

# **CHANGEOVER FROM NATIONAL MONETARY STATISTICS TO A HARMONISED EURO AREA FRAMEWORK: THE STRATEGY OF THE BUNDESBANK**

Stefan Brunken, Deutsche Bundesbank

## **Summary**

Given the important role of money in the monetary policy strategy of the European Central Bank (ECB), monetary statistics need to be compiled for the euro area as a whole. Assuming this task means more than just summing up national data, scope, methodology and classification rules need to be sufficiently harmonised. And, as a structural change, cross-border activities within the euro area need to be identified separately within the foreign business in order to treat these as “domestic business” in a euro-area context. The statistical experts of the ECB and National Central Banks (NCBs) started the harmonisation of monetary statistics as early as 1992 in order to provide users with reliable monetary data in due time before the start of European Monetary Union (EMU). The harmonised statistical requirements were eventually published by the European Monetary Institute (EMI) as an “Implementation Package” in July 1996; highest priority was assigned to monetary statistics in view of the particular importance for monetary policy. Practical implementation work was subsequently initiated at NCB level. The Bundesbank decided to integrate the ECB requirements into the existing infrastructure of monetary statistics, rather than discontinuing the existing system in exchange for a new one. As a consequence, the gaps of the existing system had to be identified in order to enhance the existing reporting forms. Subsequently, the new forms were implemented by the “Monetary Financial Institutions”, which had been identified before by the Bundesbank on the basis of a harmonised statistical definition.

## **1 NATURE AND ROLE OF MONETARY STATISTICS**

The term “monetary statistics” is widely used to denote statistics on the balance sheets of banks, thus being a sub-set of financial and banking statistics. As a great proportion of non-banks’ financial business is (still) carried out via banks, monetary statistics allow central bankers to analyse not only the financial conditions of banks but also, and even more relevant for monetary policy, of their non-bank customers in a timely and reliable fashion. The term “monetary” already hints to the monetary aggregates as the central output of these statistics; they are technically derived from the consolidated balance sheet of the banking sector. But also the balance sheet counterparts of money, such as credit aggregates, are analysed.

Monetary statistics are particularly important for central banks that have assigned a prominent role to money. In the case of the ECB, monetary analysis is one of the two perspectives (“pillars”) in the monetary policy strategy, and is focused on a longer-term horizon, exploiting the long-run link between money and prices.<sup>1</sup> The Bundesbank had a long tradition in attaching

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<sup>1</sup> European Central Bank: *The monetary policy of the ECB, Frankfurt am Main, 2004.*

great importance on monetary indicators as it followed an intermediate monetary target<sup>2</sup> in its monetary policy strategy from 1974 until the end of 1998, ie when it transferred responsibility for monetary policy to the Governing Council of the ECB.<sup>3</sup>

Monetary statistics are in a way unique in that they are typically compiled by central banks in contrast to other types of official statistics that are a domain of national statistical offices. There are a number of reasons, with the following three being most frequently put forward:

- **Efficiency and synergies:** statistical and supervisory reporting is at least partly integrated in many central banks in terms of data coverage, methodology, technical infrastructure used with a view to keeping the reporting burden of banks to a strict minimum.
- **Expertise:** Central Bank staff dispose of expertise in the structure and functioning of the domestic banking market due to the proximity to banks in the daily business (monetary policy and operations, banking supervision, payment systems, banknote issuance, etc.).
- **Importance of monetary statistics for Central Banks:** the importance of monetary statistics for the conduct of monetary policy was mentioned above; in addition, there are a number of other NCB users, such as financial stability analysts. In having sole responsibility in the compilation of these statistics, central banks can define themselves scope and methodological standards behind these statistics according to their needs.

