

## Monetary analysis for the euro area

The Governing Council of the ECB has assigned a prominent role to money in the Eurosystem's stability-oriented monetary policy strategy and has set a reference value of 4½% for the growth of the broadly defined money stock M3. In order to make an assessment of the monetary situation in the euro area, however, it is not enough to compare current monetary growth with the reference value. What is needed is an in-depth study of the factors underlying monetary growth. Monetary analysis is an important aid to that. It focuses on the consolidated balance sheet of the "money-creating" sector and examines the individual components and counterparts of the money stock M3. This balance sheet-based analysis is used to indicate the economic determinants of the given economic situation. The harmonisation of the money and banking statistics in the euro area and the new definition of the monetary aggregates have meant some modifications for monetary analysis compared with the former practice of the Bundesbank. These modifications are the subject of the present article, which concentrates on questions of methodology. There is also a brief examination of monetary trends in the euro area, which reveals that neither inflationary nor deflationary risks are emanating from the monetary side at present.

## Monetary analysis: its importance and basis

*Prominent role of money*

Money plays a prominent role in the stability-oriented monetary policy strategy of the Eurosystem (see adjacent explanatory notes). This is reflected by the decision which the Governing Council of the ECB took in December of last year to announce a reference value of 4½% for the growth of the newly defined money stock M3.<sup>1</sup> Current monetary growth is analysed regularly and in-depth on the basis of this value in order to obtain early signals of future price level changes.

*Exclusive analysis of the key aggregate insufficient*

As was also the case formerly in German monetary targeting, an interpretation of the monetary situation in the euro area cannot rely solely on the analysis of one key aggregate. A monetary variable may be subject intermittently to special influences (such as changes in tax legislation or extreme uncertainties in the financial markets) which temporarily impair its informative content regarding future price developments. Also, it is not possible at present to assess how far the changeover to a single monetary policy will bring about changes in investors' portfolio behaviour and in the financing structures of the economic agents which might lead to a one-off change in the structural relationships or to lasting instabilities in the demand for money.

*Necessity of an in-depth monetary analysis*

Bearing that in mind, monetary analysis, i.e. the analysis of the components and counter-

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<sup>1</sup> See also European Central Bank, Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy, Monthly Bulletin, February 1999, especially p. 38 ff.

## Stability-oriented monetary policy strategy of the Eurosystem

The stability-oriented monetary policy strategy adopted by the Governing Council of the ECB consists of three main elements: a quantitative definition of the objective of price stability, a prominent role for money, and a broadly based assessment of the outlook for future price developments and the risks to price stability in the euro area as a whole.

The Governing Council has defined price stability as "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%", with price stability "to be maintained over the medium term". Firstly, this definition of price stability takes account of the inevitable problems of price measurement, which lead to the "true rate of inflation" being overstated to a certain extent. Secondly, it clearly indicates that deflationary tendencies are inconsistent with the final objective of the Eurosystem. The objective of price stability has a medium-term orientation since there may be short-term volatility in prices that cannot be controlled by the central bank.

In order to ensure that the final objective is achieved, the stability-oriented monetary policy strategy is supported by the other two elements cited above. The prominent role assigned to money in the set of economic and financial indicators takes account of the fact that inflation is ultimately a monetary phenomenon. It is therefore a suitable nominal anchor for a monetary policy aiming at the maintenance of price stability and helps stabilise inflationary expectations at the level envisaged by the central bank. Against this background, the Governing Council set a reference value for the broadly defined money stock M3 in December of last year. M3 is to grow at a rate of 4½% per annum in order to maintain price stability and facilitate sustainable growth in the real economy. The derivation of the reference value was based on a trend growth rate for real gross domestic product (GDP) (between 2% and 2½%), a normative price assumption in line with the quantitative definition of price stability (increase in the HICP of below 2%), and an add-on for the trend decline in the velocity of circulation of between ½% and 1%.

In taking its interest rate policy decisions, the Governing Council does not rely solely on the results of the analysis of monetary growth. In the short term, price developments are influenced by a number of non-monetary factors which also have to be taken into consideration. Furthermore, there exists uncertainty in the initial phase of monetary union as to whether the underlying monetary relationships which indicate a sufficiently stable relationship between M3 growth and price developments in the euro area will obtain in their previous form after the inception of the single monetary policy. The Governing Council therefore also analyses a broad range of indicators which may contain information on future price developments. These include wages, the exchange rate, the yield curve as well as various price and cost indices. It also uses internal and external inflation forecasts in its assessment.

