# Monetary Operations in the European Economic and Monetary Union

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The European Monetary Institute and Europe's national central banks have made good progress in preparing a "menu" of efficient, market-based monetary instruments from which the European Central Bank, to be established by July 1, 1998, will choose. The next step will be to address the remaining issues and test the selected options.

HE MAASTRICHT TREATY created the European Monetary Institute (EMI) as a transitional institution to coordinate the preparatory work on monetary policy for the third stage of European Economic and Monetary Union (EMU) and the introduction of the euro, set to begin January 1, 1999. An important part of the EMI's mandate has been the development of an operational framework for monetary policy for the European System of Central Banks (ESCB), which will consist of the European Central Bank (ECB) and the national central banks of the European Union's (EU's) member states.

The EMI has essentially played an advisory role. Where a consensus has been reached, it has made recommendations that will be taken by the governing council of the ECB. Where a consensus has not developed, the EMI's role has been to identify and clarify issues and prepare a "menu" of options from which the ECB will choose.

The EMI has established a remarkable amount of common ground, and its publications have fleshed out the proposed framework for monetary policy in a fair degree of detail. The EMI has also been able to broaden areas of consensus and pursue important technical work. Its careful and balanced approach has enhanced the transparency and the credibility of the monetary unification process.

## Monetary policy instruments

The design of EMU's monetary instruments reflects the EU's desire for decentralization. National central banks retain an important role in executing monetary policy, and decisions regarding the implementation of policy will be taken by the ECB governing council. This council, which is expected to

meet monthly, will be composed of the governors of participating national central banks and the ECB Executive Board.

**Open market operations.** The main instrument of monetary operations will be weekly open market operations, which will play a pivotal role in steering interest rates, managing financial system liquidity, and signaling the stance of monetary policy. These liquidity-providing operations will furnish the bulk of refinancing to the financial sector and will serve as the main instrument to manage liquidity (Table 1).

Longer-term refinancing operations will be executed monthly and will provide only a limited portion of the ESCB's liquidity. Developments in the longer-term operations are not intended to signal the market about the authorities' policy stance, so the ESCB will normally act as a pricetaker in these monthly refinancing tenders (that is, these operations will usually be executed as variable interest rate tenders). The mere fact that the ESCB will be creating a monetary instrument with this maturity and without any intention to create a signal, however, suggests that this market may come to provide an undiluted, and thus important, signal of market conditions.

The ESCB may also conduct operations to adjust the structural position of the banks vis-à-vis the ESCB, if, for example, there is a lasting shift in currency demand. If necessary, fine-tuning operations—which may also include currency swaps—may be carried out to manage fluctuations in the market. They would be conducted on a short-term, ad hoc basis, through bilateral operations or quick tenders with a limited number of counterparties.

*Standing facilities.* The proposed monetary policy instruments reflect the need to buttress the "self-stabilizing properties" of the system, so that the market itself will moderate

volatility in liquidity and interest rates. There will be two standing facilities: a Lombard facility through which banks can obtain liquidity (against eligible assets) overnight and a deposit facility through which banks can deposit their surplus funds overnight. Together, the interest rates of these facilities will define a corridor for, and thus limit the volatility of, market interest rates. This may be of particular importance at the start of the third stage of EMU, when the demand for euro may be unstable and interest arbitrage imperfect.

A narrow corridor provides an automatic operating tool to limit interest rate volatility and reduce the need for finetuning operations. If the corridor is too narrow, however, it could undermine the development of a liquid market for the euro, since there would be less incentive for financial institutions to manage their liquidity through the interbank markets. The practical importance of this factor is not clear, however. Given the narrow margins in the European money markets, corridor limits need to be only a small distance from market interest rates to make use of the standing facilities penal for the financial institutions. In practice, the optimal width of the corridor, including its width around market bid/ask spreads, is an empirical matter, and currently there is considerable variation in the width of the corridor among those EU central banks that operate with these limits. The ECB is thus likely to have to exercise a fair degree of judgment in determining the initial width of the corridor. In addition, the means by which the ECB moves the corridor may well be important. The corridor could be moved automatically in line with changes in the weekly repo (repurchase agreement) interest rate. In this case, the weekly repo rate, not the corridor, would provide the policy signal. Alternatively, the ECB may determine that the Lombard and deposit interest rates will be shifted independently of the weekly repo rate—either together, so that the width of the corridor is left unchanged, or individually, so that the width of the corridor varies.

In the past, central banks have used several of these variants to nuance their message on the stance of monetary policy. For the ECB, however, with many market participants having no experience with this system, there could be a risk—particularly at the start—that complicated signals would be misinterpreted by the market. In modern financial markets, where turnover is high and rates react quickly to news, uniform and clear signals from central banks have become increasingly important as an instrument of monetary policy. This will be particularly true within the EMU's self-stabilizing framework. It will be important for the ESCB to make clear to the markets how to interpret rate changes.

