

THE INTRODUCTION OF QUARTERLY SECTORAL ACCOUNTS STATISTICS FOR THE EURO AREA

ARTICLES

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The new quarterly euro area accounts (EAA) by institutional sector shed greater light on economic, financial and monetary developments, which have only partially been revealed by statistics in the past. In particular, the accounts provide both additional information for the analysis of macroeconomic developments by institutional sector and a comprehensive framework to complement and combine data provided by other, timelier statistics. This article recalls the main features and concepts of the EAA and provides examples of their potential use by the ECB. The first example shows how economic analysis and, in particular, the analysis of household saving and consumption will now benefit from regular comprehensive information on (valuation) changes in households' financial wealth. The analysis of the financing and financial investment of non-financial corporations benefits from the new details on non-financial transactions, as well as from the now complete coverage of the financial accounts, demonstrating the usefulness of integrated financial and non-financial accounts by institutional sector. Finally, the analysis of portfolio shifts between monetary assets and other financial instruments can now be based on a complete coverage of financial investments by institutional sectors.

I INTRODUCTION

Macroeconomic developments, such as economic growth and inflation, are the outcome of the actions of individual economic agents in an economy. The grouping of agents with a similar economic behaviour into institutional sectors (households, non-financial corporations, financial corporations and government) can help our understanding of the functioning of the economy. Over the past five years, the ECB, Eurostat and the national central banks and national statistical institutes in the European Union have collaborated to develop a regular quarterly compilation of euro area accounts that provide detailed and consistent statistics on economic and financial developments in the euro area, both for the economy as a whole and for each of its institutional sectors. These integrated quarterly euro area accounts (EAA) draw on available euro area statistics and data collected at the national level, combining newly available quarterly information on the non-financial activities of institutional sectors with enhanced data on financing and financial investment previously released by the ECB in the Monetary Union Financial Accounts. The quarterly EAA were published for the first time in June 2007 and were preceded by the publication of integrated annual financial and non-financial accounts in May 2006.

This article recalls the main features and concepts of the EAA and provides some

illustrations of how the new data can enhance economic, financial and monetary analysis.¹ This is done by re-examining three issues in economic, financial and monetary analysis that have confronted policy-makers in the past and by showing how the new data can shed some light on these issues.

2 MAIN FEATURES AND CONCEPTS OF EURO AREA ACCOUNTS

The EAA present a comprehensive overview of the economic and financial developments of the euro area, including a consistent breakdown by institutional sector. They show all economic and financial transactions and (changes in) balance sheet positions of households, non-financial corporations, financial corporations and the government, as well as the interaction between these sectors, and permit an integrated analysis of non-financial economic activities (such as gross fixed capital formation) and financial transactions (such as the issuance of debt). In addition, relations between the euro area and the rest of the world are shown for the same types of transactions and balance sheet positions. The EAA are expressed in current prices

¹ For a more detailed presentation, see the article entitled "Integrated financial and non-financial accounts for the institutional sectors in the euro area" in the October 2006 issue of the Monthly Bulletin and the joint ECB and Eurostat background note entitled "Quarterly euro area and European Union accounts for the institutional sector" available at <http://www.ecb.eu/stats/acc/html/index.en.html>.

(i.e. only nominal as opposed to real values are calculated). As data are not yet seasonally adjusted, developments are analysed on the basis of four-quarter moving sums and growth rates are presented as year-on-year changes. The sources and methods used for the compilation of the EAA are outlined in the following box.

Box

FROM NATIONAL ACCOUNTS TO EURO AREA ACCOUNTS

The starting-point for the EAA are, on the one hand, national financial and non-financial accounts provided by euro area member countries and, on the other, the euro area balance of payments, its international investment position and monetary statistics. Several steps are needed to convert national datasets into euro area accounts.

First, given that the accounts provide time series for the current composition of the euro area, with no statistical breaks due to enlargement, the Greek data for 1999-2000 and the Slovenian data for 1999-2006 have been converted into euro using the variable exchange rate of the respective currencies. Second, since the ECB is not considered to be part of the domestic economy in the national accounts of any member country, its accounts have to be included in the euro area financial corporations sector. All other European institutions are treated as non-residents of the euro area, as their administrative competence goes beyond the euro area.

Third, in order to compile appropriate euro area rest-of-the-world accounts, cross-border transactions and positions between euro area member countries have to be converted into domestic ones. This leads to a much lower level of imports and exports than would result from a simple aggregation of the national data. Moreover, in the national accounts of the euro area countries, the bilateral transactions do not mirror each other. At present, on the basis of national data, for example, total intra-euro area exports exceed total intra-euro area imports. These so-called “asymmetries” have been eliminated in order to obtain a consistent set of euro area accounts, involving a small upward adjustment of household consumption and of private capital formation and a slight downward adjustment of nominal GDP. Currently, the overall adjustment amounts to less than 1% of euro area GDP. The adjustment is quite stable over time, with the result that it has no significant effect on the growth rate of the macroeconomic aggregates.

