Monetary policy implementation in EMU—a Bank of England perspective on the EMI's proposals

This article, by David Rule of the Bank's Gilt-Edged and Money Markets Division, summarises and explains the European Monetary Institute's (EMI) proposed operational framework for the European System of Central Banks (ESCB)[1] *to conduct a single monetary policy in Stage 3 of Economic and Monetary Union (EMU). The framework would apply in the United Kingdom from 1 January 1999 if the United Kingdom fulfilled the necessary conditions to adopt the euro and the UK Government and Parliament decided to move to Stage 3. The article sets out the areas where agreement has been reached between EU central banks and gives the Bank of England's views on the issues that remain to be settled by the European Central Bank (ECB) after it becomes operational.*

This article concentrates on the *implementation* rather than the *determination* of monetary policy. The ECB will have a primary objective of maintaining price stability but the EMI has left open at this stage to what extent its monetary policy strategy will be mainly one of monetary targeting or direct inflation targeting.[2] Whatever the precise details of its strategy, however, the operational objective of the ECB will, under normal circumstances, be a short-term interest rate. This article discusses the instruments and procedures that will form the ESCB's armoury in pursuit of this operational target.

The timetable for the EMI's preparatory work on the operational framework

The final decisions on the operational framework will ultimately be taken by the Governing Council of the ECB. This cannot happen until the ECB is set up, which, according to the EC Treaty, will follow the decision in early 1998 on which Member States will initially comprise the euro area. The preparatory work of the EMI will greatly influence the choices the ECB has available to it, however. For this reason, many features of the operational framework have, for practical purposes, already been settled. The detailed negotiations continue to take place in EMI working groups in which all national central banks, including the Bank of England, are actively involved.

The *conceptual phase* of the preparations began soon after the EMI's inception in 1994 and was completed by the end of 1996, in accordance with Article 109f(3) of the Treaty which requires the EMI to specify the regulatory, organisational and logistical framework necessary for the ESCB to perform its tasks in the third stage of EMU by 31 December 1996. This was set out in the EMI's publication, 'The Single Monetary Policy in Stage 3: specification of the operational framework', (the 'framework document') published on 10 January 1997.

The EMI and national central banks are currently engaged in a second phase of preparations in which the detailed *blueprints* and *specifications* of the operational framework will be drawn up. This work will be completed by mid-1997. An *implementation* and *development phase* will then follow which must be finished by mid-1998 to allow six months of *testing and simulation* before Stage 3 begins on 1 January 1999.

The functions required of the operational framework

The 'framework document' states that the operational target of the ESCB will normally be a short-term interest rate. The primary function of the operational framework will therefore be to steer money-market interest rates efficiently and to give clear signals of official expectations about the future path of interest rates and thus the general stance of monetary policy.

The EMI's preparations have assumed that the ESCB will prefer to set rates by acting as the marginal supplier of funds rather than the marginal taker of funds. For this reason, a second function of the operational framework will be to enable the ESCB to manage the structural liquidity position of the financial markets *vis-à-vis* the ESCB to ensure the ESCB's counterparties are normally short of funds over the maturity of the ESCB's main refinancing operations (which will be two weeks).

The preparations have also taken into account two subsidiary aims: to encourage efficient money markets in the euro to develop and thus enable the ESCB to extract information (for example, about expectations of future changes in interest rates) from market developments, and to contribute to the smooth functioning of payment systems in the euro area.

Finally, the EMI has also left open the possibility that the ECB will seek to use unremunerated reserve requirements to

(1) The ESCB will comprise the ECB and the participating national central banks. Its tasks are defined in Article 105 of the EC Treaty.
(2) In practice, there are many common elements to the way in which individual countries pursue these respective strategies and a good deal of overlap between them.

increase the sensitivity of money demand to changes in interest rates.

