The switch to variable rate tenders in the main refinancing operations

At its meeting on 8 June 2000 the Governing Council of the ECB decided that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders, using the multiple rate auction technique. Furthermore, the Governing Council also decided to set a minimum bid rate for these operations. The background to this decision was the severe overbidding problem which had occurred under the fixed rate tender procedure. In the new procedure the minimum bid rate signals the monetary policy stance, which previously used to be indicated by the rate applied to fixed rate tenders. Furthermore, an indication of the expected liquidity needs of the banking system will be published at the time of the announcement of the weekly auction. The Governing Council also emphasised that it will retain the option of reverting to fixed rate tenders, if and when this is deemed appropriate.

1 Introduction

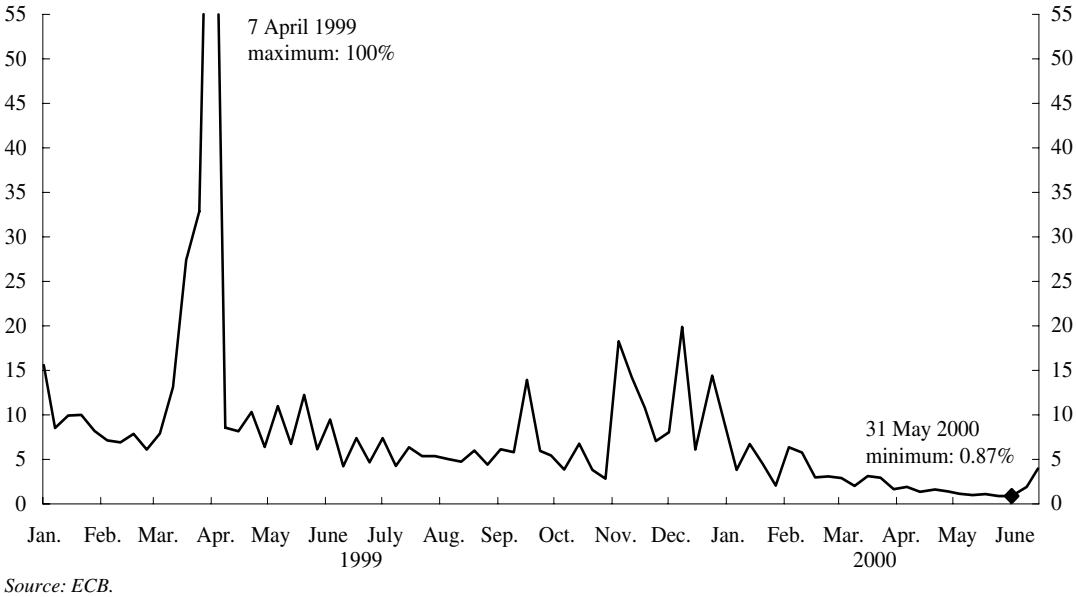
At its meeting on 8 June 2000 the Governing Council of the ECB decided that, starting from the operation to be settled on 28 June 2000, the main refinancing operations of the Eurosystem would be conducted as variable rate tenders, using the multiple rate auction technique. The Governing Council also decided to set a minimum bid rate for these operations. This minimum bid rate was initially set at 4.25%, the same level applied for the previous fixed rate tender operations.

As highlighted in the press release published after the meeting of the Governing Council on 8 June 2000, the switch to variable rate tenders was a response to the severe overbidding which had developed in the context of the fixed rate tender procedure. While the allotment ratio (i.e. the ratio between the amount allotted in the tender and the total amount of bids) averaged around 10% during 1999, it averaged only 2.7% in the period from 1 January to 7 June 2000. In the last two main refinancing operations executed prior to the announcement of the switch to the variable rate tender, the allotment ratio was below 1% (see the chart below). The strong rise in bids in the first half of 2000 was due to the fact that, during most of that period, there were market expectations of

Chart

The development of the allotment ratio under the fixed rate tender procedure

(percentage of bids)



Source: ECB.

interest rate hikes and short-term money market rates were significantly above the main refinancing rate. This made it attractive for banks to bid for large amounts of liquidity from the central bank.

The new tender procedure introduces a price incentive which ensures that eligible counterparties submit bids which are more closely correlated to their needs.

