The profitability and investment behaviour of non-financial corporations

In market economies, profits play a crucial role with regard to their signalling, punitive and steering functions. They are a yardstick of entrepreneurial success, they reflect the earning power of equity capital, and they have an impact on sources of finance. The rate of return on capital employed, in addition, profoundly affects enterprises' propensity to invest, thus determining a country's suitability as an industrial location. The income figures of the national accounts, which are used to calculate "corporate profits" regularly and with a relatively short time lag for the now more narrowly defined corporate sector, according to the new methodology and classifications of the ESA '95, provides key insights into ongoing trends in "corporate profitability". As the present article illustrates in detail for the nineties, the profitability of non-financial corporations in Germany did not improve markedly until 1997 and 1998, following a recovery from the recession of 1992–1993. However, that positive trend did not persist in 1999. In the current year the prices of imports of intermediate inputs are likely to rise sharply; however, despite scant scope for passing price increases on, the level of the profit-turnover ratio – with marked differences between the sectors – will, on balance, remain above its long-term average.

Reclassification of sectors

Non-financial enterprise sector

For theoretical and conceptual reasons, as well as for statistical and empirical reasons, analysing the profit situation is one of the most difficult facets of ongoing macroeconomic analysis. If the purpose is to obtain a comprehensive idea of profitability in the corporate sector, the hierarchically structured income calculations included in the national accounts provide a suitable platform for recognising important underlying trends. For analytical reasons, it has proved beneficial to exclude the private housing sector and financial institutions from the general picture owing to their special characteristics. In the framework of the reclassification of sectors, the national accounts have, in addition, narrowed the definition of the (non-financial) enterprise sector, which now consists only of corporations and quasi-corporations and their economic activities.[1] Sole proprietors, persons in the professions and other self-employed persons, whose entrepreneurial activity is much more significant in Germany than in other countries, are classified under the household sector owing to their functions as investors and consumers/savers.

The primary aim of reclassifying the domestic sectors is to enhance the international comparability of the results for the corporate sector; however, such data for important European partner countries will not be available before the beginning of next year. In the following, this article will report on the origin and distribution of income, and the investment behaviour, of non-financial corporations (including quasi-corporations) in Germany according to the official national accounts, which at present include comparable figures for the period since 1991. Owing to different methodologies and a deviation in the range of enterprises, the national accounts calculations are not directly comparable with the figures of the corporate balance sheet statistics.

Trends in profitability

Operating surplus: definition and ...

The operating surplus[2] constitutes an initial, major profit ratio for (non-financial) enterprises. It reflects income from production which is generated by enterprises from their own use of their production facilities.[3] In the account system of the national accounts, starting with output, at the beginning intermediate consumption and the consumption of fixed capital are deducted (see the table on page 33). Also, the remuneration of labour, in the form of remuneration paid, as well as (other) government levies on net output, are to be subtracted. This operating surplus still does not include interest received and interest paid; given corporations' traditionally sizeable demand for external funding, this item shows a large unfavourable balance. Thus, in 1991 interest paid absorbed nearly 30 % of the

1 These comprise public limited companies, private limited companies and companies with largely autonomous decision-making capacity, such as general partnerships and limited partnerships as well as legal forms derived therefrom. The housing sector, at one time shown separately, has been broken down and divided among the relevant sectors.
2 Formerly called "income from entrepreneurial activity and assets".
3 Incomes of self-employed persons, which are classified under the household sector, are not divided in the national accounts between profit and work remuneration (imputed entrepreneurial remuneration), in line with past usage.

