

## **European Monetary Policy in Stage Three: What are the issues?\***

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## 1. Introduction

According to the Treaty on European Union, the European System of Central Banks (ESCB) will decide and implement the single monetary policy in the Union. Monetary sovereignty has traditionally been an important symbol of national identity and thus relinquishing it constitutes an event of historical significance. Furthermore, the Treaty rules out any gradual transfer of monetary powers towards the central institutions during the transition and thus the start of Stage Three will be a sort of "Big Bang", with a sudden shift from the co-existence of national monetary policies, formulated in the pursuit of national objectives and implemented through different procedures, to a single monetary policy, set by a supranational institution with Union-wide objectives and operated in a consistent way throughout the area.

The range of issues that must be settled to warrant that the single monetary policy can be effectively run from the very first day of Stage Three is very wide and covers a variety of aspects. As a result, the preparation of EMU is a long and complex affair extending to all fields of competence of central banks which, moreover, vary across European countries. Although the Statute of the ESCB clearly defines the broad framework for the operation of the future monetary policy, there are a number of strategic and tactical aspects which remain open. This is also a consequence of the balance that had to be struck in the Statute between two conflicting needs. On the one hand, principles and objectives had to be stated in as unambiguous and precise a way as possible to ensure the certainty and transparency of the precepts governing the functioning of the ESCB. On the other hand, a certain degree of generality was required to avoid prejudging matters which are best solved when the precise features of the future economic and financial structure prevailing in Stage Three are known. Premature decisions would have deprived the ESCB of the flexibility necessary to achieve functional efficiency.

It would be unwise to put forward concrete proposals for the formulation and operation of monetary policy in Stage Three without knowing the outcome of the process of economic and financial integration associated with the completion of the Single Internal Market. However, it is possible to identify already some key issues.

A first set of questions revolves around the credibility of the ESCB, which is essential to minimise the output costs of converging to, and then maintaining, price stability as well as to ensure that the flexibility to accommodate shocks does not fuel inflationary expectations on the part of price and wage setters. The monetary constitution embodied in the Treaty lays the foundations of credibility by setting price stability as the primary objective of monetary policy. Which is the best way to ensure that formal independence leads also to effective independence and thus to a firm anti-inflationary attitude by the ESCB? Can the credibility of successful European national central banks be transferred to the new institution?

A second topic is the selection of the strategy for monetary policy. Under which conditions can intermediate targets in general, and monetary aggregates in particular, be helpful in the conduct of monetary policy?

A third group of concerns relates to the role of the ESCB in the conduct of policies to manage the payment system and to safeguard the stability of the financial system. Is the degree of involvement provided for by the Statute adequate? Is there a risk that some institutional arrangements may lead to difficulties in the co-ordination between the ESCB and other authorities?

A fourth class of issues regards the tactical aspects of the execution of monetary policy and, in particular, the objective of ensuring that the single monetary policy is run effectively and efficiently from the very first day of Stage Three. What are the minimum conditions in terms of integration of national money and capital markets in the Community and of harmonisation of national monetary instruments and procedures? What are the options available to execute the single monetary policy through national central banks?

Before moving to the analysis, it may be worth making clear what this paper is *not* about. The discussion does not deal with the problems of transition towards EMU, nor does it address questions related to the physical introduction of the single currency or by the implementation of other provisions of the Treaty, such as the pooling of foreign reserves or the method of allocation of seignorage income.

The paper is organised as follows. Section 2 discusses the role played by independence and reputation in shaping the anti-inflationary credibility of the ESCB. Section 3 examines the main strategic considerations related to the role of the ESCB in the fields of monetary and financial policies. Section 4 identifies the main tactical issues in the execution of the future single monetary policy. Section 5 summarises the main conclusions.

## **2. The objectives of the ESCB**

### **2.1. Price stability as the primary objective**

At present, the statutes of a number of central banks in the Community include various objectives, extending beyond the protection of the domestic and external value of the currency to the promotion of financial stability and economic growth. In contrast, the Statute of the ESCB sets price stability as the primary objective, and establishes that the general economic policies in the Community shall be supported as long as this does not conflict with price stability (see Table 1). In the Statute there is no specific definition of "price stability" nor of the criteria to judge whether the support for other policies "conflicts" with price stability. Yet, the aim is clear: to avoid the potential trade-offs which arise when all the objectives are at par.

Regarding the desirability of price stability, it has been often pointed out that there are severe conceptual difficulties in assessing the costs of inflation per se, rather than the costs and benefits of alternative policy strategies (see, for example, Fischer, 1981; Driffill *et al.*, 1990; Grossman, 1991). However, there is an established consensus that inflation is viewed as costly by the public (Gros and Thygesen, 1992; European Commission, 1990). More importantly, both economic principles and historical experience suggest that higher inflation is not conducive to higher output growth on a medium-term basis. Indeed, as shown by the literature on the "time-

TABLE 1: STATUTORY OBJECTIVES AND TASKS OF THE ESCB

<u>OBJECTIVES</u>	<u>TASKS</u>
<ul style="list-style-type: none"> <li>- Primary objective: price stability (Article 2)</li> <li>- Without prejudice to price stability, support of the general economic policies in the Community (Article 2)</li> </ul>	<ul style="list-style-type: none"> <li>- define and implement single monetary policy (Article 3.1)</li> <li>- conduct foreign exchange operations and manage the reserves of Member States (Article 3.1)</li> <li>- promote a smooth operation of the payment systems (Article 3.1)</li> <li>- contribute to the smooth conduct of policies pursued by the competent authorities relating to prudential supervision and financial stability (Article 3.3)</li> <li>- advisory functions (Article 4)</li> </ul>

consistency problem" in the wake of Kydland and Prescott (1977) and Barro and Gordon (1983), when the authorities are expected to follow the myopic strategy of engineering surprise inflation to achieve a higher output level, the resulting time-consistent equilibrium is not characterised by higher output but by an inflationary bias. Regarding the specific case of the Community, there is the fear that a worsening of inflation performance in EMU could more than offset the economic benefits of the single currency, thus threatening the economic viability of the whole project.<sup>1</sup> And, contrary to the past, there is now a broad consensus among policy-makers that price stability constitutes a precondition for achieving sustained economic growth.

## 2.2. Credibility and independence

A credible commitment to fight inflation firmly reduces the inflationary bias resulting from the time-consistency problem and the short-term output costs of converging towards price stability. Moreover, as pointed out by Begg *et al.* (1991), it increases the freedom of the monetary authorities to respond to well-identified shocks without damaging anti-inflationary credibility, as the risk that the public may misinterpret a temporary change in liquidity conditions for a shift in the stance of monetary policy would be minimised.

But how can the ESCB, a new institution, maximise its anti-inflationary credibility? In two ways: through a well-designed monetary constitution and through reputation.