The change of tender procedure is not intended as a change in the monetary policy stance. The minimum bid rate announced signals the monetary policy stance, which previously used to be indicated by the rate applied to fixed rate tenders. The decision to set the minimum bid rate at a level of 4.25% underscores the continuity of the monetary policy stance.

The Governing Council also emphasised that it would retain the option of reverting to fixed rate tenders, if and when this was deemed appropriate.

2 The tender procedure

The new tender procedure has the following main characteristics. Eligible counterparties may submit bids for up to ten different interest rate levels. In each bid they state the amount they are willing to transact with the Eurosystem and the respective interest rate. Bids at a rate below the minimum bid rate are discarded. In the allotment the ECB lists bids from the highest to the lowest offered rate. The bids with the highest interest rates are accepted first and bids with successively lower rates are then accepted until the total liquidity to be allotted is exhausted. If, at the lowest interest rate level accepted (i.e. the marginal interest rate), the aggregate amount bid exceeds the amount still to be allotted, this will be allocated pro rata among the bids.

A detailed description of the variable rate tender procedure can be found in Chapter 5 of the ECB document entitled "The single monetary policy in Stage Three: General documentation on ESCB monetary policy instruments and procedures", September 1998.

3 The publication of the estimated liquidity needs

As noted above, the switch to the new tender procedure was accompanied by the decision to publish an estimate of the aggregate liquidity needs of the banking system. This measure should facilitate the task of eligible counterparties in preparing their bids.

The liquidity needs of the banking system relate to two items. The first is the reserve requirements, which are to be fulfilled on average over a one-month reserve maintenance period. The second item is the net result of all other factors affecting the consolidated balance sheet of the Eurosystem. This item, on aggregate, represents an absorption of liquidity. The most important of these factors, which are called "autonomous factors", are net government deposits with the Eurosystem, banknotes and items in course of settlement (net float) (see the box below). The ECB publishes the estimates for the reserve requirements and autonomous factors separately via wire services.

The ECB derives its estimate of the autonomous factors from information provided by national central banks. The estimate is published regularly, coinciding with the announcement of the main

refinancing operations, i.e. normally every Monday at 3.30 p.m. The estimate of this element of the liquidity needs is published as the average of the autonomous factors from the day of announcement of the main refinancing operation up to and including the day before the settlement of the next main refinancing operation. If this time interval extends beyond the end of a reserve maintenance period, two estimates are given: one for the days up to the end of the reserve maintenance period and another for the days following the end of the reserve maintenance period.

Of the two components of liquidity needs, the reserve requirements are generally known with a high degree of accuracy. However, as the reserve base used to calculate the level of reserve requirements overlaps to a large extent with the monetary aggregate M3, the estimate for the reserve requirements is not available until the time of the publication of M3, which is usually a few days after the start of the reserve maintenance period.

By contrast, the estimate of autonomous factors is less certain. In the first six months of 2000 the standard deviation of the difference between the estimated value of the autonomous factors one week ahead and the corresponding outcome proved to be €1.4 billion. The table shows the weekly data used in this exercise.

Table

Weekly estimates of average autonomous factors, actual value and resulting error in 2000

(EUR billions)

Estimation date	Estimated value	Actual value	Error
10 Jan.	88.3	90.0	1.7
17 Jan.	89.6	91.1	1.5
24 Jan.	99.9	100.7	0.8
31 Jan.	93.2	93.6	0.4
7 Feb.	91.2	90.2	-1.0
14 Feb.	87.8	86.0	-1.8
21 Feb.	92.9	94.5	1.6
28 Feb.	95.7	94.9	-0.8
3 Mar.	93.9	95.0	1.0
13 Mar.	88.9	89.5	0.6
20 Mar.	93.3	92.5	-0.9
27 Mar.	88.9	87.3	-1.6
3 Apr.	83.6	84.8	1.1
10 Apr.	85.3	86.2	0.9
17 Apr.	83.0	84.8	1.8
25 Apr.	91.6	92.0	0.4
2 May	89.4	90.0	0.6
8 May	87.5	89.8	2.3
15 May	82.4	83.1	0.7
22 May	90.4	88.6	-1.8
29 May	84.3	85.9	1.6
5 June	83.1	85.9	2.8
13 June	84.0	85.2	1.2
19 June	87.6	85.8	-1.9
Standard deviation	4.5	4.3	1.4
Mean	89.0	89.5	0.5

Source: ECB.

