

## EMU AND CAPITAL MARKETS

### The Institutional Framework

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#### Abstract

This paper reviews the factors that will determine the shape of financial markets under EMU. It argues that financial markets will not be unified by the introduction of the euro. National central banks have a vested interest in preserving local idiosyncracies (e.g the Wechsels in Germany) and they might be allowed to do so by promoting the use of so-called tier two assets under the common monetary policy. Moreover, a host of national regulations (prudential and fiscal) will make assets expressed in euro imperfect substitutes across borders. Prudential control will also continue to be handled differently from country to country. In the long run these national indiosyncracies cannot survive competitive pressures in the euro area. The year 1999 will thus see the beginning of a process of unification of financial markets that will be irresistible in the long run, but might still take some time to complete.

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<sup>1</sup> This contribution draws heavily on joint work with Niels Thygesen and Karel Lannoo.

Table of Contents

<b>I. INTRODUCTION .....</b>	<b>4</b>
<b>II. THE ENVIRONMENT FOR THE COMMON MONETARY POLICY .....</b>	<b>4</b>
A. THE GOVERNING BODIES OF THE EUROPEAN SYSTEM OF CENTRAL BANKS: CENTRE VERSUS NATIONAL CENTRAL BANKS .....	4
B. DECENTRALISATION IN IMPLEMENTATION .....	6
C. POOLING OF FOREIGN EXCHANGE RESERVES .....	9
D. OTHER POTENTIAL CENTRAL BANKING TASKS .....	10
<b>III. MONETARY POLICY FOR THE EURO .....</b>	<b>11</b>
A. PRICE STABILITY AS THE OVER-RIDING GOAL .....	11
B. MONETARY POLICY STRATEGY .....	12
C. MONETARY INSTRUMENTS .....	13
D. HOW TO TREAT PUBLIC DEBT? .....	14
<b>IV. THE INCOMPLETE MONETARY UNION (1999-2002) .....</b>	<b>17</b>
A. PUBLIC DEBT .....	17
B. INTER-BANK OPERATIONS .....	18
C. NON-BANK DEPOSITS .....	19
<b>V. THE ECB, A FULL CENTRAL BANK? .....</b>	<b>19</b>
A. PRUDENTIAL ISSUES .....	20
B. PAYMENT SYSTEMS ISSUES .....	22
<b>VI. CONCLUSIONS: IMPLICATIONS FOR CAPITAL MARKETS .....</b>	<b>25</b>

List of Tables

Table 1: A weak centre: headquarter staff at national Central Banks	30
Table 2: Employment in EU central banks	31
Table 3: ECB shares and potential foreign exchange pooling	32
Table 4: Central–Bank Instruments	33
Table 5: Size of Inter-Bank Deposits in Selected EU Countries (1994)	34
Table 6: Sectoral Distribution of Monetary Aggregates in France and Germany	35
Table 7: Monetary and bank supervisory functions in EU countries	36
Table 8: Daily Turnover and Collateral in the UK CHAPS (in bn ECU)	37

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### I. Introduction

EMU implies a common monetary policy for the participating countries. This will have profound consequences for European capital markets as well. Until now national capital markets have retained many distinguishing features and show little sign of converging rapidly towards a single model. Will this change with EMU? This paper provides elements for an answer by giving a description of the institutional environment in which monetary policy of the euro area will be conducted.

The details of the instruments that will be used by the European Central Bank (ECB) have not yet been decided because it was not possible to reach a consensus on these detailed technical issues within the EMI. The final decisions will thus be made only by the ECB once it is established, which will happen soon after the final decision to start EMU has been taken by the Council. However, what is known today is already sufficient to discern two broad tendencies: first, it will take some time before a really unified European capital market emerges, and, second, the ECB will be an 'incomplete' central bank. We will come back to these two points at the end after a detailed description of the framework for monetary policy under EMU.

This paper is organized as follows: Section II describes the institutional framework for the common monetary policy, with particular emphasis on the (excessively) federal nature of the structure of the E(S)CB. Section III turns to its likely monetary policy instruments and targets. Section IV discusses briefly whether there will be a critical mass of euro-users already during the incomplete monetary unions of 1999–2002. Section V then briefly touches on other central banking tasks that are not related directly to monetary policy. Section VI concludes with some reflections on the implications for capital markets.

### II. The Environment for the Common Monetary Policy

#### A. The governing bodies of the European System of Central Banks: Centre versus national central banks

The ESCB consists of a central institution, the European Central Bank (ECB) and the national central banks of EC Member states that have joined the final stage (Art. 1). The ECB (located in Frankfurt) has two governing bodies: the Executive Board and the Governing Council.<sup>2</sup> The Executive Board can have up to six members: a President, a Vice President and up to four other members (Art. 11). The Board members are nominated by the European Council for a period of

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<sup>2</sup> Central Bank governors from EU countries which have not entered the third stage of EMU will not take part in the joint decisions in the Governing Council of the ECB as foreseen by Art. 109k of the Treaty which states that, in case of some Member states having been given a derogation in the final stage of EMU, the voting rights for the representatives of the central bank governors concerned on the ECB Council will be suspended. The 'out' governors will have a seat on the ECB General Council, which has, however, no influence on monetary policy.

eight years, not renewable, after the ECOFIN Council has given its opinion, and after consultations with the European Parliament and the Governing Council of the ECB.

The Governing Council (Art. 10) comprises the (up to) six members constituting the Executive Board and the governors of the participating national central banks (Art. 10, see also article 109I of the Treaty). The terms of office of the latter must be at least five years. (Art. 14.2). All members of Council have one vote (Art. 10.2).<sup>3</sup> This last provision is very important. Acceptance of the one-man-one-vote principle must be seen as an important concession by Germany (and to a smaller extent by other large member states). It was obtained in return for the explicit mandate to preserve price stability and the high degree of independence for the ESCB as discussed below. Together with assured long periods of tenure, and the role of the ECB Governing Council in nominations for the Executive Board, the voting rule should assure that this decisive policy-making body develops a high degree of cohesiveness and collegiality. Weighted voting could have fostered the thinking that governors were primarily representing national interests and not equal members of a collegiate body charged with formulating a common policy for Europe.

The Governing Council is vested with the main overall authority : “The Governing Council shall formulate the monetary policy of the Community including, as appropriate, decisions relating to intermediate monetary objectives, key interest rates and the supply of reserves in the system, and shall establish the necessary guidelines for their implementation” (Art.12.1). But as policy could hardly be set in sufficient detail by a Council likely to meet only on a monthly basis this paragraph continues with “The Executive Board shall implement monetary policy ...”, “including by giving the necessary instructions to national central banks” (Art. 12.1). This formulation seems to leave no doubt as to the hierarchical nature of the system.

In reality, however, important practical issues concerning the division of responsibilities for implementing policies between the ECB and the participating national central banks have been left open since the Statutes stipulate that:<sup>4</sup>

“To the extent deemed possible and appropriate and without prejudice to the provisions of this Article (i.e. the capacity to give instructions), the ECB shall have recourse to the national central banks to carry out operations which form part of the tasks of the ESCB.”  
(Art. 12.1)

A further element that highlights the uneasy balance between the centre and the participating NCBs is that the ECB Board members will have only (up to) six votes out of a total number of votes in the Governing Council of, initially seventeen. That latter number will rise further, as EU membership widens. This minority position resembles that of the Bundesbank Board (Direktorium) prior to 1992 with (up to) seven members and a Council (Rat) with a total (maximum) of eighteen

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<sup>3</sup> This principle does not apply to voting on financial matters (distribution of profits and loss) for which a special key, based on objective criteria will be set and revised every five or ten years (Art. 28).

<sup>4</sup> Some central banks had aimed for more decentralization than this wording suggests and an alternative proposal was for the ECB Executive Board to delegate to national central banks ‘to the full extent possible’. Why was this formulation not adopted and why did the drafters of the Statute in the end opt for a more centralized mode of operation? They were concerned about the potential weakness of the central institution and its Executive Board, the members of which will be in a minority in the Council and its implications for the efficiency of operations. The experience of monetary policy execution in the two large federal countries - the United States and Germany - whose central banking legislation has, in a number of respects inspired the Statute is relevant in this context.

members given that there were 11 presidents of Landeszentralbanken. However, in Germany all significant monetary policy operations were centralized in Frankfurt which made up for any perception of weakness at the centre. Moreover, even in Germany a need was felt to redress the balance when five new Länder joined. The sixteen members representing Länder were reduced to nine so that currently the balance is 8:9 (for a total of 17). Of course, the internal federal structure of the Bundesbank becomes redundant under EMU.