Placing price stability as the primary objective of the ESCB creates a statutory commitment which minimises the risk that several objectives conflict in the shorter-run and thus reduces the vulnerability of the new monetary institution to external pressures to accommodate inflation. However, the System must also enjoy independence if this objective is to be achieved.

Following Grilli *et al.* (1991), a distinction must be made between political and economic independence. As concerns political independence, several provisions in the Statute try to ensure that the decision-making bodies of the ESCB will be able to discharge their duties without being subject to constraints or influence by governments: independence of instructions from government bodies; compatibility of the statutes of national central banks (NCBs) with the Statute of the ESCB; assured tenure for the members of the Council and the Executive Board; financial autonomy; and very demanding legal conditions to amend the Statute in any fundamental way. As concerns economic independence, the Statute endows the ESCB with the powers to use monetary policy instruments without restrictions to achieve its primary objective: freedom to conduct open market and credit operations and to use any other appropriate instruments; power to conduct foreign exchange market operations as well as the exclusive right to authorise the issue of bank-notes in the Community. In addition, the Statute explicitly prohibits monetary financing of the public sector by the ESCB as it rules out the granting of overdrafts (or any other type of credit facility) and the purchase of public debt instruments in the primary market.

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<sup>1</sup>See Chapter 4 of European Commission (1990) for an analysis of the magnitude of some of the costs and benefits.

### 2.3. Doubts

The ESCB ranks quite high in terms of formal independence on the basis of a comparison between the statutes of central banks, as confirmed by the analysis of Alesina and Grilli (1992). This is important because empirical evidence indicates that the average rate of inflation is generally lower in the countries with more independent central banks (Alesina, 1989; Grilli *et al.*, 1990; and European Commission, 1990). However, even a high degree of formal independence is not enough to establish the anti-inflationary credibility of the new institution.<sup>2</sup>

In this respect, some observers (Begg *et al.*, 1992; Giovannini, 1992; and Kenen, 1992 ) have cautioned that since the Treaty places decisions on the exchange rate policy outside the ESCB, the effective independence of the new monetary institution might be compromised, as the monetary stance required to maintain price stability may conflict with exchange rate objectives. Although there is more than a grain of truth in this argument, it should nevertheless be noted that the wording of the relevant articles in the Statute addresses this concern. In particular, although the decisions on the conclusion of formal exchange rate arrangements, the adjustment or the abandonment of central rates, and the formulation of general orientations of exchange rate policy rest with the Council of the European Community, these decisions will be taken only after consulting the ESCB in an attempt to reach a consensus consistent with the objective of price stability.

Another source of concern regarding the performance of the ESCB is that the degree of tolerance for inflation may be higher in the Union than it is now in the country(ies) which at present exert the main influence on the monetary conditions in the Community (Begg *et al.*, 1992; Currie, 1992). In particular, if the votes in the ESCB Council reflect national attitudes to inflation, there is a risk that the anti-inflationary stance of the ESCB might be softened. However, as discussed in the next section, the standards which have been set in the Treaty for entry into EMU will act as a screening device for membership into the Union and may thus mitigate this problem.

### 2.4. Reputation: earned and inherited

As pointed out, formal independence is a necessary but not sufficient condition for achieving anti-inflationary credibility. Once the ESCB starts operating, it must demonstrate its effective independence. In other words, the ESCB will still have to build up a reputation to convince both the public and governments of its dislike of inflation. Furthermore, the longer it takes for the ESCB to establish its reputation the higher will be the output costs of achieving price stability in the Union as a whole and the more likely it would be that popular discontent may arise with monetary policy.

According to the institutional design of Stage Two contemplated in the Treaty, there is no transfer of monetary sovereignty from the national spheres to the central institution until the

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<sup>2</sup>Swinburne and Castello-Branco (1991) and Currie (1992) caution that rather than there being a causal relationship running from independence to inflation performance, both may result from a third factor: the degree of aversion to inflation on the part of the public.

beginning of Stage Three, contrary to some of the proposals which were tabled in the discussions on the transition to EMU.<sup>3</sup> Consequently, since the precursor of the ESCB, the European Monetary Institute (EMI), will not have any monetary policy responsibilities, it will be unable to build up an anti-inflationary reputation to bequeath to the ECB. There are, however, good reasons to believe that the new monetary institution may inherit credibility.

The first reason relates to the fulfilment of the convergence conditions set in the Treaty for the move to Stage Three. Member States must show their resolve in lowering inflation in order to enter the Union, and thus the ESCB may inherit, at least partly, the credibility achieved by NCBs in the successful process towards EMU.<sup>4</sup> Furthermore, since well-known unpleasant monetary arithmetic shows that the credibility of monetary policy ultimately also depends on the overall macroeconomic policy mix (Sargent and Wallace, 1981; Swinburne and Castello-Branco, 1992), the fulfilment of the fiscal convergence conditions during Stage Two and the excessive deficit procedure provided for Stage Three should strengthen the credibility of the ESCB on its inception.

The second argument refers to the choice of monetary policy strategy and tactics by the ESCB. To the extent that one or several central banks have achieved a high degree of anti-inflationary credibility during Stage Two, the ESCB could follow similar monetary policy strategies (e.g. intermediate monetary targets) and tactics (such as the use of specific instruments and procedures), as a device to signal the continuity with past experience and thus to increase the inheritance of credibility from certain NCBs.

In sum, the institutional design of the Treaty goes a long way towards endowing the ESCB with the formal independence necessary to run a credible anti-inflationary monetary policy. Credibility can also be enhanced from the very beginning of Stage Three by the preceding compliance with the convergence criteria, and perhaps by the adoption of certain strategies and tactics for the conduct of monetary policy. However, it is the degree of success of the ESCB in achieving and maintaining price stability during Stage Three which will ultimately shape its credibility over the longer term.

### **3. Functions of the ESCB: strategic considerations**

There are two essential functions which any central bank must perform. First, it must conduct monetary policy, which hinges on the management of the supply of central bank money. Secondly, it must be involved in the settlement of the interbank payment system, serving as the bankers' bank, as this is the foundation of any monetary system. In addition, central banks may also perform other functions such as prudential supervision of financial institutions and lender of last resort, to name two of the most important. Many central banks, however, are not the main body

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<sup>3</sup>See Crockett (1992) and Thygesen (1992) for an analysis of the different proposals made for Stage Two.

<sup>4</sup>It must be noted, however, that the Treaty only establishes a relative convergence criterion, *not* an absolute one.

responsible for prudential supervision nor for deciding whether lending of last resort should be granted.<sup>5</sup>

The Statute of the ESCB clearly states that the ESCB shall "define and implement monetary policy in the Community" and "promote the smooth operation of payments systems" (see Table 2). In contrast, the Statute gives a less prominent place to issues relating to banking supervision since "the ESCB shall contribute to the smooth conduct of policies pursued *by the competent authorities* relating to the prudential supervision of credit institutions and the stability of the financial system". Finally, no mention is made of the lender of last resort function.