Factors that influenced the choice of operational framework

Practical constraints

A major, and in many ways unique, problem in designing this operational framework is the limit to what is known about the prospective euro area. Unlike an existing monetary union, there is no experience or statistical data on which to draw and nobody really knows how the euro money markets will develop. Of course, it is possible to make broad assumptions based on the characteristics of existing money markets in individual EU states but these cannot take into account fully the behavioural changes that would follow EMU. At this stage, even the participating countries are not known.

For this reason, the EMI's preparations have assumed that the ESCB will need an operational framework with a high degree of flexibility. For example, the underlying liquidity position of the banking sector *vis-à-vis* the ESCB *prior to any official operations* cannot be predicted with any degree of accuracy at this stage and may remain difficult to estimate nearer the time. Among other factors, it will depend on the demand for euro banknotes, which, in turn, may vary according to the identity of the participants because the use of cash differs greatly between EU states. The preparations have assumed that the ESCB will need to have available the technical instruments and procedures to both extract funds from and inject funds into the money markets at different maturities to create the desired structural liquidity position.

The flows of funds in the euro money markets are also very difficult to predict. The law of large numbers would suggest that net flows will be smaller relative to gross flows in a larger monetary union and therefore short-term money-market volatility should be lower than in existing national markets. At least in the early stages of Stage 3, however, it is possible that flows will be unpredictable and short-term interest rates might be volatile unless the ESCB's operational framework has the flexibility to supply or demand funds quickly. This risk will be greater if the integration of national money markets remains imperfect initially and a seamless euro money market (to bring together those that are long and short of funds) takes time to develop.

Principles

The EMI Council adopted eight principles to guide the choice of operating framework. These reflect the provisions of the Treaty as well as the Statute of the ESCB. They also indicate the issues inherent in building a monetary union between sovereign states and in many cases the EMI's preparations have needed to weigh the dictates of one principle against another to find an acceptably balanced solution. The first principle is that of:

- operational efficiency in performing the functions described above.

Four of the other principles follow from the need for operational efficiency. These are:

- conformity with the decision-making framework of the ESCB, which requires that the Governing Council of the ECB at the centre should be in a position to control the monetary policy stance at all times;

- consistency with an open market economy based on free competition and favouring an efficient allocation of resources;

- simplicity, transparency and cost-efficiency; and

- harmonisation of operations to the extent necessary to ensure a single monetary policy stance, to avoid giving any opportunities for arbitrage between the operations of different parts of the ESCB and to treat counterparties equally throughout the euro area.

The remaining three principles reflect the origins of EMU as a monetary union between sovereign states in a single market, but with well-established national currencies, policy and operational frameworks and money markets. These are:

- decentralisation of operations to the national central banks as far as this is possible and appropriate;

- equal treatment of all financial institutions that have access to the ESCB's facilities throughout the euro area; and

- to seek continuity with the existing infrastructure and practices of national central banks and to prevent unnecessary disruption of existing markets *provided* this does not conflict with the other guiding principles.

An analysis of the EMI's proposals and the decisions that remain for the ECB

It is possible to analyse the proposed operational framework as a product of three debates that have their origins in the objectives, practical constraints and principles set out above. The first of these debates is:

To what extent should the ESCB supply liquidity to markets through open market operations or refinance credit institutions(1) *directly?*

To put this question another way, should the ESCB meet only the *net* liquidity needs of the financial system and rely on markets to distribute the funds or should it provide liquidity

(1) The term 'credit institutions' is used for convenience even though access to ESCB operations may extend to a slightly wider group of 'monetary and financial institutions'.

to institutions individually and thus, in aggregate, supply closer to the *gross* liquidity needs of the system? This debate has largely been resolved in favour of the first of these alternatives. The Bank of England strongly supports the emphasis placed on open market operations in the EMI's proposals.

Liquidity providing operations

Liquidity providing operations will be conducted predominantly through tenders for counterparties to obtain funds by repoing securities to the national central banks. The option to obtain funds directly will also be available by way of averaging of reserve requirements (if these are applied) and from an overnight lending facility. However, neither facility will offer preferential financing to particular credit institutions or classes of credit institutions. Indeed, the rate on borrowing under the lending facility will normally exceed market rates. For this reason, institutions will almost always have an incentive to obtain funds in the markets.

