



DEVELOPMENTS IN PRIVATE SECTOR BALANCE SHEETS IN THE EURO AREA AND THE UNITED STATES

This article compares the main developments in saving, financing and investment, as well as the resulting trends in debt and financial wealth, of non-financial corporations and households in the euro area and in the United States since the mid-1990s. Methodological differences which affect such a comparison between the euro area and the United States are taken into account as far as possible.

In relation to GDP, non-financial corporations in both economic areas significantly increased their real and financial investment in the second half of the 1990s, while their saving tended to decline. A considerable part of the investment was financed by additional debt, resulting in rising corporate debt-to-GDP ratios. Since the end of the stock market boom in 2000 and during the subsequent period of weak economic growth, non-financial corporations have made progress in containing the growth in indebtedness. During this period, debt-to-GDP ratios of non-financial corporations in both economic areas have been broadly similar, when due account is taken of methodological differences in data compilation and accounting.

While continuously showing substantial differences in levels, household saving ratios in both the euro area and the United States also declined in the second half of the 1990s in the context of rising economic growth, expectations of high personal income growth and falling unemployment. In addition, in both economic areas, the strong growth of housing loans since the second half of the 1990s has led to a rise in household debt-to-income ratios. After 2001 the trend in saving was reversed in the context of the economic downturn. Over the whole period under review, the saving ratio of euro area households was considerably higher than that of US households, which is possibly related to US households' more optimistic income growth expectations. In line with this, household debt-to-income ratios increased more strongly and stood at a considerably higher level in the United States than in the euro area.

I INTRODUCTION

Over recent years, the rise in the indebtedness of the private non-financial sectors (i.e. non-financial corporations and households) in major industrialised countries has led to increasing attention being paid to the structure of private sector balance sheets. Developments in asset prices (in particular the movements in stock and house prices) have not only considerably influenced the investment behaviour of non-financial corporations and households, but also the evolution of indebtedness. Against this background, this article analyses the developments in saving, financing and investment of the private sectors and compares the resulting balance sheet developments of non-financial corporations and households in the euro area and the United States. The comparison focuses on the period from 1995 to 2002, for which annual financial account data for the euro area are available. Section 2 compares the developments for non-financial

corporations, whereas Section 3 focuses on the household sector. A box explains some of the main methodological differences between the euro area and US national and financial accounts and describes how these differences were taken into account for the comparison presented in this article. Section 4 concludes.

2 BALANCE SHEET DEVELOPMENTS OF NON-FINANCIAL CORPORATIONS

Since the late 1990s there have been broadly two distinct phases in developments in non-financial corporations' profits both in the euro area and the United States. Between 1997 and 2000 (for the United States) and between 1998 and 2001 (for the euro area), non-financial corporations experienced a decline in gross saving (corresponding broadly to their non-distributed profits plus depreciation allowances) as a percentage of GDP, partly related to a rise in unit labour costs (see

Table 1 Non-financial corporations' saving and capital formation

(as a percentage of GDP)

	Euro area				United States			
	(1) Gross saving	(2) Other net capital account transactions	(3) Gross fixed capital formation	(1)+(2)-(3) Net lending (+)/ net borrowing (-)	(1) Gross saving	(2) Other net capital account transactions	(3) Gross fixed capital formation	(1)+(2)-(3) Net lending (+)/ net borrowing (-)
1995	9.5	2.9	10.3	2.1	9.9	-0.5	9.9	-0.5
1996	9.3	0.7	10.2	-0.2	10.3	-0.5	10.0	-0.2
1997	9.2	0.6	10.6	-0.8	10.4	-1.0	9.9	-0.4
1998	9.7	0.8	11.2	-0.8	9.6	-0.9	9.9	-1.2
1999	8.9	0.7	11.4	-1.7	9.8	-0.7	10.9	-1.8
2000	8.7	-0.1	12.0	-3.5	9.3	-0.6	11.3	-2.6
2001	8.5	0.8	11.2	-1.9	9.4	0.4	10.5	-0.7
2002	8.9	0.8	10.6	-0.8	10.0	-0.1	9.3	0.6

Sources: ECB, Eurostat and US National Income and Product Accounts.

Note: Figures may not add up exactly due to rounding. Other net capital account transactions include capital transfers, changes in inventories and acquisitions less disposals of valuables and of non-produced non-financial assets (such as land and UMTS licences).

Table 1). Since then, corporate saving has recovered slightly in both economic areas as a result of efforts to restore profitability by containing costs. However, this increase in profits was more marked in the United States than in the euro area.

