

## CHANGES IN THE COMPILATION OF MONEY AND BANKING STATISTICS IN MALTA

### Introduction

Monetary statistics derived from the balance sheets reported each month by credit institutions to the Central Bank of Malta play a central role in the Bank's assessment of developments in both the banking sector and the Maltese economy as a whole. This article explores the changes to the process of collecting and compiling money and banking statistics by the Bank in order to bring these in line with the standards of the European Central Bank (ECB) and the International Monetary Fund (IMF). It also describes the changes in the related legislation, methodology and information technology framework, and indicates further modifications to the compilation of these statistics that are anticipated in the foreseeable future.

### Developments in the Legal and Institutional Framework

The Bank's mandate to compile statistics is clearly stated in the amended Central Bank of Malta Act.<sup>1</sup> The Bank has the authority to define and impose its statistical reporting requirements and to establish the actual reporting population and standards for transmission so as to enable it to bring Malta's monetary and financial statistics in line with international standards.

As a first step in this direction the Bank has sought to strengthen its co-operation with other agencies involved in the collection of statistics. It has signed a Memorandum of Understanding with the Malta Financial Services Authority (MFSA) and a co-operation agreement with the National Statistics Office (NSO).

The Memorandum signed by the Bank and the MFSA in February 2003 establishes an ongoing

working relationship between the Bank and the Authority on matters related to financial stability. It also ensures full co-operation in the collection and exchange of statistical information. A standing committee meets regularly to enable the two agencies to exchange views, and to evaluate and consult on matters of mutual interest.

The NSO and the Bank have long co-operated closely in the collection and exchange of statistical information. However, the need to clarify the division of responsibilities and tasks between the two organisations in this area led to the signing of a co-operation agreement in July 2003. This agreement, which reflects similar arrangements found in most other EU member states, will help these institutions fulfil their obligations as laid down in both local and EU law.

### Harmonising Maltese Money and Banking Statistics with International Standards

In line with European Union membership obligations and to prepare for eventual participation in the euro area, the Bank is harmonising its monetary statistics with EU norms. This upgrading of national standards involves substantial investment in information technology as new statistical systems are installed. These in turn require a long lead time to implement.

As Malta prepared for EU membership in the late nineties the Bank embarked on a project aimed at radically changing the monthly statistical returns submitted by credit institutions and by the Bank itself. The major part of this project has now been completed and, as a result, Malta's money and banking statistics are harmonised with international standards. Eventually, the Bank also

<sup>1</sup> On 10 September 2002 Parliament approved amendments to the Central Bank of Malta Act, Cap. 204. These amendments gave the Bank additional powers, *inter alia*, in the compilation of statistics.

aims to revise and expand the collection of statistics from the rest of the financial sector, to enable it to compile the financial accounts and a financial survey of Malta.

At the European level, the EU statistical agency Eurostat and the ECB collect, process and standardise economic and financial statistics for EU Member States. The ECB is responsible for monetary and financial statistics, while Eurostat is responsible for general economic, government finance and other statistics. The balance of payments and financial accounts are shared responsibilities. This division of work between Eurostat and the ECB is formalised in an agreement in which the exchange of statistical information is an important element.<sup>2</sup> As the monetary policy authority for the euro area, the ECB must be able to assess monetary and economic conditions in the countries concerned. It also monitors developments in the EU as a whole, as well as in the acceding countries.

Although at the time Malta's monetary statistics were not yet harmonised with ECB norms, in 2001 the Bank began providing statistics to the ECB on a monthly basis. In return, the ECB began to provide the Bank with the same type of information on other accession countries and EU member states for internal analytical purposes. Co-operation with the ECB is continuously increasing, especially since April 2003 when, following Malta's ratification of the EU Treaty, Central Bank of Malta officials were invited to participate as observers in all ESCB committees and working groups, including those dealing with statistics.

The Bank also provides monetary data to the IMF on a monthly basis. These are used by the

Fund in its surveillance of the economic policies of its members. In recent years the Fund established standards for the compilation and dissemination of statistical data (the General Data Dissemination System and the Special Data Dissemination Standard)<sup>3</sup> and issued guidelines to members on how to achieve them.

The Bank has on a number of occasions sought technical assistance from the Fund in the area of monetary statistics. A mission from the Fund's Statistics Department visited the Bank in the Spring of 2001, mainly to review various methodological issues as well as the Bank's progress in meeting the guidelines of the Fund's GDDS. Malta was one of the first countries to participate in the GDDS and to observe the prescribed guidelines for dissemination of economic and financial statistics. Preparations are currently underway for Malta's full subscription to the SDDS.