## 2 THE LONG ROAD TO A HARMONISED FRAMEWORK FOR EURO AREA MONETARY STATISTICS

### 2.1 The institutional framework

There was the principally self-evident expectation at the beginning of the harmonisation work that the statistical requirements of the ECB would not, in principle, be different from those that the NCBs had (and still have). It was because of this that the expertise and responsibilities of NCBs in the collection of statistics were projected by the authors of the Maastricht Treaty onto the ECB<sup>4</sup> in that it was given the competence to collect the necessary statistical information for the tasks of the European System of Central Banks (ESCB) either from the competent national authorities or directly from economic agents according to Article 5.1 of the “Statute of the ESCB and the ECB”. The Statute also establishes a decentralised organisation of euro-area statistics by recognising that NCBs should carry out the statistical tasks to the extent possible (Article 5.2) in order to take advantage of the expertise of NCBs and established contacts with banks. One prerequisite for decentralisation was comparability of national statistical results in terms of scope, methodology and classifications in order for the ECB to compile meaningful euro-area aggregates. Consequently, Article 5.3 of the Statute confers upon the ECB the task to contribute to the harmonisation of national statistics within its field of competence, which was specified later in a mutual memorandum of understanding with EUROSTAT.<sup>5</sup> Within the framework of this MoU, ECB was given sole responsibility for money and banking statistics.

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<sup>2</sup> The target was based on macroeconomic benchmark variables, such as expected growth of (real) production potential, medium-term price assumption and longer-term change in the velocity of money circulation.

<sup>3</sup> Deutsche Bundesbank: *The monetary policy of the Bundesbank*, Frankfurt am Main, October 1995.

<sup>4</sup> European Central Bank (editor), Peter Bull: *The development of Statistics for Economic and Monetary Union*, Frankfurt am Main, July 2004.

<sup>5</sup> The latest update of this Memorandum of Understanding on Economic and Financial Statistics between the ECB and Eurostat was published on 10 March 2003.

## 2.2 Development of a harmonised euro-area concept for monetary statistics

Harmonisation of monetary statistics had highest priority in view of the importance for monetary policy. Work started as early as in July 1992 when the Working Group on Statistics (WGS) was established for this task. The group was institutionally embedded in the structure of the Committee of Central Bank Governors in Basle before it moved to the EMI and finally to the ECB. At that time, and for the years to come, the WGS had to deal with a lot of uncertainties, such as the fact that the start and the initial country composition of EMU were unclear at that stage, as were role and definition of monetary aggregates for the single monetary policy. The difficult task was to design a flexible reporting scheme that would later allow users to define a monetary policy strategy without being faced with statistical limitations.

The first step in the harmonisation work was to develop a definition for the reporting sector (“What is a bank?”) that was both, operational and exhaustive. The concept of “monetary financial institutions” (MFIs) sought to strike a good balance between these criteria by predominantly referring to existing community legislation<sup>6</sup>, but making also allowance for resident financial institutions that receive close substitutes for deposits (from entities other than MFIs) and extend credits.<sup>7</sup> The next and main step was to develop a common set of monetary statistics tables that NCBs were expected to transmit to the ECB. This exercise was based on a user consultation on their needs in terms of balance sheet categories and breakdowns into maturity, currency, counterpart sector and residency, as well as on the frequency and timetable to which the data were needed. The final reporting scheme was focused mainly on the monthly compilation of a consolidated balance sheet of MFIs in order to derive monetary aggregates. More detailed information was requested quarterly to complement monetary policy.

The statistical requirements for the single monetary policy were approved by the EMI Council in July 1996 and published as an “Implementation Package”<sup>8</sup>. It served as a reference document for NCBs and MFIs in the implementation work, despite not being legally binding in a formal sense. The legal framework for monetary statistics could only be adopted<sup>9</sup> after the ECB had been formally established and given regulatory power by secondary legislation.<sup>10</sup>

## 3 IMPLEMENTATION OF THE HARMONISED MONETARY STATISTICS CONCEPT FOR THE EURO AREA AT THE BUNDESBANK

### 3.1 Timetable

According to the timetable specified in the Implementation Package, reporting by NCBs of the harmonised country results to the ECB should start in July 1998 for the reference month “June 1998”, thus implying a lead time of around 2 years for the technical implementation.

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<sup>6</sup> First Banking Coordination Directive (77/780/EEC).

<sup>7</sup> According to Regulation (EC) No 2423/2001 of the European Central Bank of 22 November 2001 concerning the consolidated balance sheet of the monetary financial institutions sector, MFIs comprise “*resident credit institutions as defined in Community law, and all other resident financial institutions whose business 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 make investments in securities*”.

