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**Meeting of the Inter-Agency Task Force on Finance Statistics**  
IMF Headquarters, Washington, D.C., United States  
April 3-4, 2008

**ECB Occasional Paper**

**Prepared by the European Central Bank**

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EUROPEAN CENTRAL BANK

EUROSYSTEM

# ECB STATISTICS: AN OVERVIEW OF DEVELOPMENTS

## Euro area accounts by institutional sector

### Introduction

In June 2007, regular publication began of full quarterly euro area accounts (EAA), providing a comprehensive picture of the transactions and financial positions of institutional sectors in the euro area since 1999. They allow a comprehensive analysis of the links between financial and non-financial developments in the economy and of the interrelations among the different sectors of the economy (households, non-financial corporations, financial corporations and general government)<sup>1</sup> and between these sectors and the rest of the world. The EAA cover all economic and financial activity: starting with production and the generation and distribution of income, they show how income is consumed or saved; they then progress through transactions in capital assets to net lending or borrowing and the corresponding acquisition of financial assets or incurring of liabilities, with instrument and in some cases counterpart sector detail. The results, especially for the non-financial corporation and household sectors, are invaluable for economic analysis and forecasting. Apart from their intrinsic interest, the exercise of bringing together within a coherent structure the information, both economic and financial, compiled within the ESA 95 framework promotes accuracy and consistency and hence adds to the usefulness of the results.

As well as contributing to monetary and economic analysis, financial accounts may be used to analyse financial stability issues, for which information on the transactions and balance sheet positions of economic sectors is relevant. They also provide a framework within which higher frequency data, notably monetary, b.o.p., securities issues and government finance statistics, may be assessed and checked for consistency.

The financial and the non-financial sector accounts are integrated in three dimensions. First, for each transaction category (financial and non-financial) and each financial balance sheet category, transactions and positions must balance out when summed over all institutional sectors and the rest of the world (i.e. there must be horizontal consistency – in the terminology of the ESA 95, total uses must equal total resources and total (changes in) financial assets must equal total (changes in) liabilities). 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 equal the sum of the amounts receivable (resources) by all sectors (in practice, in this example,

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<sup>1</sup> The ESA 95 lists five main economic sectors (non-financial corporations, S.11; financial corporations, S.12; general government, S.13; households, S.14; and non-profit institutions serving households, S.15). S.12 and S.13 are further divided into sub-sectors, while S.14 and S.15 are sometimes merged (as they are for the purposes of euro area accounts).

only households) and the rest of the world. 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). Thus far, this has been achieved in the EAA by eliminating asymmetries and using other accounting restrictions for the government and financial corporation sectors and for the rest of the world (in turn requiring “errors and omissions” in the euro area b.o.p. to be eliminated). There are still statistical discrepancies, equal in amount but opposite in sign, for the household and non-financial corporation sectors, but these are small in relation to the total transactions and positions of these sectors. Third, the change in the financial balance sheet for each financial asset category is equal to the changes arising from financial transactions and from valuation and certain other (non-transactional) changes (stock-flow consistency). Consequently the EAA are not the simple sum of the national economic and financial accounts of the individual euro area countries.

### **Non-financial sector accounts**

The requirement for Member States to provide quarterly data on institutional sectors’ non-financial accounts is supported by Community legislation (Regulation (EC) No 1161/2005, adopted in July 2005). The first data were provided under the Regulation in January 2006, with data for quarters back to the beginning of 1999. After a transitional period in which some information need not be reported in order to limit the burden on Member States, the Regulation requires the provision of a full set of accounts, from value added to the capital account, together with the related balancing items or summary statistics (gross and net value added, operating surplus, disposable income, saving, net lending/net borrowing, etc.).

The ECB has a particular interest in the data for non-financial corporations and households, since these are the sectors whose spending and saving decisions are most likely to be influenced by monetary policy decisions. However for Member States with GDP of less than 1% of the EU, the Regulation provides a derogation for the sectors households, non-financial and corporations and financial corporations (12 Member States, including 11 of those that have joined the EU since 2004 benefit from this derogation). From October 2008 onwards, the data are to be provided within 90 days of the end of the quarter to which they relate. The Regulation does not initially require counterpart sector information (that is, information on the sectors with which the transactions are conducted); this is envisaged as a later development.