### 3.1. Monetary policy

The Statute of the ESCB clearly states the primary goal of the System but leaves quite open the way monetary policy should be run to achieve it. Nothing in the Statute provides guidance as to whether policy rules are to be preferred to discretion and, in the former case, what sort of rules (i.e. feedback vs. non-feedback; variables determining the nature of the feedback) are to be followed.

Given the significant structural changes which are likely to take place in Europe in the coming years as a result of the financial and economic integration process associated with the creation of the Single Internal Market, no definite conclusions can be now put forward as to how the future monetary policy should be run. Nevertheless, two key questions have to be addressed. First, what are the merits of intermediate targets to reach the final objectives? And secondly, if intermediate targets are relied upon, what are the relative advantages of the alternative variables - prices or quantities - which could perform this role?

#### (a) *Intermediate targets*

When the conduct of monetary policy relies on the pursuit of intermediate targets, an "indirect" or "two-step" procedure is adopted. In the first step, the central bank determines the value of the intermediate target which is consistent with the desired evolution of the final objectives conditional on assumptions regarding prospective economic and financial developments. In the second step, the central bank adjusts the monetary instruments to achieve the selected value for the intermediate target (Friedman, 1990).

In a deterministic environment, this scheme is equivalent to a "direct" or "one-step" procedure whereby the central bank adjusts monetary instruments to achieve the desired evolution of the final variables. However, when uncertainty is present, the direct procedure is preferable on conceptual grounds since it makes more efficient use of information (Bryant, 1980; and Friedman, 1975; 1990). The basic reason is that while the central bank adjusts its instruments to achieve the intermediate target in the presence of shocks, these shocks may also change the equilibrium value

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<sup>5</sup>For a recent review of the functions of central banks, see Swinburne and Castello-Branco (1992) and Padoa-Schioppa and Saccomanni (1992). See also Giovannini (1992), and Folkerts-Landau and Garber (1991).



**TABLE 2: ESCB FUNCTIONS - STRATEGIC AND TACTICAL ASPECTS**

	MONETARY POLICY		FINANCIAL POLICY	
	DOMESTIC	EXTERNAL	PAYMENT SYSTEMS	PRUDENTIAL SUPERVISION
STRATEGIC	<ul style="list-style-type: none"> <li>- price stability as the primary objective. (Article 2)</li> <li>- definition and implementation of a single monetary policy (Article 3.1)</li> <li>- prohibition of monetary financing. (Article 21)</li> </ul>	<ul style="list-style-type: none"> <li>- exchange rate system and guidelines on exchange rate policy chosen at the political level. (Article 109 of the Treaty)</li> </ul>	<ul style="list-style-type: none"> <li>- promotion of a smooth operation of payment systems.. (Article 3.1)</li> </ul>	<ul style="list-style-type: none"> <li>- contribution to the smooth conduct of policies pursued by the competent authorities relating to prudential supervision and financial stability. (Article 3.3)</li> </ul>
TACTICAL	<ul style="list-style-type: none"> <li>- exclusive right to authorise bank-note issue. (Article 16)</li> <li>- right to conduct open market and credit operations. (Article 18)</li> <li>- right to set reserve requirements and use other instruments of monetary control. (Articles 19 and 20)</li> <li>- degree of decentralisation in the execution of monetary operations. (Article 12.1)</li> </ul>	<ul style="list-style-type: none"> <li>- right to conduct open market operations and manage the reserves of Member States. (Articles 3.1 and 2.3)</li> <li>- degree of decentralisation in the execution of foreign exchange operations. (Article 12.1)</li> </ul>	<ul style="list-style-type: none"> <li>- right to provide facilities and make regulations to ensure efficient and sound clearing and payment systems. (Article 22)</li> <li>- degree of decentralisation in the execution of the tasks relating to payment systems. (Article 2.1)</li> </ul>	<ul style="list-style-type: none"> <li>- advisory functions on prudential supervision and financial stability. (Article 25.1)</li> <li>- the European Council may confer upon the ECB specific tasks concerning policies relating to prudential supervision. (Article 25.2)</li> </ul>

of the intermediate target which is consistent with the final objectives. Hence, keeping the intermediate target unchanged would be inefficient relative to the "direct" method, which allows instruments to be adapted in line with the desired evolution of the final objectives. Thus, even if certain variables provide useful information regarding future developments (and/or contemporaneous but unobservable ones) of the final variables, the above reasoning suggests that they should not necessarily become the intermediate target of monetary policy, since their use as indicators is sufficient for their informational content to be exploited.

While this logic is correct, it nevertheless abstracts from several practical and behavioural considerations that underlie the reliance by a number of central banks on intermediate targets - and on monetary aggregates in particular. The setting of ranges (as opposed to point values) for the intermediate targets allows central banks to exercise some short-run flexibility in the response to shocks and to make efficient use of information. In addition, certain intermediate targets may exert a favourable influence on expectations and private sector behaviour, which enables central banks to pursue their final objectives more effectively (Rogoff, 1985). Furthermore, the use of intermediate targets has advantages in terms of simplicity and transparency, helping the public to monitor monetary policy and the central bank to avoid external pressures (Artis, 1991). Finally, as argued in the previous Section, since several central banks in the Community rely at present on intermediate targets, this would allow a degree of continuity in the practical conduct of monetary policy and, possibly, also the transfer of anti-inflationary credibility to the ESCB.

*(b) Intermediate monetary targets*

If the decision is made to rely on intermediate targets in the conduct of monetary policy, a particular variable must be selected to play this role. While the range of potential candidates is, in principle, very wide, it is sensible to focus on monetary aggregates, interest rates and nominal income.<sup>6</sup>

Monetary targets are often considered to be useful in stabilising the inflationary expectations of the private sector and in avoiding an overreaction to new information on the part of central banks. In addition, as demonstrated by models in the tradition of Poole (1970), monetary targets are suitable when the shocks affecting the economy originate mainly from the demand for goods.

The same analytical framework shows that interest rate targets are appropriate in situations where shocks primarily affect the financial sector and, in certain cases, the supply of goods.<sup>7</sup> However, even if these conditions do not hold, interest rates may play a useful role as indicators (Mishkin, 1990; Emery and Koenig, 1992) and as operational targets in the day-to-day conduct of monetary policy. Nevertheless, it has been noted that interest rates are possibly more

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<sup>6</sup>Artis (1991) conducts an examination of the merits of intermediate targets and, in particular, of monetary aggregates in Stage Three.

