considerable time lag. However, due to recording problems, this finding is not reflected in the official insolvency statistics, which report an overall increase of ½% for Germany compared with a decline of 14½% in 2007.[1]

Profitability

Marked reduction in profits ...

Given rather brisk business growth on an annual average of 2008, corporate profits fell for the first time since 2003 according to current Bundesbank estimates.[2] The annual result before taxes on earnings for the sectors reported declined by 6½%, after expanding by no less than 75½% between 2004 and 2007.[3] This was mainly attributable to the clear increase in expenditure which, for one thing, was triggered by a dramatic rise in the cost of raw materials in the first seven months of 2008. In addition, plummeting prices in the second half of the year forced a number of enterprises to undertake significant write-downs on stocks of raw materials. Added to this were write-downs of receivables, securities and other long-term equity investments, which became necessary mainly on account of a sharp slide in prices on securities markets owing to the escalation of the global financial crisis in the closing quarter of 2008. Special factors at a number of larger enterprises, such as adjustments to pension liabilities, costs of fluctuating exchange rates, and exchange rate hedging transactions, also played a part by sharply driving up the item "other expenses".

At first glance, falling profits in the reporting year fail to match the national accounts data on the earnings of non-financial corporations,[4] whose profits are reported as still being 1½% up on the previous year's level. However, such deviations are by no means unusual. Particularly in years of economic downturn or in periods of major adjustments on financial and foreign exchange markets, valuation losses generally depress the gross annual result more than the profits in the national accounts, since the latter include neither extraordinary earnings nor valuation

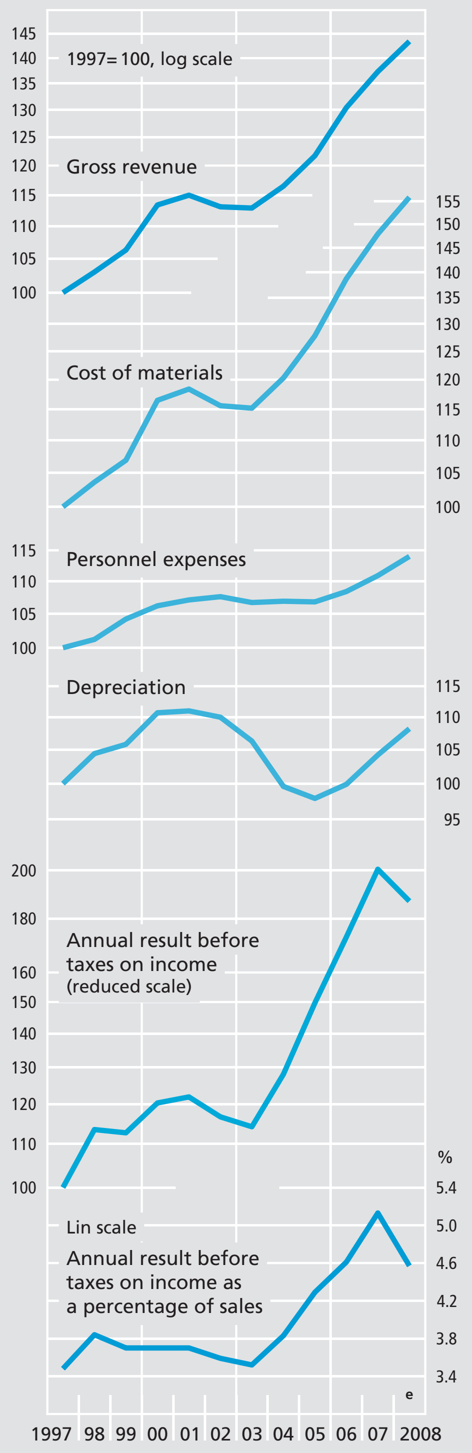
1 The rates of change in the official insolvency statistics are biased downward for 2007 and upward for 2008 because the courts in North Rhine-Westphalia did not report the insolvencies for 2007 until the first quarter of 2008. This also means that a year-on-year comparison for 2009 will not be meaningful. Excluding North Rhine-Westphalia, there was a decline of 4½% in 2008.

2 The 24,000 financial statements for 2008 captured in the study constitute approximately one-third of the closing balance of the two previous years. The data from the financial statements were extrapolated based on estimations using data from the turnover tax statistics. The tables in this article show the profitability and financing of enterprises in the economic sectors examined as a whole for the period from 2006 to 2008. Long series with extrapolated data from financial statements of German enterprises are available online and can be downloaded (http://www.bundesbank.de/statistik/statistik_wirtschaftsdaten_tabellen.en.php#corporate).