In the United States, the Federal Open Market Committee (FOMC) which meets every five to six weeks, has functions analogous to those envisaged for the ECB Governing Council in setting monetary objectives and in formulating guidelines for the main policy instrument, open market operations, to be undertaken through the Federal Reserve Bank of New York. The FOMC meetings are attended by the seven members of the Board of Governors, nominated by the President of the United States, subject to confirmation by the US Senate, and the twelve Presidents of the regional Federal Reserve Banks. Out of the latter only five have the right to vote at any one meeting, so the majority lies with the Board - provided they agree, obviously. The central position of the Board is further underlined by the attribution to it alone of two important policy instruments: discount rate changes and variations in reserve requirements. The Board of Governors accordingly has a dominant influence both on decisions and on implementation of policy.

## **B. Decentralisation in implementation**

European versus national elements in the European System of Central Banks

The strength of centrally appointed members of governing councils of national central banks is usually based on their superior base in terms of analysis, rather than their numbers. Even in otherwise rather federally structured national central banks almost the entire analytical staff (mainly, but not exclusively research) who prepare the background material for major policy decisions are concentrated at headquarters and work under the direction of the centrally appointed members of the governing councils or whatever institution represents the highest decision making body at the national level. This will be different in the case of the E(S)CB as can be seen from Table 1 which shows the headquarters staff of a number of national central banks. The total staff of the ECB of some 400 is minuscule compared to the sum of about 60–70 thousand of the component national central banks. Monetary policy is supposed to be executed ('to the extent possible' according to the Treaty) by the latter so that they will need more personnel. But even if one looks only at the analytical staff (i.e. the ones not directly involved in the execution of monetary policy) it is clear that the ECB will be rather weak compared to most of the national central banks in the Euro area. A number of them have on their own a research staff that is larger than that of the ECB, which will have only about the same analytical capacity as the Dutch National Bank and certainly much less than the Federal Reserve, which represents the only case where a significant amount of research is done outside headquarters. The example of Switzerland shows that even in a country with strong federal structures the central bank does not have to be large.

Table 1 thus suggests clearly that the (probably 6) members of the Board of the ECB will be in a rather weak position vis-à-vis the 11 governors of the national central banks that will also sit in the Council of the ECB. A number of national central bank presidents will be able to rely on a larger staff for analysis at their home base than the board members in Frankfurt. There is thus a danger that a number of governors will arrive at the bi-monthly meetings with analysis

that has been prepared by their national staff and that is thus likely to be at least 'coloured' by a national view; possibly even because of the fact that national data will become available before EMU-area wide data.

The background notes on which decisions of the ECB Governing Board will have to be based (e.g. notes on the inflation outlook to serve as a basis for a decision on interest rates) will thus not come mainly from ECB staff. National governors would be able to prepare papers that are qualitatively at least as good as those prepared by the ECB staff in Frankfurt. Moreover, during the first few years of operation the ECB staff will be absorbed by technical tasks to ensure that the framework for the execution of monetary policy works smoothly whereas a number of operational personnel at national central banks (e.g. in foreign exchange markets) will no longer be needed, and as they must be occupied somehow, many might turn to research. The system might thus produce too much analytical material; but mostly done in national central banks. The ECB will try to impose a uniform framework on the entire system (as is done in the Federal Reserve) but this might work for 'ordinary administration', not during critical periods and for the many new issues that the ECB will have to face.

The excess-supply of personnel at the national level suggests that the ECB will be pushed initially to continue the practice adopted under the EMI regime, namely to have most important decisions prepared by committees drawn from national central banks. These committees are in many cases not even chaired by EMI personnel and have to reach a consensus before a position can be taken. Moreover, it is difficult to see how the views of the governors, who come only every two weeks or so for at most one and a half day to Frankfurt, cannot be strongly influenced by their national background. The governors will spend most of their time and efforts in their home country, dealing with national problems and addressing most of the time a national audience. This diversity in outlook creates the risk that reaching an agreement will be difficult because the starting points in the discussion will be so different. The danger is that this might paralyse the ECB in the face of crisis. At the very least the ECB is thus likely to be slow in its decisions, unable to react quickly to market developments. Under these circumstances it will also take some time to develop the unity of views (or corporate culture) that would enhance credibility with markets and delivers efficient decision making can emerge. (See von Hagen (1997) for a discussion of the dangers of majority voting in a heterogeneous body.)

(A seldom mentioned side-effect of EMU is that it makes the internal decision making structures of national central banks obsolete. The governors or presidents cannot be bound by instructions from their own organizations. As only the arguments and votes expressed in the Governing Council of the ECB will count the national sub-structures, such as the Zentralbankrat in Germany, will in effect become mere debating clubs and lose all influence. National central banks will de fact become hierarchical.)

A first comparison of the ESCB with either of the two main federal models - the Deutsche Bundesbank and the Federal Reserve System - in their present form must arrive at the conclusion that the ECB Executive Board is likely to have a relatively weaker position with respect to both decision-making and policy implementation than both its German and US counterparts. The Board will be squeezed from, one side by the Governing Council, the repository of all major policy-making authority, and, from the other side by the participating national central banks,

anxious to preserve as many operational tasks as possible, partly to retain influence for themselves, partly to defend the perceived interests of their employees. The national governors will argue, on the basis of the principle of subsidiarity, that they can implement policy at least as efficiently as a new and inexperienced operational centre at the ECB under the daily management of the Board.

The ambition to decentralize policy implementation “to the full extent possible” will have an impact on capital markets because it implies that many of the idiosyncrasies that characterize at present local capital (and especially money) markets will tend to be preserved. Incentives to retain operations in the national financial centres, arising from i) the desire to protect the employment of specialized staff in the central banks, and ii) to extend favours to the private financial institutions in a particular country, would remain.

i) Regarding staff, EU15 central banks currently employ together over 60,000.<sup>5</sup> Total employment in the Federal Reserve System which performs similar tasks, including supervisory and reporting functions, to those to be assigned to the ECB and the national central banks in a future EMU is less than half this number. Some European central banks operate in a highly decentralized way; both the Bundesbank and Banque de France have more than 200 branches or sub-offices. While private financial institutions undergo rapid restructuring, and mergers are common regardless of size of the partners, central banks appear to modify their operations much more slowly. Decentralization within countries has, as for local and regional public administrations, encountered resistance to change, particularly to the extent that employment is at stake. Table 1 shows that the number of central bank staff per million inhabitants ranges from 294 for Belgium (and 292 for France) to 83 for Spain with an EU15 average of 160; against 82 for the US and 50 for Japan.

National central banks are difficult to compare. Differences in geography, financial structure and historically inherited tasks can explain some of the striking differences in staffing. For example, some undertake extensive printing activities beyond those related to the note issue; others - of which the largest the Banque de France, with about 17,000 employees is the prime example are heavily involved in the production of economic statistics, the analysis of company financial statements, etc. Some of these additional activities might be only marginally affected by the move to a single currency and the evolution of the ESCB. Yet the centralisation of monetary authority provides an occasion for the governing bodies of the national central banks to look critically at their own use of resources and to break the inertia of their past practices. The question that should be asked often is: What sense does it make to collect certain detailed statistics for one country? The ECB itself should avoid a repetition of the national experience of many of its participants of excessive decentralisation of technical, labour-intensive functions, such as the distribution of means of payments and rediscount operations with localised collateral. Differences in this respect will also give regional financial markets a 'national' flavour.

ii) De facto banks will be able to obtain funds from the ESCB mainly from the central bank of their own country of origin (because that is where most of their capital is) (in analogy to access to US Federal Reserve credit only through the regional Reserve bank in one's own district).

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<sup>5</sup> The total wage and salary bill may be close to ecu 3-4 billion. Running Europe's monetary systems is a relatively labour-intensive industry.



To the extent that the timing of additions to or withdrawals from bank reserves is left to the discretion of the individual national central banks, risks of favouritism extended by the latter would arise, even if they had no financial consequences for the central bank concerned.

One could easily imagine that a national central bank anticipating a rise in interest rates in the area as a whole would advance the execution of a liquidity injection, for example through a one-month purchase/resale transaction with its commercial banks, hence effectively providing the latter cheaper credit than banks in other participating countries. This would be a further element that would give local money markets a 'national' character. Clarification of these potentially important operational issues will not come until the implementation of the final stage approaches and the ECB has been set up in 1998 and after some experience of harmonizing the methods of coordinating domestic money market operations on a voluntary basis has been gained.<sup>6</sup>

### C. Pooling of foreign exchange reserves

Even before the euro has physically replaced national currencies, the dollar and other third currencies will be quoted and traded effectively only against the euro. Decisions on the location of foreign-exchange market interventions will actually represent a delicate issue. Should the ECB develop its own contacts with foreign-exchange markets or should it go via the national central banks? If it chooses the latter how should intervention be 'distributed' across different financial centres and what if foreign exchange trading concentrates? These questions have yet to receive an answer. The EMI (1997) only says that: "The selection of counterparts for foreign exchange intervention operations will follow a uniform approach irrespective of the chosen organisational set-up for the ESCB's external operations. Such a policy shall not entail a substantial departure from existing market standards and it will be derived by harmonising NCB's current best practices." (page 26, point 5.3)

The importance of foreign exchange intervention in the common monetary policy will also be affected by the size of the foreign exchange reserves of the ECB. A priori one might have thought that the full and definitive transfer of ownership of all international reserve assets, (excluding of course holdings of EMU currencies and ECU), from the national level to the ECB would have been a logical step to take to mark the irrevocable nature of the final stage.<sup>7</sup>

The ESCB Statute (Art. 30) only says that national central banks are to endow the ECB initially with non-EU currency reserves up to ECU 50 billion. The key for contributions will be based on that for capital subscriptions, viz. weights determined equally by the national shares in EU population and GDP (Art.29.1).