The profitability trends of non-financial corporations

DM billion

Item	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average annual change in %
Output 1	3,446.5	3,597.7	3,560.7	3,704.1	3,896.8	3,922.2	4,068.6	4,236.8	4,348.0	2.9
Year-on-year change in %	.	4.4	– 1.0	4.0	5.2	0.7	3.7	4.1	2.6	.
Intermediate consumption 1	1,793.7	1,847.1	1,801.8	1,870.4	1,987.7	1,990.5	2,084.5	2,162.9	2,238.4	2.8
Gross value added	1,652.8	1,750.5	1,758.9	1,833.7	1,909.2	1,931.7	1,984.1	2,073.9	2,109.6	3.1
Consumption of fixed capital	242.6	266.5	282.6	291.9	300.1	306.7	311.8	319.5	327.5	3.8
Net value added	1,410.2	1,484.1	1,476.3	1,541.8	1,609.1	1,625.0	1,672.3	1,754.4	1,782.2	3.0
Year-on-year change in %	.	5.2	– 0.5	4.4	4.4	1.0	2.9	4.9	1.6	.
of which: Compensation of employees paid	1,100.3	1,180.5	1,194.0	1,218.3	1,261.5	1,271.9	1,275.0	1,303.0	1,333.3	2.4
Year-on-year change in %	.	7.3	1.1	2.0	3.5	0.8	0.2	2.2	2.3	.
Operating surplus	311.1	297.4	276.1	325.0	353.0	355.5	393.1	447.7	440.5	4.4
Year-on-year change in %	.	– 4.4	– 7.2	17.7	8.6	0.7	10.6	13.9	– 1.6	.
Property income paid 2	31.9	49.6	55.8	39.4	42.1	44.2	41.7	24.3	38.3	.
Corporate profit 3	279.1	247.8	220.3	285.6	311.0	311.2	351.4	423.4	402.2	4.7
Year-on-year change in %	.	– 11.2	– 11.1	29.6	8.9	0.1	12.9	20.5	– 5.0	.
Memo item:										
Operating surplus as % of output	9.0	8.3	7.8	8.8	9.1	9.1	9.7	10.6	10.1	.
Corporate profit as % of output	8.1	6.9	6.2	7.7	8.0	7.9	8.6	10.0	9.2	.

1 Excluding goods for resale. — 2 Net of property received. — 3 Before tax on earnings and before profit distribution.

Deutsche Bundesbank

operating surplus, and even in 1999, when capital market rates had reached an all-time low, this ratio was still just shy of 26½%. To be sure, enterprises traditionally also earn interest income from interest-bearing receivables, including securities portfolios. But, at just over 9% in 1991 and just under 6% in 1999, these are much less significant – again relative to the operating surplus. After netting the operating surplus with the total receipts and expenditure of property income, the entrepreneurial earnings of corporations – calculated before distributions and withdrawals and before taxes – amounted to around DM 402 billion in 1999. Compared with its unification-related high level in 1991, they have gone up by an annual average of just over 4½%.

... development

The improvement in (nominal) profitability, measured in terms of this indicator, has not taken a steady path during the period under review, however. Profitability slumped in 1992 and 1993. In the later stages of the German unification boom, production was stepped up considerably, to be sure. However, the labour cost explosion at the time and the simultaneous steep rise in the cost of credit put pressure on profit margins, especially since enterprises' scope for raising prices independently was limited. After the exceptional unification-related boom receded, the German economy – like the neighbouring economies before then – began to feel increasingly the effects of the worldwide recession. In 1992 and 1993 alone, the entrepreneurial income of corporations went down by around one-fifth.

After this bout of weakness had been overcome, improvements in profitability, as always at the beginning of upswings, did not take long to materialise.[4] Given strong growth in value added, and greater utilisation of production facilities again, enterprises benefited, firstly, from the degression of overhead costs. Since, secondly, spending on wages and salaries – which, at over 60 %, makes up the largest portion of enterprises' costs – rose only moderately in 1994 and early 1995, two key prerequisites for a rectification of earnings in those two years were in place. At that time, though, the concurrence of the sharp (real) appreciation of the D-Mark (which started at the beginning of 1995, and in the wake of which foreign business slowed down distinctly) and an increase in labour cost pressure blocked the path to a sustained recovery of corporate profits.

It was not until 1997 and 1998 that corporations were able to record distinct rises in their operating surpluses. They were triggered by the cyclically-induced upturn in sales, which began back in 1996. On the cost side, the sharp fall in crude oil prices beginning early in 1997 had a similar effect; at the same time, it facilitated the conclusion of moderate wage settlements, in some cases lasting for two years. But this period of improved earnings did not last, either. As early as 1998 the first clouds loomed; turbulence hit the global financial markets, leaving distinct traces in enterprises' profit and loss statements in 1999. Altogether, corporations' profits went down by 5 % last year.

Profit-turnover ratio: basic tendency and ...