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parts of the money stock, has a particular importance. The first stage of this is no more than an ex post "explanation" of monetary growth based on an analysis of the balance sheet. However, the second stage, which comprises a more detailed study of individual developments, is concerned with indicating the economic or institutional determinants which underlie a given monetary situation. Monetary analysis thus makes it possible to distinguish between temporary and trend influences on monetary developments, which creates some measure of certainty in assessing current monetary growth and its relevance to future price developments.

*Statistical base  
of the  
monetary  
analysis*

The monetary analysis is based on the consolidated balance sheet of the "money-issuing sector" of the relevant currency area. This comprises the financial statement of the central bank and the balance sheets of the other (money-issuing) institutions involved in the monetary transmission process, with the relationships between the individual institutions of this sector being eliminated by consolidation. A set of figures of this kind provides information on the money-issuing sector's assets and liabilities vis-à-vis residents not belonging to this sector and on its external assets and liabilities. This is a stock calculation. Since the task of monetary analysis is to explain monetary growth, however, a calculation in flow variables, i.e. in changes, is also prepared.<sup>2</sup> Changes in the money stock are then related to the changes in the balance sheet positions combined in the counterparts (essentially, credit to the private sector, credit to general government, changes in the net external position, monetary capital formation

and other factors). This makes it possible to identify immediately which (positive or negative) contribution the individual balance sheet counterparts, taken in isolation, have made to monetary growth. When interpreting the figures, it should be borne in mind, however, that transactions between the money-issuing sector and the other economic agents are not necessarily relevant to monetary growth. They may, in fact, offset each other within the balance sheet counterparts. It is also the case that the "direction of impact" may be either from the balance sheet counterparts to the money stock or in the opposite direction. The study of monetary growth in the balance sheet context can never be anything more than the starting point for further analyses.

### **The consolidated balance sheet of the monetary financial institutions in the euro area**

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In the past, the overall monetary surveys of the EU member states were characterised by a number of major differences with regard to the definition of the money-issuing sector and the contents of the individual balance sheet items – the main differences being in the instruments shown and the further statistical breakdown, say by maturity, currency or economic sector of the non-money-issuing sector. In order to prepare a meaningful consolidated balance sheet for the euro area in

*Harmonisation  
of the money  
and banking  
statistics in the  
euro area*

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<sup>2</sup> The changes within a given period do not necessarily correspond to the difference between the corresponding stock variables. In the flow calculation, purely statistical changes, such as exchange rate-related changes, revaluations (e.g. value adjustments) of individual balance sheet items, changes due to a new definition of the reporting population and so on, are eliminated.

its entirety, a harmonisation of the respective national balance sheet statistics in the EMU member countries was therefore required. Further changes in the individual national reporting systems resulted from the need to separate out items vis-à-vis counterparties in the other EMU member countries as partial sets of the external assets and liabilities. This work on harmonisation had to be completed by the start of monetary union at the latest. For that reason, the Council of the EMI had already published the Statistical Requirements for Stage Three of Monetary Union (Implementation Package) in July 1996, thus defining the requirements for banking statistics in monetary union. The Bundesbank has implemented these requirements as part of a modification of the balance sheet statistics reporting system. Following a period of preparation of around two years, the institutions required to present monthly balance sheet statistics in Germany have been submitting their statistical reports using the new forms since January 1999.

*Monetary  
Financial  
Institutions  
sector*

In the harmonised money statistics, the money-issuing sector comprises Monetary Financial Institutions (MFIs)<sup>3</sup>. MFIs comprise the central banks, credit institutions as defined in Community law<sup>4</sup> 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>5</sup> The last-named group consists predominantly (in Germany up to now, in fact, exclusively) of money market funds. The main reason for not restricting the

money-issuing sector to central banks and credit institutions was the widespread use, in some participating countries, of new financial instruments representing close substitutes for bank deposits which are issued by other financial institutions. In France, for example, money market shares/units have been playing a significant role in short-term financial investment since the mid-eighties. In order to obtain a coherent picture of the monetary situation in the euro area as a whole, it was therefore necessary to take due account of such special features of the financial systems of individual countries in harmonising the statistics. From the German perspective, the main change from the former practice is the inclusion of building and loan associ-

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<sup>3</sup> "Monetary Financial Institutions" is a definition which has been developed for statistical purposes. In contrast to the concept of "credit institutions", this term is of no relevance to minimum reserves or supervision.

