

# Saving, financing and investment in the euro area

*Saving, financing and (real and financial) investment in the euro area from 1995 to 2001 are analysed in this article in the framework of annual financial and capital accounts. These accounts are published for the euro area for the first time in this issue of the Monthly Bulletin (Table 6.2 in the “Euro area statistics” section). They extend the scope of the analysis based on the quarterly table on financing and financial investment of the euro area non-financial sectors (Table 6.1 in the “Euro area statistics” section) by providing a broader coverage of sectors and instruments and by integrating financial transactions with saving and real investment data.*

*Recent years have seen a substantial rebalancing between government and private net lending positions. In the mid-1990s households financed a sizeable net borrowing position of the government sector while the non-financial corporate sector remained in broad balance. By contrast, at the beginning of the current decade households’ net lending was associated with larger net borrowing requirements of the non-financial corporations sector, and with a more balanced financial position of general government.*

*Between 1995 and 2001, households’ net lending position moderated, mainly as a result of a decline in the savings ratio, while their real investment (mainly in housing) remained relatively stable. This overall decline of the household savings ratio may have been partly related to an increase in households’ net financial wealth. Their indebtedness rose but remained lower in relation to GDP than in other major industrialised countries. Euro area households’ financial investment was characterised by a rising proportion of shares and other equity (in particular mutual fund shares).*

*Non-financial corporations invested substantially in real and especially financial assets during the period under review, in the context of favourable financing conditions and partly as a consequence of intense merger and acquisition activities. This development was paralleled by a substantial increase in corporate debt. However, owing to the trend decline in interest rates until 1999, non-financial corporations’ interest burden was lower at the beginning of the current decade than it had been in the mid-1990s. Regarding the structure of corporate financing, most funds were raised via loans and share issues, although the issuance of debt securities also played an increasing role.*

*Meanwhile, owing to the fiscal consolidation process under way, government net borrowing fell considerably between 1995 and 2001. Finally, on average the euro area had a moderate net lending position vis-à-vis the rest of the world for the period 1995-2001.*

## I Introduction

Saving, financing and investment in the euro area sectors can be analysed in a comprehensive manner on the basis of capital and financial accounts. The capital account relates gross saving and net capital transfers (henceforth referred to simply as “saving”) to real investment (defined as gross capital formation and the net acquisition of non-produced non-financial assets). The financial account records the net incurrence of liabilities and relates them to financial investment (such as deposits, debt securities and shares) (see box below).

The interrelation between the capital account and the financial account is reflected in their balancing items, net lending/net borrowing, which is the gap between saving and real investment or, alternatively, between the net acquisition of financial assets and the net incurrence of liabilities. An excess of saving over real investment results in net lending, i.e. the ability of a sector (typically households) to provide financing to other resident sectors or to the rest of the world. By contrast, an excess of real investment over saving implies net borrowing and the need for a sector (generally non-financial corporations) to receive financing

from other resident sectors or from the rest of the world.

This article presents interrelations between income, saving, financing and real and financial investment for the euro area from 1995 to

2001. An overall analysis of saving, financing and investment in the euro area is given in Section 2, while Sections 3 and 4 focus on households and non-financial corporations respectively. Section 5 summarises the main results.

## Box

### The capital and financial accounts

The annual data analysed in this article refer to the capital and financial accounts as part of the integrated system of national accounts.

The capital account (Table A below) shows the balance between gross saving and net capital transfers vis-à-vis real investment (acquisition of non-financial assets). Real investment refers mainly to gross fixed capital formation, but also to the change in inventories and acquisition less disposals of valuables (e.g. land) and non-produced non-financial assets (e.g. UMTS licences). An excess of gross saving and net capital transfers over real investment indicates that resources are available to finance other sectors (net lending), whereas an excess of real investment over gross saving and net capital transfers results in a need for financing from other sectors (net borrowing).

**Table A: The capital account**

Changes in	
Assets	Saving and capital transfers
Gross fixed capital formation	Gross saving
Changes in inventories	Net capital transfers
Net acquisition of other non-financial assets (e.g. land, UMTS licences)	
<i>Net lending (+) / net borrowing (-)</i>	

The financial account (Table B below) shows the net acquisition of financial assets and the net incurrence of liabilities. The balancing item of the financial account also corresponds to net lending or net borrowing: a sector with a net lending acquires more financial assets than it incurs liabilities, while a sector with a net borrowing acquires less financial assets than it incurs liabilities. However, owing to differences in statistical sources, discrepancies usually arise between the net lending/net borrowing derived from the capital account and from the financial account.

Furthermore, the net lending/net borrowing of an economy vis-à-vis the rest of the world equals the sum of the current account balance and net capital transfers. Indeed, an excess of domestic saving over domestic real investment implies a current and capital account surplus. Differences between the external current and capital balance in the national accounts and in balance of payments data may arise from differences in statistical sources.

The capital account and the financial account together make up the accumulation account (Table C below). This account covers all transactions contributing to the accumulation of assets (real or financial) and liabilities within the accounting period. In this framework, saving, net capital transfers and the net incurrence of liabilities (financing) are balanced by the acquisition of real and financial assets (investment). Gross saving is

**Table B: The financial account**

Changes in	
Assets	Liabilities
Net acquisition of financial assets	Net incurrence of liabilities
	<i>Net lending (+) / net borrowing (-)</i>

the balancing item between the acquisition of assets and the incurrence of liabilities (and net capital transfers). Components other than transactions contributing to the accumulation of assets and liabilities are revaluations and other changes in volume of assets as reflected in the corresponding accounts.