3 The annual result corresponds to the annual profit in accordance with the German Commercial Code (HGB) before profit or loss transfers. It provides a better indication of the profits generated by the enterprises analysed in this article because many firms are linked through (partial) profit transfer agreements with enterprises which are not recorded in the corporate balance sheet statistics (eg holding companies) and to which their profits/losses are transferred.

4 In the ESA 95 definition, these include quasi-corporations, ie general partnerships and limited partnerships as well as entities with derived legal status.

Selected indicators from German enterprises' income statements



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gains and losses. Conversely, increases in value, which occur especially in periods of recovery, generate profit only in exceptional cases owing to the principle of the lower of cost or market that applies to the accounting. Over a longer period, however, both approaches arrive at a similar outcome; according to the 2008 national accounts, profits were 63% up on the cyclical low of 2003, compared with 64% according to the corporate balance sheet statistics.

... and in return on sales

With sales continuing to record sharp growth in 2008, the gross return on sales declined by ½ percentage point to 4½%. The net return on sales, which is derived from the annual result after deducting taxes on earnings, decreased by the same amount to just over 3½%. Thus, both ratios were still at the comparatively high levels of 2006, which until then had been recording all-time peak levels. The return on sales is closely linked to the return on equity in the short term but, unlike the return on sales, aggregated data on the level of remuneration on equity, which meets with keen public interest, is difficult to interpret for a number of reasons (see the box on pages 20-21). Measured by gross income, which is produced by subtracting the cost of materials from gross revenue and which represents a crude measure of enterprises' gross value added, the gross annual result in 2008 was 13½%, compared with 14½% in 2007.[5]

5 The item "cost of materials" does not include all intermediate goods. Expenses for certain services (eg advertising, insurance premiums, licence fees, travel expenses etc) are recorded together with other expenses (eg unrealised losses, transfers to provisions, and transfers to the special items with an equity portion) under "other operating expenses".

Manufacturing and transport hardest hit by financial and economic crisis

Broken down by economic sector, the largest falls in profit were recorded in manufacturing (-18½%) and transport (-28½%) Firstly, both sectors were very severely affected by the rising costs of raw materials in the first seven months of the year. Secondly, slumps in industrial output and in the international trade in goods were driving the global economic downturn, which became more acute towards the end of 2008. Average annual growth in sales that was still achieved in both sectors was much lower than in 2007. Transport enterprises' gross return on sales – a sector in which business growth is usually heavily determined by industrial activity – fell by more than 1 percentage point to 3%. An additional factor in manufacturing was that the above-mentioned sharp increases in other write-downs and other expenses had a very marked impact on the overall result. The gross return on sales in these sectors decreased by almost 1½ percentage points to just over 4½%, which was, however, still twice as high as on a longer-term average (1997 to 2008).

Within industry, motor vehicle manufacturers' profits – after a surge in 2007 due mainly to special factors – were severely affected by the economic situation. In a number of other sectors, such as textiles and the manufacture of basic metals, profits declined at low double-digit rates. In addition, many sectors (such as the chemical industry) were able to keep the fall in their profits under tight control, and some were even able to post sharp increases. This was the case for the manufacture of food products and beverages, which is largely unaffected by cyclical fluctuations, and for the manufacture of medical, precision and optical instruments, which is not as susceptible as other sectors. However, the economic sectors with higher gross annual results also include those, such as the manufacture of machinery and equipment, which were processing orders that were already on the books, at least up to the end of 2008, and did not have to cut back production sharply until the start of 2009.

Other sectors still have higher gross annual results

In contrast to manufacturing, the construction sector achieved a further marked improvement in its profitability. At 13%, the rise in the annual result before taxes on income was almost twice as high as growth in sales. The corresponding return reached 6% – a new record high. The trade sector also recorded larger rises in profit than in 2007. Wholesale firms even posted growth of 13%; however, at just short of 3%, the return on sales before tax was barely above the prior-year level as the expansion of sales was also very robust. The retail sector boosted its gross profits by no less than 10%. As this was coupled with an obviously more moderate expansion of business, the return climbed slightly to just over 3½%, which constituted a new peak for this sector that had rather poor earnings until a few years ago. Excluding retail trade in motor vehicles, which experienced yet another quite difficult year in 2008, earnings growth was even higher. Business-related services, too, achieved a marked increase in profits (+7½%). The corresponding return went up by ½ percentage point to 10%, significantly extending its lead over the other economic sectors. However, it should be noted that, owing to the

Problems associated with calculating aggregated returns on equity for German enterprises

After the financial crisis escalated in the autumn of 2008, more and more commentators noted that, in the past, large investment banks in particular sought returns on equity which could only be attained by incurring very high risks.[1] The commentators suggested that this led to a strong bias towards short-termism which in turn made a major contribution to the upheavals in the financial markets. Bank representatives retorted that in the past few years high returns on equity were generated in the non-financial sector, too.[2] They somewhat misleadingly based this counter-argument on data in the corporate balance sheet statistics which the Bundesbank publishes annually in an article on the profitability and financing of German enterprises in its *Monthly Report* as well as in its *Special Statistical Publications*.[3]

For reasons that will be clarified in greater detail below, no returns on equity are calculated or analysed in the above-mentioned Bundesbank publications. Instead, the Bundesbank's calculations are based on returns on sales, which unlike returns on equity are much less open to interpretation as a measure of the rate of return, do not vary as greatly with firm size, and are less dependent on firms' legal form and accounting practices.