Declines in corporate saving were accompanied by rises in non-financial investment. Non-financial corporations in both economic areas significantly increased their gross fixed capital formation from 1995 to 2000. In the United States, the rate of growth in non-financial investment was stronger than in the euro area up to 2000 (with average annual growth rates of 8.7% and 6.2% respectively), owing in particular to higher investment in the “New Economy” sectors (e.g. the information processing equipment and telecommunications sectors). This eventually contributed to more significant excess capacity in the United States than in the euro area and may explain the sharper decline in capital spending by non-financial corporations in the United States compared with those in the euro area since 2001.

As a result of both the decline in gross saving and the increase in capital spending (including the acquisition of UMTS licences in the euro area), the financing gap of non-financial corporations – broadly the balance of gross

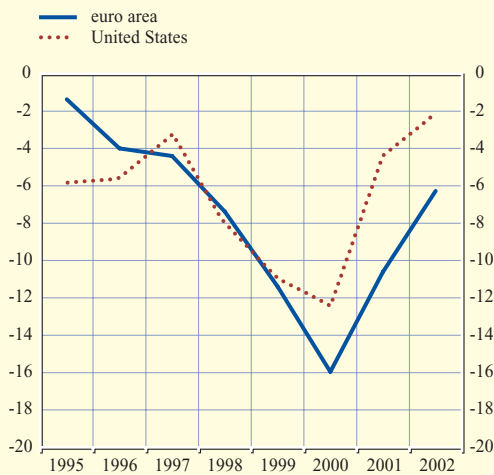
saving and gross capital formation in relation to GDP – increased substantially in both economic areas over the period from 1996 to 2000 (see net borrowing in Table 1). The subsequent reduction of the financing gap reflected efforts by non-financial corporations to restore profitability and contain the rise in indebtedness, partly by cutting non-financial investment.

In addition to the increase in capital spending, non-financial corporations in both economies considerably increased their acquisitions of financial assets, mainly in the period from 1999 to 2001. This rise was related to significant merger and acquisition (M&A) activity. The financial investment of non-financial corporations over this period reached 10.3% of GDP on average in the euro area against 7.5% in the United States.¹ While the overall level of mergers and acquisitions was higher in the United States than in the euro area, the increase in M&A activity was stronger in the euro area

¹ The higher financial investment in relation to GDP by euro area non-financial corporations might be related inter alia to differences in the accounting treatment of mergers and acquisitions in the financial accounts. In particular, cross-border mergers (e.g. between entities in different euro area countries) do not usually give rise to the recording of equity retirements (i.e. the withdrawal of equity following a complete merger), whereas this can be the case for mergers within a single country (e.g. the United States).

Chart 1 Non-financial corporations' gross saving minus financial and non-financial investment

(as a percentage of GDP)

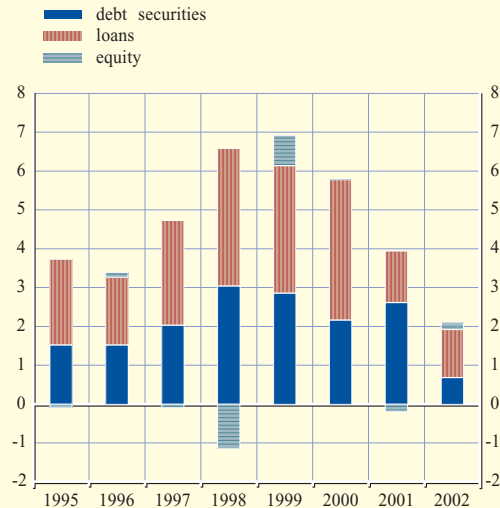


Sources: ECB, Eurostat and US National Income and Product Accounts.

Note: US data have been adjusted to enable a comparison to be made with the euro area data. For details, see the box in this article.

Chart 2 Financing of non-financial corporations in the United States

(as a percentage of GDP)



Source: US Flow of Funds Accounts.

Note: Equity issuance in the United States is defined as the sum of corporate equity issued by non-financial corporations plus direct investment in US non-financial corporations (excluding inter-company account liability of US residents vis-à-vis non-residents).

than in the United States, which might be linked to growing cross-border activity by euro area corporations during that period.

The financing needs of euro area non-financial corporations rose more strongly over the period from 1995 to 2002 than those of US non-financial corporations, partly related to lower corporate saving and higher financial investment in the euro area. As an illustration, the ratio of gross saving minus financial and non-financial investment to GDP (which can be seen as an extended measure of the financing gap) fell more significantly in the euro area than in the United States up to 2000 (see Chart 1). Its subsequent recovery was somewhat stronger in the United States owing to the stronger recovery in profits and the sharper cutback of non-financial investment in that country compared with the euro area.

