

# Enhancements to MFI balance sheet and interest rate statistics

*The purpose of this article is to describe forthcoming improvements to the money and banking statistics collected by NCBs and compiled and published by the ECB. These improvements include major enhancements to the monthly statistics on the MFI balance sheets. Since December 1998, the ECB has published statistics on the monetary aggregates and counterparts based largely on MFI balance sheet statistics which were defined by the EMI and were considered the minimum required for monetary policy purposes. The enhancements focus on the provision of significantly more sectoral detail in the stocks and enhanced flow statistics. Since January 1999 the ECB has published a set of euro area interest rates based on the limited available national information. Harmonised and fuller data on interest rates charged and paid by MFIs vis-à-vis households and non-financial corporations are now in preparation. The new statistics for MFI balance sheets and for MFI interest rates are scheduled to become available in 2003. The intention is to keep the new requirements stable for at least five years.*

## I Introduction

The Treaty on European Union requires the ECB, assisted by the NCBs, to collect the statistical information necessary to undertake the tasks of the ESCB. Council Regulation (EC) No. 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank lays down the framework within which the ECB's statistical reporting requirements are to be met. It defines the reference reporting population and includes provisions on the imposition of sanctions and on the confidentiality regime. It also gives the ECB the power to adopt regulations for the definition and imposition of its statistical reporting requirements.

The ESCB's statistical requirements were originally established in the document "Statistical requirements for Stage Three of Monetary Union (Implementation Package)" published in July 1996 by the EMI, the predecessor of the ECB, and updated in 2000. The centrepiece of the requirements for money and banking statistics was the consolidated balance sheet of the MFI sector from which the monetary aggregates and their counterparts are derived. As the Implementation Package was not legally binding, these requirements were incorporated into the ECB Regulation concerning the consolidated balance sheet of the MFI sector (ECB/1998/16) at the end of 1998. This Regulation came into force at the beginning of Stage Three of Monetary Union

on 1 January 1999 and was updated in August 2000 through ECB Regulation ECB/2000/8, due to changes needed for the application of the minimum reserve system. Since December 1998, the ECB has published harmonised monetary statistics on the basis of ECB Regulation ECB/1998/16 as amended.

The MFI balance sheet statistics covered by ECB Regulation ECB/1998/16 were always considered the minimum necessary to allow the ECB to conduct the single monetary policy. For this reason, five years after the definition of the ECB's initial statistical requirements in 1996, the range of statistics has now been expanded to cover new requirements considered essential for monetary policy purposes. These enhancements cover in particular the provision of more sectoral detail on deposits and loans on a monthly basis and better flow statistics. They are included in a new ECB Regulation concerning the consolidated balance sheet of the MFI sector (ECB/2001/13).

The Implementation Package also contained a requirement for retail interest rates in order to support the monitoring of monetary developments and the analysis of the transmission of monetary policy. A set of ten interest rate series published since January 1999 has provided the minimum initial data required by the ECB for monetary policy purposes. These statistics, which are

compiled using available national statistics, are not harmonised and their scope and detail are very limited. For this reason, completely new statistics on MFI interest rates charged to and paid by households and corporations have been developed which are harmonised, detailed and comparable across the Member States. These new statistical requirements are laid down in the ECB Regulation concerning statistics on interest rates applied by MFIs to deposits and loans vis-à-vis households and non-financial corporations (ECB/2001/18).

These new ECB Regulations on MFI balance sheet and interest rate statistics were developed as a single package. The main reasons were to reduce the cost of implementation for the reporting MFIs and to permit an overall assessment of the new requirements. In this regard, every effort has been made to minimise the reporting burden imposed on reporting institutions.

## 2 MFI balance sheet statistics

The original aim of the MFI balance sheet statistics, as defined in ECB Regulation ECB/1998/16, was to provide data with sufficient detail and flexibility to calculate the monetary aggregates and their counterparts covering the euro area as from the start of Stage Three of Monetary Union. Data have also been collected on a quarterly basis for the further analysis of monetary and financial developments; these data are used in financial account statistics. The requirements in the ECB Regulation only covered stock statistics. The adjustment data for the calculation of flow statistics, in order to remove the effect of “non-transaction” factors, were covered by data already available at the NCBs.

