

Developments in the debt financing of the euro area private sector

The close monitoring of debt developments in the euro area's non-financial private sectors is an integral part of the ECB's economic and monetary analysis. Developments in debt financing reflect the financing situation and behaviour of the private sector, especially households and non-financial corporations. This is, in turn, of relevance for developments in real economic variables, such as real GDP growth, investment and consumption. Trends in loans granted by monetary financial institutions (MFIs), the most important component of debt financing, help to better understand monetary developments and therefore facilitate the assessment of their information content for inflationary trends over the medium term. Against this background, this article reviews the main developments in debt financing over recent years and analyses the relationship between debt financing and its main determinants.

Developments in debt financing typically have a positive relationship with real economic activity and a negative relationship with the costs of debt financing (i.e. interest rates). Occasionally, other factors such as strong merger and acquisition (M&A) activity or large movements in property prices can also significantly affect debt developments. Indeed, these factors played a role in the significant growth of debt financing of the non-financial private sectors in the second half of the 1990s. Since 2001, debt financing growth has decreased substantially, mainly in relation to the economic slowdown and the decline in M&A activity. However, it has remained quite robust in this recent period of weak economic activity, probably in connection with an ongoing adjustment on the part of borrowers to lower interest rate levels in some countries compared with the start of the 1990s.

I Introduction

This article focuses on the debt financing of the euro area private sector, with a particular emphasis on developments in the household and non-financial corporation sectors. Debt financing is defined in this article as the sum of financing via loans (granted by euro area MFIs and non-monetary financial institutions), debt securities issued and pension fund reserves of non-financial corporations. Other means of debt financing, such as trade credit, other advances or loans from non-resident MFIs, other non-financial corporations or government, are excluded. Unlike total financing, debt financing excludes the issuance of shares and other equity.

Within debt, loans granted by MFIs play a prominent role. MFI loans to the non-MFI private sector include not only loans granted by MFIs to households and non-financial corporations, but also MFI loans to non-monetary financial institutions (i.e. insurance corporations, pension funds and other financial intermediaries). In addition, MFI loans to the euro area private sector constitute the largest counterpart of M3.

Therefore, the analysis of developments in these loans helps to shed light on the factors underlying monetary dynamics and, hence, on the possible implications of the latter for future inflationary pressures.¹

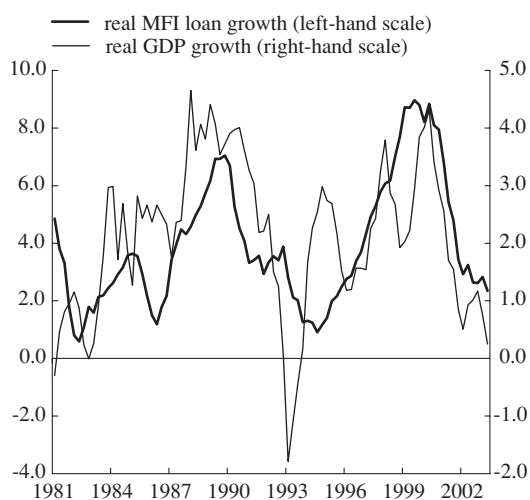
This article reviews the main trends in debt financing of the non-financial private sectors in the euro area. After a short analysis of the main trends in MFI loans to the private sector (Section 2), the article focuses on debt financing trends for households (Section 3) and non-financial corporations (Section 4) in the euro area. Section 5 concludes.

¹ See the article entitled "Framework and tools of monetary analysis" in the May 2001 issue of the Monthly Bulletin.

2 Main trends in MFI loans to the private sector

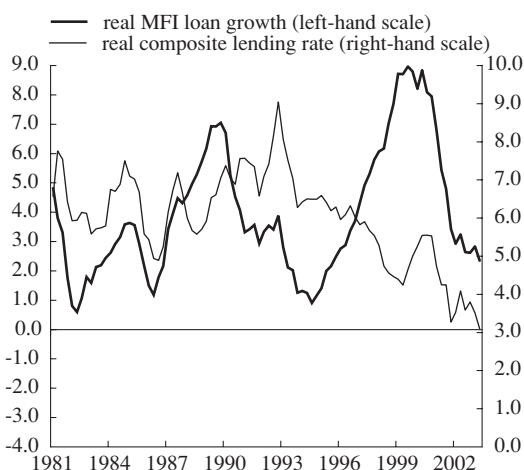
The average annual growth of MFI loans to the private sector in real terms (deflated by the GDP deflator) for the period from the early 1980s to 2003 was 3.9%. The main determinants of real MFI loan growth are typically real economic activity and the financing costs of loans.² These determinants can be proxied by real GDP growth and a measure of the real composite MFI lending rate (i.e. the nominal composite lending interest rate minus inflation as measured by annual percentage changes in the GDP deflator).³ As shown in Chart 1, the developments in euro area loans to the non-MFI private sector and real GDP have been positively correlated over the last 22 years. In this context, it is noteworthy that the average annual growth rate of real loans over this period has exceeded that of real GDP. This can be explained by the fact that funds taken up in the euro area have also been used for transactions outside the euro area and for transactions that are not included in GDP (such as financial transactions or purchases of already existing real estate via secondary markets). As discussed further in the box

Chart 1
Real MFI loan growth and real GDP growth
(annual percentage changes)



Sources: ECB, Eurostat.
Note: Real loan growth is deflated by the GDP deflator.

