

## Box 5

**PROFITABILITY AND LEVERAGE DEVELOPMENTS OF LISTED NON-FINANCIAL CORPORATIONS IN THE EURO AREA**

This box analyses profitability and leverage developments of listed non-financial corporations in the euro area during recent years, based on aggregated firm-level data from annual financial statements (profit and loss account and balance sheet).

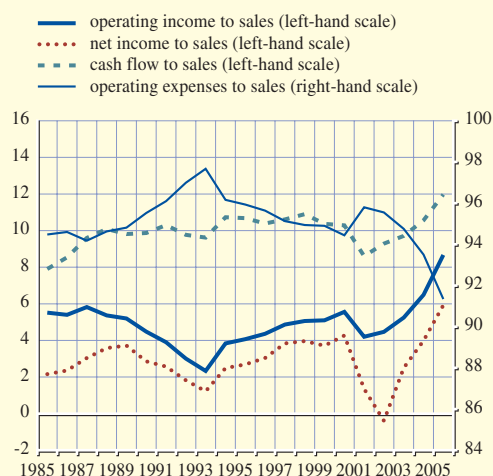
Overall, the profitability of listed non-financial corporations in the euro area, measured as a percentage of sales, continued to increase in 2005, reaching its highest level for the last 20 years. In addition, the net indebtedness of listed non-financial corporations, measured by the ratio of debt to assets, declined further in 2005, albeit at a somewhat slower pace than in previous years.

The annual sample of listed non-financial corporations in the euro area, which has been constructed on the basis of the Thomson Financial DataStream database, contained a total of approximately 2,000 firms in 2004 (mainly large enterprises, which accounted for 75% of the sample).<sup>1</sup> By contrast, small and medium-sized enterprises (SMEs) in the euro area are underrepresented in the sample, as, for the most part, they are not listed.

<sup>1</sup> The sample size increases over time and varies across indicators. The breakdown into large enterprises and small and medium-sized enterprises follows the definition by the European Commission. Broadly in line with this definition, large firms have been defined as firms with more than 250 employees and either total assets or a turnover of above €50 million. See European Commission, Enterprise and industry publications, "The new SME definition: user guide and model declaration", based on the Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (2003/361/EC).

**Chart A Profit and cost developments of listed euro area non-financial corporations**

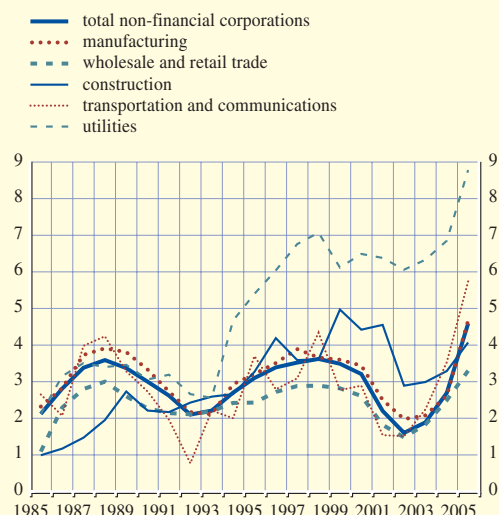
(percentages)



Sources: Thomson Financial Datastream and ECB calculations.  
Notes: The calculation is based on aggregated annual financial statements of listed non-financial corporations in the euro area. Data for 2005 are preliminary.

**Chart B Net income to sales developments of listed euro area non-financial corporations across sectors**

(percentages)



Sources: Thomson Financial Datastream and ECB calculations.  
Notes: The calculation is based on aggregated annual financial statements of listed non-financial corporations in the euro area. Figures show the median value. Data for 2005 are preliminary.

## Profitability developments

Corporate profitability developments can be measured by a variety of indicators, focusing either on the operating income or, more comprehensively, on the net income or cash flow of a firm.<sup>2</sup> Compared with operating income, which is defined as sales minus operating expenses, net income refers to operating and non-operating income after taxation and extraordinary items. Cash flow is defined as net income before depreciation.