<sup>8</sup> European Monetary Institute: *Statistical requirements for Stage Three of Monetary Union*, July 1996.

<sup>9</sup> Regulation (EC) No 2819/98 of the European Central Bank of 1 December 1998 concerning the consolidated balance sheet of the monetary financial institutions sector (ECB/1998/16). This Regulation has been updated and amended several times since then.

<sup>10</sup> Council Regulation (EC) No. 2533/98 of 23 November 1998 concerning the collection of statistical information by the European Central Bank.

By the same time, also historical data reaching back to September 1997 had to be provided. A derogation applied to German MFIs; they started to report the new data for the reference month January 1999 since the Bundesbank wished to continue the existing system until the end of 1998 for national monetary policy purposes, and double-reporting by MFIs was not considered feasible. The Bundesbank bridged the second half of 1998 by providing the ECB with “best estimates”. The implementation timetable at the Bundesbank was split into two phases: as a first step, the ECB requirements were integrated into the Bundesbank system. This phase involved various tasks, such as identifying the MFIs, adjusting reporting forms and instructions, and amending the national legal framework. The final package was endorsed by the Central Bank Council of the Bundesbank in January 1997. Thereafter, MFIs quickly started implementation.

### 3.2 General approach: Reorganisation versus modification

Decentralisation of the statistical work implied that NCBs had the choice how to translate the harmonised reporting framework into the respective national reporting schemes. Even though the MFIs were the ultimate addressees of the requirements, NCBs may decide whether

- to largely abandon the existing national reporting schemes and copy the ECB reporting tables and definitions for implementation (“**reorganisation approach**”) or
- to identify the gaps of the existing system and to close them by modifying the reporting forms and instructions accordingly (“**modification approach**”).

This strategic decision had to be taken at the beginning of implementation. The pros and cons of either approach are listed in Table 1.

**Table 1: “Modification approach” versus “Reorganisation approach”: Pros and cons**

<b>Modification approach</b>	<b>Reorganisation approach</b>
<b>PRO:</b> lower implementation costs at MFIs	<b>CON:</b> higher implementation costs at MFIs
<b>PRO:</b> most existing long time series can be continued	<b>CON:</b> many existing long time series need to be discontinued if no double-reporting is envisaged
<b>PRO:</b> higher degree of detail is kept in reporting system for national analytical or future ECB needs	<b>CON:</b> higher degree of detail is not kept in reporting system for national analytical or future ECB needs if no double-reporting is envisaged
<b>PRO:</b> link of existing system to Banking Supervision can be maintained	<b>CON:</b> consistency to Banking Supervision might not be fully maintained
<b>CON:</b> higher implementation and running costs at NCBs	<b>PRO:</b> lower implementation and running costs at NCBs
<b>CON:</b> dualism between national and ECB framework makes reporting system more complex; efforts needed to «translate» ECB requests and mitigate risk of errors	<b>PRO:</b> direct implementation of ECB requirements more straightforward; future ECB requests can be broadly channelled 1:1 to MFIs

It shows that the “modification approach” saves implementation costs for the reporters as the existing framework can be continued to the extent possible. This advantage is particular evident when the gaps are not significant. Another advantage is that most of the existing time series can be continued across the point of entry into force of EMU; this is especially important for econometric analysis, seasonal adjustment techniques and estimation of back data. Finally, the “modification approach” keeps the information from the existing system that goes beyond the ECB requirements which is important for national analytical purposes and might be requested by the ECB in future. On the other hand, the “modification approach” is

more costly for NCBs, as a gaps analysis needs to be undertaken whenever new statistical requirements of the ECB arise and, even more relevant, the statistical system becomes rather complex, because data compilation for national and ECB purposes needs to be run in parallel. The Bundesbank went for the “modification approach” as the important advantages were considered to outweigh the additional costs at the Bundesbank. One other important reason was that the gaps of the available data were not substantial: more than two decades of monetary targeting lead to a quite comprehensive monetary statistics toolkit in operation. A complete reorganisation of the existing system would have been unproportional under these conditions and might have met the opposition of MFIs.