The major difference between the financing of non-financial corporations in the United States and the euro area during the period under

review concerns the issuance of equity. In the United States, one striking feature of corporate finance in the second half of the 1990s was the overall negative corporate equity issuance, reflecting both large equity retirements by US non-financial corporations in connection with M&A activity and large share buyback programmes² (see Chart 2). Share buyback programmes may have reflected the intention by US corporations to boost their equity prices in order to mitigate the risk of being taken over. In addition, owing to their generally favourable impact on equity prices, these programmes increased the attractiveness of stock option schemes for executive compensation. Tax reasons may also have been behind the setting-up of share buyback programmes, given that capital gains cashed in through share buyback

² "Share buyback" refers to the acquisition by a company of its own shares on the stock market, whereas "equity retirement" is defined as the legal withdrawal of equity following a merger (the usual outcome of a full merger in the United States). See also the article entitled "The U.S. Flow of Funds Accounts and Their Uses" in the July 2001 Federal Reserve Bulletin.

transactions are usually subject to lower taxation than dividends.³

By contrast, in the euro area, equity retirements and share buyback programmes did not play a significant role, partly for legal reasons.⁴ As a consequence, corporate equity issuance remained, on the whole, an important source of financing for non-financial corporations in line with rising equity prices up to 2000 and sizeable equity swaps in the context of M&A activity. Equity issuance in 2001 and 2002 remained positive but at lower levels owing to the fall in equity prices and the resulting jump in the cost of equity.

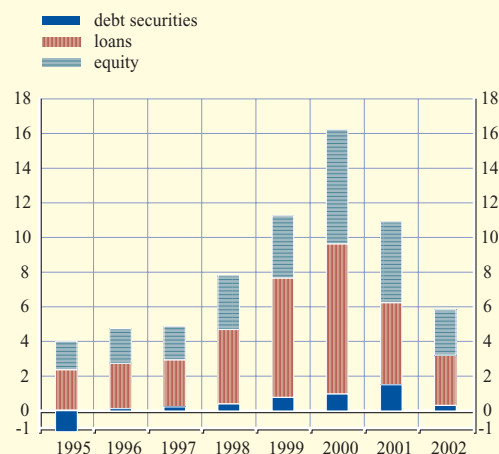
Debt financing growth in the euro area was supported by the trend decline in interest rates over the period. The bulk of non-financial corporations' debt financing in the euro area over the period from 1995 to 2002 took the form of loans (see Chart 3).⁵ Although the euro area corporate bond market developed significantly following the introduction of the euro and in the context of strong M&A activity, the share of corporate bonds in the total debt financing of euro area non-financial corporations remained small. In the United States, the respective contributions of loans (54% of debt financing over the period from 1995 to 2002) and debt securities (46%) were more balanced (see Chart 2).

Overall, when taking into account both these financing developments and valuation effects, the share of loans in total outstanding liabilities in the euro area was 38% in 2002 (slightly below its 1995 level), while the share of equity increased somewhat to 55%. The share of debt securities stood at similar levels in 1995 and 2002 (at 4%) and that of pension fund reserves declined slightly to 2%. In the United States, equity remained the largest source of finance of US corporations, with a share of 56% of total outstanding liabilities, against 25% for loans and 19% for debt securities.⁶

With regard to non-financial corporations' financial positions, corporate debt ratios in both

Chart 3 Financing of non-financial corporations in the euro area

(as a percentage of GDP)



Sources: ECB and Eurostat.

Note: Pension fund reserves on the liabilities side of euro area non-financial corporations are not shown as the related flows are negligible in relation to GDP.

economic areas increased substantially during the second half of the 1990s. As a result of both higher debt financing growth and somewhat weaker GDP growth, the ratio of euro area non-financial corporations' debt to GDP increased more significantly than that of US non-financial corporations during the second half of the 1990s. This notwithstanding, when taking

3 The reduction in the capital gains tax in 1996 may have been one factor behind the large share buyback programmes which took place in the United States in the second half of the 1990s.