The profitability of listed non-financial corporations in the euro area, measured as a percentage of sales, continued to increase in 2005, reaching its highest level for the last 20 years (see Chart A). At the same time, the annual results for 2005 need to be interpreted with some caution as a result of their limited coverage so far.

Listed non-financial enterprises cut their operating expenses in relation to sales further in 2005, and this goes a long way to explaining the rise in profitability. The main components of operating expenses are material cost and employment cost. While the ratio of material costs to sales stood broadly at the same level in 2005 as in 2002, the ratio of employment costs to sales has declined considerably since 2002. Accordingly, some of the decline in the ratio of operating expenses to sales resulted from reductions in employment costs, driven by moderate wage growth and rationalisation of the production process. In addition, depreciation of listed non-financial

<sup>2</sup> Another profitability indicator would be the ratio of earnings before interest, taxation and depreciation (EBITDA) to sales. Compared with net income, EBITDA can be more meaningful in the case of cross-country comparisons, as the effects of national taxation and depreciation rules are excluded. However, the ratio of EBITDA to sales is less meaningful as regards the amount of internally generated funds available to an enterprise for investment.

corporations declined considerably from 2003 to 2005. This might be related to low investment during this period.<sup>3</sup> A further factor contributing to the rise in net income to sales was the decline in interest payments from 2002 to 2004.

Compared with the ratio of net income to sales, the ratio of cash flow to sales of listed non-financial corporations has increased less sharply in recent years. This has been a result of the above-mentioned decline in depreciation. Nonetheless, according to the available preliminary data, the cash flow-to-sales ratio in 2005 also reached its highest level for the past 20 years.

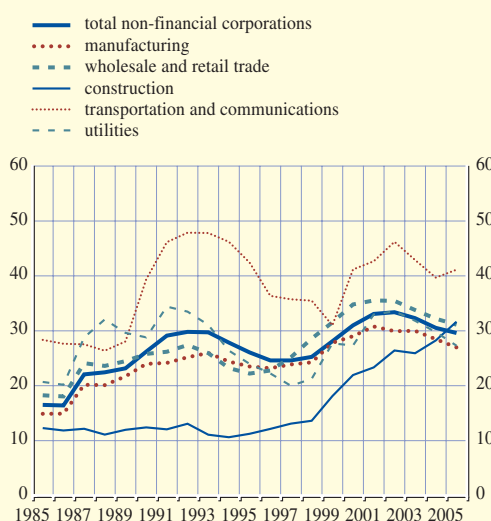
Looking at profitability developments across sectors, the ratio of net income to sales of listed non-financial corporations has increased in all main sectors of the euro area economy (see Chart B). It is interesting to note that since the early 1990s profitability in the utilities sector has risen particularly sharply. In addition, from its trough in 2002, the recovery has been particularly pronounced in the transportation and communications sector. While the profitability of listed non-financial corporations in the manufacturing sector has developed broadly in line with the euro area average, profitability has been somewhat weaker for listed non-financial corporations in the wholesale and retail trade sector.

### Leverage developments

After a reduction in the amount outstanding of debt of listed non-financial corporations from 2002 to 2004, listed non-financial enterprises increased their debt in 2005. This rise in debt has occurred in all main economic sectors.

At the same time, the ratio of debt to assets of the total listed non-financial corporations in the euro area, which indicates their net indebtedness, declined further in 2005, albeit at a somewhat slower pace than in the previous year (see Chart C). This reflects the considerable rise in assets of non-financial corporations, partly related to an increase in mergers and acquisitions activity. By contrast with net indebtedness, the debt-to-GDP ratio of all non-financial corporations in the euro area increased in 2005. However, it should be noted that this debt-to-assets ratio only reflects the developments of listed, i.e. mainly large, non-financial corporations, which might differ from the overall developments of non-financial corporations.<sup>4</sup>