The next step is a parallel compilation of non-financial and financial accounts, including financial balance sheets. These accounts are integrated in three dimensions. First, for each transaction category (financial and non-financial) and each financial balance sheet category, total uses must equal total resources and total (changes in) financial assets must equal total (changes in) liabilities, when summed over all institutional sectors and the rest of the world (horizontal consistency). For instance, for the non-financial transaction category “compensation of employees”, the sum of the amounts payable (uses) by all sectors and the rest of the world must be equal to the sum of the amounts receivable (resources) by all sectors and the rest of the world (see Table 1). Second, for each sector and the rest of the world, the sum of all resources and changes in liabilities should be equal to the sum of all uses and changes in assets (vertical consistency). In the current EAA, this has been achieved by eliminating asymmetries and using other accounting restrictions for the government and financial corporations sectors and for the rest of the world. This implies that the latter account contains no “errors and omissions” category. There are still statistical discrepancies,

equal in amount but opposite in sign, for the households and non-financial corporations sectors, but these are relatively small compared with a simple aggregation of the non-integrated national financial and non-financial accounts data. Third, the change in financial balance sheets (i.e. in stocks) for each financial asset category is equal to the changes arising from financial transactions and from other changes (stock-flow consistency).

As a consequence of the various compilation steps described above, the EAA are not the simple sum of the national accounts of the euro area member countries.

For the euro area as a whole, as well as for the individual institutional sectors, macroeconomic aggregates are derived from a sequence of accounts. Each of these accounts 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. Table 1 shows some of the main economic and financial aggregates that describe the institutional sectors of the euro area and their interaction with the rest of the world. "Gross value added" is mostly generated by non-financial corporations (57% in the four quarters covered in the table), but households (25%), financial corporations (5%) and the government (14%) also contribute to this broad measure of economic activity. The value added by households originates from household enterprises, non-profit institutions serving households (NPISHs) and an income imputed to homeowners who occupy their own dwelling.² By far the largest share of gross domestic product (which comprises all domestic value added and product taxes) is allocated to households; this is accounted for by the compensation of employees (wages and salaries plus employers' social contributions) and the value added that households generate themselves. The disposable income of households is determined by the compensation of employees, mixed income (accruing to self-employed households) and gross operating surplus (from household enterprises and from owner-occupied dwellings), property income (mainly interest and dividends receivable minus interest payable) and transfers to and from the government sector (social security benefits minus social security contributions and taxes payable). The accounts

also show that households consumed about 86% of their gross disposable income and saved 14% in the four quarters ending with the first quarter of 2007.³

The integration of the non-financial accounts with the financial accounts allows a comprehensive analysis of the relationships between financial and non-financial ("real") transactions and positions. Euro area households' savings plus net capital transfers received largely exceed their non-financial investment (which is mainly in dwellings). This means that the household sector has a surplus of funds and is thus a net lender to other sectors. Consequently, the financial transactions account reflects that households' net acquisition of financial assets largely exceeds their net incurrence of liabilities. The opposite is true for non-financial corporations and general government, which are net borrowers, while financial corporations also have a surplus of funds. On balance, in the last four quarters covered the euro area had a small surplus on the current (and capital) account of the balance of payments, and therefore also on the non-financial transactions account of the rest of the world.⁴ In other words, the euro area was a modest net lender of funds, which is reflected in the financial transaction account of the rest of the

2 The household sector includes sole proprietorships and partnerships that do not have an independent legal status. This is in line with worldwide national accounting standards. In addition, NPISHs (charitable organisations, trade unions, etc.) are grouped together with households in the euro area accounts.

3 Disposable income is augmented by the adjustment for the net equity of households in pension fund reserves; this relatively small component is not available for consumption but, by definition, is a part of household saving.

4 Since the rest-of-the-world account is drawn up from the perspective of the rest of the world, a euro area surplus on the current (and capital) account of the balance of payments is reflected as net borrowing (-) for this sector in the EAA, as shown in Table 1.

world as an excess of the incurrence of liabilities over the net acquisition of financial assets.

With the EAA, it is now also possible to derive quarterly measures of profits and internal financing for both financial corporations and non-financial corporations. Entrepreneurial income is a core indicator for corporations and can be measured in net or gross terms.⁵ Gross entrepreneurial income is a concept that is comparable to current profits plus depreciation

allowances in business accounting (after the deduction of net interest payable and including the profits of foreign subsidiaries, but before the payment of dividends and income taxes). Entrepreneurial income less income taxes payable – after the distribution of income to owners (including all dividends and the retained earnings that accrue to foreign direct investors) –

⁵ Gross entrepreneurial income, gross saving, etc., include the consumption of fixed capital (“depreciation”).

Table I Euro area accounts: main items

(EUR billions; four-quarter cumulated flows: 2006 Q3-2007 Q2, and closing financial balance sheet: 2007 Q2)