<sup>7</sup>This depends on the structural parameters of the economy and, more specifically, on the responsiveness of output to prices.

difficult to interpret by the public and that, as shown by vast empirical evidence, central banks' ability to influence long-term real interest rates in a predictable way is quite limited (Steindel, 1991).

Nominal income presents one advantage over plain monetary targets in that it eliminates the effects of predictable demand shifts (see Bean, 1983; Taylor, 1985). However, it is inadequate when aggregate supply shocks are predominant, is beyond the direct control of central banks and is not promptly observable.

There are a number of reasons which could justify reliance on monetary targets on the part of the ESCB, provided that they are not operated in a mechanistic manner. As already noted, targeting of a monetary aggregate would provide a certain degree of continuity between the monetary policy procedures currently used by several central banks in the Community (and primarily the Bundesbank) and the procedure of the ESCB, which could enhance anti-inflationary credibility. Moreover, the controllability of the money supply at the area level could be higher than it is at present at the national level for some countries, where monetary growth is to a various extent endogenous as a result of the constraints imposed by the ERM.<sup>8</sup> Finally, the empirical evidence provided by Kremers and Lane (1990), Artis (1991), Bayoumi and Kenen (1992) and Monticelli and Strauss-Kahn (1991) suggests that a stable money-demand function exists for the Community as a whole, although the usual caveats relating to the Lucas-Goodhart critique apply.

### **3.2. Financial policies**

In addition to the aim of protecting depositors in a market characterised by asymmetric information, the case for the regulation of banking activity stems from the existence of systemic risks. Banks play a crucial role in the financial system and make a vital contribution to the provision of payment services. Given that both liquidity and solvency problems can spread among banks, there is the risk that contagion and domino effects can turn a situation of distress in some banks into a severe disruption affecting the functioning of the payment system and the stability of the whole financial structure. The intervention of the authorities is then required to avoid the under-provision of the public good "financial stability".

The integration and globalisation of financial markets adds an international dimension to the systemic externalities involved in banking activity, while at the same time the rapid growth in market turnover and the development of new instruments, most notably derivative ones, have tended to increase market participants' exposure to financial risks. Systemic risks have increasingly become an international concern and the international co-operation of regulators has been strengthened to cope with these problems, with the work of the Basle Committee on Banking Supervision as the best-known example (see Folkerts-Landau, 1991, for a forceful advocacy of international co-ordination of banking regulations).

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<sup>8</sup>This depends on how significant is the room for manoeuvre provided by ERM bilateral fluctuation bands for national monetary policies.

In Stage Three, however, the issues related to transnational systemic risks within the Union will no longer be problems of international spillovers in the sphere of financial stability. Rather, the completion of the Single Market programme, the resulting integration of financial markets and the use of a common currency imply that systemic risks will involve the whole Union, just as in a large, single country.

*(a) Payment Systems*

The Statute states that one of tasks of the ESCB is to promote the smooth functioning of payment systems. The rationale underlying this explicit assignment is that the transfer of central bank money is the ultimate way of discharging an obligation and settling a transaction. Thus, in all countries, the central bank supplies services to the interbank payment systems and provides end-of-day liquidity facilities for its clearing.

As argued below in section 4.2, the integration of the interbank payment systems is necessary for the establishment of a single money market and hence for the conduct of the single monetary policy. In addition to that, however, policies for the control of risks have also to be implemented both to ensure the solidity of the interlinkage of national systems and to limit the systemic risk involved in the operation of payment systems. Currently, prudential regulations in this field vary widely across countries and the case for their harmonisation stems not only from the objective of an adequate consideration of the international externalities, but from the timely preparation of the technical requirements to run a single monetary policy. Central banks are working actively in the area. The Committee of Governors has created a Working Group on Payment Systems and the Statute of the EMU states that "the EMU shall promote the efficiency of cross-border payments". Yet, the attainment of adequate safety standards in national payment systems and the preparation of their interlinkage relies only on voluntary national co-operation.

*(b) Banking Supervision*

Although the Statute provides for the ESCB to contribute to the smooth conduct of policies relating to the prudential supervision of credit institutions and the stability of the financial system, it tends to imply that other authorities are likely to be competent for the formulation of such policies. Moreover, financial stability is not explicitly mentioned as an objective for the ESCB.

As argued above, the degree of financial integration within the Union prevailing in Stage Three and the adoption of the single currency imply that systemic risks will have a global nature. This makes it advisable to have a single supervisory institution, although not necessarily the ECB. The co-ordination of national authorities in the field may in fact be insufficient, as it risks involving excessive bargaining; leniency to national lobbies; regulatory loopholes; difficulties or inefficiencies in communication and exchange of information; and inappropriate evaluation of the systemic implications for the whole Union of the situation of the institutions supervised by each authority. Furthermore, information useful for the early recognition of systemic risks can be gathered from supervision activities and, conversely, the contacts with banks in the execution of monetary policy give access to information which can be helpful for supervision. Communication

within institutions, although not always effortless, is certainly less difficult than between institutions, especially between several of them. The creation of a single supervisory institution could partly solve these difficulties, as only two partners would be involved.

Several authors (e.g. Chiappori et al, 1991, Folkerts-Landau and Garber, 1992, and Giovannini, 1992) have claimed that the ECB could be in a favourable position to undertake significant responsibilities in banking supervision and prudential regulation on various grounds and in particular because of the economies of scope between the collection of information for supervisory purposes and the knowledge about financial institutions acquired through the implementation of monetary policy. The Treaty, however, does not stipulate that the ECB should formulate prudential policies, although it allows for the ECB to perform specific tasks in this field if the Council of the European Community so decides. The fear that too wide-ranging powers in the monetary and financial sphere could have been concentrated in the ESCB for it to be independent in the pursuit of price stability is possibly one of the main reasons for its relatively mild statutory involvement in the preservation of financial stability. Furthermore, national positions during IGC negotiations differed, as in the Community not all central banks are in charge of supervisory policies. Views were discordant on the possible conflicts between price stability and financial stability on the strength of the moral hazard problems entailed by an explicit formulation of the latter objective.<sup>9</sup>

## 4. Monetary policy in Stage Three: Tactical aspects

### 4.1. What are the issues?

The operational features of monetary policy are deliberately left open in the Treaty to ensure that the ESCB will enjoy the flexibility to adapt the money management techniques to the characteristics of the economic and financial environment prevailing in Stage Three. The time elapsed since the elaboration of the Treaty is short and the changes in the financial structure which the Single Internal Market will foster have not yet taken place. Thus, it would be unwise to put forward detailed prescriptions on the *modus operandi* of the ESCB. However, the sensible objective of leaving the choice of the operating procedures to the ESCB will not lead to conflicts with the efficient management of the single monetary policy provided that satisfactory answers can be given to two basic questions:

- what is the minimum degree of harmonisation of monetary policy instruments and procedures required for the smooth conduct of monetary policy?