Eligible counterparties need to be aware that the ECB also has to look at other factors in order to make an allotment decision. First of all, the ECB has to consider the liquidity provided by outstanding open market operations. Second, it has to assess the reserve deficit or surplus that has accumulated at any point in time in comparison with the average reserve requirements of counterparties. Third, the ECB has to take into account the fact that counterparties normally hold some excess reserves (in the past these have amounted to around €0.7 billion per day on average). Further considerations in the final allotment decision by the ECB relate to the smoothness of the reserve fulfilment path and the level of the interest rates, for instance.

Box

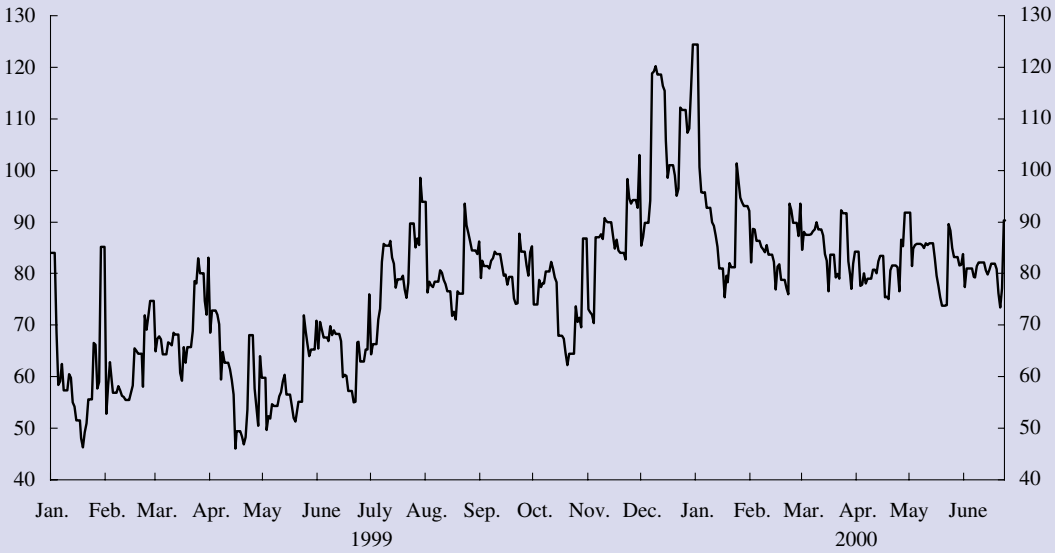
Autonomous factors

Autonomous factors represent by far the largest source of uncertainty in the assessment of the future liquidity needs of the banking system. This box offers an overview of relevant developments.

Autonomous factors can be classified in four categories: net government deposits with the Eurosystem, banknotes, items in course of settlement (net float) and a miscellaneous category, which includes various balance sheet items such as foreign exchange reserves, domestic securities, revaluation accounts, and capital and reserves.

In the first 18 months of Monetary Union the sum of the autonomous factors ranged from €45 billion to €125 billion, with an average of €78 billion (the series of daily figures for autonomous factors, which is published ex post by the ECB, is set out in the chart below). Over this period the average day-to-day change in the autonomous factors was approximately nil (€0.03 billion). The standard deviation of these changes was €5.1 billion. Assuming a normal distribution of the changes, this means that statistically on around five days out of 100 there will be a change in total autonomous factors with an absolute value of over €10 billion.

Total autonomous factors [1)]
(daily data; EUR billions)



Source: ECB.
1) Autonomous factors are defined as the sum of all items of the central bank's balance sheet that are neither monetary policy operations nor current account holdings of counterparties with the central bank.