Non-financial transactions	Households	Non-financial corporations	Financial corporations	General government	Rest of the world
Exports of goods and services					1,900
Imports of goods and services					1,819
Gross value added	1,907	4,396	368	1,052	
- Compensation of employees (payable)	427	2,598	209	875	16
- Taxes on production and imports less subsidies	28	74	15	15	
Gross operating surplus (and mixed income for households)	1,452	1,723	145	162	
+ Property income (receivable)					
less interest and rent (payable)	839	156	329	-172	158
<i>(For corporations: Gross entrepreneurial income)</i>		1,902	482		
- Distributed income of corporations		898	264		
+ Compensation of employees (receivable)	4,115				10
+ Net social benefits and contributions (receivable-payable)	-4	12	48	-64	9
+ Other current transfers (receivable-payable)	66	-48	-5	-100	87
- Taxes on income and wealth (payable)	810	198	51		9
+ Taxes receivable (minus subsidies payable)				2,143	-5
Gross disposable income	5,658	748	202	1,967	
+ Adjustment for change in net worth in pension funds ¹⁾	62	-15	-47	0	0
- Consumption expenditure	4,912			1,753	
Gross saving	809	734	155	215	
- Gross fixed capital formation	632	996	43	218	
+ Net capital transfers (receivable-payable)	26	85	-8	-88	-15
- Net acquisition of other non-financial assets ²⁾	5	22	1	-1	-1
Net lending (+) / net borrowing (-)	198	-199	102	-90	-11
Financial transactions					
Net lending / net borrowing from financial accounts	257	-258	102	-90	-11
Net acquisition of financial assets	647	774	4,036	107	1,958
Monetary gold and special drawing rights			-2		2
Currency and deposits	289	185	959	77	718
Debt securities	57	0	733	30	576
Loans	-2	189	1,301	-11	149
Shares and other equity	14	217	621	-4	457
Life insurance and pension fund reserves	253				8
Other financial assets ³⁾	35	182	425	15	48
Net incurrence of liabilities	389	1,031	3,934	197	1,970
Currency and deposits			1,604	-11	634
Debt securities		59	675	164	499
Loans	366	614	225	9	412
Shares and other equity		228	708	0	369
Insurance technical reserves	0	11	299	0	0
Other liabilities ⁴⁾	23	120	471	35	56
Changes in financial wealth not due to transactions	327	-538	-78	149	142

Table 1 Euro area accounts: main items (continued)

Financial balance sheet					
Financial assets	17,405	14,266	37,784	2,907	14,546
Monetary gold and special drawing rights			178		
Currency and deposits	5,463	1,666	4,690	621	3,949
Debt securities	1,407	301	8,035	240	3,028
Loans	22	1,798	13,392	357	1,464
Shares and other equity	5,182	7,815	9,102	1,141	5,363
Life insurance and pension fund reserves	4,723				83
Other financial assets ³⁾	609	2,686	2,388	549	659
Liabilities	5,631	22,977	38,253	6,751	13,119
Currency and deposits			13,569	325	2,471
Debt securities		743	4,552	4,962	2,754
Loans	5,200	6,594	1,528	1,071	2,639
Shares and other equity		12,925	10,827	6	4,845
Insurance technical reserves	33	332	5,168	1	0
Other liabilities ⁴⁾	398	2,360	2,609	387	409
Net financial wealth	11,774	-8,712	-469	-3,843	1,427

Sources: ECB and Eurostat (EAA).

1) Net adjustment for the change in net equity of households in pension fund reserves (receivable-payable).

2) Changes in inventories, acquisitions less disposals of valuables and of non-produced non-financial assets (e.g. land).

3) Other accounts receivable, and prepayments of insurance premiums and reserves for outstanding claims.

4) Other accounts payable and financial derivatives.

yields (national) corporate saving. This is a measure for internal financing. Net saving is comparable to retained earnings in business accounting.

The financial balance sheets show the financial position of the sectors, broken down into the same categories of financial assets and liabilities (such as deposits, loans and shares) as distinguished in the financial transactions accounts. The financial assets and liabilities are valued at market prices. The financial balance sheets change as a result not only of financial transactions but also of other changes in assets. These mainly reflect revaluations due to changes in the market prices of financial instruments, although debt cancellations, for instance, are also covered.

One major achievement of the quarterly EAA is that the complete financial accounts, which include financial transactions, holding gains/losses and other changes, as well as the balance sheets, are now available with a complete instrument breakdown also for the household sector (see Table 2). The net acquisition of financial assets of households mainly relates to currency and deposits (45% in the four quarters covered in Table 1), debt securities (9%), life insurances and pension funds reserves (39%),

quoted shares (0%), unquoted shares and other equity (5%) and mutual fund shares (-3%). The incurrence of liabilities predominantly consists of loans (e.g. for housing), which are mostly granted by MFIs.

3 EURO AREA ACCOUNTS AS A FRAMEWORK TO COMPLEMENT ECONOMIC, FINANCIAL AND MONETARY ANALYSIS

The provision of integrated quarterly accounts for the euro area as a whole is a significant achievement and a great help to economists and policy-makers, who need to make a comprehensive assessment of economic and monetary developments. A key feature of the EAA is that they encompass virtually all financial and non-financial flows and integrate that information within a single accounting framework. Although the EAA are made available somewhat later than the primary statistics on which they are based, the consistent accounting framework provides a useful basis for cross-checking the primary statistics and understanding developments in the economy as a whole. For example, for households, the accounts enhance the analysis of important elements of demand, such as consumption and residential investment, by allowing a comparison with the various sources

of income (both labour and non-labour-related, including dividends and interest receivable) and with the associated changes in net financial wealth (both financial transactions and holding gains/

losses on households' assets). All these factors may have an impact on household consumption, saving and investment decisions. Similarly for non-financial corporations, the accounts provide

Table 2 EAA main items for households

(EUR billions)