<sup>4</sup> As defined in Community law, a credit institution means "an undertaking whose business is to receive deposits or other repayable funds from the public (including the proceeds arising from the sales of bank debt securities to the public) and to grant credits for its own account".

<sup>5</sup> The classification of financial institutions other than credit institutions as MFIs depends on the degree of substitutability between the financial instruments they issue and the deposits placed with them. The closeness of substitutability is determined by the liquidity of these instruments, which is "measured" by the criteria "transferability", "convertibility", "certainty" and "marketability". For details, see European Central Bank, The Single Monetary Policy in Stage Three – General documentation on ESCB monetary policy instruments and procedures, Frankfurt 1998, p. 87 ff.

ations<sup>6</sup> and of money market funds as part of the money-issuing sector.<sup>7</sup>

*Breakdown by  
instrument and  
maturity*

The breakdown of the harmonised consolidated MFI balance sheet by instrument corresponds to the standard international conventions (see overview on page 20). On the assets side, a distinction is made between loans, securities (other than shares), shares and other equities, fixed assets, and remaining assets. The liabilities side distinguishes between currency in circulation, the various types of deposits and marketable instruments, capital and reserves, and remaining liabilities. Some of the maturity categories, which provide a more detailed breakdown of individual types of assets and liabilities, differ from those used in the former German banking statistics. The cut-off point between medium-term and long-term assets is now five years (compared with four years previously), and there is no such cut-off for liabilities. Instead, a new maturity cut-off of two years has been introduced for liabilities. For deposits with an agreed maturity and for bank debt securities, this marks a distinction between "money" and monetary capital. In order to construct time series with back data consistent with the harmonised specification, some maturity categories of the old banking statistics have had to be translated into the new statistical maturity categories on the basis of estimates. However, the resulting inaccuracies are limited in scale, especially in the area of shorter-term liabilities which are crucial for the definition of monetary aggregates.

There is a further sectoral breakdown of most items in the consolidated balance sheet by counterparty of the MFIs. After elimination of the inter-MFI items, the items vis-à-vis euro area residents and non-euro area residents (banks and non-banks) remain in the consolidated balance sheet of the MFIs. A distinction must be made between these items for the purpose of the monetary analysis.<sup>8</sup> The external assets and liabilities of the MFIs may thus be combined in a net external position, reflecting the external current account and financial account transactions of the non-MFIs. The other balance sheet counterparts and monetary aggregates are essentially assets and liabilities vis-à-vis euro area residents. Euro area residents are broken down further on the basis of the European System of Na-

*Sectoral  
breakdown*

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<sup>6</sup> Up to the end of last year, banks' assets and liabilities vis-à-vis building and loan associations were shown as assets and liabilities vis-à-vis non-banks (even though building and loan associations are credit institutions within the meaning of the German Banking Act). Building and loan associations' assets and liabilities vis-à-vis other non-banks were not included in the overall monetary surveys. Building and loan associations are financial intermediaries whose interest rates are determined in the long term for the saving and loan periods. The business of building and loan associations is therefore not directly affected by the interest rate measures taken by the central bank. Even so, the reclassification of building and loan associations as part of the money-issuing sector, in line with the MFI definition, is unlikely to cause problems in the monetary analysis. The share of building and loan associations in the overall MFI sector in the euro area is comparatively small at 1% of the balance sheet total. Above all, individuals' shorter-term deposits held at building and loan associations, which are included in M3, are insignificant.

<sup>7</sup> A small number of credit institutions which previously reported to the banking statistics have been excluded from the group of reporting institutions because they do not meet the MFI definition, but the balance sheet volumes thereby excluded are insignificant.

<sup>8</sup> The further breakdown of the non-MFI sector into "domestic" residents and residents in the other euro area member states is important, firstly, for being able to continue providing information on national banking business, which also forms a basis for preparing the national financial flow accounts. Secondly, such data provide detailed information on the trend in the cross-border transactions of the MFI sector within EMU.

### Breakdown of the consolidated balance sheet of the MFI sector by instrument and by maturity category \*

Assets	Liabilities
<b>Loans</b> up to 1 year more than 1 year up to 5 years over 5 years	<b>Currency in circulation</b>
<b>Securities other than shares</b> up to 1 year over 1 year	<b>Deposits</b>
<b>Shares and other equities</b>	<b>Overnight deposits</b>
<b>Fixed assets</b>	<b>Deposits with agreed maturity</b> up to 1 year more than 1 year up to 2 years over 2 years
<b>Remaining assets</b>	<b>Deposits redeemable at notice</b> up to 3 months over 3 months
	<b>Repurchase agreements</b>
	<b>Money market fund shares/units and money market paper</b>
	<b>Debt securities issued</b> up to 1 year more than 1 year up to 2 years over 2 years
	<b>Capital and reserves</b>
	<b>Remaining liabilities</b>

\* The items in bold are collected monthly throughout EMU. The other items are collected quarterly.