The gross return on equity is measured mechanically as the ratio of the annual result before taxes on income to the equity shown on the balance sheet. Such a calculation is vastly oversimplified, as is explained below, and would result in extraordinarily high values for small enterprises in particular. In 2007 the most profitable sector by far would have been small retail trade enterprises (excluding motor vehicle sales) with sales less than €2 million, which according to this measure would have posted a gross return on equity of 129½%. While the corresponding figures for retailers with sales of €2 million or more would have been much lower, they would nonetheless have generated a very high profit ratio of over 40%, although in reality retail trade business was depressed by the increase in VAT as from the beginning of 2007. The profitability spread across different size categories would have been smaller in the other economic sectors. Thus large wholesale enterprises (sales more than €50 million) would have generated a return on equity of 31% and small wholesalers (sales less than €2 million) a return of 46½%. The comparable spread in the industrial sectors ranges from 24½% to 52%, and for the totality of sectors captured by the corporate balance sheet statistics from 25% to 62½%.[4]

However, these figures evidently cannot to be taken at face value, as the higher values for small enterprises, the majority of which are operated as non-corporations (sole proprietorships or partnerships), can be attributed to their lower average level of balance sheet equity. This automatically levers up the return on equity. This low level of recorded equity, which is minimised by non-corporations not least for tax reasons, captures only a part of the actual liable funds available in most cases, however. This is because sole proprietors or partners have considerable discretion when allocating assets either to their private or business sphere. For a long time there were tax incentives in declaring financial assets as private wealth, partly because of the more favourable tax treatment of capital gains, and this still holds for real estate. For sole proprietors and at least some of the partners in a partnership, however, it should be pointed out that liability for their enterprise's debts also extend to their private assets not shown on the balance sheet. In addition, they often post some of their private assets as collateral when procuring business loans. This means that the balance sheet figures are not decisive from the perspective of the lending banks. If these factors were to be fully taken into account, the return on equity would naturally be lower. Similarly, there is an incentive to assign loans to the business sphere as the

1 See for example A G Haldane, Banking on the state, BIS review 139/2009, pp 1-20, and G Kirchgässner, Die Krise der Wirtschaft auch eine Krise der Wirtschaftswissenschaften?, Perspektiven der Wirtschaftspolitik, 4/2009, pp 436-468. — **2** See Association of German Banks (Bundesverband deutscher Banken, Eigenkapitalrendite, Hebelwirkung und Eigenkapitalpuffer, September 2009, www.bankenverband.de/bankenverband/pressezentrum/channel/12121010/art/2801/index.html. — **3** See footnote 2 on page 17. — **4** This is consistent with the results of a study by the the KfW banking group (Hohe Eigenkapitalrenditen auch im Mittelstand?, Standpunkt, No 1, Noveminterest paid on bank loans is tax-deductible for enterprises. The outcome of this is that the balance sheets of non-corporations often depict their financial status as being considerably more unfavourable than it is from an economic point of view.

Furthermore, a part of the annual result recorded by sole proprietorships and partnerships does not reflect profit in the strict sense but rather represents compensation for the entrepreneurs' labour. The smaller the enterprise is, the larger the entrepreneur's remuneration is as a share of the overall annual result. If the profit were adjusted for an appropriate level of entrepreneur's remuneration, the returns on equity – and also the returns on sales – of small firms, in particular, would automatically be much lower.

Consequently, it is advisable to restrict return-on-equity comparisons to corporations, which have less discretion regarding the allocation of liable capital and deduct personnel expenditure on managers when calculating the profit. For example, the average gross return on equity of 25½% computed for corporations in 2007, which was a particularly good year compared with the long-term average of 19½%, was perceptibly below the profit ratio shown for the enterprise sector as a whole (36½%). Furthermore, the profitability spread across size categories for corporations was far narrower than that calculated for all corporate legal forms; it ranged from 22½% to 36% and was only around half as large as that of the enterprises overall. The ratios for the individual sectors likewise showed a much smaller dispersion.