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<sup>6</sup> According to reports in the financial press there has recently been increasing support in the EMI Council for decentralizing operations to the maximum extent possible, despite the initial rejection of this notion. Many European central banks, including the Banque de France - an initial supporter of centralization - and the Bundesbank, seem to be attracted by the model of the US Federal Reserve System where the Federal Reserve Board does not itself engage in either money-market or foreign-exchange operations, but delegates these activities to the New York Fed. In EMU one would even go further, because operations could there be conducted by any participating central bank. Such a system seems unnecessarily cumbersome and would require elaborate information and monitoring procedures on the part of the ECB.

<sup>7</sup> The Bank of England objected to the transfer of ownership of reserves to the ESCB and considered an agreement to put a predetermined amount of reserves at joint disposal as sufficient. A further complication in the UK - and some other cases - is that the central bank does not own international reserves assets, but would have to have ownership transferred to it from the government prior to participation in pooling.

Is this sum sufficient? One might as well take the US as an example which has the same size as the likely euro area. In this case, the 50 billion ECU foreseen by the Treaty appear generous since they would be considerably more than what is held today by the US. Even a pro-rata reduction for the non-participation of the UK and some smaller countries (about 20 %) would still leave the ECB with about the same amount as the two US foreign-exchange authorities combined, i.e. about 40 billion ECU.<sup>8</sup>

Table 2 gives the official percentage shares of member countries in the EMI, which will correspond closely to those in the ECB. They are based on the average of GDP and population weights, both of which are unlikely to change significantly in the short run.

Financial markets will be affected by the way in which member countries dispose of the over 200 billion ECU in these excess reserves (mainly in dollars). Article 31.2 states that operations in such assets “shall be subject to approval by the ECB in order to ensure consistency with the exchange rate and monetary policies of the Community”. This may be a sufficiently clear guideline to avoid outright challenges to the authority of the new monetary institution. However, the greater visibility of the ‘excess’ reserves at the time of partial pooling into the ECB may make additional initiatives necessary. It should be made clear that these reserve assets are henceforth to be regarded as long-term investments in the currencies concerned rather than as an ‘overhang’, the disposal of which poses threats of instability and of downward pressure on the dollar.

But if the idea of decentralizing operations to the individual national central banks is extended to foreign-exchange operations, the distinction between the reserves of up to ECU 50 billion which are pooled and the rest which we have reviewed in the present subsection will lose some of its significance in the eyes of market participants. All of the gold and dollar reserves will still be held by the individual central banks, though the degree of usability for interventions will depend on whether the reserves are earmarked as legally belonging to the ECB or not. This will not enhance the credibility of the external policy of the euro area. Given the large differences in reserve holdings, this is another potential reason why ‘national’ markets (even for foreign exchange) might be slightly differentiated.

#### **D. Other Potential Central Banking Tasks**

With respect to other potential tasks, not strictly related to monetary policy (e.g. supervision) the problem of how to reconcile the efficiency of operations and the ambition to decentralize is even more severe. Art. 3 of the statute mentions as the final task of the ESCB that it should ‘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’. National central banks start with a clear comparative advantage over the ECB and its Board with respect to familiarity with the financial institutions in their territory, particularly to the extent that they already exercise supervisory functions nationally. Not all do, however - in half of the EU member states, supervisory authority is vested in a separate government agency and not in the central bank - and there is disagreement between, say, the UK and German authorities as to the desirable degree of responsibility for financial stability to be exercised by a central bank mandated to pursue a monetary policy oriented towards low inflation. A potential conflict between the execution of these two tasks

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<sup>8</sup> There are two monetary authorities in the US that hold foreign exchange reserves: the Federal Reserve and the US Treasury Exchange Stabilization Fund. As of end 1996 both held about 20 billion dollars worth of mainly DM, yen (and some Mexican pesos!).

exists if a central bank is seen to be generous in its efforts to prevent financial instability by injecting additional liquidity. Yet all potential participants exercise some lender-of-last-resort function and that could hardly be performed in a fully centralized way. Nor is that the case in existing Federal systems such as in the United States. Some discretion within pre-specified limits would have to be left with the individual participating central banks. The issue is discussed in fuller detail below.

### **III. Monetary Policy for the Euro**

#### **A. Price Stability as the Over-riding Goal**

The over-riding goal of the common monetary policy is price stability. This goal has been enshrined in the Treaty in very clear terms (see box), which is a remarkable political agreement. The wording is less ambiguous than that of the Bundesbank Act of 1957, which defines the main responsibility of the German central bank to be ‘the safe-guarding of the value of the currency’ (Art. 3), while ‘the (Bundes)bank should support the economic policy of the government, but can not be subjected to instructions by the latter’ (Art. 12). The German statutes thus leave more room for interpretation than the ESCB statute. Other central banks in the Community, particularly those with statutes dating back to the 1930s or 1940s when the ambition to integrate monetary policy fully into government decision-making was at a peak, operated under legal mandates that are far less clear with respect to the ordering of macroeconomic objectives and more open to the imposition of the preferences of the government at any point in time. Most of the statutes of EU national central banks (including the German one) had to be amended to make them fully compatible with the Treaty.

#### **Box 1. Price stability as the primary objective**

Art. 2 of the ESCB Statutes states:

“In accordance with Article 105(1) of this Treaty, the primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, it shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 of this Treaty. The ESCB shall act in accordance with the principle of an open market economy with free competition, favouring an efficient allocation of resources, and in compliance with the principles set out in Article 3a of this Treaty.”

This formulation is repeated in Art. 3a of the Maastricht Treaty.

It would be a mistake to attach exclusive importance to legal texts in predicting the future performance of the ESCB. Some national central banks with no special emphasis on price stability in their statutory obligations and little formal independence of their political authorities have nevertheless over an extended period proved able to pursue policies - e.g., through participation in the EMS - which implied these characteristics. Yet it is significant that governments - and not just central banks - in the EU are prepared to subscribe to a clear and permanent, almost lexicographic ordering of their preferences with respect to the objectives of their joint monetary policy. Given the unanimity of central bankers on this point and the absence of any identifiable inflationary pressures it is thus likely that the ECB will in fact be

willing and able to pursue its assigned task. The choice of monetary policy targets and instruments has to be seen in this perspective as well, since they constitute the only means by which the ECB can reach its aim of price stability.

## **B. Monetary Policy Strategy**

As regards the monetary strategy, the EMI council has opted for a combination of an inflation target for the longer-term framework and a monetary aggregate target. Three other possibilities were rejected: interest-rate pegging - because of well-known theoretical objections to the stabilizing properties of such a system - exchange-rate targeting - because the treaty gives little emphasis to this objective (which is appropriate given that the euro area will be relatively closed) - and nominal income targeting - *inter alia* because it would also not relate directly to the goal of price stability. The dismissal of this third option is arguably a bit summary, but the two alternatives retained probably suffice to give the ECB the appropriate guidance.

Given the primary role of price stability in the Treaty's assignment of tasks to the ESCB, it is natural that this will figure as an essential element of monetary policy strategy. EMI (1997a) adds the important element that there should be a quantified definition of this ultimate objective so as to facilitate the accountability of the joint monetary policy.

However, an inflation objective is not enough: the time lags between monetary policy actions and their impact on inflation are simply too long to offer sufficient guidance for setting policy on a weekly basis. A first requirement for this strategy to work is for the ECB to develop and make publicly known its inflation forecast one to two years ahead and to contrast it with the quantitative objective. Any discrepancy will constitute the background to the use of the monetary instruments.

Countries which have experience with inflation targeting, notably the United Kingdom within Europe, have found it useful to develop intermediate objectives which can help to assess the risks to price stability. At the insistence of the Bundesbank, which has had favourable experience with monetary aggregates and especially over the past decade with broad money (M3), the latter seem likely to be given the role of prime indicator of future inflation and hence of an important intermediate objective once it has been demonstrated that its useful qualities carry over into the EMU period. The beginning of stage III of EMU is clearly equivalent to a major monetary reform which makes it uncertain whether the stability in the relationship of broad money to nominal income which has been found in the aggregate for the likely EMU participants (see *i.a.* Monticelli and Papi (1996)) will persist beyond 1999. Most observers believe that the relationship between past and future prices as well as the relationship between prices and the business cycle should not be much affected by the introduction of the euro. Hence the initial emphasis is likely to gravitate towards the inflation-targeting mode. This implies that the indicator to be used for short run policy changes is likely to be some price index for the euro area. Although the CPI (consumer price index) will be the key index, other indices (wholesale prices, wages) are also likely to be taken into account.

