

The household sector in the integrated euro area accounts

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1. Introduction

This paper sets out the main features and the analytical use of the newly compiled, comprehensive and consistent set of non-financial and financial accounts by institutional sector, henceforth referred to as the “euro area accounts”. The analysis of the income, saving, (financial and non-financial) investment and financing of households and non-financial corporations is a primary example of how these statistics can be used in the economic and monetary analysis underpinning the ECB’s monetary policy. This note starts by explaining the components of the integrated euro area accounts and the underlying concepts. It then presents the characteristics of the euro area as a whole, as well as specific features of the household sector. Subsequently, an analysis is made of some of the more important developments in recent years, with a particular focus on households.

2. Main features and concepts of the euro area accounts

The euro area accounts enable the analysis of economic developments of the institutional sectors (households, corporations and government) in the euro area, their interrelationships, and their relationships with the rest of the world. Macroeconomic developments, such as economic growth and inflation, are driven by the actions of the individual agents in an economy, while the economic behaviour of these agents varies quite substantially, depending on the institutional sector to which they belong. The euro area accounts present a complete, consistent set of economic indicators for all of these sectors. They also establish, for the first time, consistency between financial and non-financial statistics, thereby allowing for an integrated analysis of non-financial economic activities (such as consumption and gross fixed capital formation) and financial transactions (such as the issuance of debt securities and investment abroad). Finally, the accounts also contain consistent financial balance sheets, with the result that annual changes in the financial wealth of each euro area sector can now be investigated in depth.

The euro area accounts are generally presented on a non-consolidated basis. This means, for example, that a government unit’s holdings of debt securities issued by another government unit of the same Member State are not netted out when compiling the financial balance sheet for the government sector. Transfers between government units are not

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² The views expressed in this paper are those of the authors and do not necessarily reflect the views of the European Central Bank. A related article on euro area accounts was published in the October 2006 Monthly Bulletin of the ECB.

removed in the non-financial accounts either.³ The sequence of interlinked euro area accounts has been compiled following the methodology of the European System of Accounts 1995.

2.1 Institutional sectors

Each institutional sector brings together institutional units with a broadly similar behaviour: financial corporations, non-financial corporations, general government, households and non-profit institutions serving households (NPISHs). Transactions with non-residents and the financial claims of residents on non-residents, or vice versa, are recorded in the “rest of the world” account. The sector accounts thus show the interactions among the different sectors of the euro area economy and between the euro area economy and the rest of the world.⁴

The household sector comprises all households, as consumers of goods and services, as well as resident unincorporated enterprises, the latter category covering sole proprietorships and most partnerships that do not have an independent legal status. The household sector therefore also generates output and entrepreneurial income. In the euro area accounts, NPISHs (charitable organisations, trade unions, etc) are grouped together with households, their economic weight is relatively limited. The non-financial corporation sector comprises all private and public corporate enterprises that produce goods for and provide non-financial services to the market. Accordingly, the general government sector excludes such public enterprises and comprises central, state (regional) and local government and social security funds. Thus the general government sector differs from what is generally referred to as the public sector.

For the first time, a complete and consistent rest of the world account for the euro area has been compiled. This means that cross-border transactions and financial claims between euro area Member States have been removed from the euro area rest of the world account and that, in this process, the asymmetries in the bilateral trade statistics have been eliminated.⁵ Consequently, imports and exports are much smaller than they would have been if simple aggregation of the national data had been used, given that about one-half of the external trade of the individual Member States is within the euro area.

2.2 From production to borrowing and lending

Euro area accounts record, in principle, every transaction between economic agents during a certain period and show the opening and closing stocks of financial assets and liabilities in financial balance sheets. These transactions are grouped into a sequence of accounts, each of which covers a specific economic process, ranging from production, income generation and income (re)distribution, through the use of income for consumption and investment, to financial transactions such as borrowing and lending. Each transaction is recorded as an increase in the “resources” of a certain sector and an increase in the “uses” of another sector. For instance, the resources side of the “interest” transaction category records the amounts of interest receivable by the different sectors of the economy, whereas the uses side shows interest payable. For each type of transaction, the total resources of all sectors

³ This treatment differs from the government finance statistics shown in Tables 6.1, 6.2 and 6.3 of the “Euro area statistics” section of the Monthly Bulletin, since these data are presented on a consolidated basis.

⁴ This means that the euro area accounts incorporate (a slight transformation of) the euro area balance of payments and international investment position statistics.