Chart 2
Real MFI loan growth and the real composite lending rate
(annual percentage changes; percentage points)



Sources: ECB, Eurostat.
Note: Real loan growth and the real lending rate are deflated by the GDP deflator.

below, real loan growth in the euro area tended on average to lag real GDP growth by three quarters during the last 22 years.

Chart 2 shows the long-term developments in the annual growth of real MFI loans to the private sector and in the real composite lending rate. While on economic grounds a negative link between the cost of loans and loan growth could be expected, for the 1980s such a relationship is not that apparent. Although real loan growth recorded an upward trend for most of the period, real lending rates showed only limited fluctuations. This can be explained for the most part by the fact that the rising trend in real economic growth during this period outweighed the influence of interest rates. By contrast, for most of the 1990s real loan growth and the

² See for instance Calza, Manrique and Sousa (2003), "Aggregate loans to the euro area private sector", ECB Working Paper No. 202.

³ 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 share of each category of loans in the overall amount of loans outstanding).

Box

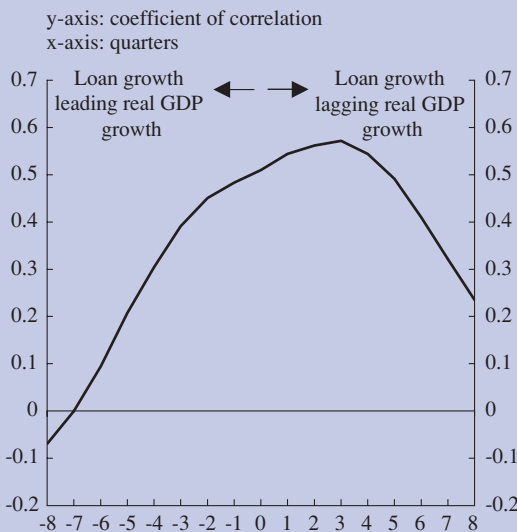
Do loans lead or lag economic activity?

From a conceptual point of view, it is not clear whether loan growth should be expected to lead, lag or be contemporaneous with real GDP growth.

- First, in cases where expectations have a significant impact on economic agents' behaviour, loan growth may lead economic activity. For instance, following an economic slowdown, expectations of an economic recovery may drive up investment growth before the recovery materialises. Such investment growth needs to be financed by either internal or external funds. Given the contraction of internal sources of finance available to firms that accompanies periods of weak economic growth, firms may at this stage of the cycle need to rely mainly on external financing means such as loans. Therefore, the rise in credit growth in this case would precede that in economic activity. Similarly, from a supply-side perspective, expectations of a turnaround in economic activity may make banks more willing to lend even prior to a fully-fledged recovery or may encourage them to adopt more cautious lending behaviour if they expect a worsening economic situation.
- At the same time, there are also arguments to suggest loan growth may lag real GDP growth. From the demand side, in the early phases of an economic slowdown, the existence of fixed obligations (e.g. purchases previously agreed upon with suppliers), the need to finance rising inventories due to falling demand and contractual rigidities (e.g. costs incurred in adjusting the level of loans) may imply that firms are able to adjust their demand for loans only with a lag to the changing environment. In the early phases of a recovery, moreover, there is likely to be an improvement in the cash flow available to firms, making them less dependent on loans as a source of finance. Taking a supply-side perspective, the deterioration in the collateral of firms due to a lower net worth in periods of weakening economic activity and the associated decline in profitability may only after a while make banks less willing to lend and induce them to tighten credit standards. Similarly, following a recession some time may be needed before it becomes clear that a recovery is under way or for firms' financial positions to recover sufficiently for their creditworthiness to improve. Thus banks may take time to ease access to credit after a recession, waiting for an improvement in the financial position of firms. In this case, loan growth would tend to lag economic activity.

Correlation between real MFI loan growth and real GDP growth for different leads and lags

(coefficient of correlation between annual growth rates)



Source: ECB.

- A third possibility is that loan growth and economic activity evolve in a contemporaneous fashion. This could result from the mechanisms described above working in such a way as to offset each other.

A simple way to investigate the lead/lag relationship between loans and economic activity is to calculate correlations between leads and lags of annual real loan growth (deflated by the GDP deflator) and annual real GDP growth. As can be seen in the chart, the correlation between the two variables is strongest when real loan growth lags real GDP growth by three quarters. This result suggests that, on average over the past 22 years, real loan growth tended to slightly lag real GDP growth in the euro area.