Following a reassessment of the essential statistical needs for monetary policy purposes, a new ECB Regulation containing additional statistical requirements for MFI balance sheet statistics (ECB/2001/13) was adopted by the Governing Council on

Furthermore, the intention is to keep the reporting requirements stable for at least five years.

The new ECB Regulations were approved by the Governing Council towards the end of 2001 and subsequently published in the Official Journal of the European Communities. They entered into force in January 2002. Later this year, the Regulations will be accompanied by separate “Guidance notes” to give a better understanding of the statistical requirements and standards contained in the ECB Regulations. First reporting of the new data will begin with monthly data for January 2003. Until that date, reporting will be carried out according to the “old” presentations.

This article describes, firstly, the enhancements to the MFI balance sheet statistics and, secondly, the new requirements in respect of the MFI interest rates.

22 November 2001. This Regulation replaces ECB Regulation ECB/1998/16.

### Stocks

The monetary aggregates and their counterparts are calculated at a monthly frequency as this is the main frequency for monetary analysis. There are, however, limitations in ECB Regulation ECB/1998/16 in the availability of data at this frequency. At the moment, the *monthly* MFI balance sheet statistics provide data on deposit liabilities broken down by currency (euro/other) and further by instrument category and maturity. The sectoral breakdowns applied to these deposits are currently at a rather aggregated level. The deposits of euro area resident sectors, other than MFIs and general government, are identified only as totals. More detailed sectoral breakdowns are available only *quarterly* and lack a maturity

breakdown, so they do not articulate with the monthly data.

A monthly breakdown of deposits by maturity vis-à-vis other financial intermediaries, insurance corporations, non-financial corporations or households is essential in order to provide a monthly sectoral disaggregation of monetary aggregates. An analysis of sectoral monetary developments, in turn, supports the assessment of the first pillar of the ECB's monetary policy strategy because the money demand of the different sectors is, to varying degrees, related to aggregate spending. While, for example, one can assume a close relationship for the money holdings of households, this is probably not the case for other financial intermediaries. In addition, a further breakdown of deposits by sub-sector is needed by currency (euro/other) for a closer analysis of the development of the foreign currency components in the monetary instruments. A sectoral analysis of these components will facilitate investigations about the degree of substitutability between foreign currency and euro-denominated components included in M3.

Similar limitations in the availability of monthly data currently apply to MFI loans as

well. Loans vis-à-vis resident sectors, other than MFIs and general government, are provided as an aggregate only. On a quarterly basis, these loans are broken down vis-à-vis sub-sectors (other financial intermediaries, insurance corporations, non-financial corporations and households) and loans to households are broken down further by purpose (housing loans, consumer loans and other loans). The provision at monthly frequency of these additional breakdowns is essential for the assessment of loan developments as the same growth rate of loans to the total private sector may conceal different behaviour of loans by sub-sector, purpose and maturity, with different implications for the assessment of the outlook for price stability. For example, past experience tends to suggest that a loan for house purchase may be directly associated with a smaller pro rata increase in aggregate demand than the same amount granted for consumption purposes.

The new ECB Regulation ECB/2001/13 was drawn up to fill these gaps in data provision for monetary policy purposes. The new Regulation integrates into the monthly collection the data currently collected quarterly so as to permit a detailed sectoral breakdown of deposits included in M3 and of