The ESCB's regular *main refinancing operations* will be two-week repos allocated weekly by fixed-rate tenders. These market-oriented operations will establish the ECB's headline dealing rate and it will use them to influence directly the short-term interest rates that constitute its operational objective. They will also supply the bulk of the financial market's demand for liquid funds. For these reasons, the weekly tender will be the most important and predominant part of the ESCB's operational framework. The Bank welcomes this outcome and believes that the ESCB should be able to rely increasingly on these operations as an efficient and integrated euro money market develops.

A smaller proportion of the market's need for liquidity will be provided by regular *longer-term refinancing operations*. These will be three-month repos allocated through monthly variable rate tenders. Because the ESCB will ask counterparties to bid prices as well as quantities, the rate accepted will have no policy significance. On the basis that the ESCB will be a rate-taker and no subsidy is involved, the Bank of England was prepared to support these operations on a limited scale to minimise disruption of existing practices in some other countries.

The EMI's preparations have taken account of the perceived need (discussed above) for the operational framework to have flexibility against liquidity shocks. The ESCB will have the capability to undertake *ad hoc* open market operations to respond quickly to unexpected fluctuations in the net liquidity of the system. The armoury of these *fine tuning operations* will include short-term repos, short-term deposits and foreign exchange swaps, usually allocated by tenders to a smaller group of market counterparties. In a decentralised system, however, fine tuning may be insufficient to cushion the impact of shocks on individual credit institutions. The introduction of TARGET, and national real time gross settlement (RTGS) systems in those states that do not already have them, will also affect payment flows. The EMI's preparations will therefore give credit institutions two options to manage their liquidity directly with ESCB.

First, if reserve requirements are applied, they will be calculated as an average end-of-day balance over a monthly maintenance period rather than having to be held continuously. This should mean that unexpected flows of funds impose costs on credit institutions only at the end of a maintenance period. At other times, the credit institution will be able to offset the unexpected change in its reserve balance with the ESCB by adjusting its balances on subsequent days. An important proviso is that the EMI is not preparing for the ESCB to offer reserve overdrafts. For this reason, averaging will not give credit institutions the flexibility to handle unexpected outflows greater than the balance on their reserve account (they would need to use the lending facility described below and incur a higher interest cost). Its practical importance in credit institutions' liquidity management will therefore depend upon the size of any reserve requirements.

The ESCB will offer credit institutions two overnight standing facilities: a deposit facility for unexpected surpluses and a marginal lending facility for unexpected shortfalls. If reserve requirements are applied, these will be used to cope with unexpected flows that are too large to be absorbed by averaging, or that occur at the end of a maintenance period. If reserve requirements are not applied, the standing facilities are likely to be used more often, although the ESCB would also engage in more frequent fine tuning operations. Credit institutions will be able to use these facilities at their discretion throughout the day and, in addition, overnight debit balances with the ESCB will be treated as automatic recourse to the marginal lending facility. However both facilities will be at unattractive rates, so credit institutions will invariably have an incentive to manage their liquidity in the euro money markets rather than directly with the ESCB. The two rates will, in effect, set a 'corridor' for overnight market rates.

Liquidity absorbing operations

The EMI's preparations for the ESCB's liquidity absorbing operations leave more for the ECB to decide than in the case of the more important liquidity providing operations. Because of the assumption that the ECB will prefer to operate as a marginal supplier of funds in its main weekly tenders, such operations play only a technical role in the proposed operational framework. They are designed as *structural operations* intended to influence the overall liquidity position of the market rather than achieve interest rate policy objectives directly.