**Table C: The accumulation account**

Changes in	
Assets	Liabilities, saving and capital transfers
Gross fixed capital formation	Gross saving
Changes in inventories	Net capital transfers
Net acquisition of other non-financial assets (e.g. land, UMTS licences)	Net incurrence of liabilities
Net acquisition of financial assets	

## 2 Saving, financing and investment in the euro area

From 1995 to 2001 (see Table 1), saving and real investment of the euro area remained relatively stable at around 22% and 20-21% of GDP respectively.<sup>1</sup> However, at the sector level, a noticeable rebalancing between government and private net lending positions occurred. This mainly resulted from changes in saving patterns given that the real investment of the various sectors, as a percentage of GDP, remained broadly constant between 1995 and 2001.

While households remained the main net creditor sector in the euro area, their saving declined by around 2 percentage points of GDP between 1995 and 2001. Likewise, the saving of non-financial corporations decreased by nearly 3 percentage points of GDP. These developments were fully reflected in higher government saving, which, in turn, mirrors the fiscal consolidation process under way in the euro area over the past few years.

Indeed, government saving rose considerably in the second half of the 1990s. Most of this

improvement materialised in 1996 and 1997, prior to the assessment of the fulfilment by the euro area countries of the convergence criteria needed to adopt the euro. This improvement was due to a broadly stable ratio of government current revenue to GDP over the period and a decline in general government current expenditure. By contrast, real investment of general government remained broadly stable over the period, at around 2.5% of GDP. Overall, net borrowing of general government declined considerably from 1995<sup>2</sup> to 1997, with more moderate reductions in the subsequent years to 1.3% of GDP in 2001 (see Table 1). Throughout the period from 1995 to 2001, general government was a net borrower of

<sup>1</sup> *Implying a small net lending position vis-à-vis the rest of the world. Euro area balance of payments statistics compiled from different sources show a similar overall picture but more year-to-year variations.*

<sup>2</sup> *It should be noted that, owing to different statistical treatments of specific transactions in 1995 (assumption of debt by the Redemption Fund for Inherited Liabilities in Germany) and in 2000 (proceeds from UMTS licences), the figures differ from those published in Table 7 of the "Euro area statistics" section of the Monthly Bulletin.*

financial resources, the only exception being a small net lending position recorded in 2000 owing to the windfall revenues resulting from the sale of the UMTS licences by euro area governments.

Fiscal consolidation can therefore be seen as a major factor behind the redirection of household saving from general government to firms. While this primarily concerns lower allocation of household saving to debt

**Table I**  
**Capital and financial accounts**  
(as a percentage of GDP)

	1995	1996	1997	1998	1999	2000	2001
<b>Capital account</b>							
<b>A Gross saving and net capital transfers ("saving")</b>	<b>21.6</b>	<b>21.2</b>	<b>21.8</b>	<b>21.9</b>	<b>21.8</b>	<b>22.0</b>	<b>21.7</b>
Households	12.3	11.6	10.9	10.3	10.0	9.6	9.9
Non-financial corporations	12.1	10.0	9.8	10.3	9.6	9.4	9.3
General government	-4.4	-1.7	-0.2	0.2	1.2	1.6	1.2
Financial corporations	1.5	1.3	1.3	1.1	1.1	1.3	1.3
<b>B Gross capital formation and acquisition of valuables ("real investment")</b>	<b>20.7</b>	<b>20.0</b>	<b>20.0</b>	<b>20.6</b>	<b>21.0</b>	<b>21.4</b>	<b>21.0</b>
Households	6.9	6.7	6.4	6.4	6.5	6.6	6.5
Non-financial corporations	10.7	10.2	10.6	11.2	11.4	12.8	11.4
General government	2.6	2.5	2.3	2.4	2.5	1.4	2.5
Financial corporations	0.6	0.6	0.6	0.6	0.6	0.6	0.6
<b>C Net lending/net borrowing (as derived from the capital account) (= A-B)</b>	<b>0.9</b>	<b>1.3</b>	<b>1.8</b>	<b>1.3</b>	<b>0.9</b>	<b>0.5</b>	<b>0.7</b>
Households	5.5	4.9	4.5	4.0	3.5	3.1	3.3
Non-financial corporations	1.5	-0.2	-0.8	-0.9	-1.7	-3.4	-2.1
General government	-7.0	-4.1	-2.6	-2.2	-1.3	0.2	-1.3
Financial corporations	0.9	0.7	0.7	0.4	0.4	0.6	0.7
<b>Financial account</b>							
<b>D Net acquisition of financial assets<sup>1)</sup></b>	<b>28.0</b>	<b>30.1</b>	<b>32.7</b>	<b>39.2</b>	<b>47.9</b>	<b>41.5</b>	<b>36.1</b>
Households	8.2	7.9	7.9	7.6	8.6	7.3	7.7
Non-financial corporations	3.4	3.7	3.5	6.4	8.8	10.8	7.6
General government	-0.1	0.5	0.0	0.0	0.5	1.3	0.2
Financial corporations	16.5	18.1	21.4	25.2	30.1	22.0	20.6
<b>E Net incurrence of liabilities<sup>1)</sup></b>	<b>27.5</b>	<b>29.4</b>	<b>31.4</b>	<b>38.3</b>	<b>47.6</b>	<b>41.7</b>	<b>35.4</b>
Households	2.5	2.9	2.9	3.6	4.3	3.3	2.6
Non-financial corporations	2.6	4.9	5.0	7.9	11.3	15.8	10.5
General government	7.1	4.6	2.6	2.1	1.7	1.1	1.5
Financial corporations	15.2	17.1	20.9	24.7	30.3	21.5	20.7
<b>F Net lending/net borrowing (as derived from the financial account) (= D-E)</b>	<b>0.5</b>	<b>0.7</b>	<b>1.3</b>	<b>0.9</b>	<b>0.4</b>	<b>-0.3</b>	<b>0.7</b>
Households	5.7	5.0	4.9	4.0	4.3	4.0	5.0
Non-financial corporations	0.8	-1.2	-1.5	-1.5	-2.5	-5.0	-2.9
General government	-7.3	-4.1	-2.6	-2.1	-1.3	0.2	-1.3
Financial corporations	1.3	1.0	0.5	0.4	-0.2	0.5	-0.1
<b>Statistical discrepancy (C-F)</b>	<b>0.3</b>	<b>0.6</b>	<b>0.5</b>	<b>0.3</b>	<b>0.5</b>	<b>0.8</b>	<b>-0.1</b>
Households	-0.2	-0.1	-0.5	-0.1	-0.8	-1.0	-1.7
Non-financial corporations	0.6	1.0	0.7	0.5	0.7	1.5	0.8
General government	0.3	0.0	0.1	-0.1	0.0	0.0	0.0
Financial corporations	-0.3	-0.3	0.2	0.0	0.6	0.2	0.8