### 3.3 Implementation of the MFI definition

According to Article 2 (1) of the ECB Regulation on the consolidated balance sheet of MFIs,<sup>11</sup> MFIs comprise “*resident credit institutions as defined in Community law, and all other resident financial institutions whose business 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 make investments in securities*”. The core part of the definition refers to community supervisory law, more specifically to the definition of “credit institutions” in the First Banking Co-ordination Directive.<sup>12</sup> As this Directive had been transposed into the national legislation years before and implemented by national supervisors, obtaining this part of the German list of MFIs was quite easy.<sup>13</sup> The second part of the MFI definition was more difficult to implement as it is not linked to existing legislation. It refers to financial institutions that collect (close) substitutes for deposits from non-MFIs and grant credit and/or make investment in securities. In Germany, as in all other EU countries, money market funds meet this second part of the MFI definition. The business of other “candidate” institutions had also been investigated in order to see whether they meet this part of the MFI definition but this has not been the case so far. Table 2 shows the changes in the statistical reporting sector in Germany and the links with supervisory legislation:

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<sup>11</sup> Regulation (EC) No 2423/2001 of the European Central Bank of 22 November 2001 concerning the consolidated balance sheet of the monetary financial institutions sector (ECB/2001/13).

<sup>12</sup> First Banking Co-ordination Directive (77/780/EEC).

<sup>13</sup> It should be noted that the population of supervised credit institutions according to the German Banking Act is in some respect broader than the community definition and hence also than the MFI definition in that it also refers to “non-deposit-takers”, such as guarantee banks. Anyhow, these institutions had never been included in the reporting of monetary statistics.

**Table 2: Implementation of the MFI concept in Germany**

Type of bank/financial institution	Reporting population for monetary statistics (shaded)		Supervised institutions («credit institutions») (shaded)	
	Previous German framework	Euro area framework (MFIs)	Community concept	German concept
Universal and regional banks				
Savings banks and credit-co-operatives				
Mortgage banks				
Special purpose banks				
Bundesbank				
Building and loan associations	<b>Data reported but excluded</b>	<b>Data to be included</b>		
Money market funds		<b>Joiners</b>		Indirectly via collective investment institutions
Banks that only receive deposits from MFIs or affiliated enterprises		<b>Leavers</b>		
Other German credit institutions, such as Guarantee banks				

The changes in the reporting population were insignificant in terms of the number of institutions involved. As to the leavers, some 20 out of around 3,250 previous reporters could be released from the reporting of monetary statistics; they did not meet the MFI definition because they took deposits from MFIs only or because they were exclusively financed by their parent company.<sup>14</sup> The breaks in the time series that were caused by this change were not significant, given the low business of these institutions. With respect to the joiners, money market funds (around 40 institutions) had to be included in the reporting population for monetary statistics for the first time. Nevertheless, reporting did not start from scratch as the collective investment undertakings had been already used to reporting supervisory data for their money market funds. The inclusion of money market funds caused minor breaks at the highest aggregation level including all types of MFIs, ie the aggregated and consolidated balance sheet of MFIs. Time series relating to credit institutions only remained unaffected. A special case were building and loan associations: they met the MFI definition and had also reported balance sheet data to the Bundesbank in the past; insofar no change occurred. However, their data had to be included in the overall monetary survey, which had not been the case in the previous Bundesbank system because of the special business of these institutions.

### 3.4 The gaps and modifications to the existing reporting forms

Fortunately, the scope of the existing monetary statistics infrastructure at the Bundesbank was quite comprehensive and went in many respects beyond the ECB requirements. Particular

<sup>14</sup> But they have to report quarterly data for supervisory purposes.

comfortable was the fact that the most far-reaching structural change in the transition to the new euro area monetary statistics – the need to separately identify the business with counterparts in other euro area member states within the overall foreign business in order to reflect the enlarged “domestic area” – did not lead to any new requirements for German credit institutions. This was because detailed information on the external balances of credit institutions, broken down by country of counterpart and currency of product, could be retrieved from a separate statistics that had been designed as a supplement to the balance sheet statistics survey. The great country-by-country detail on banks’ external counterparts involved the great advantage for the Bundesbank to be able to arrange data for each possible euro area composition so that the uncertainty regarding the group of countries to participate initially in the Monetary Union did not materialise for German credit institutions. In the same vein, the previous currencies of the Monetary Union member states, which needed to be treated as “domestic currency” for the compilation of back series for the ECB, could be identified for each possible composition of the euro area. There was however the slight reservation that a currency breakdown was not available for business with German residents; it had to be included to the survey on external balances.

