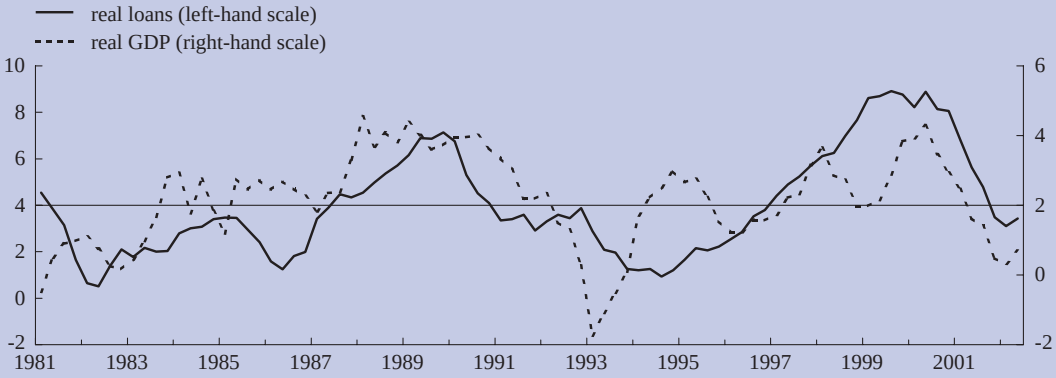
Box 1

Trends in loans to the private sector and their fundamental determinants

Loans to the private sector granted by MFIs are the largest counterpart to M3 and the most prominent among the credit aggregates monitored by the ECB. It is therefore useful to analyse the relationship between these loans and their main determinants. This box considers this issue from two different angles. First, it analyses the long-run behaviour of the euro area loans to the private sector which – as shown by empirical studies – can in real terms be largely explained by developments in domestic macroeconomic variables, such as real GDP and real interest rates.[1] Second, it presents cross-country information relating developments in loans to those in nominal and real output and interest rates.

As Chart A shows, over the last 20 years developments in real loans to the private sector have followed a cyclical pattern. These lending cycles have been positively correlated with the general business cycle. Over this period, annual growth in real GDP moved around an average of 2.2%, while real lending growth averaged about 4.0%.

Chart A: Real loans to the private sector and real GDP in the euro area
(annual percentage changes)



Source: ECB.
Note: The horizontal line corresponds to the sample period average of plotted variables. The GDP deflator is used as a measure of the price level.

Looking at more recent developments, a sizeable gap between the growth rates of real loans and real GDP developed between the second half of 1998 and 2000. During these years, the annual percentage change in real loans remained most of the time at historically high levels of between 8½% and 9%, while the annual growth in real GDP ranged between 2% and 4¼%. One possible explanation for this discrepancy between the dynamics of real loans and real GDP is that at the time the demand for loans was fuelled by non-GDP transactions, relating to real estate market developments and financial transactions (particularly those associated with the financing of merger and acquisition activities both at home and abroad by euro area firms and of auctioned UMTS licences).

Later on, the growth differential between real loans and real GDP narrowed again, with real loans closely following the slowdown in economic activity. In the second quarter of 2002, the annual growth rate of loans to the private sector (deflated by the GDP deflator) stood at 3.4%. The recent slowdown in real loan growth seems to reflect to a large extent the weakening of the non-GDP transactions mentioned above as well as the effect of moderate economic activity. By contrast, the demand for loans is likely to have been supported by

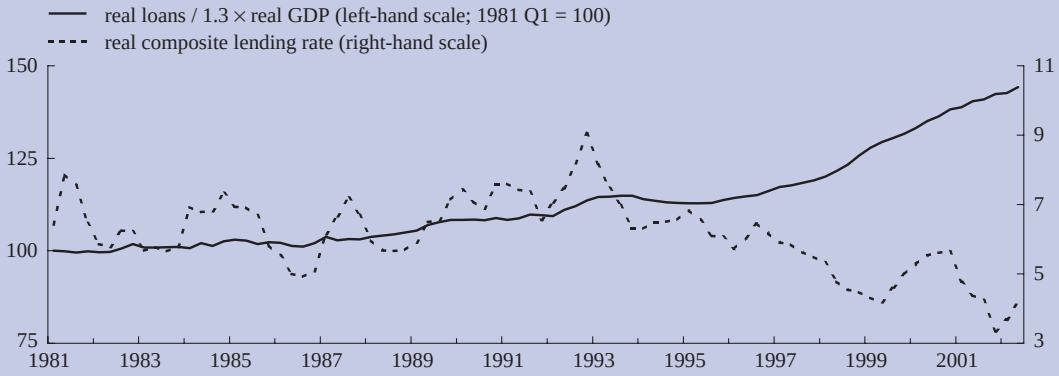
1 *See e.g. Calza A., C. Gartner and J. Sousa (2001), "Modelling the demand for loans to the private sector in the euro area", ECB Working Paper No. 55.*

their low cost, as indicated by the fact that, in real terms, lending rates were at historically low levels in 2001 and 2002 (see Chart B). Finally, the significant fall in equity prices since early 2000 may also have had an impact on developments in loans via its effects on the balance sheets and financial positions of borrowers (thereby reducing the amount of collateral available to obtain credit).