#### **Harmonisation of Statistical Methodology**

Bringing monetary statistics in line with international norms is a continuous task. The role of international organisations such as the IMF and the ECB in this field is to strengthen internationally accepted standards in the monetary field. Such norms are a prerequisite for international comparability of harmonised data. They also facilitate the understanding of the relationships among the various sets of macro-statistics. These standards must continue to develop in line with developments in banking and financial markets.

The IMF's *Monetary and Financial Statistics Manual* is a key reference guide in this field. In addition, for EU Member States, two Regulations

<sup>2</sup> This Memorandum of Understanding was signed between Eurostat and the ECB in March 2003.

<sup>3</sup> The IMF has developed these data dissemination standards to increase the level of information on economic and financial trends in different countries. The GDDS is primarily intended to provide a framework for evaluating needs for data improvement and to encourage improvements in the quality and accessibility of a country's statistics. The SDDS is a stricter standard which focuses on those countries that had, or were seeking, access to international capital markets.

issued by the ECB in 2001 set out the requirements for, respectively, balance sheet statistics of the Monetary Financial Institutions (MFIs) sector and statistics on interest rates.<sup>4</sup>

The process of developing harmonised monetary statistics within the European Union began with the identification of the institutions from which data were to be collected. The concept of Monetary Financial Institutions (MFIs) was adopted for this purpose. This replaced the previously used definition of All Banking Institutions (ABIs). MFIs comprise three main groups of institutions:

- central banks;
- resident credit institutions as defined in the Banking Act 1994 and in EU law. A credit institution is defined as “an undertaking whose business is to receive deposits or other repayable funds from the public (including the proceeds arising from the sales of bank bonds to the public) and to grant credit for its own account”.<sup>5</sup> In Malta credit institutions are further sub-divided into Deposit Money Banks (DMBs) and International Banking Institutions (IBIs). The latter carry out transactions predominantly with non-residents;
- all other resident financial institutions whose business it is to receive deposits and/or close substitutes for deposits from entities other than MFIs and, for their own account (at least in economic terms), to grant credits and/or to make investments in securities. This group mostly comprises Money Market Funds (MMFs). To identify the group, the ECB defines the term “close substitutes for deposits” in terms of liquidity characteristics, such as convertibility and marketability.

In complying with EU requirements the Bank first identified the reporting institutions. It then embarked on the process of redesigning the balance sheet reporting framework that had been in existence since 1994, when Banking Directive No. 6 (BD06) was issued. The collection of revised primary data through this new framework ensured that national monetary aggregates were compiled in accordance with recognised EU standards.

Due to the long lead time associated with the introduction of the new reporting framework, the preparatory work in this regard had been going on at the Bank for a number of years. The main objective was to harmonise balance sheets, classifying instruments by currency, original and residual maturity, economic sector and geographical breakdown of counterparties. Balance sheet data supplied at the end of each month in terms of outstanding balances are now broken down further in separate annexes. Reporting institutions are also obliged to submit statistics on ‘flows’. Such data are particularly useful when analysing changes in a time series, helping to identify developments that are due to actual transactions and to differentiate them from those that are attributable to revaluations, reclassifications and loan write-offs and write-downs. The identification and elimination of the latter helps analysts to give a more accurate picture of underlying trends over time.

In line with ECB requirements statistical coverage has also been extended to the reporting of intra- and cross-border positions with the euro area and the rest of the world, respectively. The balance sheet reporting system has also been designed to provide the data required for the calculation of the reserve base from which a credit institution’s reserve requirement is calculated. It is relevant to

<sup>4</sup> Regulation ECB/2001/13 concerning the consolidated balance sheet of the MFI sector and Regulation ECB/2001/18 concerning statistics on interest rates applied by MFIs to deposits and loans *vis-à-vis* households and non-financial corporations.

<sup>5</sup> Banking Co-ordination Directives 77/780/EEC of 12 December 1977 and 89/646/EEC of 30 December 1989.

point out that, as an MFI, the Bank itself also has to comply with the new reporting requirements. Consequently its balance sheet has been reformatted to bring it in line with the same statistical norms.

In order to synchronise the upgrading of the reporting systems and to ensure a smooth transition, a Technical Committee on Financial Statistics was set up in May 2000. The Committee includes representatives from the MFSA, the NSO, the Malta Banks Association, the Malta Stock Exchange and the credit and financial institutions themselves. The MFSA, as the single regulator of financial services in Malta and the authority responsible for the prudential supervision of banks, was actively involved in the implementation process.

The new reporting forms, which are received simultaneously by the Bank and the MFSA, have also been designed to cover some of the

requirements of the NSO from the MFI sector where national accounts and balance of payments statistics are concerned. Thus both the regulatory authorities and the MFIs are benefiting from a more homogeneous and streamlined reporting system.

To satisfy international reporting requirements, the deadline for submission of these returns by the MFIs was brought forward to the twelfth calendar day following the reference month. The deadline for submitting prudential supervisory returns was established as the fifteenth calendar day following the reference month.