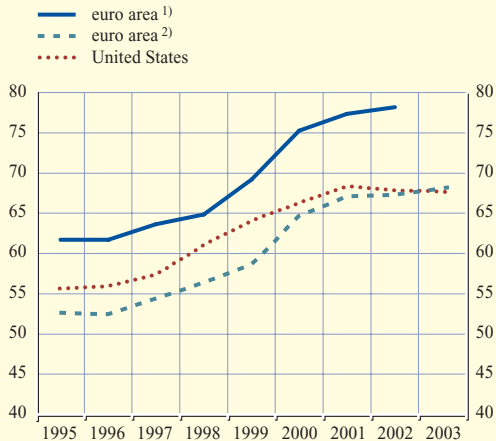
4 Share buybacks by corporations are restricted in several euro area countries, contrary to the situation prevailing in the United States.

5 See the article entitled "Recent developments in financial structures of the euro area" in the October 2003 issue of the ECB's Monthly Bulletin.

6 When comparing the outstanding liabilities of non-financial corporations in the euro area and the United States, some methodological differences in the definition of debt have to be taken into account (see the box in this article). In addition, the outstanding equity liability is consolidated in the United States (i.e. the inter-company holdings are netted out), whereas equity liability in euro area financial accounts is in principle not consolidated at the sector level. Such different accounting treatments also affect the relative levels of the debt-to-equity ratios in the two economic areas.

Chart 4 Debt-to-GDP ratios of non-financial corporations

(percentages)



Sources: ECB, Eurostat and US Flow of Funds Accounts.
Note: Debt includes loans, debt securities and, for the euro area, pension fund reserves. Last observation: 2003 Q3 (estimated for the euro area).
1) Debt-to-GDP ratio calculated using the annual financial accounts.
2) Debt-to-GDP ratio estimated using the quarterly financial accounts and euro area balance of payments (see methodological box in this article).

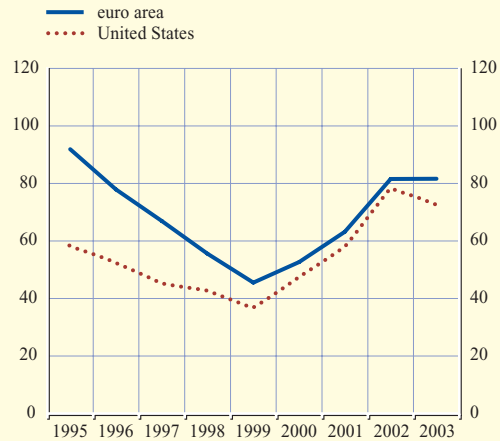
account of methodological differences (see box), debt-to-GDP ratios stood at broadly comparable levels in the two economic areas in 2003 (see Chart 4).

Leverage measures such as debt-to-equity ratios, which reflect a firm's indebtedness relative to its market value, have increased sharply since 2000 owing to the decline in stock prices in both areas, following a period of significant decline during the equity market boom (see Chart 5). In the first half of 2003, this leverage ratio is estimated to have stabilised in the euro area, whereas it declined marginally in the United States.

In order to assess the sustainability of current debt levels, the interest payment burden also needs to be taken into account. In fact, the interest payments in relation to GDP of non-financial corporations have actually broadly stabilised in the euro area since 1996 due to the decline in interest rates over the period under review. In the United States, where the decline

Chart 5 Debt-to-equity ratios of non-financial corporations

(percentages)



Sources: ECB, Eurostat and US Flow of Funds Accounts.
Notes: Debt includes loans, debt securities and, for the euro area, pension fund reserves. The debt-to-equity ratio for the euro area has been calculated including inter-company loans in the debt definition (see methodological box in this article). The figures for 2003 refer to 2003 Q2 (estimated for the euro area).

in interest rates has been less pronounced during the same period, the corresponding ratio has increased slightly.

Overall, recent developments indicate that, following the period of boom and bust in the stock markets, non-financial corporations have gradually managed to stabilise their overall balance sheet position in the two economic areas.

3 HOUSEHOLD BALANCE SHEET DEVELOPMENTS

Households' gross saving in relation to disposable income declined considerably during the second half of the 1990s in both the euro area and the United States (see Table 2). This was related to a number of factors. The stronger economic growth and the decline in unemployment, in combination with expectations of higher productivity growth, fostered expectations of permanently higher income growth, in particular in the United

COMPARABILITY OF THE NATIONAL ACCOUNT DATA OF THE UNITED STATES AND THE EURO AREA

The international comparability of national account data greatly benefits from the System of National Accounts (SNA 93). The countries of the euro area compile national account data in accordance with the European System of Accounts (ESA 95), which is broadly consistent with the SNA 93. The United States has not fully adopted the SNA 93, leaving some differences between the statistical concepts used in the United States and those used in the euro area. In cases where it was possible to bridge these differences using additional statistical information, adjustments were made to the US data to facilitate the comparisons made in this article.¹ However, sometimes it was not possible to fully reconcile differences and this must be kept in mind when analysing the data.