The movements of corporate earnings, marked as they were by sharp fluctuations, also characterised the trends in the profit-turnover ratio[5] as calculated in the framework of the national accounts. Relative to output at current prices, corporate profits (before taxes and profit distribution) went down in the space of just two years from 8.1% in 1991 to their lowest level in the past decade, i.e. 6.2 %, in recession-plagued 1993. The recovery that followed was – as mentioned earlier – halted in 1996. In 1998 the profit-turnover ratio, at 10 %, hit its highest level ever. Despite the slight decline that has been visible since then, it remained, at 9.2 % in 1999, distinctly above the average level of the preceding eight years.

However, this does not help answer the question as to whether the capital tied up in enterprises' tangible fixed assets will thus yield a return which, compared to investment in relatively safe financial assets, includes a "reasonable" reward for the higher risks associated with investment in fixed assets, and whether the yield on domestic fixed assets can compete with the interest rates attainable abroad.[6] Moreover, the marginal yield is relevant to investment decisions, rather than the

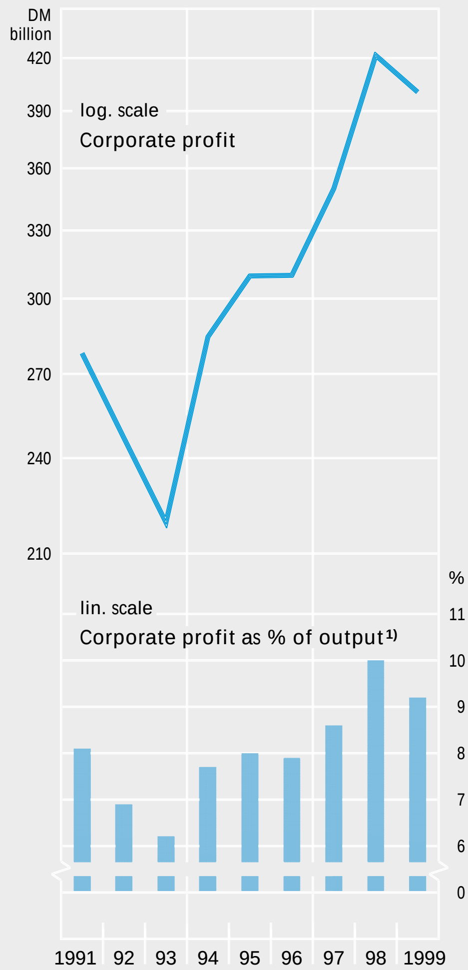
4 In this connection, it must be noted that, for instance, a decline in profitability of 50 % can only be offset in arithmetical terms if profits then go up by 100 %. In addition, where growth rates are optically high, one must take due account of the level prior to that growth.
5 It should be noted here that, since the changeover to the ESA '95, in all economic sectors the purchase price of goods for resale – unlike the conditions in the past – is no longer a component of output. Owing to conceptual differences, the figures are not comparable with the level of the profit-turnover ratios in the corporate accounts.
6 The data on the sectoral composition of the overall capital stock needed for the computation of the yield on fixed assets and the yield margin are not available at present.

average rate of interest on the holding. Besides, financing patterns and tax aspects play a role. However, experience has shown that, over the short term, there exists a close correlation between the movement of the profit-turnover ratio and the movement of the return on capital, and past values also play a part in profit expectations. Irrespective of that, the fact that the risk of insolvency went up markedly during the nineties is important. In particular, the exceptionally difficult situation being faced by many east German enterprises was a significant factor;[7] as is also shown by the Bundesbank's evaluations of balance-sheet statistics, those enterprises had to grapple with an initially weak profit base.[8]

... sectoral structure

Additionally, the highly aggregated data on corporations conceal considerable differentiation by industry. Since such detailed information on corporate profit does not exist, the gross operating surplus (before deducting consumption of fixed capital), without making any distinction by legal form, must serve as a makeshift. The nineties were characterised by an above-average improvement in profitability in the services sectors, even though the relatively weak primary statistical foundation[9] makes caution appear advisable when evaluating individual statistics, although the imputed entrepreneurial remuneration can only be recorded in part. According to national accounts data, the gross operating surplus of all services industries – referring to Germany as a whole – went up by just under 50 % between 1991 and 1998 (more recent data are not available) and thus over 10 % faster than the macroeconomic average. The spectrum ranges from aviation, which is

The profitability of non-financial corporations *



* Figures from the national accounts; calculated as at September 2000. — **1** Excluding goods for resale.