By mid-2003 the revision of the reporting returns, together with the accompanying guidance notes and instructions, was completed. In July 2003 the MFIs began reporting end-June data based on the new balance sheet format. At the same time they continued to submit returns under the old reporting system for a period of four months in

**Table 1**  
**THE BALANCE SHEET OF THE MFI SECTOR**

<b>Assets</b>	<b>Liabilities</b>
1. Currency and deposits	1. Currency in circulation
2. Loans (including repos)	2. Transferable deposits
3. Holding of securities other than shares	3. Other deposits
4. Holding of shares and other equities	4. Loans (including repos)
5. Financial derivatives	5. Deposits excluded from broad money
6. External assets	6. Money Market Fund (MMF) shares/units <sup>1</sup>
7. Fixed assets	7. Debt securities issued, included in broad money
8. Remaining assets	8. Debt securities issued, excluded from broad money
	9. Financial derivatives
	10. Capital and reserves
	11. External liabilities
	12. Remaining liabilities

<sup>1</sup> Data collection from MMFs is expected to be introduced in 2005.

order to ensure that the new system was functioning smoothly. Reporting under the old system was terminated in October when the new system officially came into effect.

The data collected from the credit institutions and the Bank were aggregated to produce the main instrument breakdowns on the assets side and the liabilities side of the MFI sector. These are shown in Table 1.

The consolidated balance sheet of the MFI sector provides the basis for the calculation of monetary aggregates and their counterparts. In line with the new EU reporting concepts the Bank revised its definitions of the main monetary aggregates, which now include narrow money (M1), intermediate money (M2) and broad money (M3):

- narrow money (M1) comprises the most liquid liabilities, namely currency in circulation and

deposits that are withdrawable overnight or on demand;

- intermediate money (M2) comprises M1 plus deposits with an original maturity of less than two years or a notice period of less than three months;
- broad money (M3), the most important of the aggregates, which comprises M2 plus repurchase agreements, money market fund shares/units and debt securities with an original maturity of up to two years.

As a result of the revisions to the monetary aggregates, quasi-money and the 'old' broad money series (M3) were discontinued from September 2003. The new M3 aggregate, based on the ECB's definition (see Table 2) of the broad money supply, was introduced from that month. There are some major conceptual differences

<b>Table 2</b>	
<b>CHANGES TO THE MONETARY AGGREGATES</b>	
<b>The 'old' M1 (Narrow Money)</b> = Currency in circulation + Demand deposits	<b>The 'new' M1 (Narrow Money)</b> = Currency in circulation + Demand deposits + Savings deposits withdrawable on demand
<b>The 'old' M2</b> Was not in use	<b>The 'new' M2 (Intermediate Money)</b> = M1 + Savings deposits redeemable at notice + Time deposits with agreed maturity up to 2 years
<b>The 'old' M3 (Broad Money)</b> = M1 + Quasi-money: Savings deposits Time deposits <sup>1</sup>	<b>The 'new' M3 (Broad Money)</b> = M2 + Repurchase agreements + Debt securities up to 2 years + Money Market Fund shares/units
<sup>1</sup> No maturity cut-off point.	

between the 'old' and the 'new' M3 aggregate. For instance, the former included currency in circulation and deposits placed with credit institutions with no maturity cut-off point. The new definition, apart from currency in circulation, now includes repurchase agreements, as well as deposits and debt securities with a maturity of up to two years. It therefore excludes time deposits with an original term to maturity of more than two years. The 'new' M1 will now include those

savings deposits that are withdrawable on demand.

As for the counterparts to the monetary aggregates, the domestic credit series (see Table 3) continues to refer to, (a) credit extended by domestic credit institutions to non-bank residents (central government and other non-bank residents), and (b) other claims on non-bank residents. There are thus no major conceptual

<b>Table 3</b>	
<b>CHANGES TO THE MAIN COUNTERPARTS OF M3</b>	
<b>The 'old' M3 counterparts</b>	<b>The 'new' M3 counterparts</b>
<b>Domestic credit</b>	<b>Domestic credit</b>
Net claims on government	Credit to central government
Loans and advances	Loans
Securities other than shares	Securities other than shares
Claims on private and parastatal sectors	Credit to other non-MFI residents
Loans and advances	Loans
Securities other than shares	Securities other than shares
Shares and other equity	Shares and other equity
<b>Net foreign assets</b>	<b>Net foreign assets</b>
Central Bank of Malta	Central Bank of Malta
All Banking Institutions	Other MFIs
<i>Less</i> <b>Other Items (net)</b>	<i>Less</i> <b>Longer-term financial liabilities</b>
	Deposits with agreed maturity over 2 years
	Deposits redeemable at notice over 3 months
	Debt securities over 2 years
	<i>Less</i> <b>Other counterparts net</b> <sup>1</sup>

<sup>1</sup> Made up of capital and reserves, provisions, interest accrued and unpaid and other liabilities less fixed and other assets.

changes to the domestic credit counterpart other than those compensating changes within the overall aggregate itself as some entities previously falling within the non-government sector are reclassified under the central government sector.