1. Delimitation of households and corporations

On the basis of the ESA 95, the economic activities of entrepreneurs who do not have independent legal status, unless they operate as if they were independent corporations, cannot be artificially separated from those of households. Sole proprietorships and most of the partnerships without independent legal status are thus contained in the household sector of the euro area. This explains inter alia the inclusion of some non-residential investment and its financing in the household sector. In the US National Income and Product Accounts (NIPA), both sole proprietorships and all partnerships, with or without independent legal status, are excluded from the household sector and grouped in the non-corporate business sector. Furthermore, in the United States individuals in their capacity as receivers of rental income are also excluded from the household sector and classified under the non-corporate business sector. These exclusions have a downward effect on the assets and liabilities of US households compared with those of euro area households. The difference is not easily quantifiable and therefore cannot be corrected in this exercise. However, these exclusions do not have a major effect on saving because the income generated by these units is attributed to households.

2. Derivation of disposable personal income

In the ESA 95, interest is treated as income. Accordingly, interest received increases income and interest paid reduces income. In the US household accounts, only interest received is treated as income; interest paid is treated as a use of income (similarly to consumption and saving). In order to increase the comparability between the two economic areas, interest paid was deducted from the published US disposable personal income to obtain an “adjusted disposable personal income” that corresponds more closely to euro area households’ disposable income.

3. Derivation of gross saving and gross capital formation

In the ESA 95, purchases of consumer durable goods (such as cars or washing machines) by households are treated as consumption, whereas the US Flow of Funds Accounts treat consumer durables as investment. However, the US NIPA provide data on net saving without consumer durables. These data, together with additional information from the US Flow of

¹ At the same time, for the definition of non-financial corporations’ debt (see item 4), euro area figures have been adjusted in order to bring them more into line with the US definition.

Funds Accounts on gross capital formation and consumption of fixed capital (which also excludes consumer durables), are used to derive gross saving and gross fixed capital formation.

4. Definition of corporate debt

Corporate debt includes outstanding amounts of loans, securities other than shares and non-autonomous pension fund reserves of non-financial corporations (the latter do not exist in the United States). Fully comparable corporate debt figures for both economic areas cannot be derived owing to the above-mentioned differences in sector coverage, but also to differences in the valuation of debt securities in the respective financial accounts: in the euro area figures, debt securities are reported at market value in accordance with the ESA 95 standards, whereas in the US Flow of Funds Accounts they are reported at nominal value adjusted for interest accrued. Inter-company loans are not included in the US debt definition, whereas they are partially included in the annual financial accounts for the euro area depending on the availability of statistical sources. However, when relevant for comparability purposes, euro area debt figures without inter-company loans have been estimated by taking quarterly financial accounts data on debt liabilities vis-à-vis euro area residents (which do not include inter-company loans) and adding estimates of debt liabilities (other than inter-company loans) vis-à-vis euro area non-residents based on the euro area balance of payments.

States. In addition, the rise in financial and non-financial wealth over that period, mainly owing to favourable developments in stock and house prices, may have increased households' propensity to consume. Moreover, in the euro area, the trend decline in interest rates in the second half of the 1990s up to Stage

Three of EMU also played an important role in the decline in the saving ratio owing to the lower opportunity cost of consumption. Subsequently, as a result of the economic slowdown and a worsening labour market situation after 2000, household saving ratios in both the euro area (in 2001 and particularly in

Table 2 Households' saving and capital formation

(as a percentage of disposable income)

	Euro area				United States			
	(1) Gross saving	(2) Other net capital account transactions	(3) Gross fixed capital formation	(1)+(2)-(3) Net lending (+)/ net borrowing (-)	(1) Gross saving	(2) Other net capital account transactions	(3) Gross fixed capital formation	(1)+(2)-(3) Net lending (+)/ net borrowing (-)
1995	17.5	0.1	10.3	7.2	6.9	-0.3	5.6	1.0
1996	17.1	0.4	10.2	7.3	6.2	-0.4	5.8	0.0
1997	16.2	0.5	9.9	6.7	5.9	-0.4	5.9	-0.5
1998	15.1	0.7	9.9	5.9	6.6	-0.5	6.2	-0.1
1999	14.2	1.0	10.2	5.0	4.6	-0.5	6.4	-2.3
2000	14.0	1.0	10.3	4.6	4.6	-0.5	6.3	-2.3
2001	14.3	0.8	10.0	5.1	4.0	-0.5	6.4	-2.9
2002	14.9	0.7	9.8	5.9	4.5	-0.5	6.4	-2.3

Sources: ECB, Eurostat, US National Income and Product Accounts and US Flow of Funds Accounts.