In presenting the results for the euro area, the ECB highlights, for households, sources of primary income, taxes, social contributions and benefits; final consumption expenditure and saving and investment in non-financial assets (predominantly housing). For non-financial corporations, the emphasis is on gross value added; gross entrepreneurial income which 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); saving (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) and investment in non-financial assets as recorded in the capital account. The balancing item, or bottom line of the non-financial accounts is net lending/net borrowing.

### **Financial accounts**

The financial account is the last in the sequence of accounts recording transactions of the institutional sectors. The sum of the transactions recorded in the financial account should equal the balancing item carried forward from the capital account, net lending or net borrowing which is the outcome of all non-financial transactions of the respective sector. The ESA 95 requires EU

Member States to prepare financial accounts in the form of detailed statements of financial transactions and financial balance sheets (outstanding assets and liabilities at market value), together with a reconciliation of the two in a revaluation account and in what is called the “other changes in the volume of assets” account.

Although Member States are obliged by the ESA 95 to compile financial accounts only at annual frequency, the ECB has compiled and published partial quarterly financial accounts for the euro area for some years, latterly under Guideline ECB/2002/7 which requires NCBs to submit supplementary national financial accounts data. An amending Guideline (ECB/2005/13) improves timeliness to 110 days from the end of the quarter, permitting publication of euro area aggregates within about 120 days of the end of the quarter. The intention is to shorten the timetable further, to 80 days to provide users with at least key items (with some from the non-financial accounts) about 90 days after the reference quarter. The Guideline requires the compilation of complete quarterly national financial accounts (with full coverage of the financial asset and liability categories and of the institutional sectors and the rest of the world), including both financial balance sheets and transactions data. Certain information on counterpart sectors hitherto absent from most national financial accounts is now becoming available. Among other enhancements, the amending Guideline takes account of recent Community legislation concerning the financial accounts of government and specifies requirements in the event of the enlargement of the euro area.

The euro area monetary, OFI and securities issues statistics are important building blocks in the financial accounts framework as they are embedded in a broad context, embracing all financial transactions and all elements in the financial balance sheet. The ECB’s presentation enables the financial transactions and balance sheets of (notably) households and non-financial corporations to be visible, and the structure of their finances to be analysed: in broad terms, it shows the maturity structure of their financial assets and liabilities, the size of their outstanding financial assets and liabilities, in absolute terms and in relation to each other and – using the non-financial accounts – how their property income receipts and outgoings relate to these financial assets and liabilities and also to disposable income. Such information is relevant to the transmission of monetary policy action. More counterpart sector information will in due course permit fuller analysis of financial relationships within the euro area economy. In addition to households and non-financial corporations, the ECB also continues to give prominence to the financial accounts of insurance corporations and pension funds in the euro area, in view of the size of their transactions and balance sheets. The ECB has started to collect more detailed and timelier information on insurance corporations and pension funds in March 2008.

Combining the data from the ECB’s MFI balance sheet and other euro area statistics with the national financial accounts and the data on non-financial transactions of institutional sectors, enables the ECB to compile quarterly integrated economic and financial institutional sector accounts for the euro area, including financial balance sheets and a reconciliation between cumulative transactions and balance sheet changes. The results are currently published about four months after the reference quarter.

A related development is the publication from November 2007, of a sector breakdown of changes in M3, which facilitates the analysis of portfolio shifts between monetary assets and other financial instruments based on a complete coverage of financial investments by institutional sector.