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<sup>9</sup>As regards the moral hazard problems that could have resulted from an explicit Treaty provision for the new monetary institution to play the role of lender of last resort, it has to be noted that these are unavoidable as intervention in a liquidity crisis is inherently time-inconsistent and markets in any case expect the central bank to be committed to financial stability. Furthermore, as pointed out by Folkerts-Landau and Gerber (1991), the lack of an explicit commitment "need not reduce the set of contingencies in which market participants believe that the central bank will intervene".

- what are the basic rules that can ensure the consistency between the centrally-set guidelines which define the European monetary policy stance and their decentralised execution through the operations carried out by the NCBs?

As is apparent, these questions are not neutral as they already take for granted two tenets that are in principle still open. First, they assume that monetary policy instruments and procedures will still differ across Community countries at the start of Stage Three and, second, that substantive decentralisation will characterise, at least in the early years, the execution of European monetary policy. These assumptions, however, seem reasonable.

Differences in financial structure and behaviour tend to be persistent and are unlikely to disappear during Stage Two despite the market forces towards greater uniformity set in motion by the completion of the Single Market. Furthermore, central banks in general feel comfortable with their own way of running monetary policy and they can be expected to have a bent towards maintaining their customary procedures, especially if changing them entails costs for themselves or for the financial sector.

Operational decentralisation may reduce the risk that the concentration of the operations of the ESCB in a specific location gives an unfair advantage to a particular financial centre. Moreover, central banks have accumulated human capital in terms of knowledge of national financial institutions which would not be exploited if operations were to be centralised fully. Finally, forcing the ECB to have a direct relationship with every commercial bank, at least for some operations such as the financing of end-of-day clearing imbalances, would not be very practical. Whereas all these arguments support the decentralised execution of monetary policy at the beginning of Stage Three, they will probably lose some force through time and the operating procedures of the ESCB are likely to evolve towards greater centralisation.

## **4.2. The minimum degree of harmonisation**

### ***(a) Money market integration and the payments system***

A necessary condition for the conduct of monetary policy in Stage Three is the establishment of an integrated market for central bank money. The economic rationale for this condition is straightforward (and identical to the one which applies to national interbank markets and monetary policies): the emergence of a single monetary stance within the Union, not segmented into "local" interest rate conditions, requires credit institutions to be able to make or take interbank loans by trading their cash balances held at the central bank. Once exchange rates are irrevocably and credibly fixed,<sup>10</sup> positions in the national and cross-border interbank markets become perfect substitutes within the Union as exchange rate risks disappear.

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<sup>10</sup>If, at the very start of Stage Three, the irrevocability of the locking-in of parities were not perfectly credible, agents could still show a preference for the liabilities issued by some NCBs in the System. However, credibility would easily be established by fully accommodating the ensuing shifts through the provision of monetary base by the various members of the ESCB. The conduct of monetary policy would not be impaired in any respect, as the liquidity stance

For arbitrage to ensure the equalisation of interbank interest rates, credit institutions must be able to transfer their interbank positions across borders, just as Federal funds are transferred across American States. This, however, does not require the centralisation of payment and settlement systems at the EC level: the examples of the United States and Germany show that decentralised systems are compatible with a single monetary policy. What is required instead is the linking of national payment systems to ensure that interbank funds can be transferred across borders and, once transferred, can be used for final settlements within the same day. To achieve this result, some harmonisation of central bank practices in the operation of payment systems is needed; in particular, common technical standards on operational reliability and compatibility must be defined together with an agreement on the time of the final clearing.

These measures are sufficient to create an integrated interbank market and thus permit the conduct of a single monetary policy. Unfortunately, they do not ensure the safety of the interbank payment and settlement systems.<sup>11</sup> Safety requires measures to reduce liquidity, credit and systemic risks (such as collateral requirements, caps on exposure, the definition of the conditions of access to the system) as well as common legal provisions regulating the finality of payments (bankruptcy laws, "zero hour" clauses) and the revocability of payment instructions.

The finality and revocability of payments are particularly relevant in the case of coexistence of gross and net settlement systems. In net settlement systems, the finality and irreversibility of payments are ensured only when the netting has taken place successfully at the end of the day. Vice versa, gross settlement schemes are based on the notion that transactions are final and irrevocable as soon as they are executed. As a result, credit positions originating in net settlement systems cannot be transferred to gross settlement systems without undermining the integrity of the latter, unless some specific regulations are implemented. Thus, either large-value interbank payment systems will all have to be gross settlement schemes (which are best suited to avoid systemic risk) or, if this is not the case, a specific solution will have to be defined. There are two extreme possibilities:

- banks operating in a net settlement system and wishing to transfer their position to a gross settlement system have to collateralise the transaction fully. Such a solution, however, would discourage this type of transfer and could possibly lead to a partial fragmentation of the interbank market with obvious detrimental consequences for the conduct of monetary policy;
- central banks transferring a credit institution's positions assume the risk in case of default. This, however, would give rise to obvious moral hazard problems.

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within the Union is determined by the *total* supply of base money and not by its distribution across members of the ESCB.

<sup>11</sup>The authorities' concern about the compatibility of national systems to ensure the safety of international payment and settlement systems is in part independent of EMU, as testified by the work of the G-10 on these issues.

Given that neither arrangement is fully satisfactory, the solution to be devised if some of the large-value interbank payment systems are not gross-settlement schemes will presumably be an intermediate case.

*(b) Capital market integration*

Besides the harmonisation of the technical standards of large-value payment systems to ensure the integration of the interbank market, the integration of the markets for bills and bonds is also required for interest arbitrage to ensure the emergence of a single monetary stance throughout Europe.<sup>12</sup> This second condition does not imply that there should be perfect equalisation of returns on the debt instruments of prime borrowers (including governments) of different countries within the Union. Markets should in fact be left free to assess the default risk associated with each asset. Indeed, the integration of financial markets and the credibility of the "no-bail-out clause" should enhance the market scrutiny of borrowers' creditworthiness.

However, the implementation of monetary policy should be as neutral as possible with respect to risk premia on the securities used in operations, avoiding any form of privileged treatment which might interfere with the markets' assessment of borrowers' creditworthiness. This could easily be achieved by conducting open market operations in the form of (reversed) repurchase agreements, which do not directly affect the pricing of the underlying security, and not in the form of outright transactions, if these were to be carried out in thin markets. Even now, in the vast majority of EC countries repurchase agreements are preferred to outright transactions under normal circumstances.