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tional and Regional Accounts (ESA 95) into the sectors "central governments", other general government (state government, local government, social security funds) and other residents, i.e. enterprises and individuals (other financial intermediaries, insurance corporations and pension funds, non-financial corporations, households including non-profit institutions).<sup>9</sup> Data by detailed sectoral breakdown are collected quarterly.<sup>10</sup>

### The monetary aggregates in the euro area

Money stock definitions of the Eurosystem ...

The Governing Council of the ECB has defined three monetary aggregates of varying broadness. The money stock M1 comprises currency in circulation and overnight de-

posits<sup>11</sup>, i.e. the funds which are immediately available for transaction purposes. Apart from the insignificant volume of the new component overnight deposits of non-MFIs with building and loan associations, this definition of M1 is somewhat narrower than the erstwhile Bundesbank definition since it no longer includes the deposits of more than one day and less than one month which used

<sup>9</sup> A sectoral breakdown of this kind can provide information on monetary developments. See, for Germany, Read, Vicky: Sectoral Disaggregation of German M3, Discussion Paper 1/96, Economic Research Group of the Deutsche Bundesbank.

<sup>10</sup> The Eurosystem also collects quarterly borrowers statistics containing a breakdown of short, medium and long-term credit to the private non-financial sector by major group of borrower (non-financial corporate sectors, households and non-profit institutions) and a breakdown of credit to households by intended use (consumer credit, lending for house purchases and other lending).

<sup>11</sup> Electronic money on prepaid cards is contained in the overnight deposits.

to be classified as sight deposits. The money stock M2 includes M1 as well as the deposits with agreed maturity up to two years and deposits redeemable at notice up to three months. This aggregate, which combines currency in circulation and bank deposits that are regarded as comparatively liquid, corresponds largely to the former German M3 in terms of the components which are included.<sup>12</sup> The newly defined monetary aggregate M3 includes M2 and the marketable instruments issued by the MFI sector, which are regarded as close substitutes for the deposits included in the money stock. These instruments are repurchase agreements, money market paper and money market fund shares/units and bank debt securities with maturity up to two years.<sup>13</sup> The fact that the range of institutions required to report has been extended to include money market funds in Germany has had a definite impact on M3 – albeit a moderate one – owing to the fact that M3 now includes money market shares/units. However, the inclusion of building and loan associations in the money-issuing sector has resulted in comparatively minor changes in the monetary aggregates since the savings deposits with building and loan associations (deposits which are significant in terms of their number) are now classified as monetary capital rather than as part of the money stock.

... also  
comprise  
central  
governments'  
liabilities with  
a monetary  
character

A particular feature of the definition of the monetary aggregates in the euro area is that they contain not only the above-mentioned liabilities of the money-issuing sector to resident non-MFIs (excluding central governments<sup>14</sup>) but also the monetary liabilities of

the central governments. They comprise liabilities of Post Offices, Treasuries and national savings banks that do not themselves have any characteristics of credit institutions but do have deposits or substitutes for deposits that fall within the MFI definition. These liabilities are hence comparable to bank deposits which count towards the money stock.<sup>15</sup> Only in France and Italy are there deposits of this kind on a significant scale. In order to make a correct assessment of the liquidity situation in the euro area, it nevertheless seemed prudent to include them in the money stock definitions. However, since their percentage shares in the individual aggregates (3½% in M1, 3% in M2, and 2¾% in M3) are comparatively small, their impact on monetary developments is, as a rule, only minor.

Generally speaking, a monetary aggregate is suitable for assessing the risks of inflation if it displays a close relationship with overall

*Money stock  
M3 the focus  
of interest for  
monetary policy  
owing to  
econometric  
properties*

<sup>12</sup> One difference is that the time deposits of more than two years and less than four years (which are, admittedly, insignificant in terms of quantity) are no longer included in the money stock but counted towards monetary capital. On the other hand, savings bonds with a maturity of less than two years are now included in M2 and M3, respectively, and not in monetary capital. In accordance with the harmonised monetary and banking statistics, savings bonds no longer appear as a separate item. Instead, registered paper is classified as deposits with agreed maturity and non-marketable bearer debt securities are classified as bank debt securities.