Deutsche Bundesbank

at the top of the table, to the hotel and catering trade, which – rather like road and rail

7 There are no separate national accounts figures on the development of corporate profit in eastern and western Germany.
8 Seen over the longer term, it must generally be borne in mind that the yield on tangible fixed assets also reflects enterprises' adjustment strategies in the light of the changed environment.
9 In contrast to the annual cost structure survey in the producing sector, such surveys are made only every four years in the services sectors, and then only on a narrow and voluntary basis.

traffic – is at the bottom of the table, this ratio of success having gone down considerably.

The gross operating surplus in the manufacturing sector saw practically no increase from 1991 to 1998, contrary to the basic macroeconomic trend. In terms of nominal output (here, including goods for resale), in 1998 this entrepreneurial sector generated a gross rate of return of around 9½% before deducting consumption of fixed capital, interest on borrowed funds and direct taxes; this was not even one-third of the comparable ratio achieved in all services sectors. In this connection, though, the possibility cannot be ruled out that the trend of this indicator may be distorted downwards by the outsourcing of stages of production, since a rise in the input ratio is a reflection of improved productivity and cost effectiveness owing to an enhanced division of labour.

Profit-turnover ratio after taxes

After deducting taxes on income and property tax (the latter was abolished in 1996), net entrepreneurial income of non-financial corporations tended to rise somewhat more sharply than gross entrepreneurial income from 1991 to 1999. This development was particularly pronounced in the first half of the nineties, and there were several reasons for that. To improve the framework conditions for rebuilding eastern Germany, for instance, a number of tax measures were adopted, which – a particular case in point being the introduction of special depreciation allowances – increasingly relieved the burden on enterprises, given the strong revival of investment in the years immediately following German unification. Loss carry-forwards from the 1992-3 recession and from earlier restructuring measures by some major enterprises had a similar effect. Finally, the corporation tax retention rate was lowered in 1994 from 50% to 45% and in 1999 by another five percentage points. The distribution rate was likewise reduced in 1994, from 36% to 30%. Additional relief was afforded by the fact that retained profits, to which a tax of 56% (and later 50%) had been applied, were allowed to be dissolved and disbursed within certain deadlines (a "clearing-out effect"), thus also reducing the tax burden. The overall result is that net corporate profits, according to the national accounts, rose at a rate of just over 5% annually between 1991 and 1999.

Financing conditions and investment behaviour

Change in the financing structure

Corporations' after-tax profits, however, were used not so much to fortify enterprises' internal financing ability; instead, they were distributed increasingly to shareholders. Whereas out of every D-Mark earned, 96 Pfennige were distributed to shareholders in 1991 and around 88 Pfennige in 1996, in 1999 there was hardly anything left for saving in the corporate sector.[10] This points to a change in corporate financing patterns which could also be linked to the advance of the concept of shareholder value. Therefore, the internal financing of corporations and quasi-corporations increasingly derived from the

10 At times, particularly in 1994 and 1998, profit distribution was also strongly affected by the "clearing-out effect" mentioned previously.

earned consumption of fixed capital. This applies all the more since the importance of investment grants has diminished perceptibly, not least because of the public sector's budgetary consolidation efforts. Overall, corporations' internal funds totalled just over DM 345 billion in 1999; they have thus risen at an annual rate of just under 3 % since 1991. The scope allowed by internal finances for capital projects was therefore rather narrow, on the whole. The internal financing ratio, which measures the share of internal funds (retained profits, consumption of fixed capital, balance of capital transfers) in total capital formation, went down to an all-time low of 46 %. Whereas, for instance, gross capital formation was increased by a total of DM 71½ billion between 1996 and 1999, at the same time the financial balance deteriorated sharply. The volume of external funds that needed to be provided amounted to around DM 116 billion in 1999, or around DM 90 billion more than three years before.