Another advantage of focusing on corporations is that for them, unlike for non-corporations, net returns on equity, too, can be calculated using data from the corporate balance sheet statistics.[5] The net return on equity for corporations was just under 18% in the peak year of 2007, 5½ percentage points below the gross figure. In addition, the differences between the size categories were much smaller than in the gross profit calculation; the range extended from 17½% for large enterprises up to 25% in the smallest size category. Furthermore, the dispersion of net returns within the individual sectors was relatively small.

However, distorting balance sheet effects on equity also affect corporations, regardless of firm size, tending systematically to understate the denominator. For example, the book values of assets as measured according to the valuation rules used in German accounting standards (HGB) are in some cases much lower than the market values, which creates hidden reserves. On the capital side of the balance sheet, this tends to understate the level of own funds measured at market values and to correspondingly overstate the return on equity.

The statistically calculated average return on equity, both before and after taxes, for non-financial corporations in 2007, and also on a long-term average, was considerably higher than the rate of interest which enterprises paid on outstanding bank loans. It is important to bear in mind in this context that the return on equity is highly volatile. Aside from earnings due to market conditions, it primarily reflects the premium for the specific entrepreneurial risk which the equity investor has to bear. A crucial consideration, therefore, is the extent to which risks are incurred in order to achieve the targeted rate of return. It may be the case, for example, that a structural fall in profitability is masked by the incurrence of greater operational risk or a high leverage ratio. This automatically increases the corporate sector's vulnerability to crises. A simple comparison of rates of return that disregards the level of risk incurrence therefore yields little information on the economic sustainability of business models.

ber 2009, p 1), which found that a 25% gross return on equity is not unusual for a medium-size enterprise in good economic conditions. — **5** The main reason for this is that all taxes on income and earnings are booked in corporations' profit and loss accounts, whereas in the case of non-corporations entrepreneurial income is taxed at the private level, and only the outlay for trade earnings tax is entered in the profit and loss account. The net return on equity is the ratio of the annual result after taxes to equity.

varying depth of value added, intersectoral comparisons of returns on sales are of only limited information value.[6]

Income and expenses in detail

Gross revenue

Cost increases were responsible for deteriorating corporate profitability in 2008 and not the development of business activities, which was clearly still on the upside. At 4½%, however, the rise in gross revenue (containing sales, changes in stocks of finished goods as well as other own work capitalised) of the economic sectors included in the corporate balance sheet statistics was not quite as sharp as in 2007 (+5½%). With growth rates of 3% in manufacturing, 3½% in business-related services and 5% in transport, the development of those economic sectors that are more cyclically sensitive was clearly on an upward trend. In industry, business was affected more by the cooling of exports than by the slower expansion of domestic activity. According to official statistics, industrial export sales increased by no more than just under 1½%, compared with a rise of somewhat under 3% at home. The average annual growth of both components was due to a significant contraction during the last three quarters of the year, which also intensified considerably towards the end of the year. Broken down by categories of goods, there was a very sharp slump in sales of intermediate and capital goods, whereas the industrial sector was able to maintain sales of consumer goods at more or less the same level.

Gross revenue in the retail sector was up 3% in 2008 after stagnating in the previous year. This was due mainly to the stronger rise in prices, in particular for those goods that are not very price-elastic, notably energy and food. In real terms, retail sales (including motor vehicles) were 1¼% down on 2007. Large price increases (+4%), probably stemming to a large extent from refined petroleum products and raw materials, contributed to buoyant business growth (+8%) in the wholesale sector, too. Expansion of gross revenue was also strong in the construction sector (+7%) and was primarily driven by a nominal increase of 9% in both state and corporate investment in other buildings and structures, while investment in residential building went up by no more than 3½%. However, it also has to be taken into account that construction prices were up by 3½%, not least owing to a sharp rise in the costs of energy and materials.

Interest and similar income

In the reporting year, interest income did not impart any notable stimuli to corporate profits. Although interest-bearing receivables again increased notably (+6%), they were offset by a slight decline in average interest rates. Under "other income", which is composed of a large number of very different items, income from long-term equity investments soared at 13½%. Total income grew at the same pace as gross revenue, that is by 4½%.

6 See Deutsche Bundesbank, German enterprises' profitability and financing in 2007, Monthly Report, January 2009, p 36.

Total expenses

However, this was offset by an increase in expenses (excluding taxes on income of corporations) of almost 5½%. The cost of materials, by far the largest cost factor, made a considerable contribution to the relatively rapid rise; it also went up by 5½%, a much stronger growth than that in gross revenue.

Breakdown of cost of materials

Enterprises were obviously unable to fully pass on the significantly higher prices of imported intermediate goods to their buyers. Import prices rose by 4½% in 2008. This meant that there was a continuation of the strong upward price pressure stemming mainly from the energy and commodities markets, which had begun in 2005 and was interrupted only in 2007. German import prices increased by 13% for ores, 24½% for refined petroleum products and 33½% for crude oil and natural gas. This principally affected manufacturing, transport enterprises, and wholesale trade with a particular emphasis on raw materials, semi-finished goods, refined petroleum products as well as food and animal feed. The construction industry was likewise confronted with a sharp rise in the cost of building materials, although it was able to pass these on more successfully in its producer prices than the industrial sector. Price pressures exerted by the commodities markets, insofar as these were transmitted at retail trade level, were also largely passed on to consumers.