⁵ As a result, there has been a very small downward adjustment (by less than 1%) of nominal euro area GDP.

and the rest of the world equal total uses.⁶ Each account leads to a meaningful balancing item, the value of which equals total resources minus total uses or total changes in financial assets minus total changes in liabilities. Typically, these balancing items, such as GDP or saving, are important economic indicators. They are carried over to the next account. Table 1 shows an abbreviated presentation of the euro area accounts. The production account, for example, records the output of goods and services as its main resource, to which taxes less subsidies on products are added to obtain total resources. The main use of the production account is “intermediate consumption” - ie the consumption of goods and services within another production process. The difference between resources and uses is the balancing item “gross value added” (or GDP for the total economy). This gross value added is then carried over as a resource in the next account, the distribution of income account, which yields “gross disposable income” as a balancing item. This conceptual and numerical inter-linkage of the accounts ensures the consistent derivation of key economic indicators. The link between the non-financial accounts and the financial accounts is established by the balancing item “net lending/net borrowing”, which can be derived both from the last of the non-financial accounts (capital account) and from the financial transactions account. “Net lending/net borrowing” is derived from the capital account by comparing “gross capital formation” (mainly investment in capital goods) plus the net acquisition of “non-produced, non-financial assets” (such as land or licences) with “gross saving” plus net “capital transfers”. If saving plus net capital transfers received exceed non-financial investments, a sector has a surplus of funds and becomes a net lender to other sectors. In the financial transactions account, this means that the sector acquires more financial assets than liabilities.⁷

⁶ For transactions in assets, such as the incurrence of loans or the purchase of shares, a distinction is made between “changes in liabilities” and “changes in assets”, rather than between resources and uses. The rest-of-the-world account view cross-border transactions and positions from the perspective of the rest of the world. It therefore follows that euro area imports are recorded as resources and exports as uses.

⁷ The euro area financial and non-financial accounts and balance sheets have been compiled in a single process. Concomitantly, full consistency between the financial and non-financial accounts has been achieved for the government and financial corporation sectors and for the rest of the world (so there is no category “errors and omissions”). There are still discrepancies, equal in amount but opposite in sign, for the households and non-financial corporation sectors, but these are relatively small compared to a simple aggregation of the non-integrated national non-financial and financial accounts data.

Table 1

Euro area accounts 2004, abbreviated presentation

EUR billions, unless otherwise indicated

Uses						Non-financial accounts	Resources						
Households and NPISHs ¹	General government	Financial corporations	Non-financial corporations	Total economy	Rest of the world		Rest of the world	Total economy	Non-financial corporations	Financial corporations	General government	Households and NPISHs ¹	
EXTERNAL ACCOUNT													
						1,490	Exports of goods and services						
							Imports of goods and services	1362					
PRODUCTION ACCOUNT													
							Output	14,229	9,539	676	1,342	2,672	
992	384	341	5,577	7,294			Intermediate consumption						
							Taxes less subsidies on products ²	793					
1,680	958	335	3,962	7,728			Gross value added/GDP ³						
DISTRIBUTION OF INCOME ACCOUNT													
							Gross value added/GDP ³	7,728	3,962	335	958	1,680	
394	807	189	2,348	3,739	15		Compensation of employees	7	3,747				3,747
45	18	13	115	1,052			Taxes on production and imports ²	24	1028			1,028	
	100			100	37		Subsidies ²		137	51	1	4	12
136	243	1,030	977	2,385	245		Property income	303	2,327	315	1,054	60	898
708	1	44	126	880	4		Current taxes on income, wealth, etc	1	882				882
1,432				1,432	2		Social contributions	4	1,431	73	144	1,210	4
5	1,287	98	62	1,451	3		Social benefits other than social transfers in kind	11	1,443				1,443
254	154	184	86	677	33		Other current transfers	105	606	39	184	65	318
5,129	1,598	160	727	7,613			Gross disposable income						
USE OF DISPOSABLE INCOME ACCOUNT													
							Gross disposable income	7,613	727	160	1,598	5,129	
4,428	1,576				6,004		Final consumption expenditure						
1	0	49	12	62	0		Adjustment for the change in net equity of households in pension funds reserves	1	61				61
762	21	111	715	1,608			Gross saving						
CAPITAL ACCOUNT													
							Gross saving/current external balance	-13	1,608	715	111	21	762
38	101	11	10	160	24		Capital transfers	8	177	65	4	54	54
496	189	42	868	1,596			Gross capital formation						
-2	0	0	1	0	0		Acquisitions less disposals of non-produced non-financial assets						
283	-216	61	-99	29	-29		Net lending (+)/net borrowing (-)						

1 Non-profit institutions serving households. ² Data relating to taxes on products (eg VAT) and subsidies on products are not available by sector. The sum of the resident sectors therefore differs from that of the total economy. ³ Gross domestic product is equal to gross value added of all domestic sectors plus taxes less subsidies on products. The sum of the resident sectors therefore differs from that of the total economy.