> Counterparties. The proper selection of counterparties for open market operations enables monetary policy operations to achieve the desired results. In general, a wide range of counterparties-all financially sound and secure-maximizes the effectiveness of monetary measures in terms of affecting market conditions and creates a level playing field by avoiding having an institution or group of institutions dominate the market. Even for fine-tuning operations, therefore, it will be useful to define a relatively broad group of counterparties. Modern telecommunication techniques increase the possibility that even relatively small players can quickly react to, and take part in, these operations.

> *Collateral issues.* All credit operations between the ESCB and financial institutions will require collateral. Two separate tiers of collateral will be established, and both will include public as well as private paper (Table 2). Tier one will include assets with euro-area-wide acceptability and liquidity; tier two will include assets with national or regional acceptability and liquidity. Several risk control measures will be introduced to protect the ESCB against financial loss if underlying assets have to be realized owing to the default of a counterparty. The risk control measures for the two tiers are essentially the same. The ESCB counterparties may use eligible assets on a cross-border basis.

#### Table 1

## Operating procedures of the European System of Central Banks Open market operations

Main refinancing	Weekly frequency; maturity two weeks; executed through standard repurchase tenders (variable/fixed rate); provides key interest rate signal.
Longer-term refinancing	Monthly frequency; maturity three months; executed through standard repurchase tenders (variable/fixed rate); provides longer-term refinancing.
Fine-tuning	Variable frequency and maturity; executed through quick tenders or bilateral procedures; used to smooth interest rates.
Structural operations	Variable frequency and maturity; executed through standard tenders or bilateral procedures; used to manage structural position of the banking sector.
	Standing facilities
Lombard facility	Maturity overnight; interest rate generally above the tender rate; provides a ceiling for market interest rates.
Deposit facility	Maturity overnight; interest rate generally below the tender rate; provides a floor for market interest rates.
	Reserve requirements <sup>1</sup>
Main features	Maintenance period one month; lagged; averaging permitted; no carryover; eligible assets: correspondent account balances held with the national central banks; end-of-month balance sheet data on liabilities used to determine the reserve base; covers credit institutions.

Source: European Monetary Institute, 1997, "The Single Monetary Policy in Stage Three: General Documentation on ESCB Monetary Policy Instruments and Procedures" (September). <sup>1</sup> Awaits a decision by the European Central Bank.



A number of operational issues remain to be decided, including how to evaluate the credit risk of tier two, nonmarketable paper and whether to rely on outside credit rating agencies or establish "in-house" systems in national central banks where none presently exist. Also to be clarified are the precise criteria to be used in determining whether an asset will be included in tier one or tier two. On the one hand, each national central bank has an incentive to include in tier one as many assets as possible, since any losses derived from their use would be shared across the euro area. The default risk associated with the use of tier two paper, on the other hand, would be borne by the national central bank. It is also not yet clear to what extent eligibility criteria for tier two collateral will be harmonized across national central banks.

### **Reserve requirements**

There is no consensus yet on the desirability of having reserve requirements, and any decision will await creation of the ECB. A minimum reserve system can enhance the management of daily liquidity for those financial institutions subject to the requirement and contribute to more stable interest rates. If combined with an averaging provision, financial institutions would be able to average their holdings of required reserves over the maintenance period and smooth out fluctuations in daily liquidity through the reserve account.

If there are to be reserve requirements, the reserve base will be defined in relation to the end-of-month balance sheet

Eligible collateral Criteria Tier one Tier two European System of Central Marketable financial obligations Type of asset Banks (ESCB) debt certificates Nonmarketable financial obligations Other marketable financial Equities traded on a regulated market obligations Type of issuer ESCB Public sector Public sector Private sector Private sector International institutions Financial soundness The issuer must be deemed The issuer/debtor must be deemed financially sound by the financially sound by the national European Central Bank (ECB) central bank that included the asset in its tier two list Location of issuer European Economic Area (EEA) Euro area except for international Location in other EEA countries can institutions be accepted subject to ECB approval Location of asset Euro area Euro area Location in other EEA countries can be accepted subject to ECB approval Currency of denomination Euro (or its national Euro (or its national denominations) denominations) Other EEA or widely traded currencies can be accepted subject to ECB approval

Table 2

Source: European Monetary Institute, 1997, "The Single Monetary Policy in Stage Three: General Documentation on ESCB Monetary Policy Instruments and Procedures" (September).

information. There could be a uniform ratio to all liabilities included in the reserve base, or differentiation across categories of depositors or maturities of eligible liabilities. Unless the required reserves are remunerated at close to market interest rates, they will amount to a tax on the banks. If nonbank financial institutions are conducting business similar to that of commercial banks, this will create an uneven playing field and lead to disintermediation from the banking system. Money market funds have been growing rapidly in a number of EU countries, even where there are no significant reserve requirements. The ESCB will need to consider how widely any reserve requirements will be levied; if they are to be levied on nonbanks as well as banks, the ESCB/ECB statute will need to be amended.