Personnel expenses, ...

Personnel expenses again rose at a far slower pace (+3%) than the cost of materials, even though personnel expenses had been increasing considerably since 2004-05, a period in which they stagnated. One contributory fac-

Enterprises' income statement *

Item	2006	2007	2008 e	2007	2008 e
	€ billion			Year-on-year change as a percentage	
Income					
Sales	4,011.4	4,183.2	4,372	4.3	4.5
Change in finished goods 1	1.4	41.8	40	2,829.1	– 4
Gross revenue	4,012.8	4,225.0	4,412	5.3	4.5
Interest and similar income	18.8	23.2	23.5	23.3	1
Other income 2	167.3	190.0	210.5	13.6	10.5
of which from long-term equity investments	23.3	23.0	26	– 1.4	13.5
Total income	4,198.8	4,438.2	4,646	5.7	4.5
Expenses					
Cost of materials	2,579.0	2,749.2	2,897.5	6.6	5.5
Personnel expenses	658.1	673.3	692	2.3	3
Depreciation	109.4	114.1	118.5	4.3	4
of tangible fixed assets 3	98.0	104.4	106	6.6	1.5
Other 4	11.5	9.7	12.5	– 15.5	28
Interest and similar expenses	38.5	44.2	46.5	14.9	4.5
Operating taxes	62.3	60.1	59	– 3.5	– 1.5
of which Excise duties	58.4	56.0	55	– 4.1	– 2
Other expenses 5	566.8	583.0	632.5	2.9	8.5
Total expenses before taxes on income	4,014.0	4,223.8	4,446	5.2	5.5
Annual result before taxes on income	184.9	214.4	200	16.0	– 6.5
Taxes on income 6	38.2	44.2	39.5	16.0	– 10.5
Annual result	146.7	170.2	160.5	16.0	– 5.5
Memo item					
Cash flow 7	272.5	295.5	292.5	8.4	– 1
Net interest paid	19.7	21.1	23	6.9	8.5
	As a percentage of sales			Year-on-year change in percentage points	
Gross income 8	35.7	35.3	34.6	– 0.5	– 0.6
Annual result	3.7	4.1	3.7	0.4	– 0.4
Annual result before taxes on income	4.6	5.1	4.6	0.5	– 0.6
Net interest paid	0.5	0.5	0.5	0.0	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 amortisation and 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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tor was that negotiated wages and salaries in the economy as a whole expanded more rapidly in 2008 than in the year before. A further factor was a 1½% rise in the number of employees in the economic sectors covered in this article. However, these cost-increasing effects were somewhat offset by the 0.9 percentage point reduction in the contribution rate to the Federal Employment Agency as of 1 January 2008, one-half of which benefited employers. Viewed over a longer period, the fact that the increase in personnel expenses was quite moderate compared with other major cost items means that the share of this item in total expenses had decreased by 3 percentage points to 15½% since 2000. At -4 percentage points to 17% at the end of the period under review, the decline was even more marked in the manufacturing sector. However, the growing importance of temporary employment should not be overlooked in this context. Enterprises that use the services of temporary employment agencies record the remuneration of these agencies under "other expenses". During the past upswing in industry, this item became more significant as a result; in 2008, it rose by 11½% in this sector and by 8½% across all enterprises. An additional factor in the reporting year, however, was that other expenses were significantly higher than before owing to the aforementioned special factors in the case of large enterprises.

... depreciation and ...

In 2008, depreciation on tangible fixed assets (including intangible fixed assets) was only 1½% above the previous year's level when it had gone up by as much as 6½%. This small increase was due to two factors: firstly, the expiry at the end of 2007 of the temporary raising of the declining-balance depreciation rates for movable fixed assets, which came into effect at the start of 2006; secondly, cyclical factors led to a tapering off of investment in 2008. By contrast, depreciation on receivables, securities and other long-term equity investments soared (+28%) following a marked decline in 2007. One key reason for this was a sharp slide in prices on securities markets in the second half of the year, resulting in major value adjustments on financial assets, particularly long-term equity investments. In addition, larger write-downs were required for inventories owing to the plummeting prices of crude oil and industrial raw materials. Among the individual sectors, this is likely to have hit manufacturing hardest, especially the petroleum and chemical industries. Overall, depreciation increased by 4%, which was somewhat slower than in 2007.