Notes: Figures may not add up exactly due to rounding. US data have been adjusted to enable a comparison to be made with the euro area data. For US households, this has been done by excluding net investment in consumer durables from saving and gross fixed capital formation and by excluding interest paid from disposable income. Other net capital account transactions include capital transfers, changes in inventories and acquisitions less disposals of valuables and of non-produced non-financial assets (such as land).

2002) and the United States (in 2002) rose somewhat, although they remained well below 1995 levels. At the same time, households' gross fixed capital formation, which mainly consists of housing investment, remained robust over the whole period in both economic regions mainly due to low mortgage rates and house price rises.

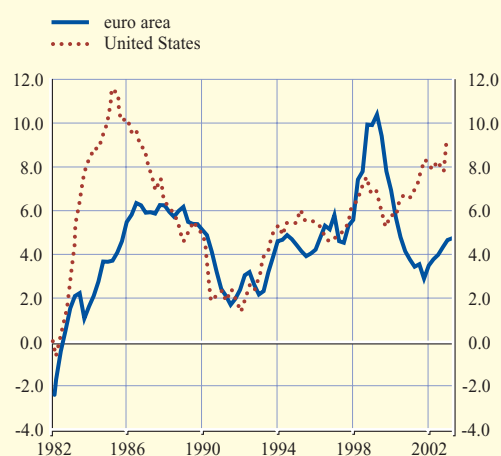
Over the period from 1995 to 2002, euro area households' gross saving and their gross fixed capital formation in relation to disposable income were considerably higher than those of US households. On balance, the net lending of euro area households (broadly equal to gross saving minus gross capital formation) was considerably higher than that of US households, which even became net borrowers between 1997 and 2002.

Related to strong housing investment growth, households' real debt financing growth was relatively high in the euro area in the late 1990s and has been rising in the United States since the mid-1990s (see Chart 6). In both economic regions, considerable rises in house prices, leading to wealth gains for homeowners and rising values of collateral available for loans, as well as favourable financing conditions fuelled the demand for housing loans. In the euro area, real debt financing growth rose in 1999 to its highest level since the early 1980s.⁷ Since 2000, it has moderated, but has remained around its long-term average, despite weak economic growth. In the United States, households' real debt financing growth has continued to rise despite the slowdown in economic activity in 2001 and 2002.

During recent years, US households have frequently used part of new mortgage loans taken up on the basis of gains in housing assets (known as mortgage equity withdrawal) for additional consumption or purchases of financial assets. The surge in US home equity loans (which are considered in this article as consumer credit) has thus dampened the decline in US consumer credit growth since 2001 and supported US private consumption. In the course of 2003, however, the annual growth of

Chart 6 Households' real debt financing

(annual percentage change, deflated by the private consumption deflator)



Sources: ECB, Eurostat and US National Income and Product Accounts.

Note: US data have been adjusted to enable a comparison to be made with the euro area data. For details, see the box in this article. Last observation: 2003 Q3 (estimated for the euro area).

home equity loans stabilised, albeit at high levels, probably in connection with the rebound in longer-term interest rates from the end of June. By contrast, in the euro area, mortgage equity withdrawal seems to be of little importance, except in a few countries such as the Netherlands.⁸

Developments in households' financial investment in both economic regions, but in particular the euro area, can be divided into two distinct periods since the mid-1990s.

First, in the second half of the 1990s, euro area households invested heavily in mutual fund shares (excluding money market fund shares) (see Chart 7).⁹ This trend was related to the