This finding lends some support to the above-mentioned theoretical arguments that both borrowers and lenders adjust to the economic situation with a certain delay. However, given the complex interactions between loans and economic activity, the important influence of other factors on loan growth and the fact that there may be common determinants driving all these variables, the result should be interpreted with some caution. Moreover, this lagging pattern does not hold in every period (see Chart 1 in the main text). In fact, several periods can be identified where loan growth has either led or been contemporaneous with real GDP growth. For instance, in the late 1980s loan growth declined before real GDP growth, and the slowdown in real loan growth since 2001 seems to have occurred in parallel with the slowdown in economic activity.

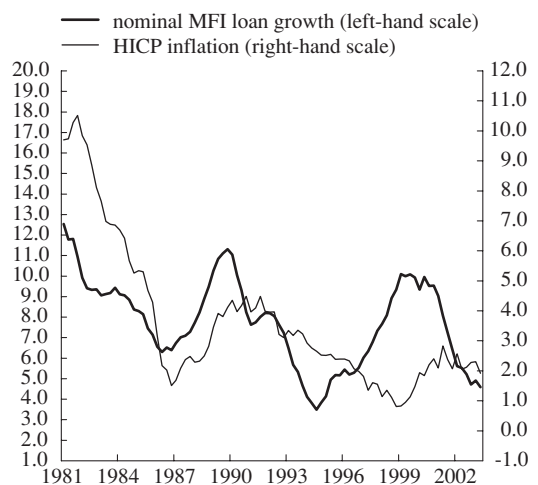
real cost of loans seem to be negatively correlated. During the first half of the decade, the relatively high real lending rate appears to have contributed to the low rate of growth in real loans. Conversely, the trend decline in the real lending rate in the run-up to Stage Three of Economic and Monetary Union (EMU) helps to explain the period of very strong loan growth in the second half of the 1990s. From 1997 onwards, the real cost of loans has remained consistently below its historical average, even at times of strong economic growth. While there was a marked slowdown in real loan growth between early 2001 and end-2002 (which seems to have been mainly related to the weakening of economic activity), it remained relatively high in comparison with earlier phases of weak economic growth. This may be due to a structural downward shift in the real cost of loans.

Loan developments over recent years suggest that the trend decline in real interest rates since the early 1990s has allowed non-financial sectors to hold a higher amount of loans, since lower interest rates imply a lower interest payment burden for a given amount of debt. In this respect, the relatively robust growth of loans to the private sector in the recent period of weak economic growth would seem to indicate an adjustment to such higher levels of indebtedness.

The strong increase in loan financing of the euro area private sector, notably in 1999 and 2000 when real loan growth reached exceptionally high levels, and its relatively quick slowdown thereafter, suggest that factors other than the traditional

determinants may have played an important role during this period. In particular, intense M&A activity on the part of euro area firms, the increased need for funds on the part of telecommunications companies to finance the purchase of UMTS licences and soaring property prices in some euro area countries played a role. Furthermore, the slowdown in loan growth since early 2001 should be seen in the context not only of weakening economic activity, but also of the unwinding of the impact of the strong M&A activity and the UMTS licence purchases. Finally, while it is difficult to disentangle supply and demand factors, banks are likely to have been more cautious in granting loans during this latter period given the weaker financial position of the private sector due to losses on holdings of financial assets following the significant fall

Chart 3
Growth of MFI loans to the private sector and HICP inflation
(annual percentage changes)



Sources: ECB, Eurostat.

in stock prices, lower corporate earnings and a rise in company insolvencies.

As regards the relationship between loans to the private sector and inflation, several studies have found that loans have some leading indicator properties for prices.⁴ In fact, as can be seen in Chart 3, turning points in nominal loan growth have tended to precede turning points in inflation over the last

20 years. Given that MFI loans are the main counterpart of M3 and that the two variables have moved in parallel over an extended period of time, these leading indicator properties may simply be a reflection of similar indicator properties of M3. At the same time, MFI loan developments may also have some independent information content due to their role in financing economic activity.

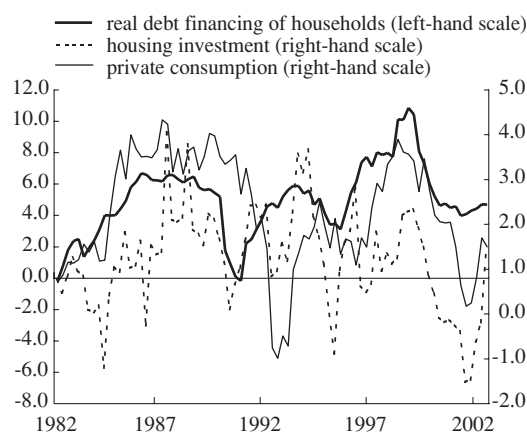
3 Developments in debt financing of households

The bulk of the debt assumed by euro area households (including non-profit institutions serving households) is made up of loans granted by MFIs, which account for around 95% of the total. The other source of funds for households is loans from non-monetary financial institutions, which only play a significant role in some euro area countries (namely the Netherlands and Belgium). The financing provided by non-monetary financial institutions to households takes place inter alia through leasing companies, financing institutions granting consumer credit and special purpose vehicles, which are specialised in securitising mortgage loans originally granted by MFIs. (A detailed explanation of the issue of securitisation was given in a box in the article entitled “Recent developments in financial structures of the euro area” in the October 2003 issue of the Monthly Bulletin.)