The degree to which money demand becomes more difficult to predict for the first few years of EMU is not easy to gauge. Some observers (e.g. Von Hagen (1997)) have argued that the introduction of the euro should leave the money demand for transactions purposes unaffected whereas the demand for precautionary purposes (including savings deposits) might become more unstable as the evolution of interest and inflation rates become more uncertain.

However, as shown above, most money is held by households, which might not even notice EMU until 2002 and their expectations of interest rates and inflation will not radically change since the ECB will represent a continuation of the price stability orientated policy followed already for over a decade by most member countries. The transactions pattern of household is indeed likely to be unaffected by the introduction of the euro. But one could argue that for firms the opposite is true: their transactions and payments pattern might be strongly affected as international transactions play a much more important role for the corporate sector. One would expect that the economies of scale in treasury that come with the single currency should lead to a significant reduction in the transactions demand by the corporate sector. Since the corporate sector holds about 30 % of all transactions money this impact on the overall narrow monetary aggregate M1 might be limited. The demand for cash, which is presumably used mainly by households, should be completely unaffected until 2002. For savings deposits, again held almost exclusively by households it is difficult to predict what will happen. Why should the irrevocable fixing of exchange rates lead households to change their propensity to hold this type of asset rather than, say, money market accounts or bonds? The continuous evolution of technology and financial markets will of course have an impact on the demand for savings deposits, but these developments are independent of EMU.

All in all it appears that the argument that EMU will make money demand unpredictable and that monetary targets will therefore become useless has been exaggerated. Households hold most of the money stock, whether narrow or wide, and their demand is unlikely to be affected by the introduction of the euro, at least until 2002. Moreover, the research by Monticelli and Papi (1996) already referred to above suggests that the aggregate demand for money of the EMU area should be more stable than national money demands (including the German one, which until 1998 constitutes the anchor for the rest of Europe). The main argument for an explicit inflation target might be that the European public, which is not used to the implicit inflation target contained in the Bundesbank's monetary target, might expect one. It is therefore likely that the ECB will have to announce an explicit inflation target and add immediately that its main tool to reach it is a controlled expansion of the euro money supply. Some 'fudging' will thus be unavoidable to make the mixture between inflation and monetary targets work for the first few years after 1999.

### **C. Monetary Instruments**

Only some broad principles regarding the monetary instruments to be used by the ECB were anticipated in the EMI report 'The Single Monetary Policy in Stage Three - Specification of the Operational Framework', but many questions were left unanswered. The EMI envisages prime reliance on open market operations supplemented by two standing facilities offered by the ESCB.

Four instruments will be at the disposal of the ECB for open market operations:

- main refinancing operations (regular liquidity-providing reserve transactions with a weekly frequency and a maturity of two weeks);
- longer term refinancing operations (liquidity-providing reserve transactions with a monthly frequency and a maturity of three months, intended to cater for a limited part of the global re-financing volume);

- fine-tuning operations (adapted to the pre-veiling circumstances and to the specific objectives of managing the liquidity situation in the market or of steering interest rates);
- structural operations (intended to affect the structural position of the banking system vis-à-vis the ECB).

As part of the standing facilities, the ECB will be able to provide (in the case of the marginal lending facility) and to absorb (in the case of the deposit facility) overnight liquidity. These instruments broadly reflect widely used practices in a number of EU countries as shown in Table 5.

The details of the facilities to be used by the ECB have not been settled yet. The EMI report lists only some rather uncontroversial and conventional broad requirements that have to be satisfied by banks to be counterparts and for the eligible assets.

The main controversial point is the potential use of minimum reserve requirements on bank deposits in order to stabilize interest rates and assist in the control of monetary aggregates. Some countries, notably the United Kingdom, and the European Banking Federation have strongly contested that there will be a need for such an instrument. Given that even the Bundesbank, the most outspoken proponent of reserve requirements has reduced the rates it applies in Germany drastically over the last years, a likely outcome is that reserve requirements, the use of which has to be finally authorized by the ECOFIN Council according to Article 19 of the ESCB Statute, will be retained as an instrument, but that it will be sparingly used and that reserves will be remunerated at near-market interest rates. This implies that the ECB will not need to be in the market on a daily basis.

On the whole the perspective strategy and the instruments of the single monetary policy appear less than revolutionary relative to current national practices. The ESCB does appear to start off with a solid background in these respects. Given that the UK will not be among the initial EMU members the likely outcome is that the instruments finally adopted will be a mixture between what is currently used in France and Germany.

#### **D. How to Treat Public Debt?**

Monetary policy can maintain price stability even if there is inflationary pressures, but in a hostile environment the price of low inflation can be high since high interest rates to combat inflationary pressures generated by high wage increases or an expansionary fiscal policy could lead to high unemployment. How likely is it that the macroeconomic environment will make it difficult for the ECB to maintain price stability? The high level of unemployment in most member countries makes it unlikely that high wage demands become a danger for price stability. But what about fiscal policy? One key reason why the drafters of the Treaty feared that fiscal policy could put monetary policy under pressure is that in countries with a high public debt the central bank is under constant pressure to keep interest rates low, even if this leads to dangers for price stability.

Public debt has also a special position in banking regulation. At present, public debt is assumed to be risk-free for the purposes of prudential regulation. This implies for the banking system that the prudential rules that limit the amount of credits a bank can give in relation to its own capital give public debt a zero-risk weighting. This should change with EMU because national governments lose the option to print the money they might need to service this debt. Hence under EMU the debt

of national governments should be treated in the same way as that of regional governments today; i.e. it should not be considered risk-free, but have a modest risk-rating.

## **Box 2. Prudential rules and public debt under EMU:**

### **Recognizing the risk of public debt**

It has been proposed (see e.g. Bishop (1990) that once the third stage of EMU starts the prudential rules for the banking system should be changed to take into account the increased riskiness of public debt that comes once the ECB takes over monetary policy. The argument is that once the third stage has started national governments lose the power to print the money they need to service their own public debt.

There are two regulations regarding the prudential rules for banks that might be changed in this context:

#### i) The Solvency Ratio Directive (SRD) (Council directive 89/647/EEC)

What would be the implications for the balance sheet of the banking sector if national public debt were to be treated as regional government debt with a risk weight of 20 %? The core of the SRD is that banks must hold own funds corresponding to at least 8 % of their risk weighted assets (the Cooke ratio of the Basle Group of 10). The various risk categories are 0 % for government debt (of OECD countries), 20 % for certain regional governments, 50 % for mortgage backed loans and 100 % for commercial loans.

A question one can ask is whether increasing the risk weighting on public debt to 20 % would lead to unreasonably large needs for additional capital. This does not seem to be the case as the following simple calculations suggest. The SRD rule can be written as:

$$(1) \text{ (Capital / Assets) } \geq 0.08$$

If public debt enters 'assets' with a weight of 0.2 this relationship can be rewritten as:

$$(2) \text{ Capital } \geq \text{ public debt (held by banks) } * 0.08 * 0.2$$

If one divides both sides by GDP this boils down to the following requirements for additional bank capital:

$$(3) \text{ Capital/GDP } \geq \text{ debt/GDP } * 0.016$$

This implies that even if banks held public debt worth 100 % of GDP (with a risk weight of 20 %) they would need to hold only 1.6 % of GDP in reserves against these assets. Given that banks have reserves equivalent to at least 6 % of GDP, on average, in most member countries and about 10 % of GDP in some, this requirement does not seem to be very onerous. In most member countries the actual capital ratio of most banks exceeds by a comfortable margin the 8% limit imposed by the SRD. Hence most banking systems should be able to absorb without great difficulties a hypothetical risk rating of public debt.

#### ii) Large exposure rules (Council directive 92/121/EEC)

The Large Exposure Directive says that a bank can not lend more than 25 % of its own funds (defined as in the SRD) to a single client. This rule would be extremely constraining if it were to be applied to public debt. Starting with the rule of thumb that the capital of banks amounts to 6 - 10 % of GDP this rule would imply that the total amount of public debt held by banks would have to be

below 1.5 - 2.5 % of GDP; i.e. a very small fraction of the entire stock of public debt of member countries.

In the case of Belgium enormous portfolio adjustments would be needed since at present almost 5.000 billion BEF, about one half of the entire stock of debt, is held by Belgian banks. By comparison the own funds of the Belgian banks amount only to 601 billion BEF, which would allow them to hold only 150 billion BEF in public debt if the large exposure rule were applied to the Belgian government.

The discussion has assumed so far that all or most national public debt is held domestically. This is the case at present for most member countries. However, even if it were to change considerably it would not affect the conclusions for the large countries. Italy, for example accounts for about 15 % of the combined GDP of the EU, with a debt/GDP ratio of about 120 % the Italian public debt still accounts for about 18 % of the GDP of the entire EU. For the entire EU the ratio of capital of banks to GDP is about 8 %. This implies that if all EU banks held Italian public debt up to the limit they could hold the equivalent of 2 % of the GDP of the EU in Italian public debt; about one tenth of the total, which is equivalent to 18 % of EU GDP as calculated above. Only a small proportion of the public debt of the larger EU countries could thus be held by EMU banks if the large exposure limit had to be observed.