Chart B compares the evolution of the ratio between real loans and real GDP (adjusted for an income elasticity of real loans above one) and that of a real "composite lending rate".[2] The composite lending rate used is a synthetic indicator of the cost of euro area loans obtained as a weighted average of retail lending rates (with the weights given by the individual share of each category of loans in the aggregate). During the 1980s the real composite lending rate showed relatively limited fluctuations slightly above its historical mean of 6.1%. It remained significantly above its long-term average during the first half of the 1990s, which may to a certain extent explain the relatively low growth rate of real loans in that period (see Chart A). By contrast, in the run-up to Stage Three of EMU the composite lending rate was on a declining trend. From 1997 onwards it remained consistently below the sample average, reaching a 20-year minimum of 3.3% in the last quarter of 2001.

As can be seen in Chart B, in recent years, the decline in the real lending rate from the mid-1990s onwards has coincided with a rise in the ratio of real loans to (adjusted) real GDP. This development is consistent with a higher demand for loans to the private sector fostered by the more favourable financing conditions in the euro area as a whole.

Chart B: Real loans to the private sector and the real composite lending rate in the euro area
(index, percentages per annum)



Source: ECB.
Note: The GDP deflator is used as a measure of the price level. 1.3 is the estimated income elasticity of euro area real loans to the private sector (see footnote 1).

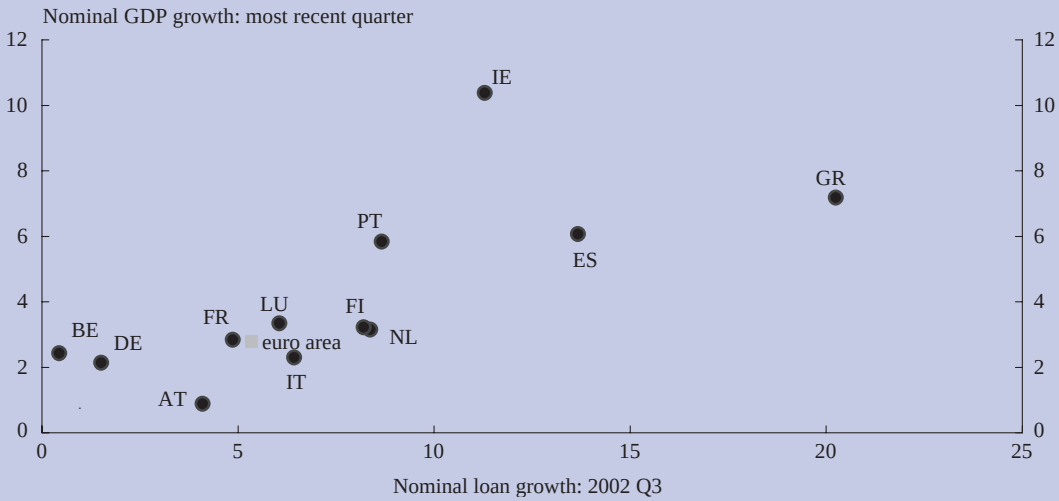
Turning to the evidence from national data on loans, Chart C plots the annual growth rates of nominal loans in the third quarter of 2002 against the most recent annual rate of nominal GDP growth in each euro area country. The chart shows that the dynamics of loans at the country level reflect to a large extent domestic economic developments. In those countries where the growth of nominal loans is strongest (Greece (GR), Spain (ES), Ireland (IE) and Portugal (PT)), the rates of nominal GDP growth are also the highest. Another group of countries (comprising France (FR), Italy (IT), Luxembourg (LU), the Netherlands (NL) and Finland (FI)) appears to be in an intermediate position, with a growth in loans that corresponds to a rate of nominal GDP growth close to the euro area average. Loan growth in Austria (AT) is also close to this average, but annual

2 *The empirical finding that, in the long run, real loans are positively related to real GDP and negatively related to real interest rates suggests that the ratio between the stock of real loans and real GDP – adjusted by the income elasticity of loan demand – should exhibit a stable relation to the level of real interest rates. An increase in real interest rates should lead to a decrease in the ratio and vice versa.*

GDP growth is somewhat lower. As for the remaining countries, Belgium (BE) and Germany (DE), the annual growth rates of national loans are fairly low, but also reflect low rates of nominal GDP growth.