## Government finance statistics

Government finance statistics are statistics covering the transactions and positions of the general government sector (S.13 in the ESA 95), comprising the central government, state government, local government and social security funds sub-sectors. The ECB is interested in government finance statistics in two forms. For the purposes of convergence reports on the readiness of EU Member States to adopt the euro, and in the context of the excessive deficit procedure and the Stability and Growth Pact, the emphasis is on annual data on the general government deficit/surplus and consolidated general government debt in individual Member States. Under Guideline ECB/2005/5, which formalises a long-standing need for data of this kind from Member States, central banks provide the ECB with annual government accounts, including revenue, expenditure, deficit/surplus, the borrowing requirement, privatisation receipts and outstanding debt. These data permit the ECB to incorporate transactions between the EU institutions and the Member States as if the former, in respect of transactions with the Member State concerned, constituted an additional sub-sector of general government, the purpose being to provide a fuller picture of government transactions in the economy than data relating to national general government sectors alone.

The ECB also receives annual data on the deficit-debt adjustment – a detailed reconciliation between the change in government debt between year ends and the government deficit or surplus in the intervening year. Guideline ECB/2005/5, as amended, requires that all these data be reported in a form consistent with data provided by Member States to the European Commission under the ESA 95 and the excessive deficit procedure. Government accounts provided under the excessive deficit procedure depart from the ESA 95 in limited but important respects, notably in the coverage and valuation of government debt. The ECB's "Government finance statistics guide" published in January 2007 explains how NCBs compile the annual data on government finance statistics sent to the ECB.

Since government activity is an important factor in economic developments and financial markets, the ECB also needs quarterly data on non-financial and financial transactions of government and on outstanding government debt. Various Community regulations adopted in 2000 or since require that quarterly information be reported on general government revenue and expenditure, financial transactions and balance sheets in the Member States. As a result, comprehensive quarterly statistics are now available on the general government sector in the EU. Regulation No 501/2004 requires Member States to provide quarterly financial data, within three months of the end of the quarter, for general government and its sub-sectors, together with an instrument breakdown and, in the case of central government and social security funds, with counterparty information. The Regulation has improved the quality of the government sector part of the euro area financial accounts and also benefits statistics on the other non-financial sectors in the euro area through the use of the counterparty information. These data contribute to the quarterly euro area institutional sector accounts which first became available in June 2007 (see above).

Analysts are increasingly turning to monthly data to improve their forecasts. The ECB has started to explore the possibility of computing some fiscal indicators at monthly frequency using existing monthly statistical sources that as much as possible share common methodological principles. A project has been initiated which is investigating available monthly data on government debt securities. Securities form the overwhelming part of euro area government debt. Comparisons have been made between the monthly securities issues statistics data with the available quarterly data on securities other than shares that are part of general government debt collected at the ECB. Working with the euro area countries, the ECB aims to identify and eliminate non-methodological differences between the two data sets and then adjust the

methodological framework of the securities issues statistics data (since the methodological framework of the quarterly government finance statistics data is defined by EU law and cannot be changed). This work would, in the future, enable the ECB able to explore the possibility of computing euro area government debt at monthly frequency using existing monthly data on government liabilities.

## **Balance of payments and international investment position statistics**

### **Introduction**

In order to support the conduct of monetary policy and foreign exchange operations, the ECB collects monthly, quarterly and annual data to compile the b.o.p. and i.i.p. of the euro area as a whole. The ECB does not use data on cross-border transactions within the euro area, with the important exception of portfolio investment and portfolio investment income. The quarterly b.o.p. and the end-of-year i.i.p. include a geographical breakdown of counterparties abroad. The euro area b.o.p. and i.i.p. in principle correspond to transactions and positions of euro area residents with non-residents of the euro area (i.e. “the rest of the world” sector) in euro area accounts.

The ECB also compiles detailed statistics on the international reserves and foreign currency liquidity of the Eurosystem in accordance with a joint IMF and BIS template and calculates daily nominal EERs and monthly and quarterly real EERs for the euro as well as, harmonised competitiveness indicators for individual euro area countries and real EERs for EU member states outside the euro area, using a consistent methodology.

### **Recent developments**

Since 2006 the ECB has compiled the i.i.p. for the euro area as a whole at quarter ends and publishes it with the detailed quarterly b.o.p. four months after the date to which it relates. The i.i.p. is published in fuller detail (including changes in outstanding amounts stemming from factors other than transactions, broken down by price changes, exchange rate changes and other adjustments) at year ends. These statements of the external assets and liabilities of the euro area reveal the structure of the euro area’s external financial position and complement the b.o.p. data for monetary policy and foreign exchange market analysis. Periodic stock data also provide a check on the plausibility of b.o.p. flows. The quarterly i.i.p. data were developed, in part, for incorporation into euro area institutional sector accounts.