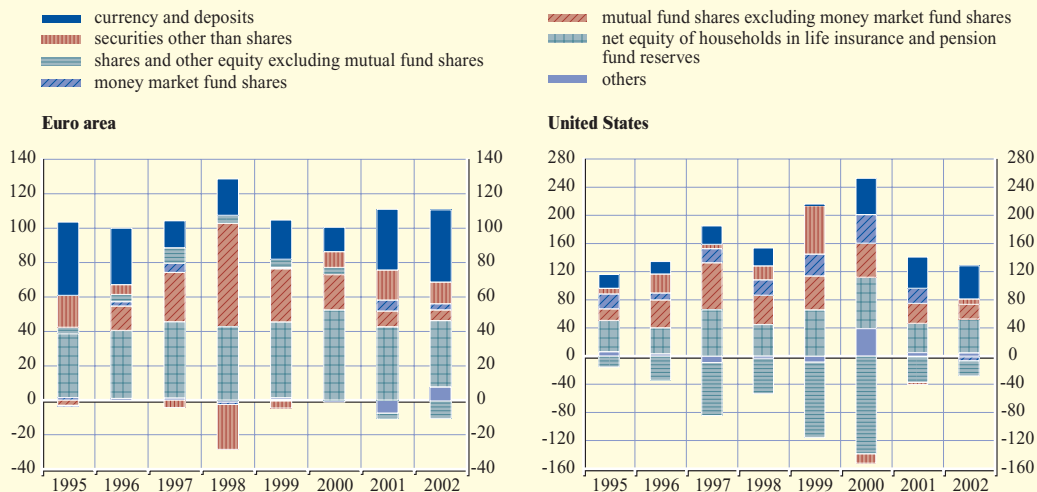
⁷ See the article entitled "Developments in the debt financing of the euro area private sector" in the November 2003 issue of the ECB's Monthly Bulletin.

⁸ See "Structural factors in the EU housing markets", ECB, March 2003. For the euro area as a whole, mortgage equity withdrawals cannot be identified separately within household loans.

⁹ See the "Report on financial structures", ECB, October 2002, and the article entitled "Recent developments in financial structures of the euro area" in the October 2003 issue of the ECB's Monthly Bulletin.

Chart 7 Composition of households' financial investment

(as a percentage of the net acquisition of financial assets)



Sources: ECB and US Flow of Funds Accounts.

Notes: For financial derivatives and other accounts receivable/payable, the net transactions are reported on the asset side. "Others" includes net financial derivatives, loans, prepayments of insurance premiums and reserves for outstanding claims and net other accounts receivable/payable. For the euro area, the share of money market fund shares has been estimated on the basis of the quarterly financial accounts.

strong rise in equity prices. US households' net investment in mutual fund shares (excluding money market fund shares) was also relatively strong during this period, though it was generally more stable in relation to their overall financial investment (see Chart 7). A marked difference between households' investment behaviour in the two economies emerged in respect of their direct equity investment. While euro area households bought equity between 1995 and 2000, US households sold to a considerable extent direct holdings of equity over the same period. The latter development was the counterpart to substantial equity retirements by US corporations (see Section 2).¹⁰

Second, as a reaction to the fall in stock prices from 2000 and broader economic uncertainty, households in both economies increased their share of investment in currency and deposits during 2001 and 2002, in particular in short-term deposits. This reflected the general preference for safe and liquid assets during that period.

A common feature over the entire period from 1995 to 2002 was that households in both economies invested a large and stable share of their financial investment in insurance and pension products, reflecting the need for private pension saving.

Notwithstanding the net sales of equity holdings by US households, both euro area and US households' share of equity holdings (including mutual fund shares with the exception of money market fund shares) in total financial assets increased over the period from 1995 to 1999 by around 14 percentage points and 7 percentage points respectively, mainly as a result of gains on the holdings of securities. By contrast, their share of interest-bearing financial assets (mainly deposits and debt

¹⁰ US household transactions include equity transactions of US non-financial corporations, which cannot be separately identified in the US flow of funds, in contrast to the situation for household transactions in the euro area financial accounts.

securities) in total financial assets declined over that period. Between 2000 and 2002, the decline in stock prices led to the opposite development.

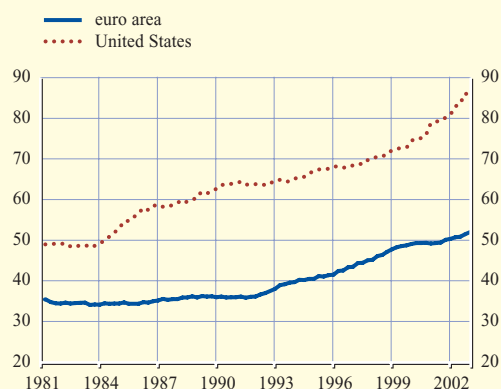
Over the period from 1995 to 2002, euro area households slightly increased the share of equity holdings (including mutual fund shares with the exception of money market fund shares) in their financial assets, to 25%, whereas this share remained broadly stable at just above 40% for US households. Euro area households' share of net equity in life insurance and pension fund products rose somewhat over this period, to 25%, but remained below the broadly stable share in the United States of close to 30%. Finally, traditional household saving in the form of bank deposits became less important in the euro area. The share of currency and deposits in euro area households' financial wealth was lower in 2002 at 35% than in 1995, when it was 40%, despite increasing towards the end of the period. The corresponding share for US households stood at a considerably lower level (13% in both 1995 and 2002).