It follows that under EMU banking regulators should apply a higher risk weighting for government debt of a country which is in an excessive deficit and apply the exposure rules to a bank's holdings of public debt. This would have profound implications for the banking system in some member countries and would force governments throughout the EU to rely much less on bank financing as explained in box 2. The long term benefit would be to insulate the financial system of the EMU area from funding difficulties member states might experience. The main practical objection to this measure is that E(M)U governments might then have to face a higher cost of funds than non-EU governments from the OECD area whose public debt has a zero risk weighting under prudential rules. The case of Korea (a member of OECD) constitutes a good example of what can go wrong. The additional cost would be minimal, in the order of magnitude of basis points, and it would apply only to debt held by banks, but it is the main reason why finance ministries have so far refused to consider this approach.

However, even if these precautions are taken it remains likely that for some time to come the public debt will be held mainly by domestic savers and the domestic banking system. This implies that a funding crisis of the national government could endanger the stability of the domestic financial system. This could then induce the governor of the national central bank concerned to vote against interest rate increases that might be necessary to combat inflation in the Union as a whole. Other members of the ECB Board might also be tempted to follow a soft line because of the threat of contagion effects on the financial system in other EMU countries.<sup>9</sup>

A full discussion of whether or not the Stability Pact - finally agreed upon at the European Council of Amsterdam - will be sufficient to forestall future payment or funding crisis for member countries is outside the scope of this paper (See chapter 8 in Gros and Thygesen

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<sup>9</sup> The evidence reported in Grilli, Masciandro and Tabellini (1991), which shows that an independent central bank can produce, on average, lower inflation even in the context of lax fiscal behaviour does not prove the contrary since their result only indicates that an independent central bank can mitigate, not eliminate the inflationary impact of excessive fiscal deficits.



(1998)). But all the available projections for the next few years indicate that deficits are likely to fall significantly below the 3% of GDP threshold so that the dept/GDP ratios can now start to move downwards.

All in all one can thus conclude that the initial EMU environment EMU will be conducive for at least a few years of low interest and inflation rates.

#### **IV. The Incomplete Monetary Union (1999-2002)**

Between 1999 and 2002, only a core of operations has to be carried out in euro. The private sector will be free to change to the euro for all other operations at any time during the three-year period: the basic principle is 'no compulsion, no prohibition' in the use of the euro. The euro will not be available in physical form, but a Council regulation provides for a legally enforceable equivalence between the euro and the participating national currency units.

This official reference scenario, for the period until 2002, had to be based on the premise that before the euro becomes the sole legal tender, the authorities cannot force the private sector to use it instead of national currency. The critical mass has therefore to be created only from transactions that involve the official institutions. The private sector will have to be convinced on purely economic grounds. And that might be difficult because the use of a currency involves external economic effects which are similar to the network economies in telecommunications: the marginal cost of using a particular currency depends on how much it is used. A widely used currency has usually lower transactions costs.

If everyone in the private retail sector is using only national currencies, it will not be in the interest of any single private operator to switch to the euro. If the euro is already widely used, however, it might be in the interest of many private operators to start using it too. Hence, it is possible that there are two equilibria for stage 3 A:

- i. The euro is used only where mandated, or
- ii. The euro is used widely even where not mandated.

Under the second equilibrium, transactions cost might be lower, but the private sector would not go to this equilibrium on its own because no individual operator would have an interest to take the first step.

A key determinant for a fast take-off is thus the initial size of the market in euro. At present, there are only three areas where the euro will be used with some certainty: monetary policy operations, public debt and inter-bank operations. The use of the euro in a fourth area, that of non-bank deposits, is much less certain, since the greatest share is held by households. The three latter issues are discussed below, while the first is discussed under the following heading.

##### **A. Public Debt**

Under the official changeover scenario, only new tradable debt has to be issued in euro. It is however becoming more and more likely that a substantial proportion of the existing stock of national debt will be converted into euro. The first move came from the French Trésor indicated already in early 1996 that all its outstanding debt would be converted to euro from the start, which would immediately create a deep euro market with products of different maturities. The Belgian government indicated in its changeover plan that the linear bonds (OLOs or dematerialised bonds), which amount to 65% of the total Belgian debt, will be transformed into euro. State notes, which

are generally held by households, might still be issued in BEF during the transition, “owing to the fact that they are intended specifically for individuals”.<sup>10</sup> The Austrian, Dutch, Finnish and Italian government have also given assurances in this direction. Under these circumstances the German government had to follow. But federal government debt only amounts to about half of the total German debt and the debt of the ‘Länder’ and ‘Gemeinden’ (the other half) is usually in a non-tradable form.

Redenominating outstanding debt guarantees the irrevocability of the changeover to the single currency. If governments offer to convert their public debt into euro, all wholesale markets will change as well. The single largest holder of government debt in the EU are households, but this does not imply that they will come directly in contact with the euro. Their government debt is often held indirectly via unit trusts and other savings instruments. In the countries where banks are big holders in government debt e.g. Belgium, over 50% of the asset side of their balance sheet will be in euro, whereas the liabilities side would predominantly remain in national currency (deposits) during the transition period, unless banks convince their clients to use the euro for savings deposits.

Conversion of outstanding debt securities is not so easy to achieve, however. It depends on many elements, the most obvious being the liquidity of the paper, the holders, the currency denomination and the physical nature of government debt. Dematerialised bonds can be converted more easily than paper bonds. Conversion of debt physically held by households will be more difficult than that held by institutional investors, which is kept in custody by professional custodians. Conversion will also only apply to debt held in currencies of the EMU member states. There are finally some tax considerations, which cannot be neglected. Households might consider an official conversion as a form of wealth control, which governments could like to use for other purposes as well.

Redenomination also poses a number of technical problems, such as trading of odd denominations, cash repayments for redenominations, risks of mismatches, etc. Because of this host of legal, tax and practical problems, redenomination will be limited to public bonds. The case of redenominating for private issuers is much less strong, since the costs do not outweigh the benefits.

The conversion of public debt represents also an element of the competition for the position of leading financial centre in EMU and the contest to become the euro-bond benchmark issuer. Although the total volume of German public debt is much higher, the French market is in some respect more attractive. French government paper is almost totally dematerialised, which should make it much easier to convert it at once into euro than German public debt. Furthermore, French government bonds cover the maturity spectrum more evenly than the German Bunds, and thus provide sufficient liquidity in all segments of the market. Hence French debt might be a more suitable benchmark.

If the outstanding stock of tradable debt had not been converted, financial markets would have had difficulties in keeping the link between the cash market and futures and/or options on public debt as these forward looking financial instruments have to be based on the new euro-debt.

## **B. Inter-Bank Operations**

In most EMU candidates, inter-bank operations constitute about 33% (or 28% excluding Luxembourg) of the overall balance sheet of the banking system. It is likely that most of these will

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<sup>10</sup> Belgian Ministry of Finance, *National Changeover Plan*, August 1996.

be converted into euro because the wholesale inter-bank market is closely linked to the execution of monetary policy. Moreover, inter-bank operations have to be denominated in euro to be processed by the TARGET payment system. The total of inter-bank deposits for Austria, the Benelux countries, France and Germany amounted to ECU 2,241 billion in 1994, or 57% of the GDP of these countries.

This implies that from early 1999 onwards bank deposits in euro of over 2,4 trillion will already exist. This is again a stock, but inter-bank deposits are traded frequently; hence this will be a very active and liquid market segment.

### **C. Non-bank deposits**

About 75% of non-bank deposits, i.e. the money supply, originate in the household sector, which is likely to be guided by different considerations than the corporate sector in its choice of currency. Table 4 shows the proportion of the different monetary aggregates held by households, the corporate and the public sector in Germany and France. It is apparent that almost all long-term deposits are held by households, and that the share of the corporate sector is higher for short-term deposits. One has to keep in mind that a large fraction of the demand deposits of the corporate sector are likely to arise from their dealings with households.

A significant fraction of non-bank deposits (i.e. the money supply) will thus be converted into euro only if households start to use it more. Whether this will happen is difficult to predict. On the one hand, households are likely to continue using the national currency for their daily transactions. But on the other hand, they might through their holdings of government and other securities become familiar with the euro as a financial instrument.

## **V. The ECB, a Full Central Bank?**

The essence of central banking have often been described as consisting of a trilogy of activities and responsibilities. That trilogy refers to the control of inflation through monetary policy, the safeguarding of the stability of the banking and financial system through prudential policies, and ensuring the efficiency and integrity of payments systems. It is argued that it is difficult to disentangle a part of a the trilogy without loosening the global objectives of a central bank, to maintain overall economic and financial stability. If one of the three functions is not working properly, it will contaminate the others and undermine the objectives of the central bank.