... interest expenses

The rise in costs was also dampened by the slower growth in interest expenses; 4½% compared with 15% in 2007. This was due solely to the smaller expansion of the average annual stock of interest-bearing liabilities; at 5%, it was ½ percentage point lower than before. The average lending rate remained at just under 5%. As interest income increased much less, net interest expenditure rose at the faster pace of 8½%. However, measured in terms of total expenses, it was no more than ½%.

Sources and uses of funds

Smaller inflow of funds ...

In the reporting year, the overall sources of funds for the enterprises in the economic sectors studied in this article amounted to €216½ billion; ie €64 billion, or 23%, less than in 2007, which was an exceptional year, but still somewhat more than in 2006. Furthermore, the longer-term average (1998 to 2008) was overshot by no less than 17%.[7] The decline in 2008 is exclusively attributable to a much lower need for external financing. Internal financing, however, continued to soar. Two-thirds of its €15½ billion, or 10%, rise was due to higher capital injections from profits as well as from contributions to the capital of non-corporations, with the latter making up the lion's share. In 2008, the total increase in capital, the vast majority of which came from internal funding, was €40 billion, ie just under one-fifth of the total funds raised. A further third came from "earned" depreciation. Transfers to provisions, which had a share of 7%, remained virtually unchanged.

... due to steep decline in external inflows

The decline in external funds by almost €80 billion, or two-thirds, to €43½ billion was broadly based. In 2008, capital injections to corporations were exceptionally low. This shows a stark discrepancy with the results of the capital market statistics, which report a figure of €11½ billion for 2008 as measured by market prices of share issues by domestic issuers. One important reason for this is that around four-fifths of the total volume of larger capital increases (€100 million or more) were directed to enterprises not included in the sectors analysed here, in particular those enterprises in the financial sector where new capital had to be found on a large scale – including as part of rescue packages – as well as those in the energy and communication sectors.

Furthermore, at €43 billion, growth in liabilities in 2008 was not even half as large as in 2007. A weaker increase in short-term liabilities contrasted with a sharper expansion in additional long-term liabilities, which was clearly driven by the increased transfer of funds to affiliated enterprises. The fact that €15½ billion of trade payables were redeemed on balance, following a perceptible rise in 2007, was a major contributory factor to the no more than minor expansion in short-term financial liabilities. Developments of this kind were also observed in earlier periods of economic slowdown and rising trade debt risks.[8] In such situations, enterprises are subject to more intense pressure from suppliers to settle their debts quickly, and, at the same time, make every effort to call in their claims on customers as rapidly as possible or to receive the highest possible payments on account of orders. In addition, during a recession, stocks of primary products as well as raw materials and consumables are usually reduced, which also diminishes demand for suppliers' credit. Short-term liabilities to banks, by contrast, rose at much the same pace as in the previous year, probably also in response to the declining credit operations between enterprises.

7 The figures on the sources and uses of funds are subject to much greater uncertainty than the income statement and balance sheet data.
8 See Deutsche Bundesbank, West German enterprises' profitability and financing in 1992, Monthly Report, January 1993, p 26.

Enterprises' sources and uses of funds *

€ billion

Item	2006	2007	2008 e	Year-on-year change 2007	Year-on-year change 2008 e
Sources of funds					
Capital increase from profits and contributions to the capital of non-corporations 1	25.8	28.9	39.5	3.0	11
Depreciation (total)	109.4	114.1	118.5	4.7	4.5
Increase in provisions 2	16.0	14.9	15.5	– 1.0	0.5
Internal funds	151.2	157.9	173.5	6.7	15.5
Increase in capital of corporations 3	10.9	25.1	0.5	14.2	– 25
Change in liabilities	51.1	97.8	43	46.7	– 55
Short-term	43.1	91.3	19	48.2	– 72.5
Long-term	8.0	6.5	24	– 1.6	17.5
External funds	62.0	122.9	43.5	60.9	– 79.5
Total	213.2	280.8	216.5	67.6	– 64
Uses of funds					
Increase in tangible fixed assets (gross) 4	105.3	127.3	133.5	22.0	6
Memo item					
Increase in tangible fixed assets (net) 4	7.3	22.9	27.5	15.5	4.5
Depreciation of tangible fixed assets 4	98.0	104.4	106	6.4	1.5
Change in inventories	2.1	58.7	35	56.6	– 24
Non-financial asset formation (gross investments)	107.4	186.0	168.5	78.6	– 17.5
Change in cash	3.1	8.2	6	5.1	– 2.5
Change in receivables 5	83.8	54.8	16	– 29.0	– 38.5
Short-term	81.3	46.3	12	– 35.0	– 34.5
Long-term	2.5	8.5	4.5	6.0	– 4
Acquisition of securities	11.4	– 7.7	1.5	– 19.1	9
Acquisition of other long-term equity investments	7.6	39.6	25	32.0	– 14.5
Financial asset formation	105.8	94.8	48.5	– 11.0	– 46.5
Total	213.2	280.8	216.5	67.6	– 64
Memo item					
Internal funds as a percentage of gross investments	140.8	84.9	103	.	.