<sup>13</sup> Repurchase agreements (of no great significance in Germany in terms of quantity) were previously booked as sight or time deposits depending on their maturity.

<sup>14</sup> The MFIs' liabilities to central governments are not included in the money stock since experience has shown that there is no close relationship between their development and the central governments' expenditure behaviour.

<sup>15</sup> The information needed to calculate the monetary aggregates is reported separately by these institutions. By definition, these deposits are not contained in the consolidated MFI balance sheet, but they are incorporated in the money stock and its counterparts; the counterpart is included in "Other factors".

## Components and counterparts of the money stock M3 (old and new breakdowns)

Up to the end of 1998 German money stock M3	From the start of 1999 "European" money stock M3
<b>Components</b>	
Currency in circulation	Currency in circulation
Sight deposits (= deposits for less than 1 month; including repurchase agreements)	Overnight deposits (including monetary liabilities of the central governments)
Time deposits for less than 4 years (including repurchase agreements)	Deposits with agreed maturity up to 2 years (including monetary liabilities of the central governments)
Savings deposits at 3 months' notice	Deposits redeemable at notice up to 3 months (including monetary liabilities of the central governments)
	Money market fund shares/units and money market paper issued (net)
	Debt securities issued with an agreed maturity of up to 2 years (net)
	Repurchase agreements
<b>Balance sheet counterparts</b>	
I. Lending to domestic non-banks	I. Lending to domestic non-banks
– to public authorities	– to public authorities
– to enterprises and households	– to enterprises and households
II. Net external assets	II. Net assets outside the euro area
III. Monetary capital formation	III. Monetary capital formation
– Time deposits for 4 years and more	– Deposits with agreed maturity of more than 2 years
– Savings deposits at over 3 months' notice	– Deposits redeemable at notice over 3 months
– Bank savings bonds	– Debt securities with maturity over 2 years
– Bank debt securities outstanding	– Capital and reserves
– Capital and reserves	
IV. Deposits of the Federal Government	IV. Deposits of the central governments
V. Other factors	V. Other factors (including the counterpart for the monetary liabilities of the central governments)
<b>M3 = I + II – III – IV – V</b>	<b>M3 = I + II – III – IV – V</b>
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monetary demand. Since bank deposits and securitised MFI liabilities may be held for both transaction and for store-of-value purposes, it is difficult in practice to draw a line between money and monetary capital. Whether a prominent role may be assigned to a given monetary aggregate within the monetary policy strategy is therefore ultimately an empirical question. Firstly, the demand for money must be stable in the long term so that it is possible to derive the rate of monetary growth which is compatible with price stability. Secondly, the development of the monetary aggregate must have a lead-time over price movements. According to internal Euro-system studies, the money stock M3 satisfies both requirements.<sup>16</sup> The reference value set by the Governing Council of the ECB therefore relates to this aggregate.

### Special features of monetary analysis for the euro area

*Monetary analysis in the euro area ...*

Monetary analysis for the euro area starts with the key aggregate M3. In particular, a study is made of the extent to which lending to the private sector, lending to the public authorities, monetary capital formation and the change in the net external position have contributed to M3 growth. It should be borne in mind that the broader definition of M3 and the above-mentioned differences in the maturity cut-offs have resulted in the definition of the item "Monetary capital" being somewhat different from that of the corresponding item in the former German overall monetary survey. Monetary capital now comprises deposits with agreed maturity of more than two

years (compared with four years and over previously), deposits redeemable at notice of more than three months (including deposits with building and loan associations), and bank debt securities with a maturity of more than two years (compared with all bank debt securities, previously) as well as the capital and reserves of MFIs. The net external position refers to assets and liabilities vis-à-vis non-euro area residents.

The analysis of the monetary situation in the euro area is subject to particular difficulties because the availability and quality of the relevant data are initially poorer than those on which the majority of national central banks were formerly able to rely. Data for the entire consolidated MFI balance sheet have been available only since September 1997, i.e. just under one-and-a-half years.<sup>17</sup> The possibility of assessing current trends in the light of past developments is therefore limited. Similarly, given such short series, there is no possibility of seasonal adjustment. For that reason, interpretation has to be based mainly on year-on-year rates at present. As a result, changes in the monthly dynamics cannot always be assessed reliably.<sup>18</sup> For the monetary aggregates M1, M2 and M3, the problem of data availability has been solved by back-estimating long series to the beginning of

*... is subject to specific initial difficulties*

<sup>16</sup> See European Central Bank, Euro area monetary aggregates and their role in the Eurosystem's monetary policy strategy, Monthly Bulletin, February 1999, p. 29–46.