**Table I**  
**Main changes to MFI balance sheet statistics – deposit liabilities**

|                                     | Euro area resident sectors (other than MFIs and general government) |                                |                             |                            |                 |
|-------------------------------------|---|--------------------------------|-----------------------------|----------------------------|-----------------|
|                                     | <b>Total</b>  | Other financial intermediaries | Insurance corporations etc. | Non-financial corporations | Households etc. |
|                                     | Current/Future  | Current/Future                 |                             |                            |                 |
| <b>Deposits – total</b>             | <b>M</b>  | <b>Q</b>                       |                             |                            | <b>M</b>        |
| Overnight                           | <b>M</b>  | <b>Q</b>                       |                             |                            | <b>M</b>        |
| With agreed maturity – total        | <b>M</b>  | <b>Q</b>                       |                             |                            | <b>M</b>        |
| by euro/other currency and maturity | <b>M</b>  | -                              |                             |                            | <b>M</b>        |
| Redeemable at notice – total        | <b>M</b>  | <b>Q</b>                       |                             |                            | <b>M</b>        |
| by euro/other currency and maturity | <b>M</b>  | -                              |                             |                            | <b>M</b>        |
| Repos                               | <b>M</b>  | <b>Q</b>                       |                             |                            | <b>M</b>        |

*M: Monthly, Q: Quarterly*

**Table 2****Main changes to MFI balance sheet statistics on loans and holdings of securities**

|   | Euro area resident sectors (other than MFIs and general government) |                                |                             |                            |                 |               |
|---|---|--------------------------------|-----------------------------|----------------------------|-----------------|---------------|
|   | Total   | Other financial intermediaries | Insurance corporations etc. | Non-financial corporations | Households etc. |               |
|   |   |                                |                             |                            | Consumer credit | Housing loans |
|   | Current/Future  | Current/Future                 |                             | Current/Future             |                 |               |
| <b>Loans – total</b>                                    | <b>M</b>  | <b>Q</b>                       |                             | <b>M</b>                   | <b>Q*</b>       | <b>M*</b>     |
| by maturity   | <b>M</b>  | <b>Q</b>                       |                             | <b>M</b>                   | <b>Q*</b>       | <b>M*</b>     |
| denominated in euro                                     | <b>M</b>  | -                              |                             | <b>M</b>                   | -               | <b>M</b>      |
| <b>Holdings of securities other than shares – total</b> | <b>M</b>  |                                | <b>Q</b>                    |                            | <b>Q</b>        |               |
| by maturity   | <b>M</b>  |                                | <b>Q</b>                    |                            | <b>Q</b>        |               |
| denominated in euro                                     | <b>M</b>  |                                | -                           |                            | -               |               |
| <b>Holdings of shares and other equity</b>              | <b>M</b>  | -                              |                             | <b>Q</b>                   |                 | -             |

*M: Monthly, Q: Quarterly.*

*\* Cross-classified by purpose of loan: consumer credit, housing loans, other.*

lending by MFIs. This will greatly enrich the monthly analysis of euro area monetary developments.

In order to make possible the measurement of total credit by sub-sector, a quarterly breakdown of MFI holdings of shares and other equity by sub-sector was added to the requirements. In addition, some further changes to the balance sheet statistics have been included in the new ECB Regulation. These include the addition of a maturity and currency breakdown to the deposit and loan items vis-à-vis the rest-of-the-world sector, with a view to allowing the compilation of euro area b.o.p. flows for the “other investment” account of MFIs from the money and banking statistics. Using a common framework for collecting this information could thus reduce the reporting burden on reporting agents. Finally, a number of technical changes were also made.

### Flows

Euro area monetary statistics comprise not only stock statistics but also flow statistics and growth rates for M3 and its counterparts. The ECB calculates these flow statistics, and the growth rates derived from them, by

adjusting the differences between end-of-month stocks to remove the effect of “non-transaction-related” factors. Thus the flow data reflect only those variations in the stocks between two points in time caused by transactions, i.e. that arise from the acquisition/disposal of financial assets or the incurring/redemption of financial liabilities. The ECB analyses both stock and flow data and uses both datasets to calculate indices of notional stocks and growth rates for the purposes of assessing the evolution of M3 and its counterparts.

