Box 7

## COMPARING THE LEVERAGE OF LISTED AND UNLISTED CORPORATIONS

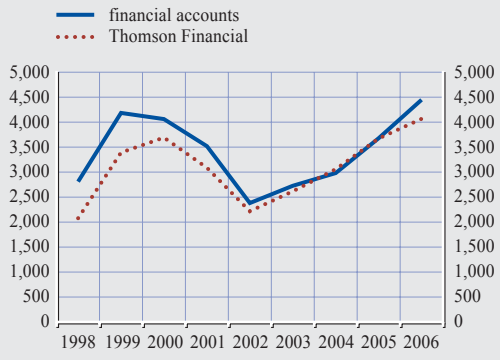
Aggregate financial accounts data show that after 2004, corporate sector leverage in the euro area, which was already high, began to rise again. Using aggregate data for the surveillance of vulnerabilities building up in the non-financial corporate sector may, however, conceal differences between specific groups of firms. For instance, there have been indications that private equity-sponsored LBO activity in the euro area has been significantly raising the leverage, perhaps excessively so, of the affected firms.[1] If that is the case, this would be seen in the leverage ratios of unlisted firms, as private equity deals either involve unlisted firms or consist of taking publicly listed firms private so that they no longer have a stock exchange listing. From a financial stability viewpoint, if leverage becomes excessive among private equity-backed firms, then the likelihood of a large default or of a cluster of smaller defaults becomes increasingly probable if the credit cycle were to deteriorate. As noted by the UK's Financial Services Authority, "this has negative implications for lenders (particularly before distribution), purchasers of the debt (particularly where these positions are concentrated or leveraged), orderly markets and conceivably, in extreme circumstances, financial stability".[2] Once firms are taken private, it becomes increasingly difficult to monitor the condition of their balance sheets. Nevertheless, this Box attempts to infer their condition by comparing leverage patterns for the non-financial corporate sector as a whole with leverage patterns of listed firms which do periodically issue financial statements.

The combined market capitalisation obtained from the published financial statements of around 2,000 non-financial corporations that were listed in 2005 shows levels and patterns broadly

1 See ECB (2007), "Large Banks and Private Equity-sponsored Buyouts in the EU", April.
2 See UK Financial Services Authority (2006), "Private Equity: A Discussion of Risk and Regulatory Engagement", Discussion Paper 06/06, November.

**Chart B7.1 Market capitalisation of quoted shares issued by non-financial corporations in the euro area**

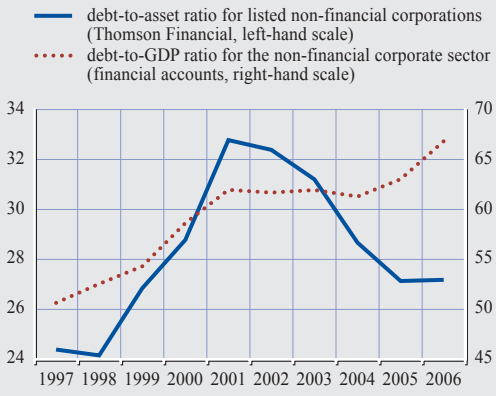
(EUR billions)




Sources: ECB and Thomson Financial Datastream.
Note: Figures for 2006 for listed non-financial corporations are based on a limited data set.

**Chart B7.2 Debt ratios for the euro area non-financial corporate sector**

(%)




Sources: ECB and Thomson Financial Datastream.
Note: The debt ratio derived from Thomson is calculated using total assets, owing to the varying sample size.
Note: Figures for 2006 for listed non-financial corporations are based on a limited data set.

similar to the total amount outstanding of quoted shares issued by non-financial corporations based on data drawn from national accounts. This suggests that the firm-level sample represents a high proportion of the quoted shares outstanding in the euro area as a whole (see Chart B7.1). In addition, the volume outstanding of quoted shares issued by non-financial corporations accounted for around 40% of the total equity of the sector (quoted and unquoted) in the euro area, on average for the period 1995-2004. This in turn implies that unlisted non-financial corporations account for 60% of the total equity of the sector, making it important to analyse developments in unlisted as well as listed non-financial corporates.

The debt ratios of the entire non-financial corporate sector and the debt ratios of listed non-financial corporations generally increased together in the period 1997-2002, but then appear to have decoupled somewhat (see Chart B7.2). The leverage of listed non-financial corporations decreased, whereas the leverage of the sector as a whole started to increase again. This could mean that leverage of unlisted firms started to rise recently.

All in all, these developments could imply that rising aggregate corporate sector leverage after 2004 conceals some differences in the leverage among listed and unlisted firms, although this tentative inference is surrounded by a high degree of uncertainty given the accounting differences in the two datasets.[3] While the surge in private equity deals may have had some influence, it is among the unlisted companies, often saddled with debt-to-earnings multiples of 8 to 9 times, where the ability to generate sufficient cash flows in the future to service debt and to provide internal funds for investment purposes can be questioned. Due to the lack of timely and public data, these firms represent a potential blind spot for financial stability analysis.

3 While the financial statements of firms can be used as a source for constructing national accounts data, there are important differences between financial statement accounting and the economic concepts used in a national accounts framework. For example, production costs in financial statement accounting are commonly recorded on a historical basis. By contrast, national accounts use the concept of opportunity cost, which is approximated by current market prices. Another difference is that financial statements are consolidated at the group level of the company, i.e. they net out intra-group transactions. This contrasts with the concept used in national accounting, which is compiled on the basis of unconsolidated data for individual corporate units. For more information, see for example United Nations (2000), "Links between Business Accounting and National Accounting", Handbook of National Accounting, Studies in Methods, Series F, No 76.