	1999	2000	2001	2002	2003	2004	2005	2006	2007 Q2
Non-financial transactions									
Four-quarter-cumulated sums									
Gross disposable income (HGDI)	4,260	4,461	4,694	4,852	4,997	5,183	5,349	5,547	5,658
+ Adj. for change in net worth in pension funds ¹⁾	46	48	49	51	54	57	59	62	62
Gross disposable income (HGDI) plus adjustment³⁾	4,306	4,509	4,743	4,903	5,051	5,240	5,408	5,608	5,720
- Consumption expenditure	3,693	3,901	4,068	4,177	4,316	4,482	4,649	4,837	4,912
Gross saving	613	607	675	727	735	758	759	772	809
+ Net capital transfers (receivables-payables)	31	29	21	8	13	19	24	30	26
- Gross fixed capital formation	445	465	468	476	496	523	558	606	632
- Net acquisition of other non-financial assets ²⁾	5	2	-1	0	2	4	1	4	5
Net lending (+) / net borrowing (-)	194	170	229	260	250	249	224	192	198
Financial transactions									
Four-quarter-cumulated sums									
Net acquisition of financial assets	539	466	502	519	557	590	631	620	647
Currency and deposits	132	51	169	229	222	248	240	279	289
Debt securities	-36	26	89	78	-16	75	3	77	57
Loans	-6	2	0	-2	4	-1	-2	-3	-2
Shares and other equity	189	114	32	-40	86	-14	116	-34	14
Quoted shares	10	-5	-72	-17	27	-48	3	-13	-1
Unquoted shares and other equity	22	30	21	-67	-19	37	57	8	32
Mutual fund shares	157	88	82	44	78	-3	56	-29	-18
Life insurance and pension fund reserves	227	244	216	203	231	251	300	276	253
Other financial assets ³⁾	33	30	-3	53	30	30	-27	24	35
Net incurrence of liabilities	339	261	246	205	286	329	372	387	389
Loans	294	228	177	223	264	314	392	392	366
Short-term	24	16	0	15	-1	11	16	14	11
Long-term	270	212	178	208	265	303	375	379	355
Pension fund reserves	1	2	2	2	2	2	2	0	0
Other liabilities ⁴⁾	43	32	67	-20	20	12	-22	-6	23
Changes in financial wealth not due to transactions									
Four-quarter-cumulated sums									
Net financial wealth	768	-78	-482	-618	247	285	600	457	477
Shares and other equity	695	-133	-443	-496	265	235	522	431	498
Life insurance and pension fund reserves	65	-6	-50	-70	29	57	129	49	44
Financial balance sheet									
End-of-period stocks									
Financial assets	12,639	13,012	13,013	12,950	13,744	14,632	15,867	16,940	17,405
Currency and deposits	3,914	3,970	4,152	4,380	4,579	4,827	5,078	5,343	5,463
Debt securities	1,198	1,255	1,296	1,359	1,329	1,389	1,354	1,422	1,407
Loans	25	26	26	24	29	28	26	23	22
Shares and other equity	4,315	4,296	3,885	3,349	3,700	3,921	4,559	4,956	5,182
Quoted shares	1,256	1,221	926	630	774	832	1,001	1,192	1,296
Unquoted shares and other equity	1,522	1,523	1,470	1,351	1,437	1,592	1,918	2,119	2,195
Mutual fund shares	1,537	1,553	1,489	1,368	1,488	1,497	1,640	1,645	1,692
Life insurance and pension fund reserves	2,744	2,982	3,148	3,281	3,541	3,849	4,279	4,604	4,723
Other financial assets ³⁾	246	280	290	329	330	343	274	285	295
Liabilities	3,346	3,593	3,819	4,060	4,336	4,678	5,055	5,437	5,631
Loans	3,016	3,236	3,420	3,667	3,929	4,257	4,633	5,017	5,200
Pension fund reserves	21	22	24	26	28	30	32	33	33
Other liabilities ⁴⁾	309	334	375	368	379	391	389	387	398
Net financial wealth	9,293	9,420	9,194	8,890	9,408	9,954	10,812	11,503	11,774

Sources: ECB and Eurostat (EAA).

1) Net adjustment for the change in net equity of households in pension fund reserves (receivable-payable).

2) Changes in inventories, acquisitions less disposals of valuables and of non-produced non-financial assets (e.g. land).

3) Other accounts receivable, and prepayments of insurance premiums and reserves for outstanding claims.

4) Other accounts payable and financial derivatives.

a framework for describing and understanding the links between developments in profitability, dividend payments and financial and non-financial investment, both within the euro area and abroad. Moreover, the accounts provide an overview of developments across sectors, enabling a greater understanding of the links between them – for example, concerning flows of dividend income between firms and households, and payments and receipts of taxes, social contributions and benefits between the government and other sectors. This comprehensiveness permits a better understanding of developments in the economy as a whole.

The following sections illustrate the usefulness of the EAA by re-examining some of the issues in euro area economic and monetary analysis with which policy-makers were recently confronted and by showing how the new data can shed further light on such issues. The first case study looks at the rapid increase in household saving at the beginning of the current decade and examines how the new data on income flows and wealth developments enhance the understanding of this phenomenon. The second item clarifies the sources of funds that were available to the non-financial corporations sector to finance investment in financial assets in recent years. The third case study uses the EAA to look again at the sharp increase in M3 growth between 2001 and 2003. In view of the still relatively short time series available, the discussions below inevitably rely heavily on a descriptive assessment. As the dataset expands over time, its value for econometric research and analysis will also increase. Nevertheless, the case studies already illustrate how the new data enhance the understanding of economic and monetary developments.