Within the euro area, this trilogy of central banking functions will not be managed by the ECB alone. The division of central bank responsibilities was adapted to the specific requirements of the European integration process, where powers are delegated to a higher power only if they cannot be sufficiently achieved by the member states, and can therefore be better exercised by the Community. Hence, the ECB was granted exclusive competences in the areas of monetary policy, but its functions in payments systems and prudential supervision are limited, or exercised in cooperation with the participating national central banks. In payment systems, the ECB and the national central banks will collaborate to create an efficient and sound system, which is based on an interlinking of national real-time gross settlement (RTGS) systems in TARGET system (Art.22). In prudential supervision, the ECB's role is limited to giving

advice to the EU Council of Ministers and the Commission on draft Community legislation relating to the prudential supervision of credit institutions and the stability of the financial system (Art.25).

Some observers have characterised the ECB as being only a monetary policy rule, a limitation which could stifle the development of liquid and securitised financial markets (Folkerts-Landau and Garber, 1992). Liquid securitised financial markets need to be supported by a central bank with broad functions, they argue. The ECB will not intervene actively in financial markets, but stand on the sidelines. The draft ECB monetary policy instruments provide for only weekly refinancing operations and likely supporting instruments for its monetary policy, such as reserve requirements, limit short-term funding in the banking system. This can be observed in Germany where the existence of reserve requirements provoked the flight of DEM repo market to the UK. The ECB might also resist calls for liquidity support to troublesome banks and let unsound banks fail, increasing the risk of systemic shocks. Finally, the real-time gross settlement system TARGET will limit market liquidity and absorb funds to prevent gridlocks.

We will in this section analyse the pros and cons of separating and combining monetary and supervisory functions, examine how this issue was approached in the EU context and put it in the perspective of recent trends in banking supervision. A second part discusses the role of the ECB in payment systems.

#### **A. Prudential issues**

Monetary policy and banking supervisory functions are separated in one half of the Community countries, and combined in the other half (see Table 6 below). Generally speaking, the arguments in favour of combining both functions derive from the objective of ensuring the stability of the financial system and preventing contagious systemic crises. Assigning supervisory and regulatory functions to central bank should contribute to a better control of overall financial stability. Another argument is that as central banks have to be involved in rescues of commercial banks they should also be involved in supervision. But this argument cuts two ways. A conflict of interest might arise in the observance both functions: injection of additional liquidity in the financial system might endanger price stability and increase moral hazard.

The fact that both regimes are equally represented in the EU shows that there are no definitive arguments for either model. According to Goodhart and Schoenmaker (1995), the question of the appropriate design has to be seen more against the particular financial or banking structure of each country rather than being capable of resolution as an abstract generality. Moreover, there is a general trend of retreat in central banks from supervisory functions, which was exemplified recently by the breakaway of the supervisory functions from the Bank of England and the establishment of a “Super-SIB”. This new regulatory authority will bring all financial sector supervision under one roof.

Several reasons can be advanced for this trend. First banking is becoming an increasingly complex business and less clearly defined. Leading banks are active in several jurisdictions as providers of a whole series of financial services. Linked to this are new developments in financial supervision, which increasingly emphasises the role of self-regulation. Finally, there is increasing acceptance that the government, not the central bank, should take responsibility for

ultimate financial support. Supervision could thus be better organised in body more directly under political control.

In the Amendment to the Basle Capital Accord to Incorporate Market Risk, reached by the Basle Group of 10 in 1995, banking supervisors allow banks to use, under certain conditions, internal risk measurement models (value-at-risk (VAR) models) to set the necessary own funds instead of the formal capital requirements. The Amended Basle Accord will be fully effective at the end of 1997 and will be incorporated in EU legislation through an amendment to the capital adequacy directive for investment firms and credit institutions (CAD). The emphasis on internal controls has recently been taken a step further in the US with the 'pre-commitment approach', which devises an incentive contract between banks and their regulators. It stipulates that a bank or investment firm has to pre-commit to its regulator not to exceed a certain portfolio loss over a certain period. This pre-commitment approach, which should be determined using the institution's own internal VAR models, is at the same time its regulatory market risk capital requirement. If it violates this commitment, then it will face a regulatory penalty.

Some recent international bank failures and financial problems have highlighted the global interdependence of financial markets and the need for solutions at that level. The collapse of the British Barings banks (February 1995) was provoked by uncovered positions taken by one trader in Singapore. Daiwa incurred a loss of \$1.1 billion as a result to fraudulent transactions of a trader in its New York branch (August 1995). The G-7 discussed the issue at each of its last three meetings. The Halifax G-7 meeting (June 1995) called for an integrated approach to potential systemic risks and closer international cooperation in the regulation and supervision of financial institutions and markets. They invited the Basle Committee on banking supervision and IOSCO, the International Organisation of Securities Commissions, to work closely together in addressing the major issues in this area, to examine the desirable steps to address identified problems and to report back. At the Lyon G-7 meeting (June 1996), the heads of state and government called for enhanced cooperation across markets and sectors to reinforce supervision: they welcomed the proposals of the Basle Committee and IOSCO, which concretised the international cooperation between supervisors through the appointment of a lead supervisor for globally active firms. They gave support to the joint forum on financial conglomerates, comprised of banking, securities and insurance supervisors. They invited to strengthen prudential standards in emerging markets; encourage private sector efforts to enhance market transparency; improve reporting and disclosure of derivatives activities; enhance cooperation among exchanges and securities supervisors for information sharing arrangements.

Against this background, the EU supervisory system might well have to be adapted. The single market legislation provides that prudential control of financial market actors in the EU rests with the home country supervisors. Market liberalisation was achieved through the harmonisation of essential rules in Community Directives and the mutual recognition of additional requirements. Hence a licence obtained in one member country is valid throughout the EU. The control of compliance with these rules rests with the home country supervisors, which is in charge of controlling the operations of the financial institution throughout the Community. This principle was applied equally for the three groups of financial market players, banks (1992), insurance companies (1994) and investment firms (1996). For EU supervisors, the designation of a lead supervisor, as internationally proposed to reinforce supervision, is a prolongation of European practice. Moreover, EU legislation sets that the

home country should be the country where a financial institution has its most important operations, as was decided further to the BCCI failure.

Limiting the ECB functions to the field of monetary policy coincides with a trend which is generally discernible and suits with the home country control principles of the single market. Involvement of the ECB in bank supervision could force it to act as a lender-of-last-resort, which could be difficult to reconcile with the task of maintaining price stability and compromise its independence. On practical grounds, bank supervision can be better executed at the local level, because of the availability of specific expertise and the knowledge of the local market. Since the participating national central banks will be involved in open market and credit operations with banks, they will have the hands-on experience with financial markets and institutions and information on market conditions. Nevertheless, strong and swift communication lines should be established between national central banks and supervisors and the ECB to assess liquidity crisis in European financial markets. The ECB would be a useful device to constrain the use of lender of last resort operations at the local level. Only when a crisis has the potential to become systematic would the ECB intervene. The ECB should therefore develop a capacity to systematically monitor financial markets and to assess financial stability.

## **B. Payment systems issues**

In order to execute the joint monetary policy, the national central banks in the ESCB will link their different domestic settlement systems in the TARGET system. The system will also be open for private cross-border payments and will deal with wholesale transactions in real-time gross settlement (RTGS), meaning that payments are settled immediately without daylight exposure. RTGS has the advantage of reducing systemic risk, but requires the explicit provision of intra-day liquidity so as to prevent gridlocks.<sup>11</sup> European central banks are currently in various phases of developing a RTGS payment systems, which will be interlinked in TARGET. TARGET will also be open to the central banks which are not in the monetary union to process the euro as a foreign currency.

For commercial cross-border payment business, the TARGET system will compete with other payment systems such as correspondent banking and net settlement systems, such as the ECU clearing system of the ECU Banking Association (EBA) or the EAT run by the Hessische Landeszentralbank in Frankfurt.<sup>12</sup> TARGET's services will be priced at market rates, and are expected to be competitive for wholesale payments. Under current plans, a transfer through TARGET should be several times as expensive as a transfer under the EBA system. One could therefore expect that the latter system (and other competitors) should take care of middle-sized payments, whereas TARGET could be used for large transfers, i.e. those exceeding 10 million euro. The EBA expects TARGET and correspondent banking to have each a 20% share, while the EBA system would have 30%. With the gradual extension of the use of the euro, TARGET and EBA systems are likely to replace correspondent banking arrangements between banks in monetary union, and between banks outside to banks inside for transactions in euro. Some even expect that

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<sup>11</sup> For a detailed analysis of the different forms of payment systems and the cost of RTGS, see Schoenmaker (1994) and Folkerts-Landau et al. (1996).

<sup>12</sup> Ecu Banking Association, From Ecu to Euro - The EBA's Future Business Potential, 13 December 1996. Reference to German system?

correspondent banking will totally disappear in the euro zone, as it has almost disappeared within all EU member states.