Another issue concerns the definition of the reserve base against which the required reserves must be maintained. Although banks will be able to average their reserve requirement on a daily basis over the one-month holding period, the definition of the reserve base will be determined "within the framework of the ECB's money and banking statistics," which means on the basis of end-of-month data. This might create an incentive for banks artificially to "window dress" the level of their reported liabilities over the end-of-month reporting point. If banks indulged in such practices under EMU, the aggregate level of reserves held would be reduced and the burden probably redistributed. This would also contaminate the monetary statistics, rendering them unreliable—especially in

the early stages of EMU when the extent of the distortions would be difficult to judge.

### Payment system

The cross-border payment system will be a key element in the future European monetary and financial system. It will not only support European monetary policy but also contribute to the development of an efficient and secure payment system within Europe, offering EU commercial banks continuous intraday finality for individual transfers. Hence it will need to be safe and efficient, and ensure that local money market conditions are instantly and continuously linked to conditions elsewhere in the EU to guarantee a unified euro interest rate. A large amount of high-quality work has been put into developing an interbank transfer system.

TARGET. The Trans-European Automated Real-time Gross Settlement Express Transfer System—referred to as TARGET is ready for testing. It consists basically of two elements: a national real-time gross settlement (RTGS) system in all member countries and a system that interlinks these national systems. At present, all European countries have an RTGS system in place, although their use varies widely. The TAR-GET system is scheduled to be fully operational by the end of this year, after both national and international testing.

Once the third stage of EMU has begun, national payment systems, including national RTGS systems, will be allowed to use both the national currency and the euro. The basic principle regarding the use of the currency national or euro—is that there will be "no prohibition and no compulsion." However, all transfers through TARGET will be in euros.

Pricing. The use of TARGET will be mandatory for all monetary operations in EMU, but it is not intended to be the sole cross-border large value payment system in Europe after 1998. The use of correspondent banks is likely to continue-either directly or in association with international netting or clearinghouse schemes. The pricing for cross-border payments through TARGET should enable full-cost recovery, create a level playing field for all participants, not stimulate the use of riskier systems, and be compatible with European competition laws. No decision has been made regarding the price level or the pricing formula, but it may not be easy to meet all these requirements at the same time.

Intraday credit. Intraday liquidity will be provided by national central banks through two fully collateralized facilities: intraday overdrafts and intraday repos, which can be considered equivalent. There will be no charge for intraday credit. The provision of collateral or the use of repos will ensure there is no credit risk to national central banks providing intraday credit. Yet to be resolved is the availability of intraday credit to national central banks from non-euro EU countries. The concern is that these credits may spill over into overnight credit, with possible monetary implications. In any case, the practical relevance of any limitations for most commercial banks in non-euro countries may be limited, given their ability to process payments through their branches in the euro area. In addition, such a limitation does not seem fully in line with the general market orientation underlying the EMU framework. It may create an incentive for banks to use riskier crossborder settlement systems.

*Hours of operation.* TARGET will be open on workdays from 7 a.m. until 6 p.m, Central European time. National RTGS systems may be opened earlier for local transactions. For most EU countries, this will represent an important expansion of the operational hours of their present payment and settlement systems and reflects a worldwide trend toward longer operating hours. As a result, the overlap in operational hours between the major international payment systems will increase with the introduction of TARGET.

## Conclusion

The EMI has been working intensively with national central banks to identify and prepare the set of instruments that may be used in the operation of monetary policy in the third stage of EMU. In many respects, these arrangements reflect the state of the art in the conduct of monetary policy. In a few aspects, however, there is scope for refinement. These include developing a wide range of counterparties, even for fine-tuning open market operations; resolving reserve requirement issues; determining how rate changes will be used to signal monetary authorities' intentions; and defining the relationship between the euro and non-euro countries in terms of access to and use of the new TARGET system.

The next phase in the technical preparation for EMU then will be to address these remaining issues and test the options that have been selected. Maintaining transparency in the decision and preparation process will be important not only for the ECB and the national central banks but also for their future counterparties in EMU.

This article is based on the authors' IMF Working Paper 97/178, "Some Issues in the Design of Monetary Instruments for the Operation of European Economic and Monetary Union" (Washington: IMF, 1997).

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