The new definition of 'net foreign assets' will also not vary materially from the 'old' definition. However, since financial derivatives are now to be considered as on-balance sheet items, transactions in such instruments between resident MFIs and non-MFI entities will be included in domestic credit. Similar transactions between resident MFIs and non-residents will also feature in the net foreign asset counterpart.

The introduction of the new statistical system has created some problems, particularly where time series are concerned. Thus it will be some time before a long-run time series for the revised monetary aggregates is available, and in the meantime partial 'solutions' will have to be found. The compilation of flows data was the most problematic, but reclassifying clients' activities according to the new definitions of economic sectors also proved a difficult task.

### **The Information Technology Infrastructure**

Information technology continues to play an important role in the transmission of statistics. Reporting agents are expected to submit statistical information to the Bank in electronic format. The Bank, in turn, will be transmitting the aggregated data to international agencies via an electronic delivery system, known as GESMES/TS. This is an encrypted electronic statistical data exchange system that is increasingly used by agencies abroad. Through this system the Bank has also been able to disseminate descriptive information on MFIs resident in Malta to the ECB. Information on Malta's MFIs has thus been added to the list of European MFIs displayed on the ECB's website, which is updated monthly.

Data received from reporting agents are being stored in a database that is housed at the Bank and is maintained jointly by the Bank and the MFSA. Due to their sensitivity, these data are subject to strict confidentiality, with access only being granted to authorised officials within the Bank and the MFSA. A number of checks are carried out to ensure the quality and consistency of the data when it is received. During this processing period, reporting agents are expected to respond to queries by the Bank on the data provided and to send revisions to the data if these are required.

The database incorporates extensive and sophisticated tools to facilitate the analysis of the stored information. It is expected that in the medium-term the database will be broadened to process and store financial accounts data and balance sheet data related to other financial institutions. Electronic transmission of data by respondents via the Internet or via a closed Intranet architecture is expected to be introduced in the coming years.

### **Future Developments**

The harmonisation of statistics by the ESCB is a dynamic process that has to be continuously updated with further elaboration on conceptual issues particularly where the compilation of financial statistics is concerned. Hence, the Bank must continue to monitor developments in this regard and to strengthen further the quality of the data and their assessment. The impact of the proposed alignment of international accounting standards with worldwide statistical norms is also being assessed.

The collection of detailed data on electronic money (e-money), retail interest rates, financial markets and statistics on securities will be given priority in the near future. It is planned that, in the longer-term, the compilation of statistics on

securities will be based on a new centralised database containing extensive information about individual securities listed on the Malta Stock Exchange. This database will also be used extensively for balance of payments purposes and will eventually become part of a larger European securities database.

In the coming year the Bank will continue to broaden its sources of statistical coverage. While the Bank in the past did not collect data from Money Market Funds (MMFs), their inclusion in the newly defined MFI sector means that they must comply with certain statistical reporting requirements. As at June 2003, five such institutions were operating in Malta. A new reporting scheme, based on ECB standards but tailored to the types of business these institutions engage in, will be designed in the near future, and the first reporting returns are expected to be submitted in 2004.

Other developments in the months ahead will include the collection of harmonised data from other (non-monetary) financial institutions such as collective investment schemes. The existing reporting scheme for insurance companies and the remaining financial institutions will also be developed further.

Work on the compilation of Malta's Financial Accounts based on ESA 1995 on a quarterly basis is also expected to gain momentum. Financial accounts cover financial flows and a statement of financial assets and liabilities for each sector of the economy. There is a growing interest in, and demand for financial accounts to assist in economic analysis and policy research. The first financial accounts for Malta, which will be developed as a joint exercise between the Bank and the NSO, are expected to be released in 2004.

### Conclusions

As the economy develops, and the needs of analysts evolve, Malta's money and banking

statistics have had to undergo substantial changes. The process described above should result in the collection and publication of better quality monetary data, issued regularly within stricter deadlines. The new data should lead to an improvement in the quality of the analysis of economic developments in Malta. The harmonisation of data with international standards implies that Maltese data will be comparable to similar information on other EU member states.

The objective of the Central Bank is to ensure that the quality of its statistics is continuously enhanced so that these will compare adequately with the standards achieved by EU member states. All local statistical agencies are working towards similar goals since it is recognised that good and timely data are prerequisites for proper economic analysis and policy making.

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