Still, it can be claimed that the very choice of the assets used for the repos or accepted as collateral for direct lending to credit institutions may introduce a bias in the price of such securities, granting them a liquidity premium. This could give an unfair advantage to the borrower and at the same time would penalise the credit institutions which do not have an adequate supply of such assets in their portfolio.<sup>13</sup> Given that some assets must be used and/or chosen as eligible, there is no way to avoid this effect completely. The distortion can however be minimised, possibly to the extent that it becomes negligible in practice, by employing a wide range of assets in the conduct of monetary policy, subject to obvious minimum standards of creditworthiness.<sup>14</sup>

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<sup>12</sup>No specific action seems to be needed on this front, as even now segmentation of national markets for bills and bonds is mainly due to exchange rate premia on the different currencies.

<sup>13</sup>Kenen (1991) suggests that the diversity in the compositions of credit institutions' portfolios at the beginning of Stage Three provides a rationale for the ESCB to distribute its open market operations among the NCBs which could use different operational methods to accommodate cross-country differences. The widening of the range of assets employed by the ESCB could however attain the same result, with identical implications both for asset prices and for the composition of the portfolio of the ESCB.

<sup>14</sup>Such standards, however, should not discard all the assets of any country, which are held by the NCBs at the start of Stage Three.



*(c) Harmonisation of monetary policy instruments and procedures*

Once interest arbitrage ensures the emergence of a single monetary stance throughout the Union, why is further harmonisation involving instruments and procedures needed? Whatever the way the supply of central bank money is regulated, for any given constellation of national instruments it is always possible for the ESCB to hit the operational target (for example, a short-term interest rate) and thus to implement monetary policy consistently with the pursuit of the macroeconomic objective of price stability. Nevertheless, there are two microeconomic reasons, which strongly point towards the desirability of achieving a certain degree of harmonisation<sup>15</sup>.

A first concern is that regulatory arbitrage on the part of financial institutions could lead to major shifts in the location of financial activity within the Union, if differences in monetary policy instruments and procedures implied differences in the costs involved in banking with the various members of the ESCB. The case of reserve requirements is the most obvious example. The conduct of a single monetary policy could be perfectly compatible with different reserve requirement provisions within the ESCB (the "European" money multiplier would be given by a weighted average of "national" multipliers), as interest rate arbitrage would in any case lead to a single monetary stance throughout the Community. However, not all financial institutions would be on the same competitive footing, at least initially, and the ones penalised by regulation would tend to circumvent it, moving their activities to more favourable locations. This line of argument supports the harmonisation of reserve requirements (not excluding the zero option) and of the conditions on the standing facilities offered on a bilateral basis to financial institutions. Otherwise, the result would be a regulatory arbitrage, which would entail inefficiencies and which could lead to a perverse competition between NCBs. Furthermore, shifts in the location of financial activity could complicate the conduct of monetary policy, as they would increase the noise associated with monetary and financial developments. The signal extraction problem faced by the ESCB would be exacerbated in a situation which will in any case be difficult as a result of the regime change involved in the start of EMU.

While the desire to avoid inefficiencies and perverse competition between the NCBs provides a rationale for a further harmonisation of monetary policy instruments and procedures, it is difficult at this stage to derive more precise prescriptions for two reasons. First, the requirement to equalise the conditions of the operations with the financial institutions across the NCBs does not specify the level of equalisation. Secondly, besides this indeterminacy, the effective costs incurred by financial institutions are not simply dependent on the interest rate conditions of operations with NCBs, but are also related to a wide variety of factors, such as the pricing of the services which central banks often provide to credit institutions. A precise assessment of all factors affecting the cost-subsidy mix implicit in the way in which monetary policy is managed seems thus very difficult, if not impossible, even because they have a different impact on financial operators within

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<sup>15</sup>Padoa Schioppa and Saccomanni (1992) provide detailed information on the existing differences in monetary instruments and procedures in Community countries.

the same country. For example, the choice of the type of eligible assets for refinancing gives a comparative advantage to the institutions which have a high proportion of these assets in their portfolio. Therefore, the difficulties inherent in the complete ex ante elimination of any difference in such a cost-subsidy mix suggest that a certain redistribution of financial activity across EC countries is bound to take place, given that even minimal differences could trigger significant shifts.

The second reason motivating a certain degree of harmonisation in instruments and procedures is that it would facilitate the understanding of policy signals on the part of the market participants. Particular conventions (not always corresponding to the use of a specific set of instruments) have been established to clarify whether central bank operations are meant to maintain the prevailing policy stance in the face of shocks or whether a change in policy orientation is intended. The coexistence of several conventions would prove confusing.<sup>16</sup> Appropriate actions on the part of the ESCB together with market trading and arbitrage would eventually bring about the desired liquidity stance, but this process may give rise to misunderstandings, undesired volatility in market rates and other inefficiencies in the management of liquidity conditions. Once again, while this argument also suggests that harmonisation would be desirable, it does not help to determine its specific terms.

*(d) Harmonisation towards which standard?*

The arguments put forward in this section lead to the following conclusions:

First, the integration of the large-value interbank settlement systems is sufficient for the ESCB to be able to run monetary policy in the pursuit of its macroeconomic objective.

Secondly, a close harmonisation of monetary policy instruments and procedures would be desirable in order to allow the ESCB to signal its policy intentions efficiently, and would be necessary to avoid major shifts in the location of financial activities. Nevertheless, this line of reasoning only points to the benefits of harmonisation in its own merit and leaves the terms of harmonisation indeterminate.<sup>17</sup> The arguments on the intrinsic merits of particular instruments or procedures should thus rest on other considerations. All instruments and procedures have advantages and disadvantages, and the predominance of the ones over the others is most often contingent upon specific institutional features, accidental circumstances and established conventions. In addition, the choice of terms of harmonisation should also be viewed in relation to more general considerations on the credibility of the new institution, as argued in Section 2.

However, the choice of the standards for the harmonisation of monetary policy instruments and procedures inevitably entails some changes from the current national practices, which in turn might involve direct or indirect costs for central banks or financial institutions. The process of harmonisation thus presents the typical features of a game with incentives for the single

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<sup>16</sup>The Statute however provides for uniformity in the conditions under the ECB and the NCBs will stand ready to enter into open market and credit operations.

<sup>17</sup>The only constraint is given by considerations on the competitiveness of the financial industry vis-à-vis the centres located outside the Union.

player to deviate from co-operative behaviour and with associated risk that the inefficient, non-cooperative outcome occurs if players follow these incentives. The EMI, as an independent institution *super partes*, should consequently play an important role in fostering the success of the cooperative aspect in the preparation of EMU over habits, traditions, idiosyncrasies and, above all, national incentives to promote specific financial centres or institutions.