Table 1 (cont)

Euro area accounts 2004, abbreviated presentation

EUR billions, unless otherwise indicated

(Changes in) Financial assets						Financial accounts ⁴	(Changes in) Liabilities and net financial assets					
Households and NPISHs	General government	Financial corporations	Non-financial corporations	Total economy	Rest of the world		Rest of the world	Total economy	Non-financial corporations	Financial corporations	General government	Households and NPISHs
FINANCIAL TRANSACTIONS ACCOUNT												
						Net lending (+)/net borrowing (-) (from capital accounts)	-29	29	-99	61	-216	283
						Statistical discrepancy	0	0	-14	0	0	14
						Net lending (+)/net borrowing (-) from financial accounts	-29	29	-85	61	-216	269
578	43	3,205	446	4271	808	Total changes in financial assets/liabilities	837	4,242	530	3,144	259	308
						Monetary gold and special drawing rights (SDRs)						
						Currency and deposits	144	1,121	0	1,100	21	
63	19	614	-49	647	262	Debt securities, excluding financial derivatives	224	685	17	435	233	
-3	12	617	85	711	16	Loans	178	548	166	52	15	316
19	-4	340	165	520	255	Shares and other equity	269	507	171	336		0
246	0	4	7	258	3	Insurance technical reserves	1	259	13	244		2
15	-1	962	153	1,130	14	Other accounts (receivable/payable) and financial derivatives	21	1,122	164	977	-9	-10
OTHER CHANGES IN FINANCIAL ASSETS AND LIABILITIES ACCOUNT												
						Other changes in net worth	142	-146	-324	-36	-26	240
241	51	-525	194	-39	75	Total changes in financial assets/liabilities ⁵	-66	106	518	-490	77	0
CLOSING FINANCIAL BALANCE SHEET												
						Net financial assets (+)/liabilities (-) ⁵	1,182	-1,053	-6701	-49	-4,268	9,965
14,620	2,112	32,121	10,906	59,759	9,691	Total financial assets/total liabilities ⁵	8,509	60,812	17,607	3,2170	6,381	4,655
						Monetary gold and special drawing rights (SDRs) ⁵						
						Currency and deposits	1,691	14,336	0	14,033	304	
1,482	190	7,310	327	9,308	2,251	Debt securities, excluding financial derivatives	1,839	9,719	629	4,360	4,730	
25	347	10,361	1,535	12,268	1,021	Loans	1,382	11,908	5,357	1,217	1,017	4,317
3,905	698	5,936	5,337	15,876	3,425	Shares and other equity	3,065	1,6236	9,011	7,220		5
4,040	3	115	118	4275	112	Insurance technical reserves	5	4,382	301	4,051		30
304	434	1,302	2,335	4,376	381	Other accounts (receivable/payable) and financial derivatives	526	4,231	2,309	1,289	330	303

⁴ Non-consolidated data. ⁵ Monetary gold and SDRs are financial assets without compensating liabilities.

Sources: ECB and Eurostat.

2.3 Net financial wealth and revaluations

The financial balance sheets show the financial position of the sectors, broken down into categories of financial assets and liabilities (such as deposits, loans and shares), and how it has changed during the reference period. The financial assets and liabilities are valued at market prices. The financial balance sheets change as a result not only of the accumulated financial transactions but also of other changes in assets. Although the latter category mainly reflects revaluations due to changes in the market prices of financial instruments, it also covers other concepts, such as debt cancellations. The consistent derivation of holding gains and losses by holding sector and by financial instrument allows comprehensive analyses to be made, eg into the effects of these changes on the economic behaviour of households and non-financial corporations.

The external financial assets and liabilities account shows the financial position of the euro area vis-à-vis the rest of the world. Naturally, price changes resulting from exchange rate developments largely determine the other changes in the rest of the world account.

3. Contributions of sectors to macroeconomic aggregates

The euro area accounts comprise key economic indicators, both for the various sectors and for the euro area economy as a whole. This section presents some of the salient economic characteristics of the individual sectors in the euro area and their contribution to the development of important macroeconomic aggregates.

Most value added in the euro area (on average 58% in the period 1999-2004) is created in non-financial corporations, while slightly less than one-quarter is generated by household production activities in unincorporated enterprises and from owner-occupied dwellings (see Chart 1). General government accounts for slightly more than 10%. Most value added created in the corporate and government sectors is passed on to households in the form of wages or salaries and employers' social contributions. The vast majority of gross national income thus accrues to the household sector. Subsequently, it is somewhat reduced through the re-distribution of income by means of taxes, net social insurance payments and other transfers, which are largely paid to the government (cf. the distribution of gross national income and gross disposable income in Chart 1).