To place balance-sheet growth on a broader basis, over the past few years enterprises have increasingly sought to attract additional equity capital. Even without counting the influence of mergers, issue volumes were rather high, particularly in 1999. About one-third of the newly-issued shares were initial public offerings (IPOs). In addition to the relatively large proportion of internal financing from external sources, recourse to lending also shot up. Recently, enterprises have tended to turn their attention more and more to foreign lenders, since apparently the elimination of exchange risk and the harmonisation of interest-rate levels have given a boost to borrowing in the other countries taking part in European monetary union.

Capital formation

Non-financial corporations invested around DM 461 billion in new tangible fixed assets[11] and stocks in 1999. Gross capital formation thus went up nominally by barely 2 % a year during the preceding eight years. Excluding the rather substantial replenishment of stocks in the past two years, gross capital formation, in fact, only showed an average annual increase of 1½ %. Many factors can be cited as reasons for the sluggish pace of investment this reflects. It has rightly been pointed out that German unification initially gave a veritable boost to investment; therefore, the starting level of 1991 was, cyclically speaking, unduly high. Hence, it comes as no surprise that a certain normalisation set in during the ensuing period.

In addition, there are special features characterising the structure of gross capital formation. Thus, corporations' expenditure on construction rose by no less than 35 % between 1991 and 1995, particularly in order to meet the pent-up demand for industrial projects in the new Länder. In real terms, its share in overall gross capital formation went up from an initial level of 36 %, at one time hitting 45 %. Since then, though, the emphasis has

11 The transition to the new ESA '95 broadened the scope of the term "investment" in a not inconsiderable manner. Capital formation now encompasses not only computer software purchased and produced for one's own use, but also acquisitions less disposals of military equipment and buildings which can used for civilian purposes. Yet self-employed persons and sole proprietors, with their housing investment and other capital formation, are now classified under the household sector, as mentioned previously, and no longer in the enterprise sector.

Income, investment and internal financing of non-financial corporations

DM billion

Item	1991	1992	1993	1994	1995	1996	1997	1998	1999	Average annual change in %
Corporate profit	279.1	247.8	220.3	285.6	311.0	311.2	351.4	423.4	402.2	4.7
Deductions 1	27.7	27.5	25.5	19.1	14.7	23.2	24.8	16.9	25.9	– 0.8
Net corporate profit	251.5	220.3	194.8	266.5	296.3	288.1	326.6	406.5	376.3	5.2
Distributions and withdrawals from income	242.0	226.2	224.7	279.6	264.1	253.6	296.7	364.4	371.9	5.5
Saving	– 3.1	– 15.3	– 38.8	– 21.9	31.0	36.0	25.0	35.8	– 3.1	.
Consumption of fixed capital	242.6	266.5	282.6	291.9	300.1	306.7	311.8	319.5	327.5	3.8
Balance of capital transfers	36.2	28.9	29.3	22.1	24.5	20.5	19.8	23.1	21.0	.
Internal financing 2	275.6	280.1	273.1	292.0	355.6	363.1	356.6	378.3	345.4	2.9
dto. as % of gross investment 3	68.9	70.1	76.6	76.0	88.5	93.2	88.0	87.2	74.9	.
Gross investment 3	400.2	399.7	356.6	384.1	402.0	389.8	405.3	433.8	461.4	1.8
Machinery and equipment 4	254.0	247.7	215.2	212.8	215.5	221.1	231.5	252.8	267.9	0.7
Construction	130.4	153.8	158.7	166.2	176.1	169.4	165.2	160.9	160.5	2.6
Financial deficit (–)	– 124.7	– 119.6	– 83.5	– 92.1	– 46.4	– 26.7	– 48.7	– 55.5	– 116.0	.

1 Income and property taxes. — **2** Saving plus consumption of fixed capital and balance of capital transfers. — **3** Including net additions of non-produced non-financial assets. — **4** Including other plant and equipment.