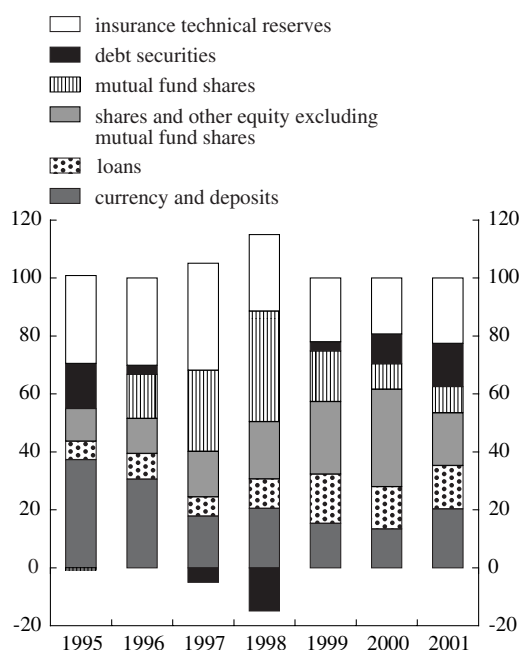
Source: ECB.

1) Data are, in principle, non-consolidated. However, some transactions are consolidated (in particular between non-financial corporations). For financial derivatives and other accounts receivable/payable, the net transactions are reported on the asset side.

securities issued by general government, privatisations, i.e. a reduction of general government holdings of shares and other equity, also contributed to this development. In addition, the reduction in the general government deficit and the decline in the debt to GDP ratio have contributed to a fall in interest rates, favourable to private investment.

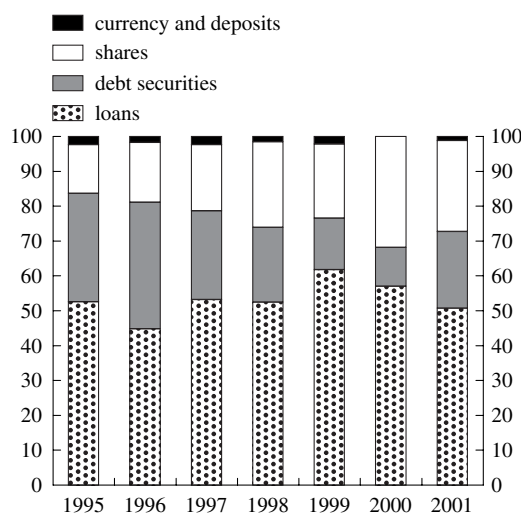
Beyond the developments in net lending/net borrowing positions in the euro area, it is relevant to analyse the channels through which real and financial investment are financed in the euro area. One characteristic is that the role of financial intermediaries remains essential in the financing of investment in the euro area. Also, while marketable instruments play an increasingly important role in the financing of non-financial corporations, no general substitution of securities for loans has occurred for the non-financial sectors as a whole. In addition,

**Chart 1**  
**Financial investment of the non-financial sectors**  
 (contribution to total financial investment, as a percentage)<sup>1)</sup>



Source: ECB.  
 1) Excluding financial derivatives and other accounts receivable. For 1997 and 1998 negative figures correspond to net sales of debt securities.

**Chart 2**  
**Financing of the non-financial sectors**  
 (as a percentage of total financing)<sup>1)</sup>



Source: ECB.  
 1) Excluding financial derivatives and other accounts payable.

financial transactions with the rest of the world have risen considerably.