(I) DEVELOPMENTS IN HOUSEHOLD SAVING

Between the second quarter of 2000 and the second quarter of 2002, the household saving ratio in the euro area rose sharply from 13.5% to 14.8%, while year-on-year growth in nominal consumption declined from 6.3% to 2.3% (see Chart 1).⁶ The following paragraphs consider the possible reasons for the increase in

the saving ratio in the euro area over that period.

Economic theory provides a number of motivations for household consumption and saving decisions. A key principle is that households base their consumption on the income they expect to receive over their entire lifetime (i.e. permanent income), taking into account not only their current, but also their expected income. In this respect, household saving is a means of smoothing consumption in the face of variations in income both over long horizons (for example, by saving for retirement) and over shorter periods (in case of temporary or unexpected income fluctuations). However, income growth fluctuations may not be the only determinant of a change in saving ratios. For some households, saving levels are affected by developments in their financial and non-financial wealth, as changes in the prices of their net assets may represent an important additional source of current and future purchasing power. Furthermore, the degree of uncertainty surrounding future income – for example, in relation to employment prospects or pensions – may lead households to hold a higher or lower buffer stock against (unexpected) future income reductions (precautionary saving). Finally, changes in government finances may also be important in explaining saving behaviour. Changes to the tax regime, for example, may affect consumers' views of their permanent income. Alternatively, consumers may react to changes in government deficits by adjusting their savings to compensate for changes in tax rates they expect to be faced with in the future, when the government has to pay back its debts (so-called Ricardian equivalence).

Until the introduction of the EAA, the analysis of euro area household saving rested on the aggregation of individual country data, which were not fully harmonised. Another new

6 For a longer view of the household saving ratio in the euro area see the joint ECB and OECD report entitled "Comparison of household saving ratios" (http://www.ecb.eu/pub/pdf/other/comparisonhousehold_savingseusjpn.pdf).

feature is that the EAA permit a simultaneous analysis of both financial (e.g. wealth) and non-financial (e.g. income) factors that influence saving within a comprehensive and integrated framework.

Turning to developments during the period under review, the EAA show that the increase in the household gross saving ratio at the beginning of the decade was, at least initially, related to a fall in consumption growth, which both preceded and surpassed the fall in disposable income growth (see Chart 1). When faced with temporary income fluctuations, one might have expected saving to have fallen during the economic downturn, as households would then have smoothed their consumption. It is possible, therefore, that the change in saving indicated a more fundamental reassessment of households' expectations about future income growth. Economic growth slowed sharply between 2000 and 2002: annual growth in real GDP fell from 4.0% in 2000 to 0.9% in 2002, employment growth stagnated and the unemployment rate climbed steadily from a low of 7.8% in January 2001 to 8.5% by December 2002. All this happened in an environment of heightened geopolitical uncertainty. In this context, households may have

reassessed expected income flows and increased their saving as a result.

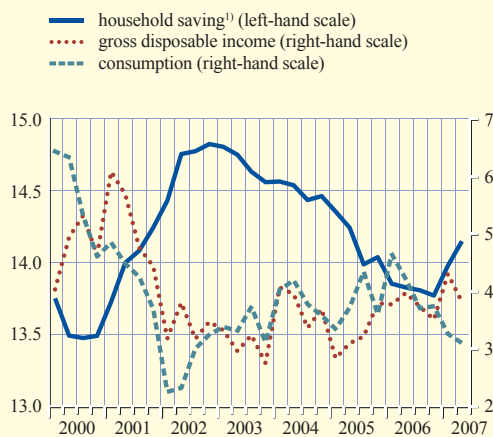
Another factor that may have encouraged households to increase gross savings concerns their substantial losses in financial wealth.⁷ The EAA now provide consistent information on valuation changes in households' financial asset and liability positions. Chart 2 shows that households' net financial worth fell sharply towards the end of 2000. In 2001 and 2002, the ratio of households' net financial worth (measured in relation to their disposable income) declined by 4.8% and 6.3% respectively. The bulk of this loss was due to falling equity prices. Estimates of the marginal propensity to consume out of total financial and non-financial wealth in the euro area have suggested that a permanent fall in wealth of €1 leads to a reduction in consumption of between 3 and 10 cent.⁸ Of course, the actual impact on consumption depends on whether households view these changes in wealth as being

7 The current euro area accounts only provide information on financial wealth. Another key component of household wealth is housing stock, whose price change may also have influenced household behaviour.