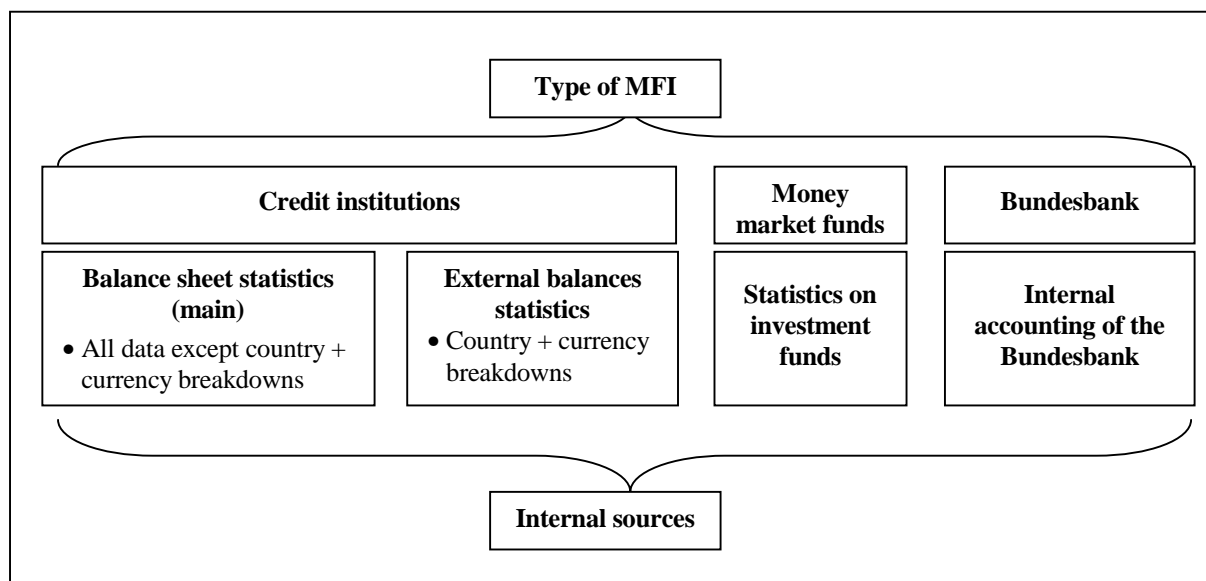
However, it was clear from the beginning that the existing system could not cater for all data requirements of the ECB in the area of monetary statistics. There were some gaps that had to be identified before the enhancements to the reporting forms and instructions could be made. The mapping between the existing statistical infrastructure at the Bundesbank and the harmonised ECB reporting tables was quite complex because the Bundesbank needed to derive the data from different sources for the compilation of the ECB reporting tables as shown in the chart below. And the reporting positions at the Bundesbank were differently organised in terms of detail, definitions and timeliness. Anyhow, the Statistics Department managed to come up with the enhanced reporting tables by the end of 1997, thus fully observing the internal timetable. The modifications to the reporting forms and instructions for credit institutions were mainly the following:

- Inclusion of new instrument categories/products, such as repos, overnight deposits (previous concept of “sight deposits” was slightly broader) and money market fund shares
- Changes in the maturity bands of deposits, loans and debt securities
- Changes in the definition and content of counterpart sectors to implement ESA95<sup>15</sup>
- Inclusion of a rudimentary currency breakdown for domestic assets and liabilities
- Separate identification of positions vis-à-vis other non-credit institutions that are not subject to minimum reserve requirements
- Changes in the treatment of securities lending transactions and repos involving precious metal, bill-based loans, trust loans, netting of assets and liabilities, and holdings of own issues of debt securities

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<sup>15</sup> Eurostat: *European system of accounts*, Luxembourg, 1996.