It could be the case that liquidity absorbing operations prove necessary to create or enlarge a liquidity shortage in the money markets. If that is so, the Bank of England sees advantage in the ESCB draining the funds from the markets by issuing ESCB debt certificates. This would be consistent with the emphasis on supplying funds to markets on the other side of the ESCB's balance sheet. The EMI's preparations include this possibility. The alternative would be to use reserve requirements to bring about a liquidity shortage. Although this need not impose a tax on credit institutions if the reserves were fully remunerated, the Bank of England still opposes the proposal on grounds of efficiency. Similar arguments apply, as for liquidity providing operations. Here, the debate is whether to drain the net surplus of funds from the financial system and allow the market to distribute the remaining funds, or to take the *gross* surplus from individual credit institutions by way of reserve requirements. The Bank will argue that the ECB should adopt the first approach.

A few of the key decisions remain for the ECB to make, although the EMI's preparations give a good impression of the overall shape of the operational framework. The width of the corridor between the overnight deposit rate and lending rate will determine the extent of the incentive for credit institutions to manage their liquidity in money markets rather than directly with the ESCB. Perhaps still more important, the size and remuneration of reserve requirements will set the scope for averaging as a means of liquidity management and also influence whether or not the ESCB will need to issue debt certificates.

If the United Kingdom were to participate in EMU, the Bank of England would argue for a relatively wide interest rate corridor and ideally for zero (or, at least, low and fully remunerated) reserve requirements. This outcome would promote deep and efficient euro money markets. Credit institutions would then be able (and have good incentives) to manage their liquidity in markets rather than directly with the ESCB. The efficiency of the ESCB's operations, meanwhile, would be maximised because it would be supplying (demanding) only the net liquidity needs (surpluses) of the financial system.

Eligible assets

The debate between operating in markets and refinancing banks directly extends to the nature of the paper the ESCB will accept in its liquidity providing operations and the counterparties that will have access to its operations. Again the Bank of England welcomes the thrust of the EMI proposals for the ESCB to accept a uniform (Tier 1) list of public sector and high-quality private sector assets and to have a wide range of counterparties. It favours as broad a definition of counterparties and eligible assets as is compatible with protecting the ESCB against risk. This would ensure there is a sufficient supply of collateral and level of trading to allow the money markets in which the ESCB will intervene to become deep and liquid.

As regards eligible paper, the Treaty requires the ESCB to lend only against adequate collateral, whether this is via repos or on standing facilities. The most important criterion for acceptance is that the paper gives the ESCB protection against risk of loss. Therefore it must be of high credit quality, initial margin will be taken and the ESCB will need to have a robust legal claim over the assets in the event of a default by the borrower. Beyond these necessary features, however, the market-oriented approach supported by the Bank of England favours a relatively wide and uniform list of marketable paper. The EMI proposals for a Tier 1 list are consistent with this aim (the next section describes the preparations for eligible assets in more detail).

An alternative view is that direct refinancing of credit institutions should have a greater role, perhaps, based on a belief that monetary policy operations should be rooted closely in the domestic real economy. If this is seen as an important objective, eligible paper in liquidity providing operations might be restricted to domestic assets. It would also justify measures to retain the eligibility of particular types of assets closely linked to real economic activity, such as, private sector trade bills or other corporate loans.

The EMI proposals do not favour particular categories of asset on these grounds. They do, however, allow a second (Tier 2) list of paper that is of particular importance to national markets. This will include some of the types of non-marketable asset described above. They also restrict eligible assets to, in the main, domestic assets issued by EEA entities, deposited in the euro area and denominated in euro. Although the Bank of England sees no reason, in principle, to have restrictions of this kind, the supply of eligible domestic assets should be sufficiently large that the efficiency of the ESCB's operations will not be impaired.

Counterparties

The EMI's proposals make clear that the ESCB will use a wide range of counterparties but the detail of exactly how far access to its operations will extend remains to be settled by the ECB. In the market-based approach proposed by the EMI, the ESCB will supply closer to the net than the gross liquidity needs of the financial system and rely on the markets to distribute the money to those that are short of funds. The Bank of England would prefer the ESCB's counterparties to include all the institutions that are most active in the repo and money markets and most likely to distribute the funds efficiently. In practice, this may well include securities houses, as well as credit institutions.