<sup>17</sup> In some cases, these data were estimated by the national central banks on the basis of the respective national banking statistics that had not yet been harmonised.

<sup>18</sup> It should be noted, for example, that changes in the 12-month growth rate from one month to another do not necessarily imply a stronger or weaker expansion at the end of the series. They might be due to baseline effects, i.e. changes in dynamics one year before.

1980,<sup>19</sup> thus making it possible to start preparations for seasonal adjustment.

In the case of all the marketable instruments issued by MFIs, there is the further problem of separating the holdings of non-MFIs within the euro area from those held by banks and non-banks outside the euro area. In the past, the Bundesbank managed this problem by using data from the balance of payments statistics to adjust the flow data (but not the series showing stocks) for the balance of external transactions. This resulted in marked differences between the growth rates of the unadjusted stock figures and the growth rates calculated on the basis of adjusted flow data. Such adjustments have so far not been made to the figures of the consolidated MFI balance sheet for the euro area. For that reason, certain biases cannot be completely ruled out, especially for money market paper and money market shares/units, bank debt securities and the net external position.<sup>20</sup>

*Longer-term  
analysis of  
monetary  
growth  
unaffected by  
statistical  
problems*

The cited difficulties suggest that a certain degree of caution is called for, in particular, when analysis of monetary data focuses on the short term. Monthly developments of individual variables should therefore not be overinterpreted, but this does not give rise to fundamental problems for monetary policy. What is crucial for a reliable assessment of any future inflationary pressure from the monetary side is an appropriate assessment of the medium-term monetary trends (say, over the period of one year). These are unlikely to be significantly impaired by the above-mentioned initial statistical problems, however.

## German contribution to the consolidated MFI balance sheet of the euro area

The data which is incorporated into the consolidated MFI balance sheet is collected by the national central banks.<sup>21</sup> It is therefore possible to calculate the national contributions to the individual items of the overall balance sheet. Such a breakdown of the monetary data for the euro area by country fundamentally has no intrinsic monetary policy relevance, as the Governing Council of the ECB has to gear its policy to the monetary situation in the euro area as a whole. At least in the first few years, however, it can provide useful information for interpreting the euro aggregates. In particular, special movements in individual items may be explained more easily if a distinction can be made between developments which are specific to one country and those which apply across national borders. Furthermore, a study of specific national features can be useful for areas other than monetary policy, such as an analysis of trends in the financial system. For these reasons, the Bundesbank publishes the German contribution to the relevant items alongside the consolidated MFI balance sheet for the euro area in the Statistical Section of the Monthly Report. When interpreting them, it should be borne in mind, however, that the German

*Regional  
breakdown  
of the consoli-  
dated balance  
sheet as an  
aid to inter-  
pretation*

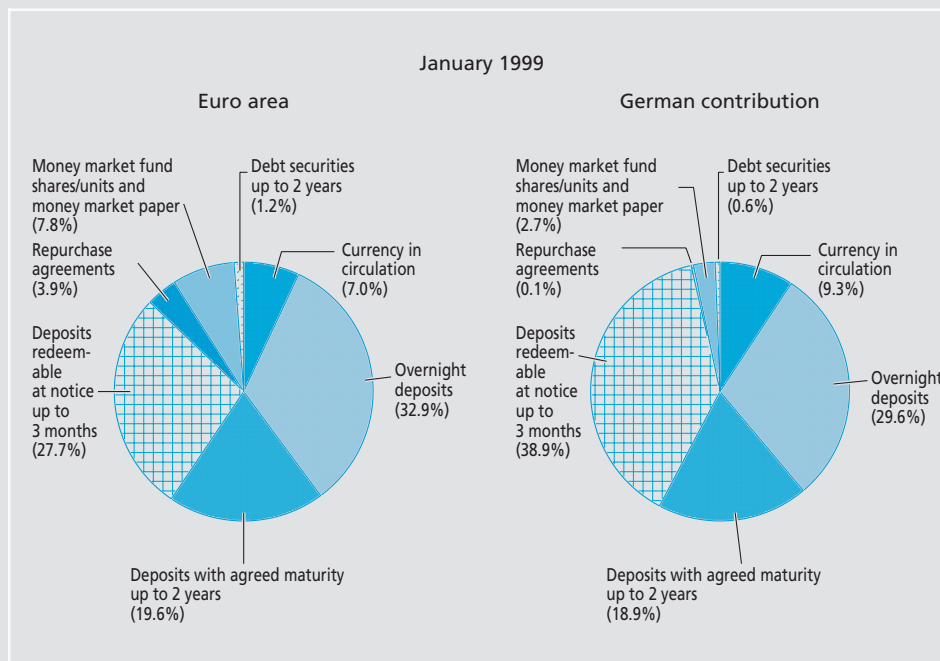
<sup>19</sup> See European Central Bank, Euro area monetary aggregates from 1980 to 1998, Monthly Bulletin, February 1999, p.41–46.

