# ECONOMIC AND MONETARY DEVELOPMENTS

Monetary and financial developments

#### Box I

#### NEW ESTIMATES ON HOLDINGS BY SECTOR FOR EURO AREA M3

A central challenge for monetary analysis is the extraction from directly observed monetary indicators, such as the broad monetary aggregate M3, of an estimate of the underlying rate of monetary expansion, which provides policy-relevant signals for risks to price stability. In practice, extracting this information requires careful analysis of developments in the components, counterparts and sectoral holdings of M3. The money-holding sector consists of several subsectors, namely: households (including non-profit organisations); non-financial corporations; financial institutions other than monetary financial institutions, which comprises insurance corporations and pension funds, as well as other non-monetary financial intermediaries; and state and local government, as well as social security funds.

This box presents new estimates recently made available by the ECB for the sectoral M3 holdings of the private sectors. These new estimates are available on a quarterly basis for the period since the first quarter of 1999 and on a monthly basis for the period since January 2003. Their construction is based both on a more extensive set of national data than was previously available and on a more comprehensive compilation methodology. These estimates replace the previous vintage presented in the article entitled "Sectoral money holding: determinants and recent developments" in the August 2006 issue of the Monthly Bulletin.

#### Construction of the estimates of sectoral holdings of M3

The construction of the sectoral M3 series is based mainly on the sectoral holdings of short-term deposits (including repurchase agreements) available in the MFI balance sheet statistics, which accounted for around 80% of total M3 in the second quarter of 2007. For these instruments, the money-issuing sector, in accordance with Regulation ECB/2001/13 on MFI balance sheet statistics, has reported a detailed sectoral breakdown on a monthly basis for the period since January 2003. For the period 1999-2002, quarterly series on sectoral deposit holdings are estimated and have already been made available to the public.<sup>2</sup>

Getting from sectoral holdings of short-term deposits to sectoral M3 holdings requires the allocation to the individual money-holding sectors of currency in circulation, money market fund shares/units and debt securities issued by MFIs with an original maturity of up to two years. For these instruments, statistical information cannot be collected directly from reporting agents, as MFIs are typically unable to provide information on the owners of the traded securities they issue. Similarly, holders of currency in circulation are not easily identifiable. The allocation of these M3 instruments to the various money-holding sectors is therefore based on estimates.<sup>3</sup> Information generated at the national central banks in the context of compiling sectoral financial accounts has also been used where appropriate.

<sup>1</sup> The new estimates can be downloaded from the ECB website at http://sdw.ecb.europa.eu. They can also be found at http://www.ecb.europa.eu/stats/money/aggregates/sectorialm, where additional information on the estimation methodology is also provided.

<sup>2</sup> These estimates, available on a quarterly basis starting from the first quarter of 1991, can be downloaded from the ECB website at http://sdw.ecb.europa.eu. For further details, see Box 1, entitled "New euro area historical series on holdings of M3 deposits by sector", in the August 2006 issue of the Monthly Bulletin.

<sup>3</sup> These estimates include statistical information reported to the ECB in accordance with Guideline ECB/2007/9, which covers statistical requirements in the area of money and banking statistics (including data on other financial intermediaries), and Guideline ECB/2005/13 on financial account statistics in Monetary Union.

Estimates for sectoral M3 holdings will, from now on, be published for households, non-financial corporations and non-monetary financial intermediaries (with data broken down further into insurance corporations and pension funds on the one hand, and other financial intermediaries on the other) in terms of both outstanding amounts (stocks) and transactions (flows).

### Stylised facts on developments in sectoral holdings of M3

Analysis of the sectoral series can provide a useful additional perspective with regard to the assessment of aggregate monetary trends. Chart A shows the annual growth rates of the new estimated M3 holdings of households, non-financial corporations and non-monetary financial intermediaries. The dynamics of the respective sectors differ significantly in the period 1999-2007. The new estimates demonstrate that households are the largest money-holding sector, accounting for approximately two-thirds of the stock of M3 in the second quarter of 2007.

Chart B shows the annual growth rate of the revised estimate of M3 holdings of households and compares it with the series published in the August 2006 Monthly Bulletin. This suggests that the series have a very similar profile over time. The growth rate of household M3 balances increased sharply in 2001 and remained at very high levels until mid-2003, driven by portfolio shifts into M3 resulting from an environment of heightened financial, economic and geopolitical uncertainty as households shifted wealth from equity into money. The annual growth rate of household M3 balances edged upwards from early 2004, before strengthening significantly between the second half of 2005 and mid-2007.

The table below compares the annual growth rates for the three main money-holding sectors in terms of the average level of growth and the variability of their dynamics for the period from 1999 to the second quarter of 2007. Several stylised facts can be noted for this sample period. First, non-monetary financial intermediaries' M3 holdings display the highest average growth

4 See the article entitled "Money demand and uncertainty" in the October 2005 issue of the Monthly Bulletin.

#### Chart B Household holdings of M3 Chart A Estimates of sectoral M3 holdings (annual percentage changes; not adjusted for seasonal or calendar effects) (annual percentage changes; not adjusted for seasonal or calendar effects) non-monetary financial intermediaries new estimates households previous estimates non-financial corporations 10 25 25 10 20 20 8 15 6 10 10 4 4 5 2 2 2001 2002 2003 2004 2005 2006 2007 2000 2001 2002 2003 2004 2005 2006 2007 Source: ECB estimates Source: ECB estimates "Previous estimates" refers to the series shown in the

August 2006 issue of the Monthly Bulletin.

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### Growth of sectoral M3 holdings between 1999 and the second quarter of 2007

(annual percentage changes)

	Non-monetary financial intermediaries	Non- financial corporations	Households
Average	11.6	9.1	5.7
Minimum	2.5	1.0	0.9
Maximum	23.5	14.6	8.1
Standard			
deviation	6.1	3.0	2.0

Source: ECB calculations.

rate, followed by the holdings of non-financial corporations, while the M3 holdings of households grew more moderately. Second, looking at different measures of the variability of sectoral money growth (such as the range between the minimum and maximum, or the standard deviation), non-monetary financial intermediaries experienced the greatest variability in terms of monetary dynamics, while non-financial corporations and households exhibit a far more stable growth pattern, in line with the view that the money

demand behaviour of these two sectors is less affected by short-run developments.<sup>5</sup> These stylised facts are in line with the findings based on the 2006 vintage.

Overall, the new estimates confirm that there are significant differences in the dynamics of the M3 holdings of households, non-financial corporations and non-monetary financial intermediaries. The examination of sectoral developments can provide a useful additional perspective with regard to the analysis and assessment of aggregate monetary trends. At the same time, it needs to be borne in mind that sectoral M3 data are estimates and may, therefore, be less accurate than the sectoral short-term deposits actually reported.

<sup>5</sup> The coefficient of variation (defined as the standard deviation of the growth rate divided by the average growth rate) also confirms that the variability of non-monetary financial intermediaries' M3 holdings is greater than that of the holdings of non-financial corporations and households.