Most wholesale payment systems will be converted to the euro from the start of phase 3 A onwards. Systems that operate both wholesale and retail or only retail will have to deal with both currencies. Member states are preparing their payment systems in different ways for this situation.<sup>13</sup> The existence of different standards for payment orders in the member states will, however, continue to hamper cross-border integration.

There has been much discussion in the recent past about access of non-EMU Community countries to TARGET. Although the details are complicated, the principle that underlies this debate should be clear. TARGET will link national payment systems to execute the single monetary policy in the euro area and generally promote the use of RTGS in EU cross-border payments. Within the euro area, the national central banks are only agents of the ECB and must be treated as such. It is also apparent that there is no reason to establish special links between the ECB (i.e. TARGET) and the central banks from outside the EU. Should one consider a 'half-way house' for central banks that are members of the EU, but not part of EMU? This would be difficult to realise in practice because monetary policy cannot be divided. Although the "out" central banks are unlikely to undermine the monetary policy of the ECB (they also have a Treaty obligation not to do this), there is no reason why they should be given special treatment. At present, national central banks deal with other central banks at arms length. No central bank in the world allows other central banks to create its own money or gives other central banks privileges in its payment system. This does not imply, however, that TARGET should discriminate against commercial banks headquartered in "out" countries, which are members of the same single market.

The TARGET debate often overlooks the fact that its system will be only one of many that will compete in the euro area, as indicated above. This availability of low-cost alternatives is also the reason why the implications of such an 'arms-length' treatment of non-EMU members (central and commercial banks) and financial centres should be limited. London has established itself as a financial centre for many currencies, despite the fact that commercial banks in London (and the Bank of England) never had privileged access to the two US payment systems. There is therefore no reason why the lack of privileged access should prove an impediment to achieving an important role in the 'euro' euro market.

If the EBA system and other netting systems are widely accepted, one could imagine a situation whereby the private sector systems are used for a majority of transactions and TARGET just handles the payments that arise after netting. This would further reduce the disadvantage of 'out' banks who would anyway not need to make large euro payments for the common monetary policy.

In a recent report, the EMI has given further details about the functioning of TARGET, the preparations and opening hours.<sup>14</sup> Liquidity in the system will be provided by making use of fully collateralised intra-day overdrafts, reserve requirements imposed for monetary policy purposes and remunerated free reserves. Collateral could be mobilised and used on a cross-border basis in EMU

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<sup>13</sup> See e.g. the Master agreement on the execution of interbank domestic payments for the introduction of the euro currency, concluded between the Bundesbank and the German banking associations on 26 April 1996, which allows for both, euro and DEM payments in the German payment system, depending on the instruction given at the start.

<sup>14</sup> *First Progress Report on the TARGET Project*, Working Group on EU Payment Systems, EMI, August 1996.

as well, which will ease remote access to other EMU countries payment systems (for banks in the EMU zone). The system will have long operating hours (from 7am until 6pm European central time) to facilitate the implementation of the monetary policy and to ensure a level playing field for credit institutions.

The question of the options for intra-day credit in euro to non-EMU central banks (CBs) or the access by non-EMU commercial banks has not been settled yet. The essential problem is as follows: equal access has to be assured for “outs” as for “ins”, but difficulties with the settlement of an intra-day credit might at the end of the day spill-over in an overnight credit. The latter form of credit is not a payments system matter, but rather a monetary policy issue, since it might disturb euro monetary policy. This is at the same time the border where the difference between the two groups starts. Possible solutions that are being investigated at the moment include an earlier closing time for payments in TARGET for “outs”; a common cut-off time with higher overdraft penalties for the “outs”; or the setting of a maximum credit in euro that “outs” can have, based on their euro reserves.

At the payment systems level, “out” financial institutions will be hampered in setting up optimal operational structures to make full use of the single market. They will have to maintain a dual set of accounts with their central bank, in euro and in national currency, if they want to work in euro. They will need to put up additional collateral for remote access to payment systems in EMU countries. Or they will need to set up a separately capitalised entity (subsidiary) in the euro zone if they want equal access to TARGET as enjoyed by EMU banks.

The cost of collateral should not be exaggerated, however. As can be seen from Table 7, collateral in the UK CHAPS, a national RTGS payment system, should be at most 12,9 billion ECU, or about 2% of the total deposits, or 1% of the balance sheet total of UK commercial banks. One-tenth of the daily turnover is the highest level of collateral a RTGS system is expected to need. Normal levels are thought, however, to be much lower, at around 1/50 of daily turnover.

The real question is what amount of additional collateral would the “out” (e.g. UK) commercial banks have to pledge in order to obtain access to TARGET and at what cost. “Out” commercial banks would make this financial outlay only if the cost is lower than the (low) cost of using the existing correspondent banking channels or other private sector alternatives, such as the net payment system run by the ECU Banking Association which has a much lower demand for collateral.

What will be the size of the flows for which TARGET might be used? Cross-border payment flows are usually much smaller than domestic ones. Trade with the EU amounts to about 10% of UK GDP. Assuming a similar proportion applies to turnover in payments between the UK and the EU, cross-border transactions in the EU should be around 13 billion euro daily. (This implies an annual turnover of about 2860 bn euro. UK-EU trade amounts to about 100 bn euro; the ratio of 30 (turnover/trade) is within the range observed in other currency markets.)

These calculations suggest that the additional collateral required would be about 1,3 bn ECU. This collateral would be remunerated at market rates. Folkerts Landau et al. (1996) estimated that the upper limit of the opportunity cost of pledging collateral is 0.25%, a consequence of the fact that eligible securities are high quality and very liquid but no longer available to the bank for other purposes. This would imply that the cost of pledging additional collateral would be only 3,25 million ECU p.a. (13 billion ECU x 0.1 x 0.0025) for the entire UK banking system! This would be



the maximum under a scenario of double collateral and still the sum is negligible if compared to gross income, profits, costs or any other indicator of the size of the UK banking system. Similar considerations apply to the other potential “out” countries.

### **Box 3. Mortgage lending in the EU**

European mortgage markets show a wide diversity in mortgage contracts and in refinancing methods. At the retail level, the interest rate can be variable or fixed over a long term. At the wholesale level, mortgage loans can be refinanced through short term deposits or through long term loans, i.e. mortgage backed securities. These differences coincided in the past with country specific patterns, with at the two extremes the building societies in the UK, using variable rates financed by short term deposits and the Hypothekenbanken in Germany, using fixed rates financed by long term “Pfandbriefe”. One, perhaps the main, reason for the differences was the much higher level and variability of inflation in the UK during the 1970s and 1980s. The real rate paid by borrowers would have been extremely variable if nominal interest rates on mortgage loans had been fixed for 5-10 years as is customary in Germany. More recently variable rates are also offered in Germany so that there might be some convergence over time. Large differences continue, however, and regulatory barriers remain to a truly integrated market. They relate to differences in securities, consumer protection, bankruptcy and tax legislation. Further Community action in these areas is not immediately foreseen, which implies that European mortgage markets will continue to be fragmented for some time to come.

Mortgage lending is part of the activities which can be exercised on a cross-border basis as further to the 2nd banking directive, subject to home country supervision only. Loopholes in the latter directive, such as the general good clause, and remaining differences in tax and securities legislation have however proven to be a serious barrier on cross-border exercise of mortgage services, and left the host country authorities with considerable scope for control: sometimes long term refinancing was not possible in the host country, or otherwise additional host country authorisations were required. Hence it follows that certain, possibly competitive forms of mortgage lending could not yet sufficiently spread at a European-wide level. From a capital markets perspective, it implies that long-term private debt instruments, such as the German Pfandbriefe, could not yet further develop.

Monetary union should further reduce these remaining barriers. The unification of monetary policy, the disappearance of currency risk and the harmonisation of securities instruments (in the regulation on the legal status of the euro and the rules on collateral for monetary policy operations of the ECB) should provide host country authorities for less scope of additional control. The impetus which has recently been given to harmonise capital income taxation should remove another important barrier. Given the price stability objective of the ECB and the expected stable short-term interest rate environment, fixed rate long term mortgage loans may increase in EMU, and with it long term refinancing.

## **VI. Conclusions: Implications for capital markets**

EMU will be a further quantum step in the integration of European capital markets, but substantial differences will remain for some time to come. Within the US monetary union it does not make sense to speak of different regional capital markets. Nothing differentiates the New York from the

Californian market, except that some market participants are located (and deal) in New York and some others deal primarily in California. This will not be the case in Europe. Even after the introduction of the euro capital markets will retain a strong 'national' flavour. This does not apply to all market segments, but to most of the important ones. There are many reasons for this. They can best be observed by distinguishing between the retail and the wholesale level.