As regards financial intermediation (see Chart 1 and Table 2), on average between 1995 and 2001 around two-thirds of the financial investment (disregarding financial derivatives and other accounts receivable) of the non-financial sectors was directed towards intermediated instruments (either currency and deposits, mutual fund shares or insurance products), while direct net purchases of shares and other equity accounted for 20%, the granting of loans (mainly inter-company loans) for 11.5%, and the net acquisition of debt securities for 4%.

As regards forms of financing, loans represented by far the most important source for the non-financial sectors from 1995 to 2001 (see Chart 2 and Table 3), amounting to 53% of all funds raised by them. This was partly due to the increased role of inter-company loans and loans by non-monetary financial corporations between 1998 and 2000. While the relative importance of shares and other equity in the financing of the non-financial sectors rose during that period, that of debt securities declined. This

last development was essentially due to the decline in governments' borrowing requirements. Otherwise, the issuance of corporate debt securities has risen considerably since the introduction of the euro.

The increasing importance of financial transactions between the euro area and the

rest of the world was partly related to intense foreign direct investment by corporations. Euro area residents significantly increased their net acquisition of foreign shares between 1997 and 2000, reflecting in particular the large acquisitions of foreign companies by euro area firms. By contrast, 1999 and 2000 saw non-residents purchase a

**Table 2**  
**Financial investment in the euro area**  
(as a percentage of GDP)

	1995	1996	1997	1998	1999	2000	2001
<b>Euro area <sup>1)</sup></b>							
Currency and deposits (1)	9.0	7.0	6.8	7.2	8.8	5.3	7.9
Loans (2)	7.8	6.8	7.7	8.4	14.1	12.2	9.7
Securities other than shares (excluding financial derivatives) (3)	4.1	7.1	5.8	6.0	6.2	3.3	7.2
Shares and other equity (excluding mutual fund shares) (4)	2.7	2.9	4.0	6.5	9.4	12.5	5.4
Mutual fund shares (5)	0.3	2.6	4.4	7.1	5.2	4.3	3.0
Insurance technical reserves <sup>2)</sup> (6)	3.7	3.4	3.9	3.5	4.1	3.8	3.6
Others <sup>3)</sup> (7)	0.3	0.2	0.1	0.4	0.2	0.0	-0.6
<b>Total financial investment (8 = 1+2+3+4+5+6+7)</b>	<b>28.0</b>	<b>30.1</b>	<b>32.7</b>	<b>39.2</b>	<b>47.9</b>	<b>41.5</b>	<b>36.1</b>
<b>Households</b>							
Currency and deposits (1)	3.4	2.6	1.2	1.6	1.8	0.7	2.2
Loans (2)	0.0	0.0	-0.1	-0.1	0.0	0.1	0.0
Securities other than shares (excluding financial derivatives) (3)	1.5	0.4	-0.3	-1.9	-0.2	1.2	1.5
Shares and other equity (excluding mutual fund shares) (4)	0.3	0.3	0.8	0.4	0.7	0.5	0.1
Mutual fund shares (5)	-0.3	1.3	2.6	4.5	2.6	1.5	1.0
Insurance technical reserves <sup>2)</sup> (6)	3.3	3.4	3.7	3.4	3.9	3.7	3.4
Others <sup>3)</sup> (7)	-0.1	-0.2	-0.1	-0.2	-0.2	-0.3	-0.5
<b>Total financial investment (8 = 1+2+3+4+5+6+7)</b>	<b>8.2</b>	<b>7.9</b>	<b>7.9</b>	<b>7.6</b>	<b>8.6</b>	<b>7.3</b>	<b>7.7</b>
<b>Non-financial corporations</b>							
Currency and deposits (1)	0.6	1.0	0.4	0.9	0.4	1.2	1.4
Loans (2)	0.7	1.0	0.8	1.5	2.8	2.5	2.1
Securities other than shares (excluding financial derivatives) (3)	0.2	-0.2	-0.2	-0.2	0.5	0.6	0.7
Shares and other equity (excluding mutual fund shares) (4)	1.1	1.1	1.3	2.8	4.4	6.1	2.9
Mutual fund shares (5)	0.1	0.4	0.3	0.5	0.4	0.1	0.3
Insurance technical reserves <sup>2)</sup> (6)	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Others <sup>3)</sup> (7)	0.6	0.4	0.8	0.8	0.1	0.2	0.1
<b>Total financial investment (8 = 1+2+3+4+5+6+7)</b>	<b>3.4</b>	<b>3.7</b>	<b>3.5</b>	<b>6.4</b>	<b>8.8</b>	<b>10.8</b>	<b>7.6</b>
<b>General government</b>							
Currency and deposits (1)	0.1	-0.1	0.2	0.2	0.5	0.7	-0.5
Loans (2)	0.0	0.0	0.0	0.0	0.2	0.3	0.2
Securities other than shares (excluding financial derivatives) (3)	0.0	0.2	0.0	0.1	0.3	0.2	0.1
Shares and other equity (excluding mutual fund shares) (4)	-0.1	-0.1	-0.5	-0.6	-0.6	-0.1	-0.2
Mutual fund shares (5)	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Others <sup>3)</sup> (6)	-0.2	0.4	0.3	0.3	0.1	0.1	0.4
<b>Total financial investment (7 = 1+2+3+4+5+6)</b>	<b>-0.1</b>	<b>0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	<b>1.3</b>	<b>0.2</b>

Source: ECB.