The ECB’s requirement for adjustment data to compile flow statistics is currently specified in the Guideline of the ECB concerning certain statistical reporting requirements of the European Central Bank and the procedures for reporting by the national central banks of statistical information in the field of money and banking statistics (ECB/2000/13). As Guidelines are addressed to NCBs, rather than to the reporting agents, the quality of the aggregates supplied to the ECB is essentially determined by the existing availability of statistics. Whereas the available data on reclassifications and other statistical factors are of a high quality, there is currently a complete or partial lack of data on “write-offs/write-downs” of MFI loans and

## Box

### Adjustments to derive flow data

The following “non-transaction-related” factors are taken into account in order to derive adjusted flows from differences in outstanding amounts:

1. *Reclassifications and other statistical factors*, which mainly comprise breaks in series arising from changes in the MFI reporting population for statistical or legal reasons and from the reclassification of assets and liabilities.
2. *Price effects*, which are changes in the level outstanding of the MFI assets and liabilities due to valuation changes. Two types of effect are distinguished: a) *exchange rate changes*, which comprise changes in the euro value of assets or liabilities denominated in foreign currency that arise from exchange rate fluctuations, and b) *revaluation adjustments*, comprising in turn two different effects, “*write-offs/write-downs*” of loans and *price revaluation* of securities. The “*write-offs/write-downs*” of loans refer to the impact of changes in the value of loans caused by the removal from the balance sheet of doubtful loans that are recognised as having become partly or totally uncollectable. *Price revaluations* of securities are changes in the outstanding stock of securities that arise because of a change in the price at which the securities are recorded on the balance sheet (excluding the effect of exchange rate changes).

For further information, please refer to Box 1 on “The derivation and use of flow data in monetary statistics” in the ECB’s Monthly Bulletin, February 2001.

the revaluation of MFIs’ securities portfolios within the NCBs.

In order to provide data on flows that are of a comparable quality to the data on stocks, a requirement for the provision of the revaluation adjustment is addressed to the reporting agents within ECB Regulation ECB/2001/13. The new Regulation covers the collection of data relating to the price effects contained in the *revaluation adjustment*, consisting of “*write-offs/write-downs*” of loans and *price revaluation* of securities. The reporting requirement refers to items and breakdowns contained in the monthly balance sheet. The reporting population has to submit to the NCBs a minimum set of series that may be supplemented by further series required by NCBs in order to provide flow adjustments for a fuller range of stock data.

In respect of the revaluation adjustment, a number of derogations can be applied by NCBs. The most important derogation refers to the possibility of excluding money market funds (MMFs) from the reporting

requirement. Other derogations and additional flexibility relate to the frequency of reporting of price revaluations of securities by reporting agents, the number of breakdowns to be reported to the NCBs, and the possibility of using alternative collection systems. These derogations are expected to reduce significantly the overall reporting burden while, at the same time, leaving the overall quality and comparability of the data unaffected.

#### **Non-resident holdings of money market fund shares/units**

While information which permits the exclusion of non-resident holdings of MMF shares/units from M3 is already used, it is not yet appropriately provided for in the legislation. The intention is to make MMFs, in their capacity as issuers of shares/units, as well as other MFIs and “other financial intermediaries”, to the extent that these hold shares/units issued by the MMFs in their custody or otherwise transact in shares/units

**Table 3****Main changes to MFI balance sheet statistics – revaluation adjustments  
(write-offs/write downs and price revaluations)**

| Balance sheet items  | Statistical requirements<br>Number of series to be reported on revaluation adjustment |    |   |    |
|--|---|----|---|----|
|  | Reporting obligation of MFIs<br>(series to be reported to NCBs)                       |    | Reporting obligation of NCBs (series in<br>respect of MFIs to be reported to the ECB) |    |
|  | Current/Future <sup>1)</sup>  |    | Current/Future  |    |
| <b>Liabilities</b>   | -   | -  | 10  | 8  |
| Debt securities issued <sup>2)</sup>                         | -   | -  | 8   | 6  |
| Capital and reserves and remaining liabilities <sup>2)</sup> | -   | -  | 2   | 2  |
| <b>Assets</b>  | -   | 27 | 43  | 84 |
| Loans  | -   | 15 | 11  | 56 |
| Securities other than shares                                 | -   | 7  | 25  | 21 |
| Shares and other equity                                      | -   | 5  | 5   | 5  |
| Fixed assets and remaining assets                            | -   | -  | 2   | 2  |

1) This represents the minimum number of series that must be reported. Flexibility is provided in the ECB Regulation by allowing NCBs to collect more items within a range of possibilities.