8 Altissimo et al. "Wealth and asset price effects on economic activity", ECB Occasional Paper No 29, June 2005.

Chart 1 Household income, consumption and gross saving

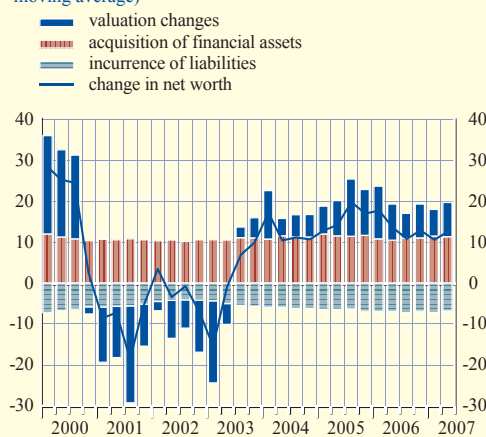
(annual percentage changes)



Sources: ECB and Eurostat (EAA).
1) Household gross saving as a percentage of gross disposable income; four-quarter moving average.

Chart 2 Changes in households' net financial worth

(change in percentage of gross disposable income; four-quarter moving average)



Sources: ECB and Eurostat (EAA).

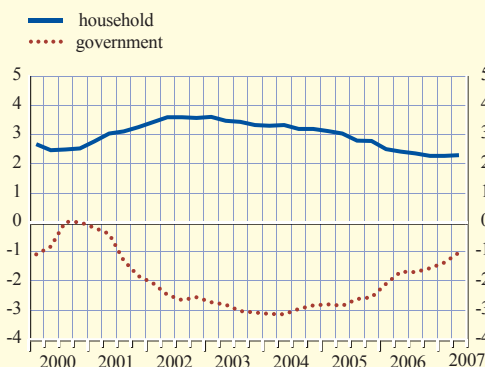
permanent. However, the scale of the losses during this period may have led to a reassessment of households' expectations about their permanent income: in turn, this may have forced a reduction in consumption growth to a more sustainable level. Moreover, the fall in equity prices possibly increased households' perception of risk. That uncertainty could have been heightened by the geopolitical tensions after September 2001, which then led to an increase in precautionary saving. Indeed, the EAA show that during 2001 households shifted their financial investment to less risky assets, such as currency, deposits and money market funds, away from shares and other equity.

Another possibility is that households were reacting partly to changes in government deficits. From a fairly balanced net lending/net borrowing position in 2000, average euro area government net borrowing increased to 2.6% of GDP in 2002. By providing a consistent and integrated accounting framework, the EAA are a useful basis for understanding the economic links between the household and government sectors. Over the small sample available, the integrated accounts show that there is a negative correlation between movements in government and household surpluses and deficits (see Chart 3). Although the growth rate of income taxes paid by households fell (the share of disposable income spent on tax payments fell from 15.1% in 2000 to 14.4% in 2002), it is possible that consumers adapted their saving behaviour, recognising that the rising government deficits could force them to pay higher taxes in the future. That may have been particularly the case during this period, given the widespread concerns about the future of social security systems in many countries.

Overall, there was a range of factors that influenced household saving at the beginning of the decade, including households' reaction to the slowdown in growth across the economy, heightened geopolitical uncertainty, declines in wealth, and heightened concerns about rising government deficits associated with debates about the sustainability of pension provisions.

Chart 3 Household and government net lending (+)/net borrowing (-)

(percentage of GDP; four-quarter moving average)



Sources: ECB and Eurostat (EAA).

The new EAA help to illustrate some of these issues affecting households at the time. In particular, they provide data of an improved quality and permit the analysis of both financial and non-financial influences within a comprehensive and integrated framework.

(II) DEVELOPMENTS IN FINANCIAL INVESTMENT AND THE FINANCING OF NON-FINANCIAL CORPORATIONS

The non-financial corporations sector has raised sizeable amounts of external financing over recent years, despite generating ample internal funds. Moreover, the growth in external fund-raising is stronger than can be explained by the sector's financing needs stemming from fixed capital investment. This additional financing is likely to have been raised to finance direct investment abroad and other financial investment. Indeed, while not providing a complete picture, previously available data sources suggested that additional external financing was used for financial investment, especially in shares. Data on mergers and acquisitions indicated a considerable need for external financing, in particular in 2000 and 2001.

The new EAA statistics provide a more complete coverage of the financial, as well as non-financial, behaviour of the non-financial corporations sector. In particular, financial

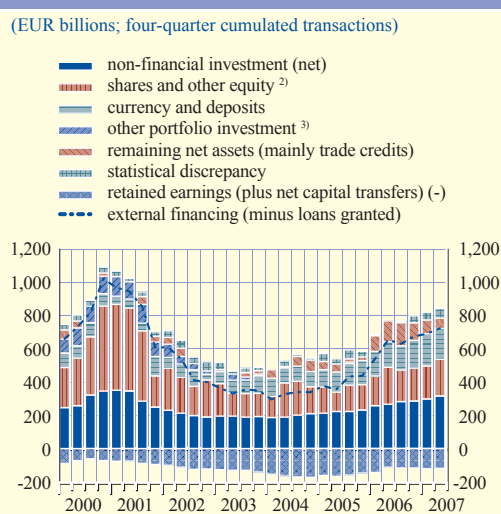
investment was previously only available for the non-financial private sector as a whole, whereas now a sector breakdown for financial investment is possible and additional instruments, such as unquoted shares, have been included. The financial investment and financing data are illustrated in Chart 4, whereby external financing plus internal financing, i.e. retained earnings plus net capital transfers receivable, equals the sum of financial and non-financial investment.⁹ The EAA show that, since the end of 1999, the financial investment of non-financial corporations has consistently exceeded their non-financial investment. Over this period, financial investment, and in particular the acquisition of shares and other equity, seems to have driven the demand for external financing of this sector, while non-financial investment has been relatively stable.