Note: Figures may not add up due to rounding effects.

- 1) Euro area includes the following sectors: households, non-financial corporations, general government and financial corporations.
- 2) "Insurance technical reserves" include insurance and pension fund products.
- 3) "Others" include the net transactions in financial derivatives and other accounts receivable/payable as well as, for the euro area, monetary gold and special drawing rights. Other accounts receivable/payable refer to transactions like trade credit and advance payments.

**Table 3****Financing in the euro area***(as a percentage of GDP)*

	1995	1996	1997	1998	1999	2000	2001
<b>Euro area <sup>1)</sup></b>							
Currency and deposits (1)	8.9	8.4	8.8	10.8	14.7	8.2	9.1
Loans (2)	7.1	6.0	6.5	7.9	12.0	12.7	8.9
Securities other than shares (excluding financial derivatives) (3)	5.1	6.7	5.5	5.4	7.9	6.1	6.5
Others <sup>2)</sup> (4)	3.8	3.5	4.0	3.7	4.2	3.9	3.7
<b>Debt financing (5 = 1+2+3+4)</b>	<b>24.9</b>	<b>24.5</b>	<b>24.9</b>	<b>27.7</b>	<b>38.8</b>	<b>30.9</b>	<b>28.2</b>
Shares and other equity (6)	2.6	4.9	6.5	10.6	8.8	10.8	7.2
<b>Net incurrence of liabilities (7 = 5+6)</b>	<b>27.5</b>	<b>29.4</b>	<b>31.4</b>	<b>38.3</b>	<b>47.6</b>	<b>41.7</b>	<b>35.4</b>
<b>Households</b>							
Loans	2.5	2.8	2.9	3.5	4.3	3.3	2.6
<b>Net incurrence of liabilities (= debt financing)</b>	<b>2.5</b>	<b>2.9</b>	<b>2.9</b>	<b>3.5</b>	<b>4.3</b>	<b>3.3</b>	<b>2.6</b>
<b>Non-financial corporations</b>							
Loans (1)	2.3	2.6	2.7	4.1	6.6	8.4	5.2
Securities other than shares (excluding financial derivatives) (2)	-1.6	0.1	0.2	0.4	0.8	0.9	1.5
Others <sup>2)</sup> (3)	0.2	0.1	0.2	0.1	0.2	0.0	0.1
<b>Debt financing (4 = 1+2+3)</b>	<b>0.9</b>	<b>2.8</b>	<b>3.1</b>	<b>4.6</b>	<b>7.6</b>	<b>9.4</b>	<b>6.7</b>
Shares and other equity (5)	1.7	2.1	2.0	3.3	3.6	6.4	3.8
<b>Net incurrence of liabilities (6 = 4+5)</b>	<b>2.6</b>	<b>4.9</b>	<b>5.0</b>	<b>7.9</b>	<b>11.3</b>	<b>15.8</b>	<b>10.5</b>
<b>General government</b>							
Currency and deposits (1)	0.3	0.2	0.2	0.2	0.3	0.0	0.2
Loans (2)	1.5	0.0	-0.1	-0.5	-0.3	-0.3	-0.4
Securities other than shares (excluding financial derivatives) (3)	5.4	4.3	2.4	2.5	1.8	1.4	1.7
<b>Net incurrence of liabilities (= debt financing) (4 = 1+2+3)</b>	<b>7.1</b>	<b>4.6</b>	<b>2.6</b>	<b>2.2</b>	<b>1.7</b>	<b>1.1</b>	<b>1.5</b>

Source: ECB.

Note: Excluding financial derivatives and other accounts payable. Figures may not add up due to rounding effects.

1) Euro area includes the following sectors: households, non-financial corporations, general government and financial corporations.

2) Mainly including "Insurance technical reserves" (insurance and pension fund products).

considerable amount of debt securities issued by euro area residents. In 2001, against the background of falling stock prices and high

financial uncertainty in the second half of the year, investment by euro area residents in foreign equities fell considerably.

### 3 Households' saving, financing and investment

The decline in households' saving in relation to GDP between 1995 and 2000 resulted from both a relatively slow growth of disposable income and a decline in the savings ratio (i.e. saving in relation to disposable income) (see Chart 3). The first of these developments was related to a subdued increase in the compensation of employees for most of the period and a reduction in the net interest income of households. The decline in the savings ratio represents the

continuation of a longer-term trend which was presumably enhanced by the increase in households' wealth owing to favourable stock and house price developments during most of the period under review (between 1995 and 2000, the net financial wealth per capita in the euro area increased by 56% to €34,000<sup>3</sup>). In 2001, probably reflecting the

3 Data on the stock of financial wealth are only available up to 2000.

pronounced decline in share prices, falling consumer confidence and a deterioration in labour markets, the savings ratio of households increased slightly. Concurrent with the decline in saving as a percentage of GDP between 1995 and 2000, households broadly maintained their level of real investment (mainly in housing) in relation to GDP, with the effect that the net lending of households diminished between 1995 and 2000, before recovering somewhat in 2001.