In 2007, new breakdowns were introduced in the field of b.o.p. and i.i.p. In November 2007 new details for the annual foreign direct investment (FDI) were published for the first time, reflecting direct investment equity capital both for listed and unlisted companies (the former based on market prices and the latter on own funds at book value), and for cross-border real estate holdings, which have been calculated as a residual. In addition, the FDI stocks of listed companies at book value are included as a memo item. Moreover, a breakdown of the valuation adjustments in the annual i.i.p. into price changes, exchange rate changes and other adjustments was also published for the first time.

In November 2007, data vis-à-vis Brazil, Russia, India and China, as well as Hong Kong were published for the first time, as part of the geographical breakdown. This new breakdown starts in the first quarter of 2006 for the quarterly b.o.p. and at end-2005 for the annual i.i.p.

In 2007, various national compilers implemented methodological enhancements, which also triggered revisions to the euro area statistics. The new data improved the methodological soundness and consistency of country contributions to the euro area aggregates, but affected the stability of the data on investment income credits, in particular.

### **Timetable and availability**

The quarterly data on the i.i.p. are available to the ECB within three months of the quarter to which they relate (i.e. the same timetable as for the quarterly b.o.p.). The annual i.i.p. data, together with the geographical breakdown, are available nine months after the year end to which they relate. A year-end i.i.p. for the euro area is available from 1997, though the data for 1997 and 1998 are on a net basis only (i.e. they show net positions in each category, not outstanding assets and liabilities separately) because at first it was not possible for Member States to distinguish, within external assets and liabilities, between cross-border positions within the euro area and positions vis-à-vis the rest of the world. The year-end geographical breakdown is available from 2002.

## **Annex 1 - The exchange of statistical information and the Statistical Data Warehouse**

The exchange of statistical information within the ESCB and with European and international institutions requires a fast, robust and secure data exchange system. The ESCB has such facilities to transfer data files in both directions between the ECB and NCBs using a dedicated telecommunications network and a message format known as SDMX-EDI (GESMES/TS). This format is widely used in the international statistical community for exchanging data and metadata, including statistical structures, definitions and code lists. It also allows statistical databases to be easily integrated into networks and data file reception and delivery systems. New datasets can be incorporated once their structure is defined.

The same format is used by the ECB in exchanges of statistical information with Eurostat and with international organisations (mainly the BIS and the IMF). Modern technologies based on the SDMX standards are also used in the web dissemination of ECB statistical information, making it possible for users to extract statistical data in SDMX-ML format or automatically “pull” them using their own applications. The ECB works closely with the BIS, Eurostat, the IMF, the OECD, the United Nations and the World Bank in the context of the SDMX initiative, further promoting standardisation and automation in statistical data and metadata sharing.

ECB statistical data are accessible on the Internet via the ECB Statistical Data Warehouse (SDW, [sdw.ecb.europa.eu](http://sdw.ecb.europa.eu)). The SDW allows reports and graphs to be generated easily and simple transformations to be made. Users with particular needs can create and manage their own data “baskets” (data groups) for easy reference and retrieval. Euro area aggregates as well as some country breakdowns are available. Users can also consult on-line (with the latest available data) tables in the ECB publications format extract data and export them in various formats (i.e. CSV, Excel and SDMX-ML) for further processing and analysis.



## **Annex 2 - ECB legal instruments concerning statistics**

Article 5 of the Statute and Council Regulation (EC) No 2533/98 provide the legal framework for the ECB's statistical activities. Further legal instruments, as provided for in Articles 34 and 14.3 of the Statute, impose specific data requirements on a reporting population drawn from the reference reporting population identified under Article 2 of Regulation No 2533/98 or instruct NCBs (or other statistical agencies) as to the data that should be transmitted to the ECB, the form they should take, the transmission times and the means by which they should be transmitted. ECB regulations address reporting agents and are directly applicable in euro area countries. ECB guidelines are binding on members of the Eurosystem, including the ECB itself. ECB recommendations have no binding force but may be used to inform statistical agencies in euro area countries, which provide data although they are not central banks, of the ECB's statistical requirements. The purpose of notices is to provide information. The following ECB legal instruments are currently in force. Some minor amending instruments have been omitted. The ECB's website contains a full list, under Legal framework/Statistics and they can also be found in the Official Journal of the European Union (OJ).

