Box 6

THE CYCLICAL PATTERN OF LOANS TO HOUSEHOLDS AND NON-FINANCIAL CORPORATIONS IN THE EURO AREA

Since end-2005, following the progressive withdrawal of monetary policy accommodation, bank lending rates have increased almost continuously. In this environment, the annual growth rate of MFI loans to households has, since the spring of 2006, moderated from the very high levels seen in previous years. At the same time, the annual growth in MFI loans to non-financial corporations continued to strengthen for somewhat longer and has only very recently shown some signs of moderation. With a view to ascertaining whether such different developments are a regular feature of the credit cycle, this box reviews the cyclical pattern of MFI loans to households and non-financial corporations in the euro area since the early 1980s.

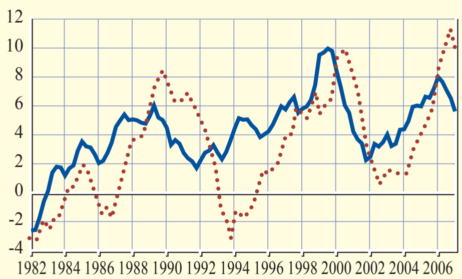
Chart A indicates that the annual growth rate in real terms of loans to households and that of loans to non-financial corporations have followed a broadly similar cyclical pattern over the past 25 years. However, the peaks and troughs have typically been higher and deeper for the latter, i.e. in the case of corporate loans. Visual inspection suggests that, in general, growth in household loans has tended to turn earlier in the credit cycle than growth in corporate loans. This is confirmed by Chart B, which shows that the maximum correlation over the period between the first quarter of 1982 and the first quarter of 2007 is established at an average lead of growth in household loans over growth in corporate loans of around four quarters.

Chart B also shows the correlation structure for two sub-periods. The breakdown has been made simply by dividing the whole time period into two equally long sub-periods. The first period extends from 1982 to 1994, while the second extends from 1994 to 2007.[1] It appears from the chart that the lead/lag relationship has remained broadly the same over time, although the average maximum correlation between household and corporate loan growth is somewhat higher in the latter period. Differences in the lead/lag structure are typically most apparent at the turning points

1 The sub-periods do not fully coincide with the broad economic cycle of the euro area.

Chart A Real MFI loans to households and non-financial corporations

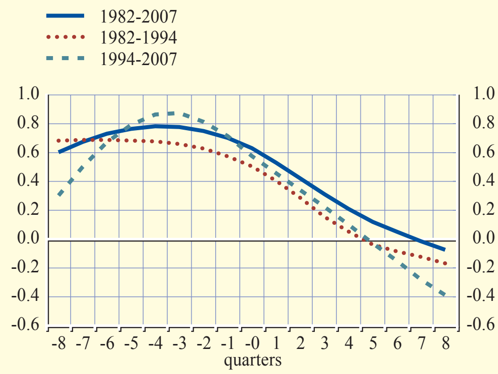
(annual percentage changes; not adjusted for seasonal and calendar effects)



Source: ECB.
Note: Real series have been derived by deflating nominal series with the GDP deflator.

Chart B Correlation between real MFI loan growth to households and non-financial corporations for different leads/lags and time periods

(coefficient of correlation between annual growth rates)



Source: ECB calculations.
Note: Real series have been derived by deflating nominal series with the GDP deflator.

of the series. Chart A suggests that the lead of household over corporate loan growth has been two to four quarters for most of the peaks and troughs during the past 25 years (see also table). Only in the case of the trough of the early 1990s, did the lead differ to any significant extent from the historical average, which is perhaps largely attributable to the effects of German unification.[2]

Growth in real MFI loans to households and non-financial corporations: differences in main turning points

	Peaks	Troughs
late 1980s	-2 quarters	
early 1990s		-8 quarters
late 1990s	-4 quarters	
early 2000		-3 quarters
mid-2006	-3 quarters	

Source: ECB and ECB calculations.
Notes: The main turning points are defined on the basis of the maximum and minimum in the annual growth rate of real MFI loans to households in the credit cycle. The minus sign indicates by how many quarters real annual MFI loans to households have led real annual MFI loans to non-financial corporations at each turning point. The computations are based on three-quarter centred average annual growth rates. Real loan series have been derived by deflating nominal series with the GDP deflator.

Differences, in terms of leads and lags, between the dynamics of loans to households and those to non-financial corporations could reflect several factors.[3] First, the demand for household and corporate loans reflects different driving forces. Loans to households are mainly driven by housing market developments, while corporate loans are largely driven by the need to finance business investment. In fact, there is evidence suggesting that housing market and business investment dynamics do not have the same time profiles over the business cycle. In addition, as the cash flows of non-financial corporations usually improve early in an economic upturn, corporations may tend to finance working capital and fixed investment with internal funds first, and only later with external financing. Furthermore, household borrowing may simply react earlier to changes in growth and income prospects than non-financial corporate borrowing, since bank financing and future income and savings represent the only source of financing to households, whereas corporations typically have more alternative financing sources. Finally, more recently, corporate loan developments may also have been related to various special factors, such as M&A activity and leveraged buyouts (LBOs), that may have amplified the recent strength of corporate loan demand.[4]

Second, the differences between household and corporate loan profiles may also reflect supply-side considerations, as banks may, in the initial phases of the economic cycle, increase their lending to non-financial corporations only after the economic recovery has already materialised and corporate balance sheets have improved. By contrast, as household loans are generally better collateralised, banks may be willing to increase lending to households earlier in the economic cycle than lending to non-financial corporations in the light of the improved employment and income outlook and the perceived decline in households' credit risk.[5]

To conclude, this box has illustrated that, historically, growth in household loans has tended to turn earlier in the credit cycle than growth in corporate loans. It has also shown that household loan growth has led corporate loan growth by an average of around four quarters in the past 25 years, but also that the lead can deviate somewhat from this average across turning points. In this respect, the moderation in corporate loan growth observed in the first few months of 2007 would be in line with historical patterns.

2 See the article entitled "The development of bank lending to the private sector" in the October 2002 issue of the Deutsche Bundesbank Monthly Report.
3 See also the article entitled "Developments in the debt financing of the euro area private sector" in the November 2003 issue of the Monthly Bulletin.
4 See, for example, the box entitled "Factors underlying the strong acceleration of loans to euro area non-financial corporations" in the January 2007 issue of the Monthly Bulletin.
5 Indeed, recent results of the bank lending survey for the euro area provide supportive evidence of this kind of behaviour on the part of banks.