#### 4.3. Decentralised execution

Given the indivisibility of monetary policy, the Statute provides for the decision making to be centralised in the ECB. At the same time, "to the extent deemed possible and appropriate (...), the ECB shall have recourse to the NCBs to carry out operations". The difficulties in the application of this principle stem from the tension between the need for rules (which are required to ensure that a decentralised execution through the NCBs is consistent with the unitary control of the area-wide supply of central bank money) and the desire of retaining some discretion in the management of liquidity conditions in the Union. The possible solutions to this dilemma are contingent on the operating procedure chosen by the ESCB, given that the degree of discretion in coping with liquidity shocks and the frequency of operations in the domestic markets vary with the techniques of monetary policy implementation, as shown by the different national practices. Discretion and flexibility, however, are mainly exercised through the conduct of open market operations. So, when considering the issue of decentralised implementation, it is useful to distinguish between standing facilities (which define the bilateral relationships between central banks and financial institutions) and open market operations.

##### *(a) Standing facilities*

The decentralisation of standing facilities<sup>18</sup> (such as the discount window, other forms of direct lending and deposit facilities) presents operational advantages and does not seem difficult to reconcile with the overall control of central bank money injected or withdrawn through this channel. The ECB would be relieved from the burden of keeping account with all banks operating in the Union,<sup>19</sup> while the capital of knowledge on the specific credit institutions that NCBs have accumulated over the years would be better exploited too.

As regards the overall control of money supply, if the banking sector were in a structural position of liquidity deficit and a share of regular refinancing were to be provided through a discount facility (or a similar type of operation), limits could be set by the Council for each NCB, which in turn would assign ceilings to the single financial institutions.<sup>20</sup> If a standing facility were to be used to set a ceiling to market rates, as in the Lombard credit in Germany, no

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<sup>18</sup> As argued above, conditions on standing facilities should be equalise across the members of the ESCB to avoid the delocalisation of financial activity motivated by regulation arbitrage.

<sup>19</sup> Furthermore, the Second Banking Directive provides for liquidity rules, such as reserve requirements, to be applied on a host-country basis.

<sup>20</sup> The fraction of central bank money supplied through standing facilities varies greatly across EC countries: from about one-half in the Netherlands to negligible proportions in the UK.

allotment between NCBs would be required as the ESCB would stand ready to accommodate any demand for reserves at that level. Similar considerations apply if deposit facilities were employed to set a floor to market rates. As for any discretionary injection of liquidity for financing end-of-day clearing imbalances, no allotment between NCBs would be needed as this form of refinancing could only be granted at a penalty rate well above market conditions to ensure that it would only be intended to guarantee the smooth functioning of the clearing process and not to steer liquidity conditions.

*(b) Open market operations*

Rules for the decentralised execution of open market operations are instead contingent on the operating procedures adopted by the ESCB.<sup>21</sup> If the management of liquidity conditions relies on discretionary, fine-tuning interventions to split the impact of liquidity shocks into rate and quantity effects, efficiency in execution limits the room for discretion of the NCBs in the choice of the timing and procedures to carry out open market operations. Conversely, if the operating procedure of the ESCB provides for a strict pursuit of an interest rate operational target, it allows for more discretion in the decentralised execution. Table 3 presents an overview of the schemes for a decentralised execution which are discussed in this section. It shows the linkage between the operating procedures of the ESCB, the discretion left to the NCBs and the possible involvement of the ECB in the execution of open market operations.

A first scheme could be applied if the ESCB were to operate on the strict principle of interest rate operational targeting. The ECB would set the level for the operational target (say, every week if not daily)<sup>22</sup> and then leave discretion to the NCBs on the frequency and type of open market operations required to achieve it. Although feasible, this scheme would have a number of drawbacks. Some are directly linked to the strict targeting of an interest rate as the operating procedure and would be relevant even if the execution of monetary policy were centralised. These include the possibility that this choice may be inefficient when the money supply behaviour of the banking sector is relatively stable; the very high frequency of operations which might be entailed; the risk that the meeting or not of the operational target could be "overcharged" of policy significance on the part of market participants.

Other drawbacks are instead linked with the decentralised execution. First, it may be inefficient in the sense that central bank intervention could unnecessarily replace arbitrage flows triggered by small interest rate differentials. NCBs could carry out operations in opposite directions in the same day, possibly creating confusion in the market. Secondly, if, for practical reasons, the operational target were not set as a point value but in the form of a narrow corridor, NCBs would

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<sup>21</sup>Whatever the arrangements for the decentralised execution of open market operations, the arguments developed in the previous section suggest that the criteria set for the choice (if any) of privileged counterparties, such as primary dealers, should not discriminate between credit institutions on the basis of their location (and thus, for example, any bank meeting the desired standards should be able to present bids to any NCB).

<sup>22</sup>Whether the rule and the target itself should be made public is yet another question. For a recent contribution discussing the pros and cons of secrecy about operational procedures and targets, see Walsh (1990).

TABLE 3: DECENTRALISED EXECUTION OF OPEN MARKET OPERATIONS

INVOLVEMENT OF ECB IN EXECUTION OF OPERATIONS	DISCRETION IN EXECUTION BY NCBS	OPERATING PROCEDURES FOR THE ESCB		
		INTEREST RATE RULE	BASE MONEY RULE	MIXED RULES
No	Yes	SCHEME 1		INCONSISTENT
	No		SCHEME 2	
Only for fine-tuning (discretionary) operations	Yes	SCHEME 3		
	No			

have an incentive to supply liquidity at the lower limit of the corridor in order to attract business to the local financial centre. As a safeguard against the risk of NCBs tending to over-expand the monetary base they provide directly, it has been proposed that a band should be set for the balances between the NCBs and the ECB, as these change whenever money base shifts location, as shown for example in Kenen (1991). This safeguard, however, could interfere with a genuine relocation of base money brought about by economic and financial developments which might originate independently of any artificial stimuli induced by differences in the operational practices of the NCBs. Furthermore, limits to the balances with the ECB might introduce unnecessary volatility in the liquidity conditions as NCBs might be forced to carry out operations with the sole purpose of controlling their positions vis-à-vis the ECB.

Contrary to pure interest targeting, monetary base targeting as an operating procedure is not compatible with a decentralisation scheme in which the ECB sets the area-wide level for the target and NCBs have then the discretion on type and frequency of open-market operations to achieve it. NCBs can only observe the shocks to their "local" base money and are not in a position to know whether shocks are also taking place elsewhere within the area. Consequently, operational day-to-day targets in terms of "local" base money cannot be consistently defined and thus, no discretion in the execution could be left to the NCBs. The same conclusion holds when the ESCB refrains from pursuing an operational rule in order to retain more flexibility in the response to liquidity shocks.