Loans for house purchase are the most important form of financing for households. At the end of June 2003, they accounted for around 66% of total loans taken out by this sector. The shares in total loans of the two other categories – consumer credit (loans for personal consumption of goods and services) and other loans (loans for debt consolidation, loans for educational purposes, loans to small firms, etc.) – were 15% and 19% respectively.⁵ Reflecting this composition, loan financing by households is mostly of a long-term nature, with short-term debt (having an original maturity of up to one year) representing less than 10% of total debt.

Chart 4
Real debt financing of households,
private consumption and housing
investment

(annual percentage changes; deflated by the private consumption deflator and the housing investment deflator)



Sources: ECB, Eurostat.

Note: Debt financing has been estimated for Q2 2003 and prior to Q4 1997. Housing investment and private consumption have been estimated prior to 1991.

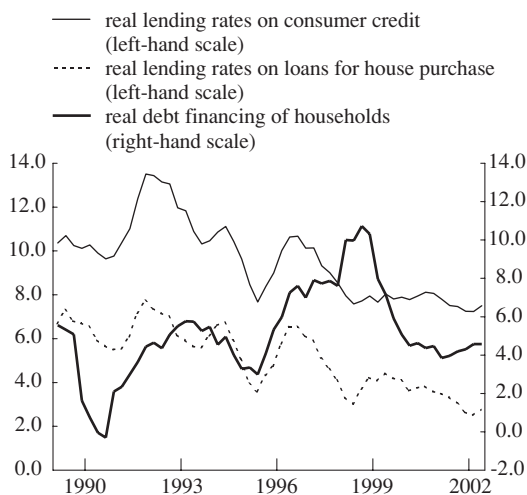
4 For instance, Nicoletti Altimari (2001), “Does money lead inflation in the euro area”, ECB Working Paper No. 63; Agresti and Mojon (2001), “Some stylised facts on the euro area business cycle”, ECB Working Paper No. 95; Calza, Manrique and Sousa (2003), “Aggregate loans to the euro area private sector”, ECB Working Paper No. 202.

5 In the euro area, there is no detailed information on mortgage loans not intended for house purchase. These loans often finance consumption. By contrast with the experience in the United States and the United Kingdom, it appears that these loans are not very significant in the euro area, except in a few countries such as the Netherlands (see “Structural factors in the EU housing markets”, ECB, March 2003). Mortgage credit to finance consumption generates housing equity withdrawals, which reinforce the existing links between housing markets, credit markets and expenditure decisions.

Developments in debt financing of euro area households from the early 1980s onwards appear in real terms to be broadly related to consumption, housing investment and households' financing costs (see Charts 4 and 5). With regard to consumption and housing investment, the overall relationship with debt financing appears to be positive, but it seems that the relative importance of the two variables for the debt financing of households varied over time. While during the 1980s real debt financing of households closely followed developments in private consumption, this relationship appears to have been somewhat weaker in the 1990s. For instance, the decline in debt financing growth in the early 1990s seems to be linked more to lower housing investment growth than to weaker consumption. Similarly, the fact that the growth of real debt financing recovered in the mid-1990s although consumption growth was very weak can be explained mainly by stronger housing investment. In addition to consumption and housing investment, the cost of financing has been a significant factor explaining the developments in household debt. In particular, the trend decline in the cost of financing in the course of the 1990s appears

Chart 5
Real debt financing of households and retail lending rates

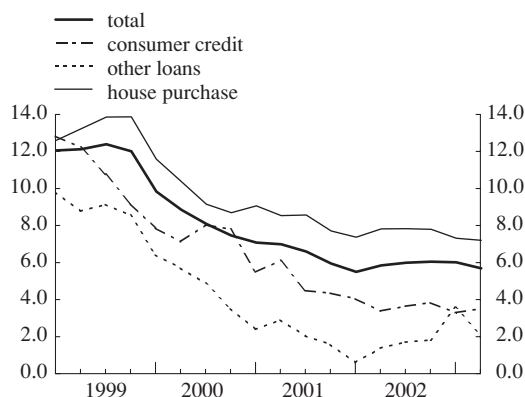
(annual percentage changes and percentages, deflated by the private consumption deflator)



Source: ECB, Eurostat.