* 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 items. — **3** Increase in nominal capital through the issue of shares and transfers to capital reserves. — **4** Including intangible fixed assets. — **5** Including unusual write-downs of current assets.

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More funds allocated to investment budget ...

Just under four-fifths of the total inflow of funds were used for non-financial asset formation, compared with two-thirds in 2007. Although the overall volume was one-tenth lower due to a slowdown in stockpiling, there was still financial scope to expand gross investment in new non-financial assets by 5%. A further sharp increase in the manufacturing sector contrasted with declines in the retail, transport and business-related services sectors.

... and fewer to accumulating financial assets

In 2008, financial asset formation almost halved from €95 billion to €48½ billion. The effect of a €34½ billion lower accumulation of short-term receivables was clearly felt. Once again, the main reason for this is likely to have been restrictions when granting terms of payment. By contrast, short-term receivables from affiliated companies continued to expand rapidly. The increase in long-term receivables virtually halved to €4½ billion. On balance, enterprises provided €1½ billion for the purchase of securities, after sales had predominated in 2007. Following a record amount of €39½ billion in 2007, there was a sharp reduction in the acquisition of other long-term equity investments. At €25 billion, however, it is still slightly above the long-term average (1998 to 2008).

Balance sheet trends and balance sheet ratios

Smoother balance sheet growth

The severe economic slump in the final quarter of 2008, plummeting prices on securities markets and extensive downward revisions of prices for crude oil and industrial raw materials left a clear mark on corporate balance sheets, which, in the vast majority of cases, were compiled at the end of the calendar year. Nevertheless, at 4%, there was still a marked expansion of the balance sheet total, even though it was not quite as buoyant as in 2007 (+7½%). The slowdown in balance sheet growth was observed in all economic sectors analysed here. Growth rates ranged from 2% in the retail sector to 11½% in the construction sector.

Non-financial assets expanded at a much stronger pace ...

On the assets side of the aggregated balance sheet, the expansion was driven especially by a large build-up of non-financial assets (+6½%). However, this increase can be put into perspective insofar as a large part of it is attributable to stockpiling (+7½%), which, in the case of stocks of finished goods in particular, was largely the result of an abrupt drop in demand in the second half of the year. The book value of non-financial assets was topped up by 6%, which was, in fact, somewhat more than in 2007. It should be noted, however, that an increase in this item reacts only to a limited extent to changes in net non-financial assets acquired.

... than financial assets

Financial assets rose by 2½%. This was again a below-average increase. As a result, financial assets' share of the balance sheet total had diminished by 1½ percentage points since the peak in 2006 to 57½%. This was due, first and foremost, to the recession-induced decline in trade receivables of 6½%, which was accompanied by a similarly sharp fall in trade payables on the liabilities side. In addition, cash and securities recorded only relatively slow growth. At 5%, growth in

Enterprises' balance sheet *

Item	2006	2007	2008 e	2007	2008 e
	€ billion			Year-on-year change as a percentage	
Assets					
Intangible fixed assets	43.7	46.9	46.5	7.5	– 1
Tangible fixed assets	455.7	475.3	503	4.3	6
Inventories	407.0	465.7	500.5	14.4	7.5
Non-financial assets	906.4	987.9	1,050	9.0	6.5
Cash	155.0	163.2	169	5.3	3.5
Receivables	782.3	833.2	846	6.5	1.5
of which					
Trade receivables	307.4	315.6	296	2.7	– 6.5
Receivables from affiliated companies	354.6	387.0	413.5	9.1	7
Securities	62.7	55.1	56.5	– 12.2	3
Other long-term equity investments 1	289.7	323.5	339.5	11.7	5
Prepaid expenses	10.7	12.0	13	12.4	9.5
Financial assets	1,300.4	1,386.9	1,424	6.6	2.5
Total assets 2	2,206.8	2,374.8	2,474	7.6	4
Capital					
Equity 2, 3	537.0	591.0	631	10.1	7
Liabilities	1,234.9	1,332.6	1,375.5	7.9	3
of which					
to banks	299.9	324.0	345	8.0	6.5
Trade payables	243.4	252.6	237	3.8	– 6.5
to affiliated companies	421.4	436.9	451	3.7	3.5
Payments received on account of orders	98.6	134.7	155.5	36.6	15.5
Provisions 3	426.1	442.1	458	3.8	3.5
of which					
Provisions for pensions	170.6	173.1	178	1.4	3
Deferred income	8.8	9.1	10	2.6	8.5
Liabilities and provisions	1,669.8	1,783.8	1,843.5	6.8	3.5
Total capital 2	2,206.8	2,374.8	2,474	7.6	4
Memo item					
Sales	4,011.4	4,183.2	4,372	4.3	4.5
Ratio of sales to balance sheet total	181.8	176.1	176.5	.	.