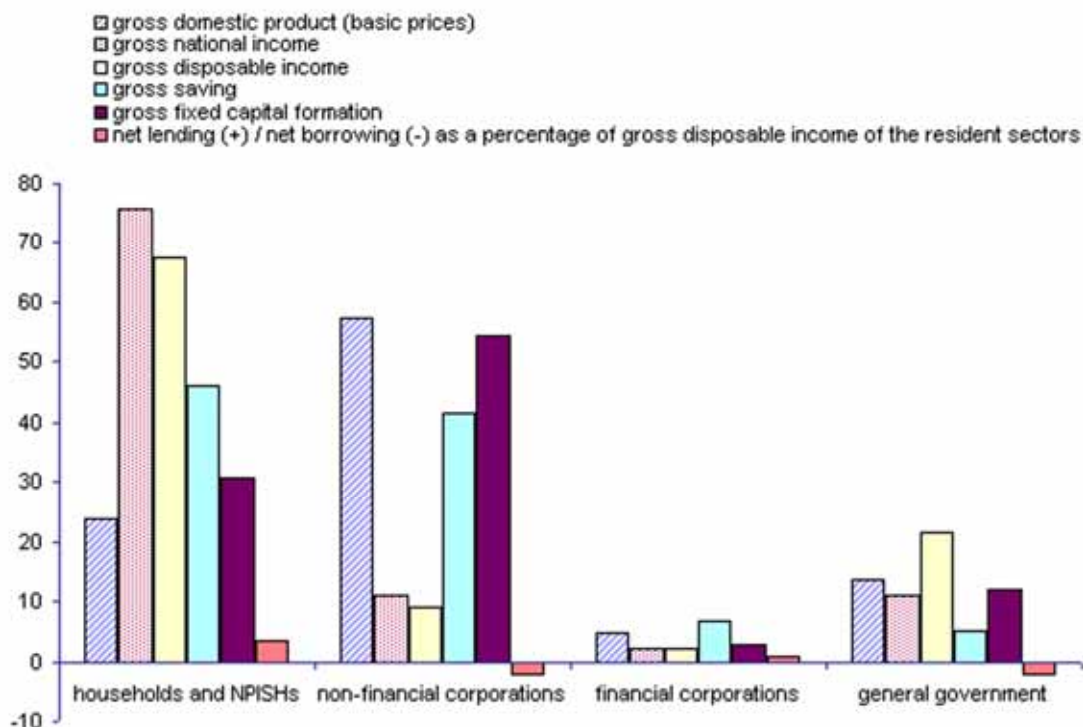
Disposable income is available for consumption or saving. Over the period under review, non-financial investment by non-financial corporations exceeded their saving (plus net capital transfers received) and thus this sector was a net borrower. The general government sector also had a deficit, in contrast to households, whose saving largely exceeded their non-financial investments (eg in new housing and in unincorporated enterprises), although their fixed capital formation still comprised more than 30% of the euro area total. Households thus provided financing to the other resident sectors and to the rest of the world, mostly through financial corporations. These institutions mainly act as financial intermediaries and typically also have a (relatively small) financial surplus.

The net lending and net borrowing of the resident sectors largely offset each other, which means that the euro area economy finances most of its (non-financial) investments through domestic savings. On balance, the euro area was a modest net borrower from 1999 to 2001 and a net lender from 2002 to 2004. The financial transactions account of the rest of the world shows these developments broken down by financial instrument.

Chart 1

**Share of resident sectors in key economic aggregates
in the euro area 1999-2004**

Period average; percentage of the total, unless specified otherwise



Sources: ECB and Eurostat.

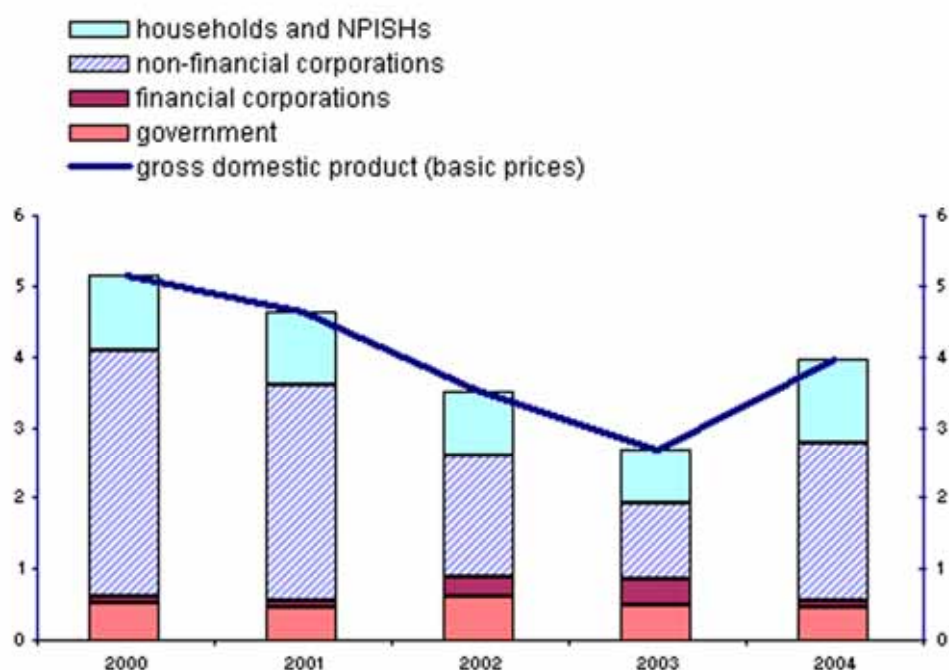
Turning to the contribution of the sectors to the development of key macroeconomic aggregates, Charts 2 and 3 show the contribution of each sector to the annual nominal growth rates of euro area GDP and gross capital formation from 2000 to 2004 respectively. From Chart 2, it is clear that the fluctuations in the GDP growth rates predominantly stem from changes in the contribution of non-financial corporations. The contribution to growth of value added generated in the household sector is more stable.