The second scheme instead allows the ESCB to apply discretion in the response to shocks as well as to follow either a base money or an interest rate rule or a mixture of the two. The ECB would decide every single aspect of the open market operations, even those of a routine nature. The NCBs would have no discretion whatsoever and would be mere executors, either in the form of participating in the execution of an area-wide operation of the ECB, (for example, when carrying out a repo tender, NCBs would receive bids to be processed by the ECB which would decide on the allotment to credit institutions and carry it out through the NCBs) or in the form of executing open market operations directly under the precise instruction of the ECB covering all aspects of the transaction, including the timing. This scheme, however, could be cumbersome for ordinary, house-keeping operations which could be executed by the NCBs with more leeway in terms of timing and other features. At the same time, it could be inefficient for fine-tuning transactions, especially at times of financial turbulence, as the execution of all transactions through the NCBs could reduce the timeliness and the flexibility of operations.

A third scheme can be envisaged to overcome these drawbacks. The execution of periodic, house-keeping operations, to meet the expected liquidity needs of credit institutions in the Union would be allotted to NCBs, while not only the decisions but also the execution of fine-tuning operations would be centralised in the ECB. NCBs could have discretion on the timing and the characteristics of the operations they would carry out, while the allotment of quantities would

eliminate any tendency to over-expand the local money supply to attract business.<sup>23</sup> The centralisation of fine-tuning operations could improve the operational efficiency and possibly the clarity of the distinction between operations intended to maintain an adequate provision of liquidity in the face of shocks, and those meant to signal a change in policy stance.<sup>24</sup>

This scheme relies on a clear-cut distinction between regular, house-keeping operations and discretionary fine-tuning operations. Such a distinction, however, is blurred in the operational practice of every central bank (although to different extents) and appears difficult to pin-down even on conceptual grounds. On the other hand, the ECB would have to implement the separation in practice, and one might surmise that in the ambiguous cases the ECB would tend to err on the side of caution and to intervene itself in the money market as a safeguard against undesirable variability in base money and/or interest rates.

To sum up, entrusting the NCBs with the task of managing standing facilities together with the ECB maintaining overall control of the liquidity injected through this channel, does not seem overly difficult, given the relatively scarce flexibility of this type of instrument. Matters are more complicated for the decentralisation of open market operations. One possibility would be for the ESCB to follow a pure interest-rate pegging as the operational procedure, although this entails drawbacks both in general and because of its decentralised execution. Other schemes to ensure the consistent and decentralised execution of open-market operations are feasible, although they ultimately require discretionary, fine-tuning operations to be decided centrally and possibly also to be carried out by the ECB, as this would enhance the flexibility and efficiency of execution as well as the transparency of policy signals.

#### **4.4. Foreign exchange operations**

The two questions on the minimum degree of harmonisation and on the rules ensuring a consistent decentralisation discussed above with reference to domestic operations can also be raised about foreign exchange operations. In this case, however, answers are less problematic. Instruments and procedures for foreign exchange intervention in fact are already virtually identical. Spot transactions account for the majority of intervention, while the world-wide integration of financial markets has already brought about the standardisation of other types of foreign exchange contracts.

As regards the issue of decentralisation, the flexibility and discretion that characterise foreign exchange intervention clearly call for a full centralisation. The place of execution, either by

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<sup>23</sup>If the freedom on timing and characteristics of the operations were to be considered counterproductive in the light of experience, the ESCB could reduce the freedom of the NCBs, possibly removing it completely. For this reason the third scheme spans two different lines in Table 3.

<sup>24</sup>It may be worth noting that the balance between the share of operations executed by the ECB and the NCBs will depend on the frequency of fine-tuning operations. Leaving aside exceptional circumstances, the latter depend on the availability of built-in automatic stabilisers that enable markets to absorb liquidity shocks. Average and lagged reserve requirements could perform this role as well as rules for the automatic sterilisation on the part of each NCBs of the liquidity impact of the operations of the national Treasury (usually the strongest source of disturbances to liquidity conditions).

the ECB or by the NCBs under the precise instruction of the ECB, does not seem an important matter as quotation of foreign exchange rates routinely takes place on a global basis. It is a priori unclear whether markets would be more impressed by intervention carried out by a single member of the ESCB or by several. The issue however can be settled on a learning-by-doing basis as no organisational aspect is contingent on this choice. Furthermore, under the presumption that the Union will conduct a flexible exchange rate policy, the size and frequency of foreign exchange operations will be small in relation to domestic ones. Thus, it can hardly be claimed that any particular arrangement could give an unfair competitive advantage to one or more financial centres.

## 5. Conclusions

This paper has explored a number of issues fundamental to the conduct of the single European monetary policy in Stage Three. As these issues can only be settled when more information is available on the future economic and financial conditions in the Community, no attempt has been made to provide definite answers. Nevertheless, the paper has reached a number of conclusions which are put forward as a basis for discussion

First, the Statute of the ESCB contains a number of provisions, most notably the primacy assigned to the objective of price stability, designed to ensure the economic and political independence which is required to establish the anti-inflationary credibility of the new monetary institution. The convergence achieved during the transition to Stage Three and possibly the adoption of certain strategies and tactics in the conduct of monetary policy should help the ESCB to inherit the credibility of successful central banks in the Community. Yet, the credibility of the ESCB will ultimately depend on its effectiveness in achieving and maintaining price stability.

Secondly, the future monetary policy must be formulated in a simple and transparent way which is easily understood by the public. Intermediate targets, and monetary aggregates in particular, may help stabilise expectations, increase the transparency of policy making, and bequeath anti-inflationary credibility to the new monetary institution. While it could be argued that the pursuit of intermediate targets is sub optimal insofar as it does not allow the flexibility to respond to shocks which affect the relationship between the intermediate target and the final variable, in practice the use of target ranges may reduce the drawbacks in terms of limited flexibility.

Thirdly, the integration of the interbank and capital markets is necessary to conduct monetary policy in Stage Three as it ensures that interest rate arbitrage brings about a single monetary stance throughout the Union. Harmonisation in the operation and regulation of payment systems is needed to achieve the integration of interbank markets. Extending harmonisation to monetary policy instruments and procedures is advocated on two grounds: to avoid regulatory arbitrage and relocation of financial activity which would take place as a result of differences in the cost-subsidy mix implicit in the way monetary policy is managed; and to facilitate the



understanding of monetary policy signals on the part of the market participants through the application of common features in the operating procedure. These arguments, however, only point to the benefits of harmonisation on its own merit and leave the terms of harmonisation indeterminate. As the choice of standards for monetary policy instruments and procedures is likely to involve direct or indirect costs for central banks or financial institutions, it must be hoped that the cooperative aspect in the preparation of EMU will prevail over traditions and, above all, national incentives to promote financial centres.

Finally, the recourse to NCBs in the execution of monetary policy operations does not seem to involve severe problems with reference to bilateral operations (normally conducted through standing facilities) between the central bank and each credit institution. Decentralising the execution of open market operations seems instead more complex. Viable schemes are nonetheless available. However, the execution of discretionary operations on the part of the ECB could enhance the flexibility and efficiency of execution as well as the transparency of policy signals.

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