Chart 6
Growth of loans to euro area households by purpose

(annual percentage changes; quarterly data)



Source: ECB.

Note: Total loans are the sum of loans for house purchase, consumer credit and other loans.

to have stimulated households' demand for debt over recent years.

Looking at the period since 1999 (for which detailed statistics are available), loans for house purchase in the euro area have grown at higher rates than the rest of loans to households (see Chart 6). Despite a deceleration from the beginning of 2000 onwards, they have continued to grow at fairly robust annual rates of between 7% and 8%. This sustained demand for housing loans in recent years has been fuelled by the decline in the real cost of financing. In addition, in some countries strong demand has led to steep increases in house prices, which, in turn, have added to the significant rise in loans for house purchase.⁶

In this regard, there is a clear correlation between the differences observed across countries in house price developments and in the nominal growth rates of loans for house purchase (see Chart 7). As can be seen from the data, the countries in which real interest rates fell more significantly in the run-up to Stage Three of EMU recorded high growth

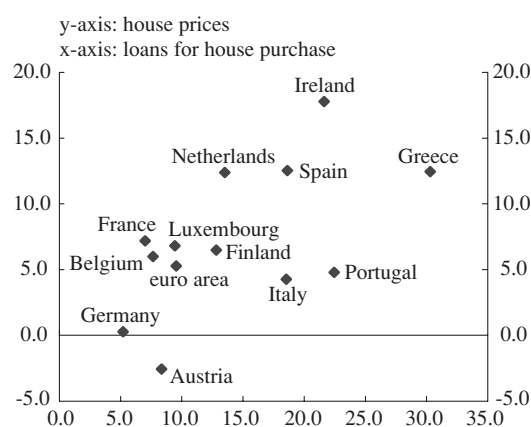
⁶ See the article entitled "Recent trends in residential property prices in the euro area" in the May 2003 issue of the Monthly Bulletin.

rates in these loans. At the same time, other factors such as demographic differences and the existence of different tax incentives for housing ownership also explain the diverging developments in housing loans.⁷

Turning to the other categories of loans to households, their growth rates also declined between 1999 and early 2002, although they were more stable thereafter. The annual growth of consumer credit, which includes in particular the financing of purchases of durable consumption goods, declined significantly from 1999 until 2001, remaining thereafter at levels of around 3-3.5% in a context of weak consumer confidence. As for other loans, the annual growth rate has also fallen markedly since 1999 and has stood mostly below those of the other categories of loan. As noted above, the category other loans includes diverse types of loan not classified elsewhere. While developments in this category are therefore difficult to interpret, the rather subdued growth of these loans in comparison with consumer credit can possibly be explained by the substantial fall in the growth of loans to small businesses in recent years.

Chart 7
Loans for house purchase and house prices

(average of annual percentage changes for the period 1998-2002)

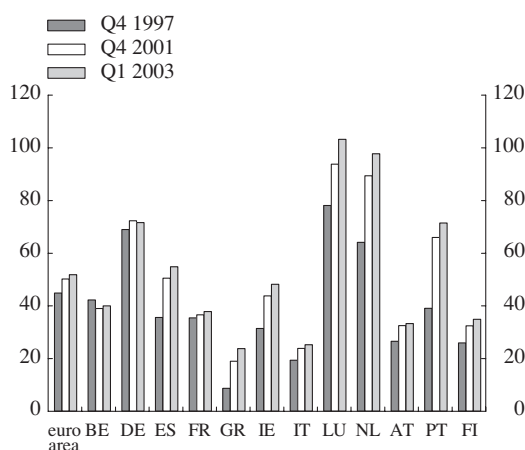


Sources: ECB, national sources.

Note: In the case of Luxembourg, the average growth of house prices refers only to the period 1998-2000. In the case of Greece, the average growth of loans for house purchase refers only to the period 1999-2002.

Chart 8
Debt-to-GDP ratio of households in the euro area countries

(percentages)



Source: ECB.

Note: Debt data for Finland, Greece, Ireland and Luxembourg refer only to total MFI loans to households. In the case of Greece, the first data available is for Q1 1998 instead of Q4 1997. In the case of Luxembourg annual GDP data for 2002 has been used for the 1st quarter of 2003. Compared with the annual financial accounts, the ratio of debt to GDP on the basis of the quarterly financial accounts is somewhat lower, mainly due to the fact that loans granted by non-financial sectors and by banks outside the euro area are not included.

The previously described loan growth developments have translated into a rise in the debt-to-GDP ratio of households from the second half of the 1990s. In the second quarter of 2003, the ratio is estimated to have stood at 51% (according to the quarterly financial accounts) in the euro area as a whole.