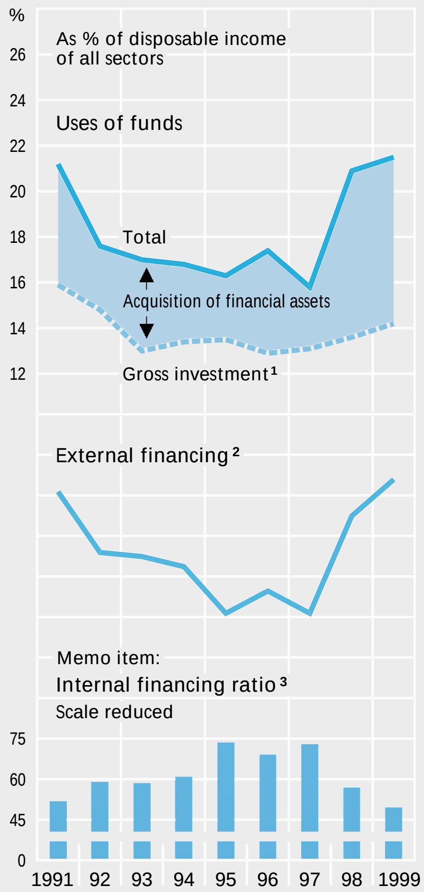
Deutsche Bundesbank

shifted in favour of machinery and equipment. In the light of a considerable quantity of vacant commercial property, corporations' investment in construction has plummeted since 1995; after adjustment for price variations, the 1999 level of such investment was only slightly above that achieved at the beginning of the nineties. In terms of total real gross capital formation, its share has latterly come to 37.5 %. Another factor contributing to this trend is that the role of capacity expansion, which generally requires more new buildings or constructional changes than other capital projects, was much less significant in the nineties than it had been in earlier years. The increasing "miniaturisation" of manufacturing facilities had a similar effect.

Direct investment

Various commentators have pointed out that, during the period under review, German enterprises increasingly engaged in direct investment abroad so as, among other things, to reduce exchange-rate-related fluctuations in sales and profits, to open up new markets in the growth regions of the world economy, or to take advantage of differences in manufacturing costs or in burdens of taxes and other charges. In the past few years, there has been a particularly pronounced propensity on the part of enterprises to expand externally by purchasing existing companies, or participating interests in such companies, instead of establishing and enlarging production facilities of their own. Especially for enterprises operating globally, this is often the quickest route to acquiring a broadly-based and stable position on the world market. In the nineties, German direct investment[12] abroad added up to a total of just over DM 650 billion,[13] which is equal to around four-fifths of domestic capital formation in 1999. It is true that, conversely, expenditure by other countries on direct investment in Germany has risen, too, yet from 1991 to 1999 total investment was no more than one-third of the investment volume of 1999.

Uses and sources of non-financial corporations' funds



1 Gross investment in tangible fixed assets and stocks. — **2** Borrowing including procurement of equity capital. — **3** Retained earnings, capital transfers received (net) and counterpart of consumption of fixed capital, as % of total use of funds; adjusted for the "Treuhand effect" in 1995.

Deutsche Bundesbank

Further outlook

Rising to the challenge of globalisation ...

As our look back at the nineties illustrates yet again, if enterprises are unable to achieve great and sustained profitability, it will hardly be possible to strengthen capital formation and to step up macroeconomic production potential (as a source of future increases in prosperity) to levels at least in the vicinity of those of the eighties. For enterprises that must rise to global challenges, capital formation at domestic locations is only one factor to look at when costing overall investments. In this context, with international financial markets leading the way, the vitality and dynamism of the US economy have increasingly become a benchmark for German and other European locations.

... using a dual strategy

What is needed is a dual strategy which, for one thing, reinforces the return on capital by employing new technologies as they appear and, for another, safeguards the prospects of reasonable profit margins.

Seen in those terms, the German economy is certainly on the right track. Its innovativeness must be rated high; the diffusion process in the field of information and communications technology (ICT) is in full swing, and the corporate landscape is changing, owing not least to progress in deregulation. Additionally, wage policy in Germany has maintained do-

12 New investment in equity capital in order to avoid statistical inaccuracies in calculating reinvested profit at the current end.
13 This accumulation is recommended in order to smooth particularly sharp fluctuations in specific years owing to special factors.

mestic cost discipline and renders enterprises better able to calculate their costs with certainty. The tax relief adopted for corporations and partnerships fits in well with this picture. The same applies to the increasing significance of the market for venture capital, which, under the right governmental framework conditions, is capable of broadening the basis for financing and of lending a fresh boost to the establishment of new enterprises, in particular.