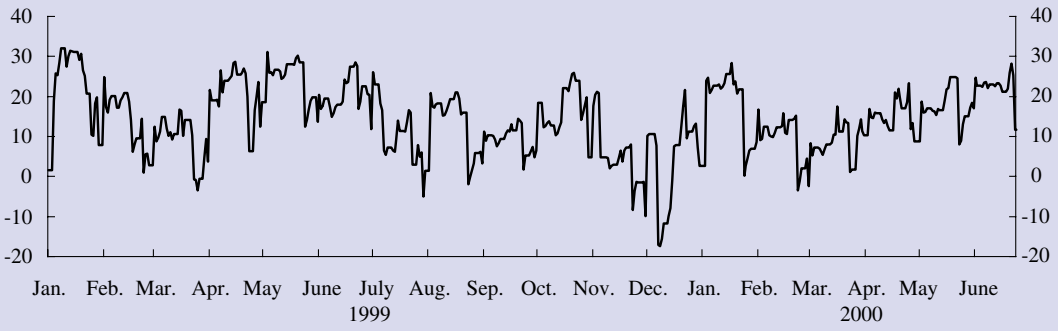
The volatility of certain items makes it difficult to forecast correctly the developments in autonomous factors. The single most volatile autonomous factor was net government deposits, followed by banknotes and items in course of settlement (net float). The standard deviations of these three items were €5.0 billion, €1.0 billion and €0.8 billion respectively.

Treasury flows affect the liquidity situation only if the government keeps its main deposit account with the central bank. Conversely, there is no influence if the deposit account is held with commercial banks. Which of the two models prevails in individual countries (main deposit account with the central bank or with commercial banks) depends on institutional arrangements and on the type of remuneration of the deposits offered by the central bank. Detailed descriptions of the models applied throughout the euro area can be found on the ECB's

website (www.ecb.int) and in the July 1999 issue of the ECB Monthly Bulletin (pages 16 and 17). Reforms have been introduced in Ireland and Portugal in the first half of 2000, leading to a considerable decline in the volatility of government deposits in these two Member States. The chart below shows the development of the amount outstanding of net government deposits held with the Eurosystem in the first 18 months of Monetary Union.

Net government deposits

(daily data; EUR billions)

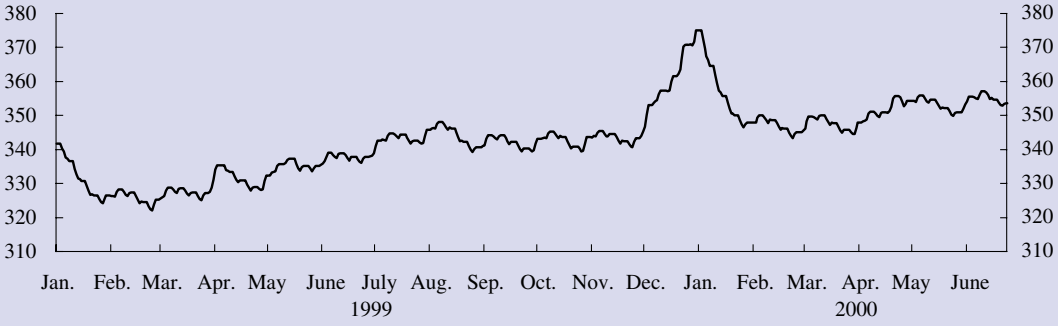


Source: ECB.

The outstanding amount of banknotes in circulation shows a rather regular weekly, monthly and yearly pattern around an increasing trend (see the chart below). These regularities reflect patterns in the use of banknotes, such as consumption behaviour, holidays and, in particular, the Christmas shopping season. A jump in the series could be observed in the run-up to the transition to the year 2000, when the demand for banknotes increased more sharply than in previous Christmas shopping seasons, before falling again in January 2000.

Banknotes

(daily data; EUR billions)



Source: ECB.

Finally, the volatility of items in course of settlement depends on the specification of the payment system. In the euro area only a few of the national payment systems, namely those of Germany, Spain and France, make a substantial contribution to the volatility of this factor.

4 The outcome of the first two main refinancing operations conducted under the variable rate tender procedure

The first two main refinancing operations conducted under the new tender procedure, which were settled on 28 June and 5 July 2000, went smoothly. The total amount of bids was around twice the volume allotted. This bidding behaviour marked a clear break with the fixed rate tender procedure. In these two operations between 700 and 800 credit institutions submitted bids. This level of participation was similar to that recorded previously, suggesting that the novelty of the tender procedure did not affect participation by counterparties.

In both of the main refinancing operations conducted with the variable rate tender procedure the marginal interest rate was calculated at 4.29%, i.e. 4 basis points above the minimum bid rate of 4.25%.

A more detailed assessment of the new procedure will become possible in due course, once more experience has been gained. However, initial indications are that the banking system has promptly adapted its bidding behaviour to the new tender procedure.