Chart 8 shows that the level of household indebtedness in relation to GDP differs significantly across countries and that there have been large differences in the increases in these debt ratios over recent years. Indeed, in countries such as the Netherlands, Portugal and Spain, where the growth of loans for house purchase has remained at high levels, the rise in debt-to-GDP ratios has been particularly significant. However, in Greece, where the growth of loans for house purchase has also been high, the level of indebtedness has remained subdued.

7 See "Structural factors in the EU housing markets", ECB, March 2003.

Notwithstanding the increase in the level of indebtedness, households' interest payments in relation to disposable income have been contained by the fall in the cost of financing, which has stood at levels below those at the start of the 1990s. Furthermore, it should be noted that the increases in household debt-to-GDP ratios were in many cases accompanied by a rise in household assets given the pronounced increase in the value of

real estate. However, some risks exist. Experience shows that periods of strong house price increases are often followed by a correction. In this case, households would have debt positions which were no longer fully matched by their assets. In some euro area countries, authorities have in fact already expressed concerns about the sustainability of house price developments over recent years.

4 Developments in debt financing of non-financial corporations

Among the different instruments, loans have continued to be the most important source of debt financing for non-financial corporations over the past few years, accounting for more than 80% of the amount outstanding of their debt. While loans granted by MFIs account for the bulk of all loans taken out by non-financial corporations, the share of loans from non-monetary financial institutions has been rising in recent years (from 11% at the end of 1997 to 17% in the first quarter of 2003). The latter development mainly reflects a trend towards securitisation via these institutions, which are often special purpose vehicles used by non-financial corporations to raise capital via the corporate bond market. This generally has several advantages for non-financial corporations. In addition to tax advantages for special purpose vehicles in some countries, the rating of these institutions is generally higher, implying a lower cost of financing and possibly access to financing from institutional investors which are restricted to investing in high-rated bonds.

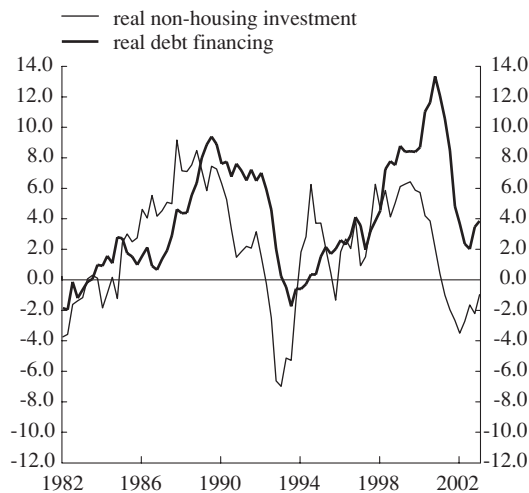
With the emergence of a euro area-wide corporate bond market, the issuance of debt securities by non-financial corporations has gained importance relative to loans in recent years. In the first quarter of 2003, debt securities accounted for nearly 13% of the amount outstanding of non-financial corporation debt, up from 10½% at the end of 1997. Overall, the debt financing of non-financial corporations has thus become increasingly diversified over the past few years.

Looking at the maturity structure, most of the debt of non-financial corporations has a long-term maturity,⁸ accounting for 70% of their total debt in the first quarter of 2003. The share of short-term debt thus stood at 30% in early 2003, broadly identical to its level at the end of 1997, following a peak at nearly 34% in late 2000.

Concerning the trends in the growth of debt financing of non-financial corporations, there have been two main cycles since the early 1980s (see Chart 9). The average annual growth of debt financing of non-financial corporations in real terms (deflated by the investment deflator) over the whole period was 4%.

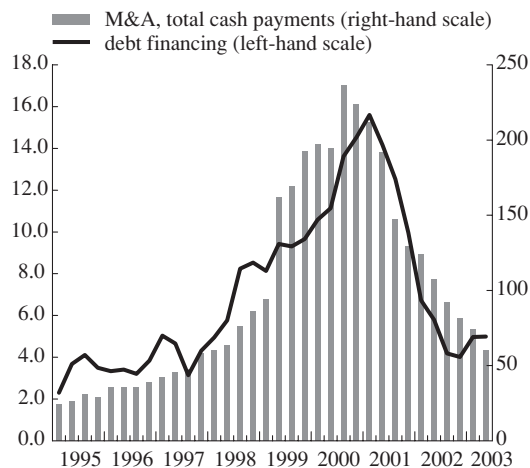
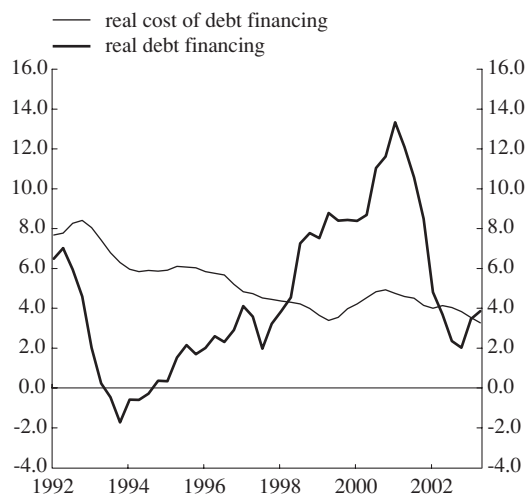
The annual growth of debt financing by non-financial corporations has been closely connected with developments in real non-housing investment (see Chart 9). Non-financial corporations, which are typically net borrowers of funds, take out loans or issue securities to finance capital expenditure and financial acquisitions. During the 1980s real debt financing growth lagged the rise in non-housing investment growth somewhat, whereas during the economic upswing in the second half of the 1990s the two variables developed broadly in parallel. Looking more closely at the period since the start of Stage Three of EMU, it can be seen that the connection between real non-housing