This decline in net lending was mirrored in higher growth of loans to households between 1995 and 1999 (see Table 3). The ratio of loan financing to GDP rose from 2.5% in 1995 to 4.3% in 1999, in line with favourable lending conditions. As a consequence, the ratio of household debt to GDP increased steadily in the second half of the 1990s in the euro area, although it remained below the levels seen in Japan, the United States and the United Kingdom. In 2001, in an environment of weakening economic growth and higher interest rates,

households reduced their demand for loans, and their indebtedness in relation to GDP stabilised. Households' interest payments, reflecting the development in debt and the effects of interest rate changes, declined in relation to GDP from 1995 to 1999, before rising again (see Chart 4).

Financial investment by households remained stable in relation to GDP over the entire period (broadly between 7½% and a peak of 8.6% in 1999). However, the structure of the acquisition of financial instruments varied considerably between 1995 and 2001 (see Charts 3 and 5).

In a context of surging stock prices, households increased in particular their net acquisition of shares and other equity (including mutual fund shares) to around three-fifths of their total financial acquisitions in 1998 (see Chart 5). This proportion subsequently declined, partly in connection with the weakening of stock prices from 2000 onwards. By contrast, households were net

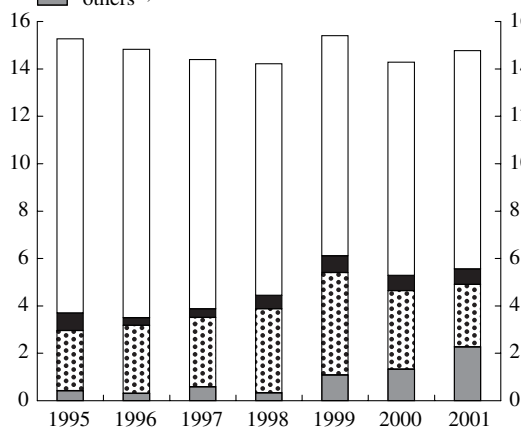
### Chart 3

#### Saving, financing and investment of households in the euro area

(as a percentage of GDP)

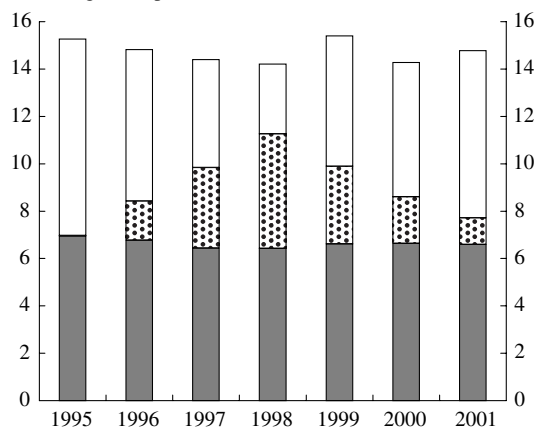
##### a) saving and financing

- gross saving
- net capital transfers
- ▨ debt financing <sup>1)</sup>
- others <sup>2)</sup>



##### b) investment

- net acquisition of financial assets excluding shares and other equity
- ▨ net acquisition of shares and other equity
- gross capital formation



Source: ECB.

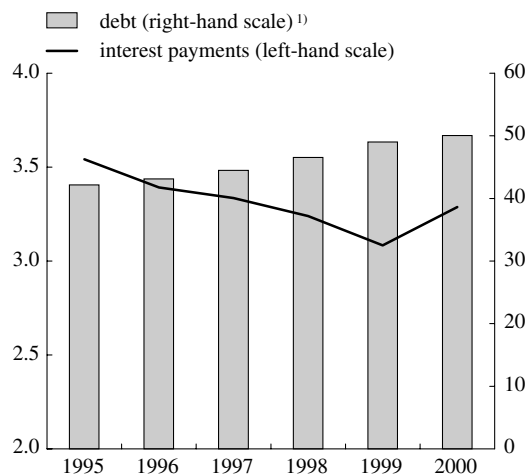
1) Mainly loans.

2) Including net transactions in financial derivatives, other accounts receivable/payable and statistical discrepancy.



## Chart 4 Household debt and interest payments

(as a percentage of GDP)



Source: ECB.

1) Mainly loans.

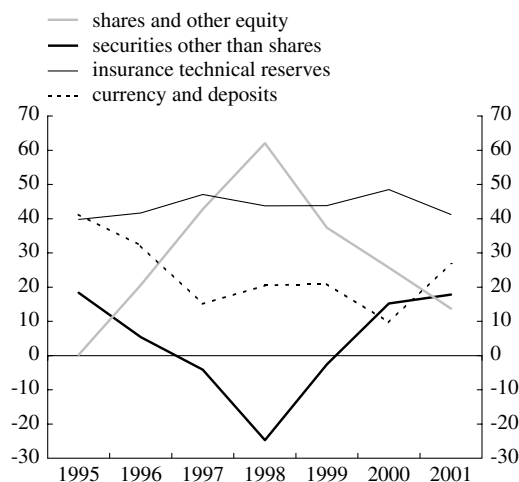
sellers of debt securities from 1997 to 1999. Also, the relative importance of currency and deposits in the financial acquisitions of households fell between 1995 and 2000. However, investment in both debt securities and currency and deposits increased significantly towards the end of the period under review, reflecting the preference of households for secure and liquid financial assets in the context of weak stock markets and financial market uncertainty in 2001. A constant feature of the financial investment of households during this period was the steady investment in insurance and pension fund products.