With regard to households' financial positions, household indebtedness in relation to GDP has risen substantially in the euro area and the United States since the start of the 1990s (see Chart 8). However, the household debt ratio in the euro area remained substantially below that in the United States and increased by less. In the third quarter of 2003, euro area household debt is estimated to have been 52% in relation to GDP, while US household debt stood at 86% in relation to GDP.

However, in both economic areas, the low level of interest rates has led to a moderation in households' interest payment burden in relation to disposable income, which in 2002 stood around the level of the mid-1990s. In addition, a substantial part of mortgage debt, which accounts for the largest part of household debt in both the euro area and the United States, is financed at fixed low interest rates.

Chart 8 Household debt ratios

(as a percentage of GDP)



Sources: ECB, US National Income and Product Accounts and US Flow of Funds Accounts.
 Note: US data have been adjusted to enable a comparison to be made with the euro area data. For details, see the box in this article. Last observation: 2003 Q3 (estimated for the euro area).

At the same time, in order to assess potential liquidity constraints faced by households, it is useful to look also at broader debt service indicators, including in addition to interest payments also debt redemption flows, which have risen as a consequence of higher debt levels. While such a measure is not available for the euro area, the newly calculated (Federal Reserve Board) Debt Service Ratio (DSR) for US households reached its historically highest level at the end of 2001, and broadly stabilised thereafter at a slightly lower level.¹¹

Mirroring the developments in financial markets, households' financial wealth in relation to disposable income increased considerably in both economic areas from 1995 to 1999, but diminished substantially thereafter. Over the entire period from 1995 to 2002, the financial wealth in relation to disposable income of euro area households nonetheless increased (from 234% in 1995 to 265% in 2002), whereas it declined slightly for US households (from 406% in 1995 to 392% in 2002).

¹¹ See the article entitled "Recent Changes to a Measure of U.S. Household Debt Service" in the October 2003 issue of the Federal Reserve Bulletin.

Debt-to-financial asset ratios can also be informative when assessing the sustainability of households' financial positions. After falling between 1995 and 1999, the debt-to-financial asset ratios of euro area and US households rose between 2000 and 2002 to levels somewhat higher than those in 1995. Although US household debt is considerably higher than euro area household debt, the debt-to-financial asset ratios were overall similar in the two economic regions in 2002, owing to higher holdings of financial assets by US households. The rise in this ratio between 2000 and 2002 needs to be assessed in the light of higher housing wealth because of the relatively strong rise in house prices in both economic areas in recent years. However, owing to a lack of data on housing wealth in the euro area, it is not possible to compare the level of household debt with total household wealth in the two economic areas.

4 CONCLUSION

Over the period from 1995 to 2002, private sector balance sheet developments in the euro area and the United States displayed some common features. Strong investment as well as declining saving ratios of non-financial corporations and households in both economies in the second half of the 1990s led to considerable rises in their debt ratios. After some deterioration in their financial positions after 1999 resulting from the decline in stock prices and a downturn in corporate profits, non-financial corporations have started to restructure their balance sheets in order to contain or even lower their leverage ratios.

At the same time, there have been important differences between the balance sheet developments of non-financial corporations and households in the euro area and those in the United States.

As regards non-financial corporations, the build-up in debt was more significant in the euro area than in the United States in the second

half of the 1990s, in line with the trend decline in interest rates in the euro area in the run-up to Stage Three of EMU, which is likely to have increased sustainable debt levels. In 2003, non-financial corporations' debt-to-GDP ratios stood at comparable levels in the euro area and the United States. In addition, US non-financial corporations' financing behaviour was characterised by sizeable equity retirements over the period under review, whereas this was not a relevant phenomenon in the euro area.

Euro area households have a substantially higher saving ratio than US households and are net lenders, unlike US households, which were net borrowers from 1997 to 2002. In addition, the debt-to-income ratio increased more strongly and stood at a considerably higher level in the United States than in the euro area. Finally, euro area households changed their portfolio composition considerably over the period from 1995 to 2002, increasing their equity holdings (including mutual fund shares) and reducing traditional bank deposits, whereas US households' portfolio composition was more stable.