***** 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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Balance sheet ratios *

Item	2006	2007	2008 e
	As a percentage of the balance sheet total 1		
Intangible fixed assets	2.0	2.0	2
Tangible fixed assets	20.6	20.0	20.5
Inventories	18.4	19.6	20
Short-term receivables	33.1	32.5	31.5
Long-term equity and liabilities 2	45.0	44.3	45.5
of which			
Equity 1	24.3	24.9	25.5
Long-term liabilities	12.4	11.8	12.5
Short-term liabilities	43.5	44.3	43.5
	As a percentage of tangible fixed assets 3		
Equity 1	107.5	113.2	115
Long-term equity and liabilities 2	199.0	201.6	203.5
	As a percentage of fixed assets 4		
Long-term equity and liabilities 2	114.7	113.1	114
	As a percentage of short-term liabilities		
Cash resources 5 and short-term receivables	96.1	91.8	91
	As a percentage of liabilities and provisions 6		
Cash flow 7	18.0	18.2	17.5

* Extrapolated results. — 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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long-term equity investments was relatively sharp, however, even if it was far from being as dynamic as in 2007 (+11½%) owing to the fact that – as explained above – extensive write-downs were necessary.

Further improvement in equity base

The development of total capital was marked by a continued substantial topping up of equity (+7%). Consequently, the equity ratio went up by ½ percentage point to 25½%. Such a ratio is extremely high even on a longer-term comparison. Broken down by sector, the share of equity in the balance sheet total – in line with the differentials in profitability, which indicate the varying scope available for retaining parts of the annual result after taxes – remained unchanged in the manufacturing and transport sectors (28½% and 21% respectively) whereas the percentage increased for all other sectors. This significantly decreased the manufacturing sector's lead, although it still holds top position. Construction was still at the lower end of the spectrum, although its equity ratio doubled to 12½% over the period from 2003 to 2008.

Moderate increase in liabilities

2008 saw a below-average rise (+3%) in enterprises' liabilities. This was due to declining credit operations between enterprises in connection with trade as well as the rather moderate increase in liabilities to affiliated companies and provisions (+3½% in both cases). By contrast, short and long-term liabilities to banks (+6½%) and payments received on account of orders rose very sharply. At €21 billion for long-term liabilities, debt through borrowing remained unchanged. However, in the short-term segment, it more than doubled to €8 billion.

Financing ratios still sound

In addition to the higher equity ratio, other ratios also indicate that enterprises' financing situation at the end of 2008 was decidedly robust despite the first wave of strains arising from the recession and the financial crisis. Long-term equity and liabilities rose by 1 percentage point to 45½% of total assets; furthermore, at 14%, this item exceeded fixed assets by a somewhat greater margin than in 2007. The short-term financing situation also remained relaxed, even if the ratios slipped somewhat. The ratio of liquid funds and receivables to liabilities decreased by 1 percentage point to 91%, which was still a high figure in retrospect. The same is true of the ratio of cash flow to liabilities and provisions, which fell by ½ percentage point to 17½%, but was still well above the average of 15½% recorded between 2001 and 2004, a difficult period for the German economy.

Financially speaking, economy weathered slump well in 2008, ...

All in all, the financial and economic crisis, which came to a head in the final quarter of 2008, did not leave a profound mark on the 2008 financial statements. The level of internal funds was remarkably high. Along with a considerable decline in the inflow of external funds, this gave rise to a further sharp expansion of gross investment in new non-financial assets. In nominal terms, enterprises as a whole would have been able to cover their expenditure on building up non-financial assets without recourse to external funds, say, in the form of bank loans. However, the same cannot be said of individual enterprises; new firms, in particular, are generally dependent on additional bank loans to finance growth, which is often strong.

... greater strains for 2009, however,

The severe recession in Germany and in the major export regions as well as turmoil on the financial markets, which was still severe in the first quarter of 2009 and did not ease until later, is certain to have a deeper impact on the income statements and balance sheets for 2009 than on those for the reporting year. Given that profitability levels are still considerable and the strengthened financial buffer, the majority of enterprises are likely to be in a better position to sustain the cyclically-induced strains than they were during the downturn at the beginning of the last decade, even if the decline in output was very sharp this time.

The appendix tables with extrapolated results usually contained at the end of this article have already been published as part of Special Statistical Publication 5 "Extrapolated data from financial statements of German enterprises from 1997 to 2007", November 2009 (see footnote 2, page 17).