Two aspects of households' financial investments are also worthy of note. First,

with regard to maturity structure, households' net financial acquisitions were mostly medium or long-term, with nearly 80% of all acquisitions of financial assets from 1995 to 2001 consisting of shares or assets with an original maturity of more than one year.<sup>4</sup> Second, the proportion of investment in shares (including in particular equity-linked mutual fund shares) has increased the sensitivity of households' financial wealth to changes in stock prices. Indeed, the cumulative valuation gains in households' financial assets from end-1997 to the first quarter of 2000 were almost fully wiped out in the course of 2001.

## Chart 5 Financial investment by households

(contribution to total financial investment, as a percentage)<sup>1)</sup>



Source: ECB.

1) Excluding financial derivatives and other accounts receivable.

## 4 Non-financial corporations' saving, financing and investment

The overall decline in saving-to-GDP ratios of non-financial corporations between 1995 and 2001 can be divided into two periods. Between 1996 and 1998, corporate saving increased slightly in relation to GDP in a context of subdued unit labour cost growth and a reduction in companies' net interest payments. From 1999 onwards, the rise in labour costs and interest payments led to a

downturn in corporate saving, exacerbated by the weakening of economic activity in 2001 (see Table I).

4 Defined as the acquisition of long-term debt securities, shares (including mutual fund shares) and insurance technical reserves. It should be noted, however, that available data do not currently allow money market fund shares to be distinguished from mutual fund shares.

Meanwhile, real investment increased between 1996 and 2000, partly as a result of the trend decline in real interest rates in the run-up to Stage Three of Economic and Monetary Union and strong economic growth between 1998 and 2000. Declining inflation and fiscal consolidation also contributed to these developments. In 2001, however, real investment declined in relation to GDP in an environment of weaker economic activity and a fall in corporate earnings. Overall, the net borrowing of non-financial corporations increased from 0.2% of GDP in 1996<sup>5</sup> to 3.4% in 2000 (in part owing to heavy expenditure for UMTS licences), before decreasing to 2.1% of GDP in 2001 (see Chart 6).

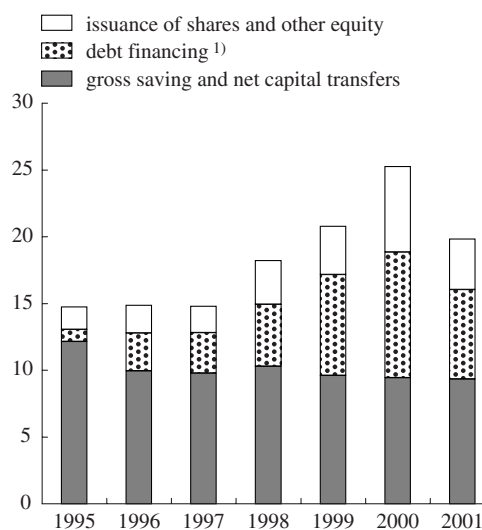
The rise in borrowing needs, together with the sizeable financial investment associated with corporate acquisitions, led to an exceptional increase in the net incurrence of liabilities of non-financial corporations in relation to GDP. This ratio rose from 2.6% in 1995 to 15.8% in 2000, before declining to 10.5% in 2001.

As regards the structure of financing, debt financing (i.e. mainly loans and debt securities issued) increased from 58% of the net incurrence of liabilities of non-financial corporations in 1996 to 68% in 1999 (see Chart 7). In particular, inter-company loans as well as loans granted by financial intermediaries other than MFIs gained in importance, reflecting transactions linked to the financing of mergers and acquisitions or the indirect issuance of debt securities through special-purpose vehicles. Non-financial corporations also issued significantly more debt securities during the period, while the share of MFI loans in the total net incurrence of liabilities of non-financial corporations declined.

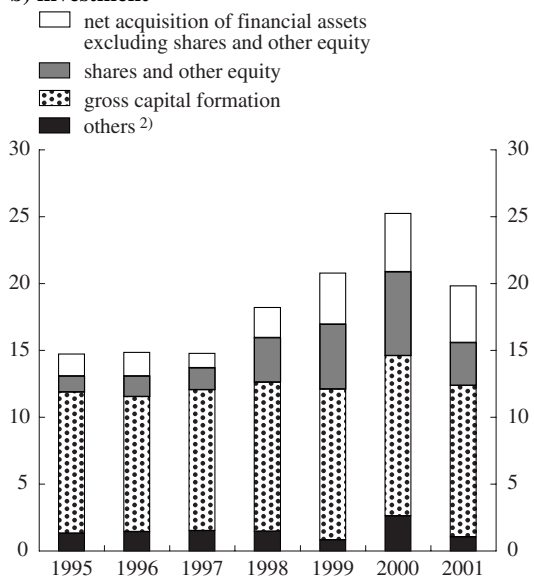
5 The data for 1995, a surplus of 1.5% of GDP, are considerably affected by large capital transfers in the context of German unification.