⁸ An original maturity of over one year.

Chart 9**Real debt financing of non-financial corporations and real non-housing investment***(annual percentage changes; debt financing deflated by the investment deflator)**Sources: ECB, Eurostat.**Note: Debt financing has been estimated for Q2 2003 and prior to Q4 1997. Non-housing investment has been estimated prior to 1991.*

investment and real debt financing growth has been somewhat looser. There was a strong increase in the growth of debt financing of non-financial corporations between 1999 and early 2001, which was a lot more pronounced than the increase in real non-housing investment growth. The annual growth of real debt financing peaked at nearly 14% in early 2001, followed by a considerable slowdown in the context of weakening economic activity. Since the end of 2002, the annual growth of debt financing has recovered slightly.

As mentioned in Section 2, the high financing needs of non-financial corporations in 1999 and 2000 were related to intense M&A activity on the part of euro area firms, to a large extent outside the euro area and notably in the United States, and the one-off needs for funds on the part of telecommunications companies to finance the acquisition of UMTS licences. Chart 10 shows that there was a close connection between

Chart 10**Debt financing and mergers and acquisitions by euro area non-financial corporations***(annual growth rates in percentages; annual flows in EUR billions)**Sources: ECB, Thomson Financial.**Note: Debt financing has been estimated for Q2 2003 and prior to Q4 1997. M&A refers to acquisitions by euro area non-financial corporations in the euro area as well as abroad, paid for in cash.***Chart 11****Real debt financing and cost of debt financing of non-financial corporations***(annual percentage changes; percentages)**Sources: ECB, Bloomberg, Consensus Forecast.**Note: Estimated prior to Q4 1997. Debt financing is deflated by the investment deflator. The real cost of debt financing is a weighted average, based on amounts outstanding, of retail bank lending rates to enterprises and a corporate bond yield index for non-financial corporations, deflated by Consensus Forecast inflation expectations.*

the value of mergers and acquisitions paid for in cash and the annual growth of debt financing in the second half of the 1990s. In particular, growth in short-term debt financing surged during that period, as companies used it to some extent for bridge financing purposes before issuing longer-term securities. Since late 2000, M&A activity has decreased, contributing to the considerable decline in debt financing growth.

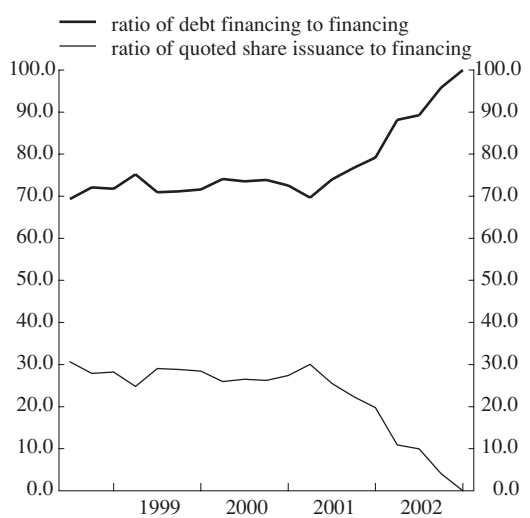
An additional important determinant of developments in debt financing of non-financial corporations is the cost of debt financing. In Chart 11, the cost of debt financing refers to a weighted average of the cost of taking up new loans or debt securities. The trend decline in the cost of debt financing is likely to have fuelled the demand for debt financing on the part of non-financial corporations in the second half of the 1990s.

Another factor supporting the demand for debt financing over the past few years has been the evolution of the cost of equity financing, which rose in early 2003 to high levels as a result of the strong stock market declines since 2000. As

a consequence, in line with the developments in the relative costs of the alternative sources of financing, the share of debt financing in non-financial corporations' overall financing (excluding non-quoted equity) has increased significantly over recent years. In fact, in early 2003, as the issuance of quoted shares came to a virtual halt (and was negative in net terms), non-financial corporations' net incurrence of liabilities consisted exclusively of debt (see Chart 12).