As expected, the growth of capital formation (in current prices) is quite volatile. In the period 2000-02 it fell to zero, before subsequently increasing again (see Chart 3). The fluctuations in investment by non-financial corporations were even larger. The contribution by the household sector was relatively large in 2004.

Chart 2

Contributions of sectors to the nominal growth rate of euro area GDP

Annual growth rate and percentage point contributions

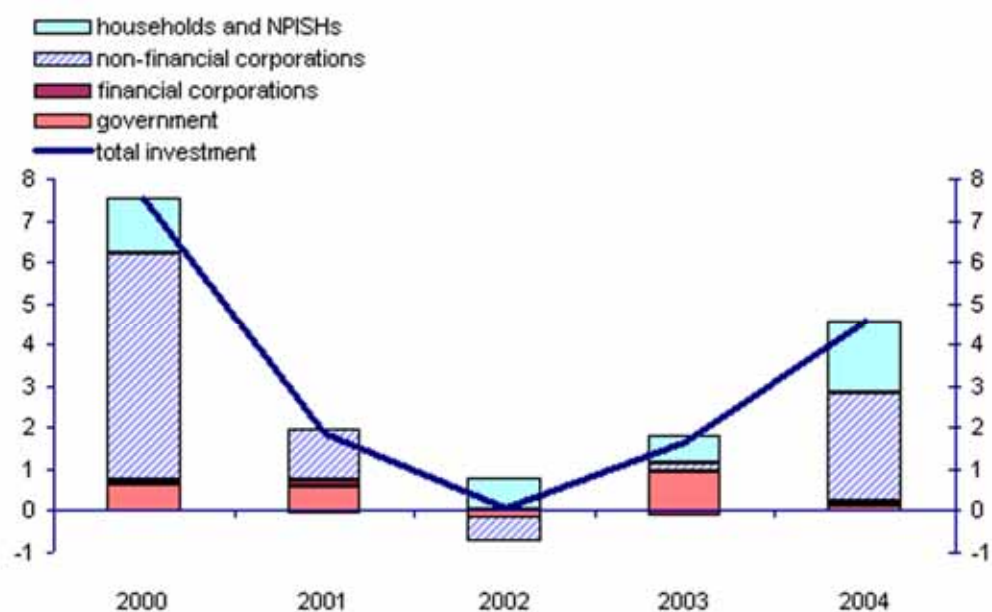


Sources: ECB and Eurostat.

Chart 3

Contributions of sectors to the nominal growth rate of gross fixed capital formation in the euro area

Annual growth rate and percentage point contributions



Sources: ECB and Eurostat.

4. Analysis of sector accounts for households between 1999 and 2004

As shown in Table 2, compensation of employees is the most important component of households' gross disposable income, with an average share of 74% in the period 1999-2004. Mixed income accruing to self-employed households and gross operating surplus from owner-occupied dwellings accounted for 24%, while net property income represented 16%. A large component of property income receivable is interest income on deposits and debt securities held by households, which clearly exceeds the interest payable by households on loans; net interest receipts amounted, on average, to 2% of gross disposable income in the period 1999-2004. Since direct taxes and social contributions collected by the government exceeded the various transfers to households over this period, the net effect of these redistribution transactions on household disposable income has been negative, amounting on average to -13% of gross disposable income.