**Chart 6**  
**Saving, financing and investment of the non-financial corporations in the euro area**  
 (as a percentage of GDP)

**a) saving and financing**



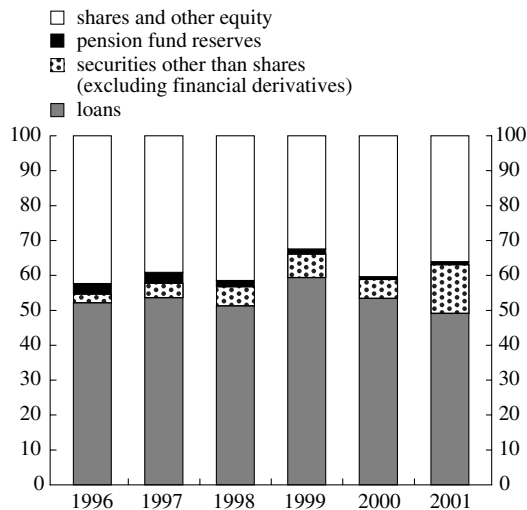
**b) investment**



Source: ECB.

1) Loans, securities other than shares (excluding financial derivatives) and pension fund reserves.

2) Including net transactions in financial derivatives, other accounts receivable/payable and statistical discrepancy.

**Chart 7****Financing by non-financial corporations***(as a percentage of total financing)<sup>1)</sup>*

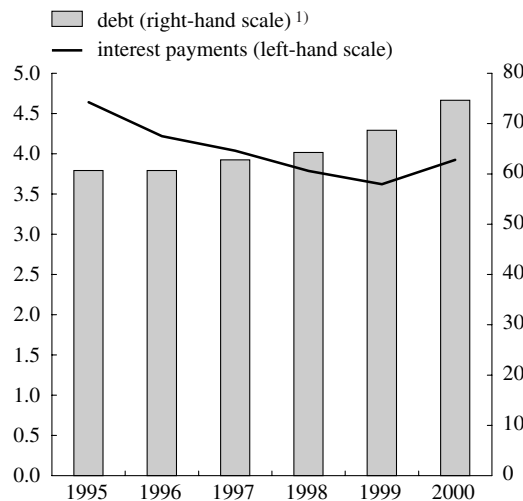
Source: ECB.

1) Excluding financial derivatives and other accounts payable. The sum of loans, securities other than shares (excluding financial derivatives) and insurance technical reserves is defined as debt financing.

The issuance of shares and other equity fluctuated between 33% and 42% in relation to the total net incurrence of liabilities of non-financial corporations between 1996 and 2000 (see Chart 7). This reflected to a considerable extent the extraordinary merger and acquisition activity during this period, where deals were partly financed by the issuance of shares in exchange for shares in the acquired company.

In 2001, with weak economic growth and a steep decline in mergers and acquisitions, both loan financing and share issuance dropped off considerably, with the notable exception of corporate bond issuance. Likewise, the decline in mergers and acquisitions led to a fall in the investment in shares and other equity by non-financial corporations in 2001, while the acquisition of liquid assets increased (see Chart 9).

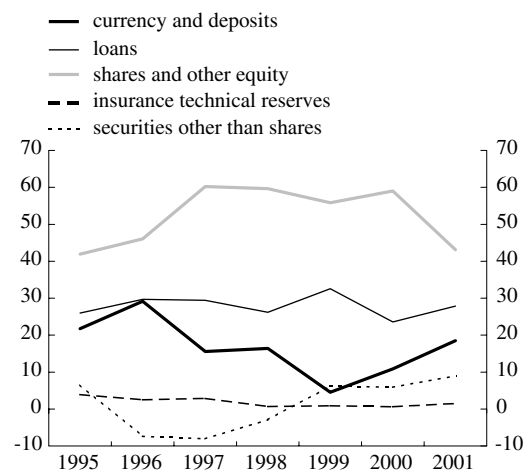
Despite the rise in debt of non-financial corporations during the period, interest payments were lower in relation to GDP in 2000 than they had been in 1995 (see

**Chart 8****Debt and interest payments of non-financial corporations***(as a percentage of GDP)*

Source: ECB.

1) Loans, securities other than shares (excluding financial derivatives) and pension fund reserves.

Chart 8). At the same time, the rise in debt increased the interest rate sensitivity of non-financial corporations.

**Chart 9****Financial investment by non-financial corporations***(contribution to total financial investment, as a percentage)<sup>1)</sup>*

Source: ECB.

1) Excluding financial derivatives and other accounts receivable.

## 5 Conclusions

Between 1995 and 2001, the euro area saw a rebalancing between government and private net lending/net borrowing positions. While in the mid-1990s households had financed sizeable net borrowing by the government sector, the latter returned to a more balanced position at the beginning of the current decade, and households' net lending was associated with larger net borrowing requirements on the part of the non-financial corporations sector.

The indebtedness of households rose in the course of the 1990s. This increased the sensitivity of household income to interest rate changes. However, household debt in relation to GDP remained limited in the euro area compared with that in other major industrialised countries. In addition, with lower lending rates the rise in debt did not translate into higher interest payments in relation to GDP in 2000 compared with 1995. With respect to financial investment,

households extended their investment in shares and other equity (in particular mutual fund shares) in relation to GDP. This increased the sensitivity of households' wealth to stock price movements.

Non-financial corporations increased their debt in relation to GDP by more than households during the 1990s. The rise in debt has to be seen in the context of large financial acquisitions, the decline in real lending rates as inflation fell and government finances improved, and the relatively strong economic growth between 1998 and 2000 – conditions favourable to corporate investment. As a result of the rise in debt, lower corporate earnings and a decline in the value of financial assets since 2000, balance sheet positions of non-financial corporations worsened during 2001. However, despite somewhat higher interest payments in relation to GDP, the interest payment burden remained below that of 1995.