As a result of debt financing developments, the debt-to-GDP ratio as well as the debt-to-gross operating surplus ratio of non-financial corporations in the euro area rose substantially in the second half of the 1990s but broadly stabilised during 2001 and 2002. In the second quarter of 2003, the debt-to-GDP ratio is estimated to have stood at around 63% according to the quarterly financial accounts. At the same time, the valuation of non-financial corporations' financial assets (in part acquired in the late 1990s when earnings expectations in the new technology sectors in particular were very optimistic) declined amid falling stock prices from early 2000. Consequently, the debt-to-financial asset ratio of the sector rose during 2001 and 2002.

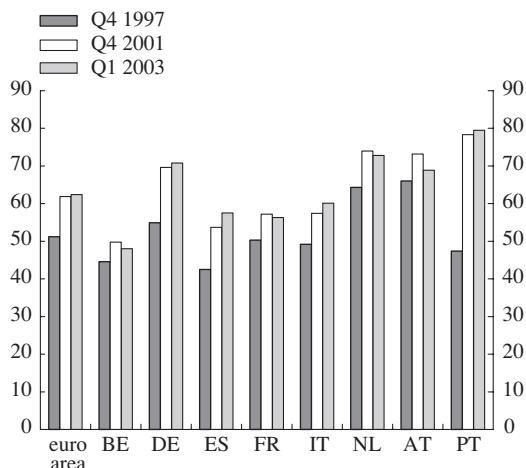
Chart 12
Importance of debt financing in overall financing of non-financial corporations
(annual transactions; percentages of overall financing)



Source: ECB.
 Note: Financing here refers to the sum of debt financing and the issuance of quoted shares, i.e. it does not include non-quoted shares.

Despite the rise in debt, the interest payment burden of non-financial corporations in relation to income was at a broadly similar level in 2002 as in 1991 due to the trend decline in interest rates during the 1990s. While relatively low levels of interest rates on average over the business cycle thus made a higher level of indebtedness sustainable, the latter rendered non-financial corporations more vulnerable to strong rises in interest rates, especially where a considerable part of debt was financed at short maturities or at variable interest rates, as well as to income and asset price variations.

Against this background, many non-financial corporations in the euro area have undertaken cost-cutting and internal restructuring measures in order to improve their balance sheets. In particular, companies in some sectors which had increased their indebtedness strongly in the second half of the 1990s (e.g. the

Chart 13**Debt-to-GDP ratio of non-financial corporations in the euro area countries***(percentages)*

Source: ECB.

Note: Data are not available for Greece, Ireland, Luxembourg and Finland. Compared with the annual financial accounts, the ratio of debt to GDP on the basis of the quarterly financial accounts is somewhat lower, mainly due to the fact that loans granted by non-financial sectors and by banks outside the euro area are not included.

Conclusions

There was a strong rise in debt financing growth and, in turn, the debt-to-GDP ratios of households and non-financial corporations in the second half of the 1990s. Part of this rise can be attributed to the trend decline in interest rates during that decade. This decline implied that, notwithstanding the rise in debt, interest payments in relation to sector income were in 2002 at levels below or broadly similar to those at the start of the 1990s for both households and non-financial corporations. Nevertheless, the higher level of indebtedness has increased the vulnerability of these sectors to variations in interest rates, income and asset prices.

The rise in household indebtedness is mainly linked to sustained demand for housing loans. This should be seen against the background of rising house prices in some euro area countries, which were in part fuelled by the trend decline in interest rates and implied an increase in housing wealth.

telecommunications sector) have made progress in deleveraging during recent quarters.

Chart 13 illustrates that in all euro area countries for which data are available the debt-to-GDP ratio of non-financial corporations rose between end-1997 and end-2001.⁹ The increase was largest in Germany, Spain and Portugal. For Germany, financial acquisitions and the high financing needs for UMTS licence purchases contributed to the considerable rise in the debt ratio. In the course of 2002 and early 2003, the debt-to-GDP ratio of non-financial corporations broadly stabilised or even declined in many countries. It continued to increase, by contrast, in above all Spain and Italy, possibly related to an ongoing adjustment of debt levels to the lower level of interest rates compared with historical standards in these countries as well as, in the case of Spain, to economic growth considerably above the euro area average.

As regards non-financial corporations, financial acquisitions and the purchase of UMTS licences played an important role in the considerable rise in the debt-to-GDP ratio of this sector in the second half of the 1990s. Following the declines in stock prices between early 2000 and early 2003, many of the financial assets acquired previously by non-financial corporations have lost value, leading to a rise in the debt-to-financial asset ratio. Although companies in the euro area have undertaken cost-cutting and internal restructuring measures in recent quarters, some further adjustment may still be needed.

⁹ Quarterly financial accounts are not available for Greece, Ireland, Luxembourg and Finland. Due to differences in the valuation of debt securities between the financial accounts and debt securities issuance statistics, as well as a lack of information on pension fund reserves, debt ratios for non-financial corporations in these countries are not shown in Chart 13.