Table 2
Households and NPISHs¹: from primary income to financial transactions
EUR billions, unless otherwise indicated

	1999	2000	2001	2002	2003	2004	in % ^{2,3}
Compensation of employees	3,128	3,294	3,443	3,559	3,648	3,747	74
+ Gross mixed income + gross operating surplus	1,012	1,056	1,111	1,155	1,191	1,254	24
+ Property income (receivable - payable)	687	732	760	737	744	762	16
of which: Interest (receivable - payable)	126	129	128	108	106	99	2
Primary income	4,828	5,082	5,314	5,450	5,583	5,762	113
- Current taxes on income, wealth, etc	634	672	687	697	700	708	15
- Social contributions (payable - receivable)	1,194	1,247	1,289	1,334	1,386	1,428	28
+ Social benefits other than social transfers in kind (receivable - payable)	1,181	1,217	1,271	1,342	1,395	1,438	28
+ Other current transfers (receivable - payable)	49	54	58	64	67	64	1
Gross disposable income	4,230	4,436	4,668	4,824	4,959	5,129	100
+ Adjustment for the change in net equity of households in pension funds reserves	45	46	49	51	56	61	1
- Final consumption expenditure	3,666	3,870	4,040	4,156	4,279	4,428	87
Gross saving	609	612	676	719	736	762	15
+ Capital transfers (receivable - payable)	25	26	18	7	13	16	0
- Gross capital formation	434	451	446	457	469	496	10
- Acquisition less disposal of non-financial non-produced assets	-2	-4	-3	-4	0	-2	0
Net lending (+)/net borrowing (-)	202	191	251	272	281	283	5
= Transactions in financial assets	511	462	485	491	517	578	11
- Transactions in liabilities	305	273	221	203	218	308	5
+ Statistical discrepancy	-4	2	-13	-17	-19	14	0

¹ Non-profit institutions serving households. ² Share of gross disposable income of households and NPISHs; average for 1999-2004. ³ Components may not add up due to rounding.

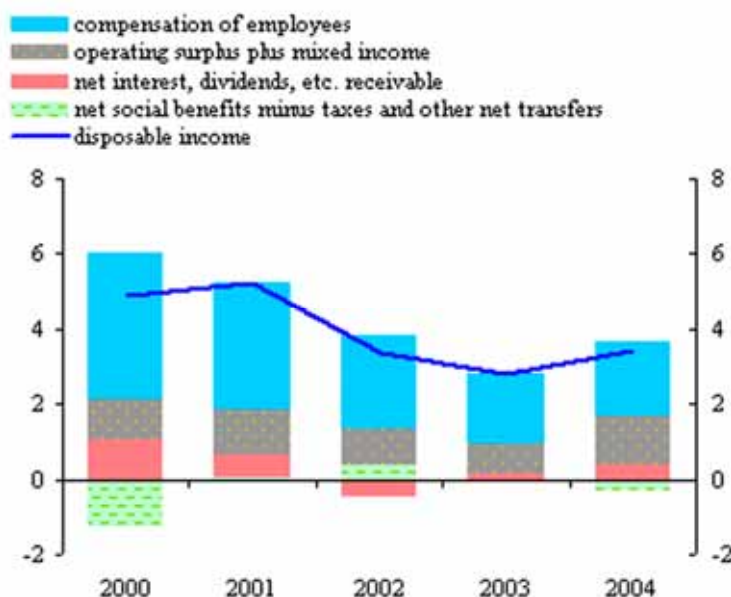
Sources: Eurostat and ECB.

The annual growth rate of nominal gross disposable income increased in 2004, after declining substantially from 2001. The increase in 2004 was largely related to a higher contribution of mixed income and operating surplus, while the preceding decline in income growth had been mainly due to lower growth in the compensation of employees. The redistribution transactions only had a limited impact on the pattern of income growth in the years under review.

Chart 4

Developments in the gross disposable income of households and NPISHs¹

Annual growth rate and percentage point contributions



¹ Non-profit institutions serving households.

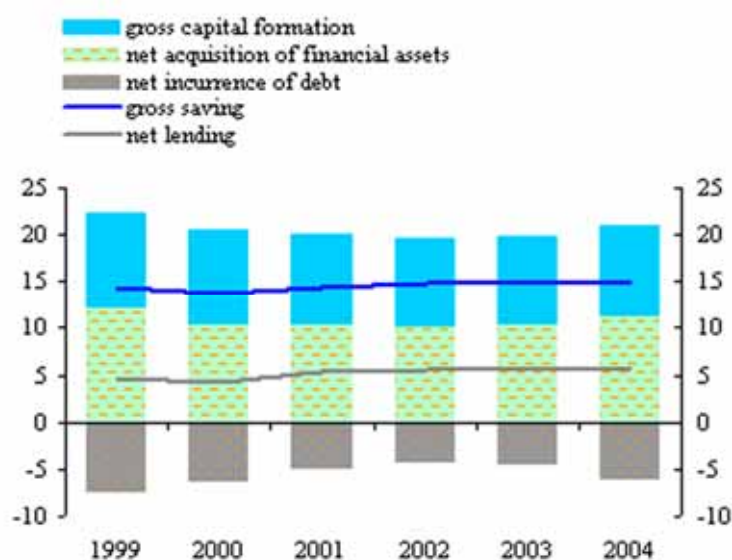
Sources: ECB and Eurostat.