**Chart 1: Sources for the production of monetary statistics for the ECB**



As far as money market funds are concerned, more substantial modifications were needed as the existing survey on money market funds focused on supervisory but not monetary policy needs. Most importantly, no further breakdown of foreign business was foreseen, nor existed a currency breakdown and a comprehensive breakdown by counterpart sector and maturities.

### 3.5 Streamlining of processes

The ECB requirements split into monthly data to be submitted by the 15<sup>th</sup> working day after the end of the month to which they refer, and quarterly data that have to be sent to the ECB by the 28<sup>th</sup> working day. As most Bundesbank surveys are designed as a monthly survey, the Bundesbank did not encounter any problems with the frequency. However, the production cycles of the external balances statistics of banks had to be streamlined by changing the priorities of IT jobs and accelerating data processing and checking. While the balance sheet statistics had always been produced to an even shorter timetable for monetary policy purposes, the statistics on external balances were not available to this timetable, given that they had been originally designed to serve balance of payments and BIS purposes.

### 3.6 Changeover to the new system

The Bundesbank provided the first harmonised monetary data for Germany in July 1998 for the data referring to end-June 1998. This first data transmission included also historical data along the new ECB format reaching as far back as 1980. The data were initially compiled on the basis of the existing data and additional estimations. First data according to the new reporting tables were submitted by the German MFIs for the month January 1999, the first month of Monetary Union. The practical changeover to the new format was quite difficult and demanded concerted efforts. One difficulty was to check the validity of the new data, since the content and the properties of these series had changed. Furthermore, the transition to the new system was also a major challenge for the MFIs, so that the new series included more than average errors during the first months. And, last but not least, a number of structural statistical breaks in the data series for the ECB had to be quantified in order to remove these statistical effects from the true flows. Reporting of quarterly series started in May 1999.



After the statistical reporting had been stabilised over the years, several further improvements were introduced by the ECB, such as publication of seasonal adjustment key indicators, which required the analytical input of NCBs. The next milestone was the publication (and subsequent implementation) of a new ECB Regulation in December 2001 that amalgamated the already existing reporting framework with new data requests, such as a detailed sector breakdown on a monthly basis (previously only quarterly) and the provision of data on write-offs /write-downs on loans and securities in order to compile price-adjusted flows.

### **3.7 Experience gained**

The implementation and production of the harmonised set of monetary statistics at the Bundesbank was a major challenge for mainly four reasons. First, reporting forms and instructions of the areas involved had to be enhanced. Second, production cycles needed to be geared to the needs of the ECB. Third, the decision to keep and modify the structure of the existing statistical framework by re-arranging and combining the necessary data from different internal sources made the monetary statistics system very complex. And forth, this work had to be done in addition to the regular production of national monetary data according to the “old system”. The users at the Bundesbank and at the ECB had to be served alike. As a consequence, it was evident that setting clear priorities, rationalising IT processes and keeping a quick, efficient and comprehensive information flow within the statistics function as well as with other Bundesbank departments (operations, minimum reserves, banking supervision, legal services, etc.) was crucial for the success of this exercise.

The decision to keep the existing system and modify it to the needs of the ECB was confirmed. It should be noted however that this assessment only applies to the Bundesbank case; central banks that have less detailed monetary statistics available might be better off implementing the reporting tables of the ECB directly and discontinuing their existing system. As for Germany, implementation costs were lower for the MFIs, so that reporting requirements could be easier communicated to them. Furthermore, the long time series could be mostly maintained which was particularly helpful when back series had to be estimated for the ECB. Finally, the comprehensive statistical system was maintained for the benefit of national and ECB users. However, the downside of this approach has proven to be the additional work at the Bundesbank that derives from the complexity that is build into the statistical system of the Bundesbank. National reporting forms are still organised according to national classifications and accounting formats, so that plenty of data need to be rearranged into the format that is needed by the ECB. While the technical part of this work is fully automated, changes to this system needed when new data requirements or ad-hoc data collections of the ECB are implemented require significant efforts. Also, inquiries by the ECB on German data and/or questionnaires to existing or future requirements need to be always “translated” into the Bundesbank system.

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