### **Balance of payments and related external statistics**

11. Guideline of the European Central Bank of 16 July 2004 on the statistical reporting requirements of the European Central Bank in the field of balance of payments and international investment position statistics, and the international reserves template (ECB/2004/15), (OJ L354, 30.11.04) (the associated recommendation is ECB/2004/16), (OJ C292, 30.11.04).

12. Guideline of the European Central Bank of 31 May 2007 amending Guideline ECB/2004/15 (ECB/2007/3), (OJ L159, 20.6.07) (the associated recommendation is ECB/2007/4), (OJ C136, 20.6.07).

### **Financial accounts**

13. Guideline of the European Central Bank of 21 November 2002 on the statistical reporting requirements of the European Central Bank in the field of quarterly financial accounts (ECB/2002/7), (OJ L334, 11.12.02).

14. Guideline of the European Central Bank of 17 November 2005 amending Guideline ECB/2002/7 (ECB/2005/13), (OJ L030, 02.02.06).

15. Guideline of the European Central Bank of 20 April 2006 amending Guideline ECB/2002/7 (ECB/2006/6) (OJ L 115, 28.4.2006).

16. Guideline of the European Central Bank of 15 November 2007 amending Guideline ECB/2002/7 (ECB/2007/13) OJ L 311, 29.11.2007

### **Government finance statistics**

17. Guideline of the European Central Bank of 17 February 2005 on the statistical reporting requirements of the European Central Bank and the procedures for exchanging statistical

information within the European System of Central Banks in the field of government finance statistics (ECB/2005/5), (OJ L109, 29.04.05).

18. Guideline of the European Central Bank of 3 February 2006 amending Guideline ECB/2005/5 (ECB/2006/2), (OJ L040, 11.02.06).

19. Guideline of the European Central Bank of 18 December 2006 amending Guideline ECB/2005/5 (ECB/2006/27), (OJ C 17, 25.1.2007).

20. Guideline of the European Central Bank of 15 November 2007 amending Guideline ECB/2005/5 (ECB/2007/14), (OJ L 311, 29.11.2007).

### **Statistical confidentiality**

21. Guideline (22 December 1998) concerning the common rules and minimum standards to protect the confidentiality of the individual statistical information collected by the European Central Bank assisted by the national central banks (ECB/1998/NP28) (OJ L 55/72, 24.2.2001).

### **Annex 3 - Frequency and timeliness of the publication of euro area statistics**

The ECB publishes a wide range of statistics in monthly and quarterly press releases, the monthly Statistics Pocket Book and in the “euro area statistics” section of its Monthly Bulletin, which is normally published on the second Thursday of each month. More details on the statistics shown below can also be found in the statistics section of the ECB’s website ([www.ecb.europa.eu](http://www.ecb.europa.eu)).

Euro area b.o.p. (released monthly, between the 21st and the 29th calendar days of the second month following the end of the month to which the data relate).

Euro area b.o.p., including a geographical breakdown; and euro area i.i.p. (released quarterly, about four months after the quarter to which the data relate).

Euro area i.i.p., including a geographical breakdown (released annually, about ten and a half months after the year-end to which the data relate).

Euro area integrated economic and financial accounts by institutional sector, including financial transactions and balance sheets of insurance corporations and pension funds (released quarterly, about four months after the quarter to which the data relate).

Euro area investment fund statistics (released quarterly, about three and a half months after the quarter to which the data relate).

Euro area quarterly government finance statistics (released quarterly, about four months after the quarter to which the data relate).

Euro area annual government finance statistics (released annually, about four months following the end of the year to which the data relate).