Gross disposable income may be either consumed or saved. Saving includes the change in households' net equity in pension fund reserves, which mainly reflects payments made by employers into pension schemes. This relatively small component (see Table 2) is obviously not available for immediate consumption. Euro area households' gross saving (as a ratio to household gross disposable income) declined in 2000, but subsequently it has increased and remained broadly stable through 2004 at levels close to 15% (see Chart 5). This pattern is influenced by a number of factors. For instance, as a result of the strong growth in labour income and the positive income expectations prevailing at the end of the 1990s, households may have absorbed the concomitant rise in tax and social contribution liabilities by lowering their saving ratio. Moreover, the increase in financial and non-financial wealth at the end of the 1990s, in a context of favourable developments in equity and house prices, may have increased households' propensity to consume, thus leading to a reduction in the saving rate. The return to a somewhat higher saving ratio in the period 2002-04 is likely to reflect the protracted period of economic and financial uncertainty following the end of the "new economy" boom and concerns in a number of euro area countries related to the sustainability of social security systems.

Households invest their savings in either financial or non-financial assets; the latter type of investment mainly consists of the purchase of new housing and the fixed investment by unincorporated enterprises. Households typically finance part of these investments by incurring debt in the form of loans. Through their decisions on saving, investment in assets and financing, households are able to transfer part of their income over time and thus to

spread their spending over the life cycle. Households' net incurrence of debt as a proportion of their gross disposable income declined between 1999 and 2002 but rose again subsequently, amounting to somewhat more than 5% in 2004. At the same time, households' gross fixed capital formation remained robust over the whole period (accounting, on average, for 10% of gross disposable income), due mainly to low mortgage interest rates and anticipated further rises in house prices. Through the incurrence of debt and the accumulation of financial and non-financial assets, households can accommodate changes in their incomes, whether expected (eg on retirement) or unexpected (eg on becoming unemployed). Between 1999 and 2004, euro area households' investment in assets amounted, on average, to somewhat more than 20% of their gross disposable income, with a slightly lower share in the case of non-financial assets than in the case of financial assets (see Chart 5).

Chart 5
Saving, investment and lending of households and NPISHs¹
 Percentage of gross disposable income



¹ Non-profit institutions serving households.

Sources: ECB and Eurostat.

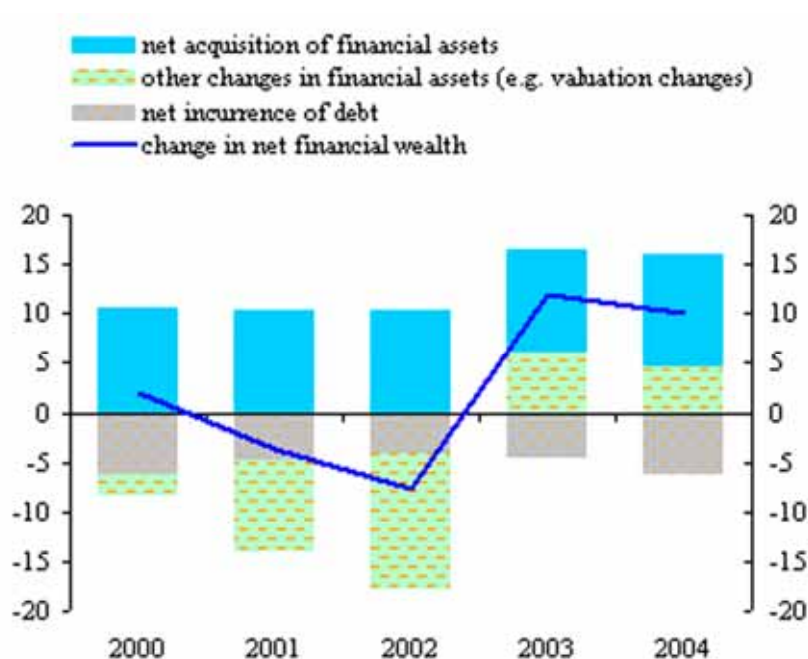
The net lending position of households has been quite stable over the period 1999-2004, with an average of 5% of their gross disposable income. This position of the household sector as a net lender has, in recent years, been compatible with an increasing indebtedness because higher borrowing has been accompanied by a more than proportional increase in financial and non-financial investment. Of course, these general trends conceal different developments within the household sector.