Financial investment reached a peak in 2000. In the period 2000-2001, it mainly consisted of the

acquisition of shares and other equity – mostly in the context of domestic and foreign mergers and acquisitions – and to a lesser extent of investments in other financial assets – such as deposits, debt securities and mutual fund shares. With the bursting of the “new economy” bubble, investment in shares and other equity, as well as other portfolio investment, declined markedly and remained relatively stable until recently. Since mid-2005, against the background of an improving economic climate, financial investment has been gradually rising again, partly driven by investment in shares and other equity. Chart 5 shows that, since the end of 1999, investment in shares and other equity (excluding mutual fund shares) has followed a

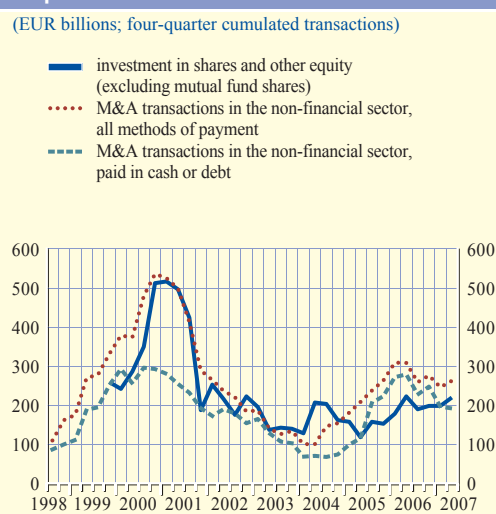
9 The following identity is presented in Chart 4:
 external financing = non-financial investment + financial investment – (retained earnings plus net capital transfers), where
 financial investment = shares and other equity + currency and deposits + other portfolio investment + remaining net assets (mainly trade credits).

Chart 4 Adjusted financial investment and financing of non-financial corporations¹⁾



Sources: ECB and Eurostat (EAA).
 1) Loans on the financial investment side (which consist mainly of inter-company loans) are excluded from both financial investment and financing.
 2) “Shares and other equity” excludes mutual fund shares.
 3) “Other portfolio investments” comprise debt securities and mutual fund shares.

Chart 5 M&A and financial investment in shares and other equity by non-financial corporations



Sources: Zephyr by Bureau van Dijk (since 2000), Thomson Financial Datastream (prior to 2000), and ECB and Eurostat (EAA).
 Note: Shares and other equity exclude mutual fund shares (which have no correspondence with M&A activity). M&A data include outright mergers (which involve exchanges of shares and could be neutral for financing flows, and whose amount was sizeable in 1999-2000), as these could not be distinguished from other transactions.

pattern similar to that in mergers and acquisitions.¹⁰

Interestingly, the increase in financial investment since mid-2005 is the result not only of a pick-up in investment in shares and other equity, but also of an increase in cash accumulation (currency and deposits) by the non-financial corporations sector. While initially this may have been driven by the low opportunity cost of holding money in the euro area, the recent sizeable flows in currency and deposits may also signal plans for further investment, either non-financial investment in euro area production capacity or financial investment in the form of heightened takeover activity. This is consistent with recent evidence from balance sheet data on listed non-financial corporations in the euro area.¹¹

The EAA confirm that non-financial corporations have raised funds mainly from external sources to finance financial investment. They also show that, despite growing profits, the retained earnings of the non-financial corporations sector have not increased concomitantly, as corporations have chosen to distribute a larger share of profits to their owners. The increase in profits has therefore not translated into equivalent growth in available funds for internal financing, but has been associated with a

continued recourse to external funding in order to finance not only non-financial investment but increasingly financial investment.

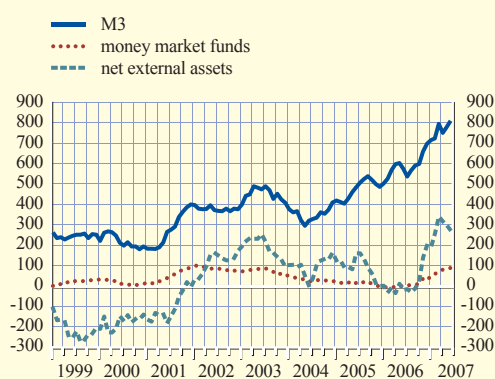
(III) PORTFOLIO SHIFTS INTO MONETARY ASSETS

In 2001 the ECB's monetary analysis was faced with the challenge of explaining the sharp increase in M3 growth in an environment that initially deteriorated as a result of the unwinding of the boom in the "new economy" and, until mid-2003, was characterised by heightened economic, financial and geopolitical uncertainty. The information from the statistics available at the time – mainly MFI balance sheets, security issuance and balance of payments statistics – showed that the overall increase in M3 growth during this period reflected portfolio shifts by the money-holding sector from non-monetary securities into safe and liquid monetary assets. In the MFI balance sheet statistics, these shifts coincided, inter alia, with a considerable increase in MFIs' net external asset positions, which reflected the sales of foreign assets by the euro area money-holding sector channelled via MFIs (see Chart 6).¹² A large part of the portfolio shifts went into money market fund shares/units, which investors typically use to park funds in periods of high uncertainty.¹³

In retrospect, the EAA that have now become available could have provided relevant additional information on the non-monetary securities holdings of the non-financial sectors and, even more importantly, on the sectoral

Chart 6 M3, money market fund shares and MFIs' net external asset position

(EUR billions; 12-month cumulated transactions)



Source: ECB.