2) "Debt securities issued" are not expected to be subject to revaluations. "Capital and reserves" and "remaining liabilities" are only intended to be the counterpart item to the asset side revaluations.

on their own behalf or on behalf of third parties, distinguish between holdings of residents of the euro area and holdings of non-residents. The legislation imposing the

reporting of this residency breakdown of the holder of MMF shares/units is still being finalised.

### 3 MFI interest rates

Since January 1999, statistics comprising a set of ten euro area retail interest rates have been published monthly in Table 3.4 of the "Euro area statistics" section of the ECB's Monthly Bulletin. These statistics are produced according to a *short-term* approach, using already existing national interest rate statistics. While this ensured that some retail interest rate statistics were available from the start of Monetary Union, there are serious limitations to this approach. The underlying data are not harmonised and therefore these statistics should be used with caution, primarily to analyse their development over time rather than their level.

A *steady-state* approach has been developed for retail interest rate statistics (now referred to as *MFI interest rate statistics*). The aim is to produce a set of euro area interest rates on

deposit and lending business that provides a comprehensive, detailed and harmonised statistical picture of the level of interest rates applied by the MFIs and their changes over time. The requirements for MFI interest rate statistics are laid down in the ECB Regulation approved by the Governing Council on 20 December 2001. This Regulation (ECB/2001/18) defines the statistical standards according to which MFI interest rates should be collected and produced. It specifies the actual reporting population covered by these statistics and the statistical reporting requirements that reporting agents must fulfil. First reporting of the new data is scheduled for the reference month January 2003 with the entire year 2003 considered a phasing-in period.

### Purpose of MFI interest rate statistics

MFI interest rate statistics provide important input for the analysis of monetary transmission. The interest rates that MFIs pay to and charge their customers is a key step in the transmission of changes in monetary policy to the real economy. The interest rates on the various deposits form the own rate of return on components of monetary aggregates and thus help in understanding and explaining their development. The interest rates on lending provide information on the financing conditions of the economy with regards to loans, whereas the spreads between lending and borrowing rates can be indications of competition and bank profitability. This information serves also for purposes which go beyond monetary policy.

The possibility of looking at the rates for individual purposes (e.g. housing) allows for a sectoral analysis, whereas the division between new and outstanding business enables an analysis to be made of both the speed and extent of the transmission and of other issues such as income effects. New business is any new agreement between the customer and the credit institution, i.e. all financial contracts, the terms and conditions of which specify for the first time the interest rate of the deposit or loan, and all new negotiations on existing deposits and loans. Outstanding amounts are the stock of all deposits placed by customers with credit institutions and the stock of all loans granted

by credit institutions to their customers. The MFI interest rates, taken together with the volumes of lending and borrowing, shed light on developments within financial intermediation and can provide important information for the analysis of financial stability.

### Reporting requirements

The new statistical requirements are addressed to a reporting population consisting mostly of credit institutions. The NCBs have the choice of either collecting data from a census of the entire reporting population or applying a sample approach. In the case of a sample, the potential reporting population is divided into homogeneous sub-groups or "strata". From each of these strata a selection of reporting agents is then required to report. A minimum national sample size is defined per country to ensure the quality of the data. The sample must be regularly assessed to ensure representativity.

MFI interest rate statistics will cover those interest rates that are applied by resident credit institutions and other institutions to euro-denominated deposits and loans vis-à-vis households and non-financial corporations resident in the euro area. The MFI interest rate statistics will be provided monthly in respect of both outstanding amounts and new business. In total 45 indicators are requested, covering all essential instrument categories