**Chart C Debt-to-assets developments of listed euro area non-financial corporations across sectors**  
(percentages)

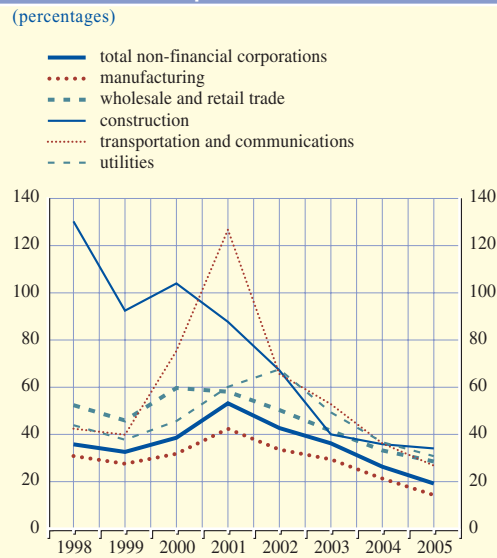


Sources: Thomson Financial Datastream and ECB calculations.  
Notes: The calculation is based on aggregated annual financial statements of listed non-financial corporations in the euro area. Data for 2005 are preliminary.

<sup>3</sup> It should be borne in mind that the evolution of the depreciation-to-sales ratio is also driven by decisions at the firm level with respect to the choice of the depreciation pattern, which could, for instance, be related to tax reasons.

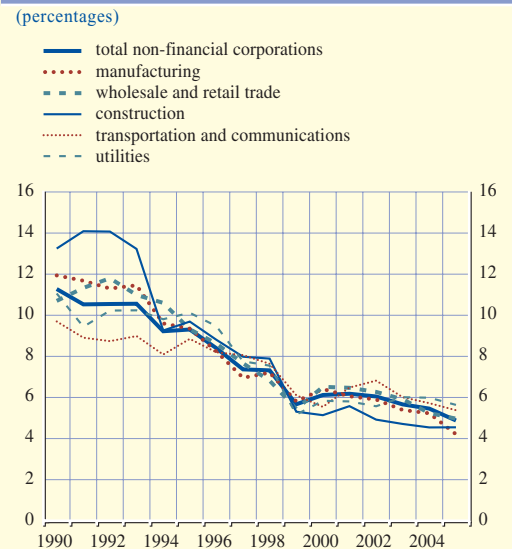
<sup>4</sup> Data on total assets of non-financial corporations in the euro area are not available in the euro area financial accounts.

**Chart D Interest payments on debt to operating income of listed euro area non-financial corporations across sectors**



Sources: Thomson Financial Datastream and ECB calculations.  
Notes: The calculation is based on aggregated annual financial statements of listed non-financial corporations in the euro area. Data for 2005 are preliminary.

**Chart E Average interest rate on debt of listed euro area non-financial corporations across sectors**



Sources: Thomson Financial Datastream and ECB calculations.  
Notes: Interest payments on debt to amount of debt outstanding. The calculation is based on aggregated annual financial statements of listed non-financial corporations in the euro area. Data for 2005 are preliminary.

A common measure which is monitored when assessing the financial situation of non-financial corporations is the interest payment burden, such as the ratio of interest payments on debt to operating income. This reflects the share of the operating income firms need to use for interest payments. Another measure is the ratio of interest payments on debt to the total amount of debt outstanding, reflecting an average interest rate on debt which listed non-financial corporations have to pay.

The ratio of interest payments on debt to operating income of the total listed non-financial corporations increased considerably in 2000 and 2001, a development which was driven especially by a sharp increase in debt and interest payments as well as a lower operating income at that time in a few telecommunication companies. Thus, the interest payment burden has decreased significantly for listed non-financial corporations in all the main economic sectors in the euro area (see Chart D). This reflects the lower interest payments of listed non-financial corporations and the reduction in debt from 2002 to 2004, as well as the rise in the operating income from 2002 to 2005. In 2005, according to preliminary figures, the ratio of interest payments on debt to operating income continued to decline, despite a slight increase in interest payments and a rise in the debt of listed non-financial corporations. This further decline was a result of a further considerable rise in the operating income.

The average interest rate on debt of listed non-financial corporations also continued to decline in 2005, owing to a sharper rise in debt than in interest payments (see Chart E). Taking a longer perspective, from the start of the 1990s the average interest rate on debt of listed non-financial corporations declined significantly until 1999. After an increase in 2000 and 2001, it resumed its downward trend from 2002 to 2005, whereupon it stood at historically low levels.