<sup>20</sup> If, say, non-residents purchase bank debt securities with a maturity of over two years on balance in a given period, this results in an overestimation of both monetary capital formation and the net external position.

<sup>21</sup> The national central banks collect the data from the MFIs located in their own countries. This means, for example, that the deposits of German customers with credit institutions in Luxembourg are incorporated in the report of the Luxembourg central bank.

## Percentage shares of the components of M3

### Euro area and German contribution



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contribution to the monetary aggregates M1, M2 and M3 are not autonomous German monetary aggregates. They cannot be related in a meaningful way to the aggregates published in the Monthly Report up to February 1999.

#### *Structural differences between "euro M3" and the German contribution*

If the structure of M3 for the euro area as a whole is compared with the structure of the German contribution (which accounts for roughly three-tenths of the total aggregate), a number of marked similarities are apparent as well as some notable differences. The share of currency in circulation in Germany, at just over 9%, is somewhat higher than in the euro area overall. This is probably due not least to the fact that the Deutsche Mark is used on quite a large scale abroad. The overnight deposits and the deposits with agreed

maturity up to two years account for around 50% both in Germany and in the Eurosystem. By contrast, there are significant differences in the case of deposits redeemable at notice up to three months. At 39%, their share in the German contribution to M3 is 11 percentage points higher than in the monetary union as a whole. This reflects the varying importance of short-term savings deposits, which have traditionally played a major role in money holdings in Germany. By contrast, they are of no (or only slight) importance in other euro area countries (such as Austria, Portugal and Finland). The money market fund shares/units and money market paper are of comparatively minor relevance in Germany compared with the euro area as a whole. Their quite high share in "European M3" is mainly due to the situation in France.

The share of the French contribution to the item "Money market fund shares/units and money market paper" amounts to almost 60%. This paper has been very popular with French investors for some time, frequently for tax reasons. Repurchase agreements account for around 4% of M3 in the euro area, and take place on a significant scale in Spain, Italy and France. Debt securities with a maturity of up to two years play a minor role, both in Germany and EMU as a whole.

### Monetary trends in the euro area

*No risks to price developments from the monetary side*

Following a sharp growth in the early nineties and pronounced fluctuations between 1993 and 1996, year-on-year growth rates for M3 have been comparatively steady during the past few years, at between 3½% and 5%. However, in January 1999 the rate accelerated relatively sharply, being 5.7%, compared with 4.5% and 4.6% in December and November 1998, respectively. However, too much weight should not be attached to monthly fluctuations in the monetary data, not least also bearing in mind possible special influences at the start of monetary union. The Governing Council of the ECB therefore analyses monetary developments on the basis of a three-month moving average of the 12-month M3 growth rates. Most recently (for the period from November 1998 to January 1999), the average was 4.9%, compared with 4.6% in the preceding month. This figure only slightly overshoots the reference value of 4½% adopted by the Governing Council at the end of last year. Overall, monetary developments during the past few



months suggest that there are no inflationary or deflationary risks emanating from the monetary side at present.

Among the individual components of the money stock, the growth in overnight deposits has been especially sharp for some while. The main reasons for this are likely to have been the further decline in interest rates and low rates of inflation, and thus the overall low opportunity costs of liquid money holding. Above and beyond that, the high liquidity preference reflects the favourable cyclical trends in the past year. Over the last 12 months, there has also been a sharp growth in deposits redeemable at notice up to three months as well as in resident non-MFIs' holdings of money market fund shares/units and money market paper – growth in

*Components of the money stock*

the latter being due mainly to a sharp increase in January. There has been a slight rise in currency in circulation, whereas deposits with agreed maturity up to two years, shorter-dated debt securities and repurchase agreements have shown a decline.