**Table 4**  
**Use of the reported indicators for monetary policy purposes**

| Interest rates on                        | Scope of analysis              |                                     |               |                |                   |               |                          |
|--|--------------------------------|-------------------------------------|---------------|----------------|-------------------|---------------|--------------------------|
|  | Monetary transmission          |                                     |               |                | Monetary analysis |               | Financial stability      |
|  | Interest rate channel          |                                     |               | Credit channel | Money demand      | Credit demand |                          |
|  | Pass-through of interest rates | Cost of capital substitution effect | Income effect |                |                   |               | External finance premium |
| <b>Outstanding amounts</b> <sup>1)</sup> |                                |                                     | ×             |                | ×                 | ×             | ×                        |
| <b>New business</b>                      | ×                              | ×                                   |               | ×              | ×                 | ×             | ×                        |

1) Where outstanding amounts consist of a significant proportion of variable-rate business, the related rates may also provide information on the pass-through of interest rates.



**Table 5**  
**Overview of the reported interest rate indicators**

|                      | Sector   | Type of instrument               | Number of indicators |              |     |
|----------------------|--|----------------------------------|----------------------|--------------|-----|
|                      |  |                                  | Outstanding amounts  | New business |     |
|                      |  |                                  |                      | AAR          | AAR |
| <b>Deposits</b>      | Households, non-financial corporations             | Overnight                        | -                    | 2            | -   |
|                      |  | With agreed maturity             | 4                    | 6            | -   |
| Redeemable at notice |  |                                  |                      | 2            | -   |
|                      | Households and non-financial corporations combined | Repos                            | 1                    | 1            | -   |
| <b>Loans</b>         | Households, non-financial corporations             | Bank overdraft                   | -                    | 2            | -   |
|                      | Households   | For house purchases              | 3                    | 4            | 1   |
|                      |  | Consumer credits and other loans | 3                    | 3            | 1   |
|                      |  | Other purposes                   | -                    | 3            | -   |
|                      | Non-financial corporations                         | Loans                            | 3                    | 6            | -   |
| <b>Total</b>         |  |                                  | 14                   | 29           | 2   |

for euro-denominated deposit liabilities and loans (see Table 5). The instrument categories are largely consistent with those in the MFI balance sheet statistics. There are breakdowns by original maturity, notice periods or periods of fixation. Furthermore, for almost all instrument categories, further breakdowns by sector (households, non-financial corporations) are applied.

Reporting agents will provide the *annualised agreed rate* (AAR), i.e. the interest rate that is individually agreed between the reporting agent and the household or non-financial corporation for a deposit or loan, converted to an annual basis and quoted in percentages per annum. The AAR covers all interest rate

payments on deposits and loans, but no other charges that may apply, such as the cost of inquiries and administration. Instead of the AAR, NCBs may require reporting agents to implement the *narrowly defined effective rate* (NDER) for all or some deposits or loan instruments referring to new business and outstanding amounts. The NDER differs only in the underlying method for annualising interest payments. To monitor the other charges related to loans, for consumer credit and loans to households for house purchase, the *annual percentage rate of charge* (APRC) will be collected in addition to annualised agreed rates. The APRC covers all total costs of the credit to the consumer, i.e. the interest payments as well as all other related charges.

#### 4 Concluding remarks

This article has described the enhancements being made to the MFI balance sheet and interest rate statistics. Until now, the statistics available to the ECB have always been considered as the minimum necessary for the ECB to conduct its single monetary policy. The enhancements now being made represent a considerable improvement in this position. In defining these enhancements, the ECB aimed to minimise the reporting burden involved.

As regards the MFI balance sheets, the main focus is on making available at monthly frequency sectoral breakdowns of MFI loans and deposits, which are currently available only quarterly. Moreover, crossing this sectoral detail with a further breakdown by maturity will permit for the first time a detailed sectoral breakdown of the monetary aggregates. Provision is also being made for improved transactions data for MFI credit, covering both loans and holdings of securities,



where additional data need to be collected from reporting agents. In addition, this round of enhancements foresees the reporting of data on the residency of the holders of shares/units issued by money market funds.

Complementing the statistics on MFI balance sheets, completely new statistics are to be

collected on interest rates that MFIs actually apply to deposits and loans vis-à-vis households and non-financial corporations. This information, which is not available from market sources, will provide significant additional input for the analysis of the transmission of changes in monetary policy to the real economy.