Looking at the information provided by the financial accounts, changes in the net financial wealth of households reflect the net acquisition of financial assets, changes in the prices of financial assets and borrowing net of repayments of outstanding debt. Chart 6 shows that the fluctuations of the changes in net financial wealth of euro area households over the period 2000-04 are mostly explained by changes in the market prices of financial instruments (mainly shares and other equity), while particularly the net acquisition of financial assets as a percentage of gross disposable income remained fairly stable. It is interesting to note that the incurrence of new debts decreased at the time of high economic and financial uncertainty (particularly in 2001 and 2002) and has gradually increased again in an environment of low levels of interest rates.

Chart 6

Changes in financial assets, debt and net financial wealth of households and NPISHs¹

Percentage of gross disposable income



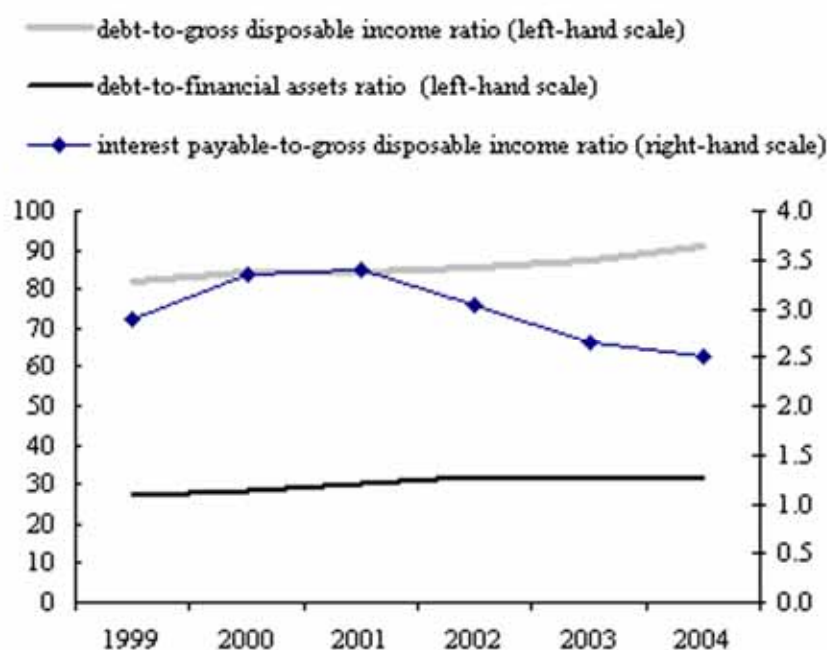
¹ Non-profit institutions serving households.

Sources: ECB and Eurostat.

Over the period under analysis, developments in households' financial investment can be divided in two episodes. In 1999 and 2000, households invested heavily in shares and mutual fund shares, in an environment of strong rises in equity prices. From 2001 onwards, households increased the proportion of their investment in currency and deposits, as a reaction to the fall in stock prices and reflecting a general preference for safe and liquid assets. Investment in life insurance and pension funds has been more stable by nature and represented almost 40% of the total financial investment of households.

One development in the balance sheet position of the household sector that has received much attention, owing to its potential implications for the monetary policy transmission process, is the increase in household indebtedness in the period since the end of the 1990s. The expansionary financing behaviour of households, along with partly subdued income growth, has led to further rises in the sector's aggregate ratio of debt to gross disposable income. At the end of 2004, this ratio stood at somewhat over 90% (up from 82% in the late 1990s) (see Chart 7). At the same time, the debt-to-financial assets ratio also increased, from 27% in 1999 to 32% in 2004. The ratio of debt to total assets may have increased less strongly, as in an environment of strong house price increases households' non-financial wealth may have increased faster than their financial wealth. Another important factor in the assessment of this rising debt-to-income ratio is the development of interest payable by households. As interest rates have generally been declining since 2000, interest payable as a percentage of gross disposable income decreased over this period, despite the higher levels of outstanding debt.

Chart 7
Debt of households and NPISHs¹
 Percentages



¹ Non-profit institutions serving households.

Sources: ECB and Eurostat.

5. Conclusions and outlook

Euro area accounts provide a consistent framework for the analysis of economic and financial developments by institutional sector. They provide not only comprehensive information on the economic activities of euro area households, non-financial corporations, financial corporations and government, but also on the economic interactions between the euro area economy and the outside world by means of a complete rest-of-the-world account for the euro area. The consistency of these new statistics represents a major improvement, which, in the context of monetary and economic analysis at the ECB, enables a more accurate understanding of the production, income distribution, saving, investment and financing behaviour of economic agents in general and of households and non-financial corporations sectors in particular.

The annual euro area accounts will be followed, from spring 2007 onwards, by the regular publication of quarterly sector accounts. Such a timely availability of a consistent set of non-financial and financial statistics will allow a more detailed assessment of the monetary transmission mechanism, for example by providing consistent data on income and wealth effects on household consumption and gross capital formation.