10 Differences between the two datasets are due to a) the partial (although good) coverage of the Zephyr database, b) the inclusion of transactions in the form of outright mergers in that database, which may not lead to the acquisition of shares for the sector as a whole, as shown in the EAA, and c) the inclusion of forms of portfolio investment in the EAA statistics, which do not correspond to merger and acquisition transactions.

11 See the box entitled "Why have listed non-financial corporations in the euro area increased their cash holdings over the last three years?" in the September 2006 issue of the Monthly Bulletin.

12 See, for instance, the box entitled "What were the counterparts to the extraordinary portfolio shifts into monetary assets between 2001 and 2003?" in the article "Monetary analysis in real time" in the October 2004 issue of the Monthly Bulletin.

13 For a discussion of this issue, see the article entitled "Money demand and uncertainty" in the October 2005 issue of the Monthly Bulletin.

dimension of the portfolio shifts. Owing to data limitations, these shifts were analysed at the time for the money-holding sector as a whole, although they were always perceived to be driven mainly by changing financial investments of the household sector.¹⁴ A sectoral perspective can clarify the signal of risks to price stability that is extracted from monetary developments. For instance, developments in households' money holdings may have a closer relationship with consumer price inflation than the holdings of non-monetary financial intermediaries like investment funds and special purpose entities, or insurance corporations and pension funds.

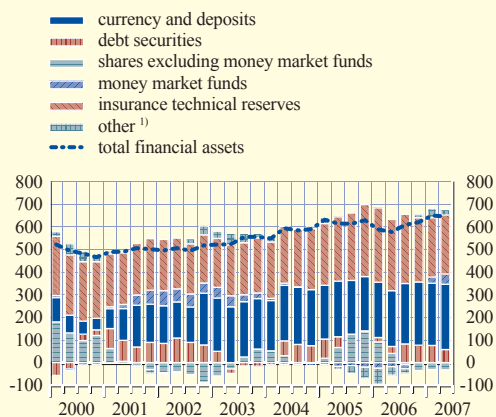
The EAA show that, prior to the period of portfolio shifts, households accounted for almost half of the money-holding sector's holdings of money market fund shares/units and that, with the onset of the portfolio shifts, they also increased their holdings of these instruments more quickly than the other money-holding sectors. Households thus accounted for most of the sharp rise in the growth of money market fund shares/units in 2001, contributing substantially to the overall strengthening of monetary dynamics.

The EAA bring together the different investments of the household sector in a consistent framework, and thus allow a direct analysis of the parts of the sector's portfolio that may have been shifted into other types of instrument. For instance, the data show that the sector's overall financial investment remained broadly stable during the period 2001-2003, but they also show that this conceals a clear reduction of investment in shares and other equity and, to a lesser extent, in insurance and pension products. This reduction was counterbalanced by a substantial increase in the sector's acquisition of currency, deposits and money market funds – the latter have been excluded from shares and other equity to capture better the dynamics of monetary assets (see Chart 7).

Against this background, the EAA data show the dominant role of households in the portfolio

Chart 7 Financial investment of the euro area household sector

(EUR billions; four-quarter cumulated transactions)



Sources: ECB and Eurostat (EAA).

1) Includes loans, other accounts receivable and financial derivatives.

shifts that occurred between 2001 and 2003. This information may therefore have facilitated communication on investor behaviour and portfolio shifts, compared with the explanations for the money-holding sector as a whole, that were provided at the time. However, when considering this enhanced role of the quarterly EAA in monetary analysis, it is also important to note that the first assessment of monetary developments based on monthly MFI balance sheet statistics is currently conducted about three months before the EAA statistics become available. Moreover, since the EAA are revised as new information becomes available, the additional sectoral elements of the portfolio analysis drawing on EAA data may be subject to larger revisions than the elements drawing on MFI balance sheet data.

4 CONCLUSION

The EAA provide both additional details for the analysis of macroeconomic developments by institutional sector and a comprehensive

¹⁴ Sectoral breakdowns of short-term deposits and repurchase agreements, now regularly published as part of the MFI balance sheet statistics, became available in 2004.

ARTICLES

The introduction of quarterly sectoral accounts statistics for the euro area

framework to complement and combine information provided by other, timelier statistics. This article has provided some examples of the potential use of the integrated quarterly EAA at the ECB. These examples have shown how the accounts shed greater light on a number of economic, financial and monetary developments that statistics in the past have only partially revealed. In particular, the detailed income data for households, as well as the complete coverage of the financial investments and financing of both households and non-financial corporations have already enhanced analysis at the ECB. The analysis of portfolio shifts between monetary assets and other financial instruments can now be based on a complete coverage of financial investments by institutional sector. The analysis of household saving and the financing of non-financial corporations also draws on new details of non-financial transactions, as well as on the now complete coverage of the financial accounts, clearly demonstrating the usefulness of integrated financial and non-financial accounts by institutional sector.