*High level of lending to the private sector*

Among the individual counterparts, it is mainly the sharp expansion in loans to the private sector which has encouraged monetary growth. Between February 1998 and January 1999, loans increased at a rate of 9.4%. The quite marked fall in bank interest rates in several countries probably played a crucial role in this. Also, the sharp growth in the real economy in parts of the euro area has evidently been a spur to borrowing. MFIs' holdings of shares and other equities as well as of other corporate sector securities likewise showed a perceptible rise during the period under review.

*Weak lending to the public authorities*

General government indebtedness to the MFIs grew only slightly during the last 12 months (0.8%). Moderate public sector demand for bank loans is probably due mainly to a cyclical and interest rate-related decline in the deficits.

*Monetary capital formation at a low level*

Monetary capital formation has had scarcely any retarding effects on monetary growth recently. The fact that interest rates were at an all-time low and the flattening of the yield curve are likely to have been the main reasons for the low level of willingness to engage in longer-term investment with MFIs. Although there was a rise in the statistical growth rate of MFIs' longer-term financial liabilities to resident non-MFIs in January of this year, this increase is partly due to a marked increase in MFIs' capital

### The money stock and its counterparts in the European monetary union \*

Euro billion			
Item	1998 Dec.	1999 Jan.	Com- pare 1998 Jan.
I. Lending by MFIs to non-banks (non-MFIs) in the euro area	+ 32.3	+ 95.3	+ 37.0
of which:			
to enterprises and individuals	+ 65.7	+ 98.8	+ 31.2
Loans	+ 52.8	+ 59.2	+ 11.2
Securities	+ 12.9	+ 39.6	+ 19.9
to public authorities	- 33.4	- 3.5	+ 5.8
II. Net external assets	+ 18.4	- 35.6	- 48.4
III. Monetary capital formation at euro area MFIs	- 2.1	+ 74.9	+ 7.1
of which:			
Deposits with agreed maturity of over 2 years	+ 5.7	+ 3.8	+ 5.2
Deposits at agreed notice of over 3 months	+ 5.1	+ 0.2	- 2.0
Debt securities with maturities of over 2 years <sup>1</sup>	- 6.6	+ 37.3	+ 6.7
Capital and reserves	- 6.2	+ 33.5	- 2.8
IV. Deposits of central governments	+ 1.2	- 6.1	- 8.0
V. Other factors <sup>2</sup>	- 22.3	- 39.7	+ 0.4
VI. Money stock M3 (Balance I plus II less III less IV less V)	+ 73.9	+ 30.7	- 10.9
Currency in circulation <sup>3</sup>	+ 9.4	- 9.2	- 8.3
Overnight deposits <sup>2</sup>	+ 72.0	+ 30.0	- 48.9
Deposits with an agreed maturity up to 2 years <sup>2</sup>	+ 12.7	- 4.4	+ 11.5
Deposits at agreed notice up to 3 months <sup>2</sup>	+ 31.1	+ 15.4	+ 17.9
Repurchase agreements	- 20.4	- 4.1	+ 12.1
Money market fund shares/units and money market paper <sup>1</sup>	- 17.9	+ 15.8	+ 3.6
Debt securities up to 2 years <sup>1</sup>	- 13.0	- 12.8	+ 1.3
Money stock M3			
Annual percentage change	+ 4.5	+ 5.7	+ 4.6
Moving three-month average (centred)	+ 4.9	...	+ 4.5

\* Source: ECB; there may be some deviations from ECB publications on account of differing stages of revision. From January 1999 statistical breaks are eliminated (see also Table II.1 in the Statistical Section, page 8\*). — <sup>1</sup> Excluding the holdings of the MFIs. — <sup>2</sup> Including monetary liabilities of the central governments. — <sup>3</sup> Excluding the MFIs' cash holdings.

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and reserves and thus predominantly to non-market transactions. Additionally, credit institutions have evidently sold bank debt securities on a somewhat larger scale recently. Resident non-MFIs have increased their deposits with agreed maturity over two years only slightly during the past 12 months. Virtually all deposits redeemable at notice over three months are accounted for by the German contribution. The fact that the terms are not very attractive has meant that their persistent reduction since the beginning of 1996 has continued.

Over the past 12 months, there have been large outflows of funds in the external payments of resident non-MFIs. The net external assets of the MFIs, which reflect such transactions, were reduced by around € 100 billion. A part in this is likely to have been played by the fact that resident non-MFIs have obviously engaged in direct investment and portfolio investment on a large scale outside the euro area.

*Large outflows  
in external  
payments*