Extending the list of counterparties to institutions not legally subject to reserve requirements, however, would raise questions if reserve requirements were actually imposed. There is a view that the right of access to operations should be limited to those institutions subject to reserve requirements. This is also consistent with the view that monetary policy operations should be used to refinance institutions involved in lending at the 'grass roots' of the economy. The ECB will decide whether the counterparties in open market operations will be restricted to credit institutions or whether other institutions meeting required functional and prudential criteria may be included. The Bank of England's view is that they should.

Where should the ESCB draw the balance between the principles of, on the one hand, harmonisation and, on the other, decentralisation and continuity?

This is the second of the debates and it concerns where the ESCB should lie between two extremes:

- national central banks acting solely as operating arms of the ECB using entirely harmonised instruments and procedures in a fully integrated euro money market; and
- national central banks operating in local money markets using their existing instruments and procedures with harmonisation limited to pursuing the same policy objectives.

The spirit of the EMI's proposals is to seek an operational framework closer to the first of these alternatives. In its proposals for the division of responsibilities between the ECB and the national central banks, although operations will actually be carried out by the national central banks, operational policy decisions will be made centrally by the ECB and procedures will be fully harmonised.(1) In the case of a repo tender, for example, the ECB will decide the timing, amount, rate and terms of the tender and the allotment of funds to bidders (there will be no national quotas). The national central banks will deal with the counterparties (in other words, they will take bids, advance funds and take ('reverse in') the assets) but these procedures will be specified in some detail by the ECB.

The logical counterparts to harmonisation of the ESCB's internal procedures are harmonisation of counterparties and eligible assets and the necessary infrastructure to enable counterparties to mobilise assets and funds throughout the euro area. The EMI's preparations are a big step in this direction, although elements of continuity with existing local markets and practices have been included. The Bank of England welcomes the measures to promote efficient, liquid and integrated euro money markets.

There are a number of examples where harmonisation has been important. In the case of counterparties, for example, eligibility will be based on uniform criteria, meaning national central banks will not be able to exclude counterparties at their discretion. This should help to make local markets more similar and promote integration.

The EMI's proposals for eligible assets also emphasise harmonisation. They distinguish two tiers. The first 'Tier 1' will be fully harmonised and uniform across the euro area, meaning all counterparties will be able to obtain funds from their national central bank against paper on the list, whatever its place of origin within the euro area. This will greatly extend the assets available to counterparties compared to what is taken in current national monetary policy operations and should stimulate an integrated market in Tier 1 paper. Tier 1 will include debt securities issued by public sector and financially sound private sector entities that are listed, quoted or traded on markets deemed sufficiently liquid by the ECB. The Bank endorses the potential inclusion of private sector assets and the restriction to marketable debt.

The second 'Tier 2' list will comprise assets proposed by national central banks as of particular importance for their financial markets. These need not be marketable but must be shown to be of high credit quality. Short-term loans to companies, for example, may be eligible if the relevant national central bank has the ability to assess and monitor the creditworthiness of the borrower itself. In principle, both Tiers 1 and 2 will qualify for use in all the ESCB's operations across the euro area. In practice, however, non-marketable Tier 2 assets are likely to be held by credit institutions in the country of the national central bank proposing those assets only. This may slow down the development of a single market in eligible paper. The EMI proposals recognise that some countries will need to include non-marketable assets on a Tier 2 list to avoid disruption to their markets. The Bank of England accepts this but would hope that the use of Tier 2 assets can be phased out over time.

The infrastructure needed to integrate euro money markets should also be available. The EMI is developing the TARGET system to connect national RTGS systems throughout the European Union. This will make it possible to transfer funds quickly and securely. Moreover, the EMI is preparing a system to enable counterparties to take funds from one national central bank (NCB 1) against eligible assets deposited with another national central bank (NCB 2). This will involve NCB 2 acting as NCB 1's correspondent and custodian.