Chart C: Nominal loans and GDP at the country level

(annual percentage changes)

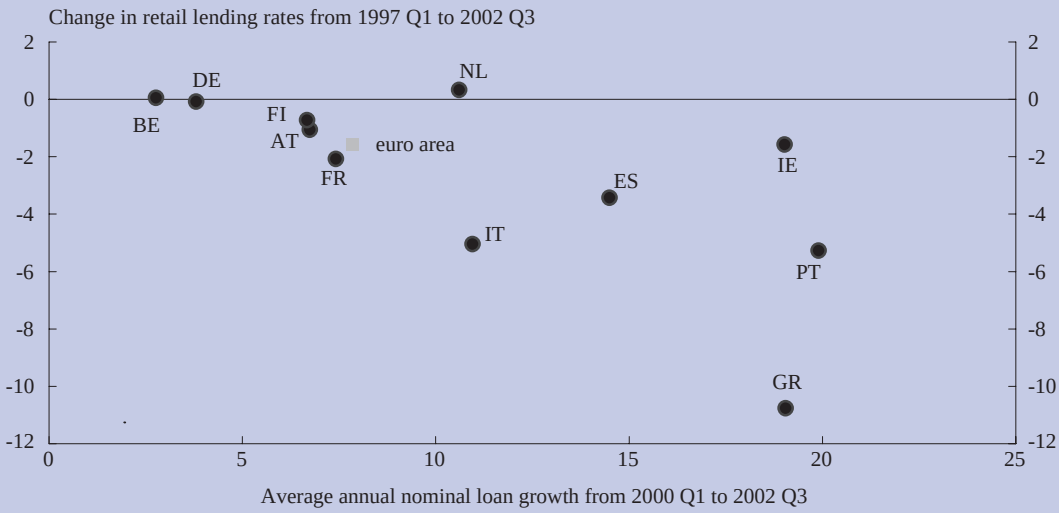


Sources: ECB and Eurostat.

Chart D takes a longer perspective and shows that the trends in national bank lending rates in recent years also help to explain the cross-country developments in loans. There appears to have been a relationship between the strength of national loan growth in the period from the first quarter of 2000 to the third quarter of 2002 and domestic changes in the level of retail lending interest rates since 1997. In countries where loan growth was more subdued (Belgium and Germany), bank lending interest rates in the third quarter of 2002 were basically the same as in 1997. At the same time, bank lending rates have declined significantly in three of the four countries mentioned above as currently having the highest growth in loans (namely Greece, Spain and Portugal). In Italy, bank lending rates have also declined significantly in recent years, but loan growth was somewhat lower than in other countries which experienced similar declines. To some extent, this difference

Chart D: Loans and retail lending rates at the country level

(percentage points; annual percentage changes)



Source: ECB calculations.

Note: The retail lending rates considered are weighted averages of mortgage interest rates and short-term loans to non-financial enterprises, with weights given by their respective shares in the national contributions to euro area loans to the private sector. Data on retail lending rates for Luxembourg are not available.

may be related to the fact that in the latter countries the pace of growth of nominal GDP was significantly higher than in Italy.

Nominal output growth and bank lending interest rates, however, are not the only factors that may explain loan developments in euro area countries. For instance, domestic real estate market developments play a major role in determining loan demand across euro area countries. In this respect, notably Greece, Spain, Ireland and the Netherlands have seen rather sharp rises in house prices recently, accompanied by a strong demand for mortgage refinancing. In addition, inter-country differences in non-interest components of the cost of loans (e.g. collateral requirements and other conditions attached to contracts) can be relevant. Moreover, at the current stage a rise in credit risk may also help to explain the subdued loan growth in some euro area countries. For instance, it has been suggested that, while in Germany the currently low level of loan growth appears to be mainly determined by weak economic growth, banks in that country may have also adopted a more cautious lending approach recently.[3] Banks in Belgium also appear to have assumed a more cautious approach to lending, which, combined with the slowdown in economic activity, helps to explain the subdued loan growth there. Nevertheless, as the previous analysis shows, in the euro area as a whole the annual rate of growth in loans to the private sector is at present relatively close to its long-term historical average, which – given the current cyclical position – would seem to suggest fairly steady developments in bank credit in the euro area as a whole.

3 *See the article entitled "The development of bank lending to the private sector" in the October 2002 issue of the Deutsche Bundesbank Monthly Report.*