The EMI has not made preparations to allow counterparties to deal with national central banks across borders (so-called 'remote access'). This means it is likely that credit institutions will have to participate in open market operations and hold standing facilities with their local national central bank. The impetus towards integration of money markets would probably be stronger with remote access. However, the other steps to promote integration described above are likely to be more important. Moreover, the fact that the EMI is not preparing for remote access does not mean it has been ruled out permanently. Preparations need not involve long lead times and the ECB may well look at the question again.

Do reserve requirements have a useful role to play in monetary policy implementation?

The EMI's preparations will give the ECB the option to impose reserve requirements on credit institutions (and possibly some similar institutions too(2)). The third debate

(1) It remains to be decided whether the ECB will carry out any operations itself; even if it is decided that it should, the great majority of operations would still be undertaken by the national central banks.

(2) The EMI is studying the possibility of extending the requirement to hold reserve requirements to a broader range of 'monetary and financial institutions' that have liabilities similar to deposits (primarily money-market funds). This would require an amendment to Article 19.1 of the Statute of the ESCB which only empowers the ECB to require credit institutions to hold minimum reserves.

is whether it should make use of them and, if so, how. This is one of the few areas where unanimity has not yet proved possible in discussions between national central banks.

The primary purpose of any reserve requirements would almost certainly be market management. As described above, some see reserve requirements as the most effective way to withdraw liquidity from the market. Others see reserve requirements, combined with averaging, as necessary to give institutions the flexibility to cope with unexpected flows of funds and thus stabilise short-term interest rates. The Bank of England believes that both these objectives can be achieved more efficiently using open market operations (issuing ESCB certificates and fine tuning respectively).

Some see a secondary role for reserve requirements, however, as an operational objective in themselves. On this argument, if reserves are unremunerated (or at sub-market rates) and requirements are linked closely to monetary aggregates, they impose a financial penalty on banks related to their monetary liabilities. The size of this cost is linked directly to the level of market interest rates. Assuming it is passed on to the holders of monetary assets, reserve requirements should increase the interest rate elasticity of money demand. This, in turn, should give greater leverage to changes in official interest rates.

The Bank of England's view is that short-term interest rates are a sufficient and effective operational objective in the implementation of monetary policy. Reserve requirements do not have a useful role in a modern market economy. Imposing what amounts to a tax on monetary liabilities discriminates against credit institutions, would lead to avoidance and disintermediation, and would be likely to distort any relationship between the monetary aggregates and the ultimate objective of price stability.

Whether the ECB sees reserve requirements as a valid way of controlling monetary growth will, however, be important in determining how it applies them, if indeed it decides to impose them. If they are used solely for market management purposes, for example, there is no reason why they should not be fully remunerated at market rates. The liabilities included in the base used to calculate the requirements and the size of the requirement may also depend on the ECB's intentions. A wide base and a low requirement would be the way of imposing reserves for market management reasons that involved fewest distortions. But using reserves requirements to control monetary expansion requires them to be linked closely to the monetary aggregates and high enough to have some effect. The Bank will continue to put the case against the imposition of reserve requirements. If the ECB does decide to use them, the Bank would argue that they should be low, broadly based and fully remunerated.

Conclusions

To design an operational framework for a monetary union between sovereign states with well-established national currencies and well-developed national financial markets is a unique challenge. The EMI has produced a considered and workable set of proposals. They emphasise open market operations and do much to encourage the development of integrated and efficient euro money markets; they give the ECB the operational flexibility it may need in Stage 3; and they balance the need for unified decision-making and harmonised procedures with the desire for operational decentralisation. The proposals demonstrate the willingness of the national central banks involved to think beyond their existing practices and backgrounds, to consider the needs of a new situation, and to reach a consensus in favour of a framework that should enable the ESCB to achieve its operational objectives effectively in Stage 3.