At the retail level the reasons for differentiation are clear. National regulations and habits of consumers mean that in each country different instruments are used. For example, in some countries simple savings accounts are still very popular (and protected by legislation) whereas in others they have been supplanted by money market certificates. Another example are mortgages, which show large differences from country to country (see box 3). In Germany, mortgages are long-term fixed rate loans, which are repackaged and sold on capital markets as *Pfandbriefe*. In the UK, mortgage rates are indexed on short term interest rates. These idiosyncrasies at the retail level are not the focus of the present contribution. They might, however, affect even the wholesale level since in some case they can affect the preferred mode of refinancing of local financial institutions. For example, in Germany banks need a stable deposit base at long term fixed rates. UK banks in contrast can live with a higher proportion of short term deposits.

The consequences of these national idiosyncrasies for monetary policies can be seen in the size and composition of the main monetary aggregates. Table 4 above shows the composition of M3 for France and Germany and the shares held by households and the corporate sector. In both countries households hold most of demand deposits (60%). For time deposits (which account for about a third of total M3) the shares held by households are, however, completely different: In Germany the corporate sector still holds about a quarter of all time deposits, whereas in France it holds almost none. With these differences in the deposit base it is likely that banks in different countries will continue to have different lending patterns as well. This implies also that a given change in euro interest rates might impact them quite differently. In other words the monetary policy transmission channel will be different. Moreover, to the extent that the funding pattern of the corporate sector continues to differ the same applies to the overall impact of monetary policy.

If one combines this finding with the leeway given to national central banks in the execution of the common monetary policy it reinforces the suspicion that even monetary policy will retain a national 'nuance'. Some national central banks might argue that a given increase in interest rates decided upon by the ECB in Frankfurt would have an unduly restrictive impact on their own country and might therefore feel justified in doing everything they can still do to soften the impact on their 'own' banking system. It is only to be hoped that the ECB will not allow such practices to get out of hand despite the excessively decentralized organization of the ESCB which leaves too much room for differentiation by national central banks. National central banks have large numbers of staff that are presently engaged in dealing with local financial markets (this is less the case in southern Europe). There are thus strong vested interests in continuing practices that require local expertise. The German Wechsel are a good case in point. The ECB has decided to accommodate national idiosyncrasies by allowing local (called tier two) assets to be used in tenders. This virtually ensures that the common monetary policy will have locally differentiated effects.

The government debt market is likely become unified at the wholesale level, but a sizeable proportion of government is still sold in paper form to households in a number of member states. These papers are often geared to specific national circumstances like savings habits and

tax regulations. While this way of financing the government is likely to become marginal in the very long run it will continue to constitute a sizeable part of the market until then.

The financing structure of enterprises, that differs so strongly from country to country and characterizes national financial systems, is to a large extent determined by the structure of national tax systems (corporate taxation, personal taxation, etc.). These differences will not be affected by EMU and constitute another reason why capital markets will retain a national flavour.

The only broad change in the structure of financial markets that is likely to come as a consequence of EMU is some increase in securitisation. Within the large market (at the wholesale level) that will be created by the euro non-financial enterprises will find it more convenient to make the necessary effort to be able to issue commercial paper on their own instead of relying on bank loans. These economies of scale might also appear in other parts of the market and should in general favour large organised markets. One of the initial consequences of EMU might therefore be an increasing dichotomy between (mainly national) retail markets and a more and more unified wholesale market whose sheer size favours securitisation and hence large organised exchanges.

The start of EMU in 1999 will thus not lead immediately to a unification of financial markets. Local habits, regulations and vested interests will keep market segmented for some time. But it is also certain that competitive pressures will become irresistible in the long run. Only the most efficient instruments and practices will survive the competition in the euro area. 1999 will thus see the start of a process of unification, rather than its completion.

\* \* \*

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**Table 1: A weak centre: headquarter staff at national Central Banks**

	Total staff			
		At head- quarters		
			In analytical functions (research, statistics, economics, etc.)	Research
E(S)CB		400	200(?)	50(?)
For comparison NCBs:				
Germany	17.632	2.770	360	70
France	16.917		750	280
Italy	9.307	2.000	300	150
England	3.500			90
Spain	3.269		350	150
Netherlands	1.721	1.500	165	60
US	23.727	1.700	350	

Source: Morgan Stanley Central Banking Directory (1997) and, national central banks.

**Table 2: Employment in EU central banks**

country	staff	pop (million)	staff (n. per million inhabitant)
Austria	1194	8,0	149
Belgium	2980	10,1	294
Denmark	560	5,2	107
Finland	883	5,1	173
France	16917	58,0	292
Germany	17632	81,6	216
Greece	2964	10,4	284
Ireland	583	3,6	163
Italy	9307	57,2	163
Luxembourg	100	0,4	246
Netherlands	1611	15,4	104
Portugal	1757	9,9	177
Spain	3269	39,2	83
Sweden	826	8,8	94
UK	4170	58,3	72
<b>Total EU 15</b>	<b>64753</b>	<b>403,5</b>	<b>160</b>
For comparison:			
USA	23727	290,7	82
Japan	6300	125,0	50

Source: Eurostat; The Morgan Stanley Central Bank Directory 1996, pp. xvii-xviii.

**Table 3. ECB shares and potential foreign exchange pooling**

	% share in ECB	contribution /call-up	actual reserves	'Surplus'
B	2.8	1.4	12.3	10.9
DK	1.7	0.8	10.7	9.9
D	22.5	11.3	60.5	49.2
GR	2.0	1.0	13.8	12.8
E	8.8	4.4	44.6	40.2
F	17.0	8.5	18.5	10.0
IRL	0.8	0.4	6.2	5.8
IT	15.8	7.9	35.2	27.3
LUX	0.1	0.1	0.0	-0.1
NL	4.2	2.1	19.2	17.1
AU	2.3	1.2	17.1	15.9
P	1.8	0.9	12.3	11.4
SF	1.7	0.8	5.0	4.2
SW	2.9	1.5	14.5	13.0
UK	15.3	7.7	29.6	21.9
Total	100	50	299.4	249.4

Note: data for end 1996, except AUS November 96 (bill. ECU).

Source: own calculations based on EMI Annual Report 1996 and IMF, International Financial Statistics, April 1997, total might not add up to 100% because of rounding.



**Table 4. Central-Bank Instruments**

Country	Standby facilities	Open Market Operations	Reserve requirement
Austria	B	Repo, Swap; W	non-interest bearing
Belgium	B, P, D	O, Repo, Swap; M	none
Denmark	D	O, Repo, Swap; M	none
Germany	B, P, D	O, Repo, Swap; M	non-interest bearing A
Greece	B, P	O, Repo, Swap; W	interest bearing, NA
Spain		Repo, Swap; M	non-interest bearing A
France	P	O, Repo; M	non-interest bearing A
Ireland	D, P	O, Repo, Swap; M	interest bearing, NA
Italy	B, P	O, Repo, Swap; M	interest bearing, A
Netherlands	B	O, Repo, Swap; M	interest bearing NA
Portugal	B, P	Repo; M	non-interest bearing A
Sweden	D, P	O, Repo; M	none
Finland	D, P	O, Repo, Swap; W	non-interest bearing, NA
UK	P	O, Repo; M	none

*Note:* **B:** subsidised loan facility, **D:** deposit facility, **P:** short-term facility for bridging peaks in-liquidity demand, **O:** outright transactions, **Repo:** repurchase agreements with domestic credit institutions, **Swap:** swap operations in foreign currency; **W:** one or several operations per week; **M:** multiple operations daily; **A:** with averaging provision; **NA:** without averaging provision.

Source: von Hagen (1997), p. 95.

**Table 5**  
**Size of Inter-Bank Deposits in Selected EU Countries (1994)**

	bn ECU	% of balance sheet
Belgium	162,6	32,9
Denmark	24,3	21,6
France	936,8	39,0
Germany	644,3	21,3
Italy	86,4	6,7
Luxembourg	267,6	60,1
Netherlands	121,6	18,3
Spain	110,1	15,8
Austria	108,7	29,0
United Kingdom	146,1	15,7
Total	2608,5	26,0

Source: OECD (1996).

**Table 6**  
**Sectoral Distribution of Monetary Aggregates in France and Germany**  
(1995, in national currency)

	Germany (bn DEM)		France (bn FRF)	
<b>M3</b>	2007,4		5478,5	
Minus savings deposits	-750,3		-2215,5	
<b>M2</b>	1257,1		3263,0	
Minus time deposits	-441,0		-1446,0	
of which:		% shares		% shares
Corp. sector	110,7	25,1	3,4	0,2
Households	285,8	64,7	1442,4	99,8
Public sector	45,1	10,2	0,2	0,0
<b>M1</b>	816,1		1817,0	
Minus demand deposits	-578,6		-1561,1	
of which		% shares		% shares
Corp. sector	196,6	33,9	433,4	27,8
Households	352,0	60,7	948,0	60,7
Public sector	31,3	5,4	179,7	11,5
<b>Cash</b>	237,5		255,9	
Shares in M3:				
cash	11,8		4,7	
M1	40,7		33,2	
M2	62,6		59,6	

Sources: Banque de France and Deutsche Bundesbank, 1995 data.

**Table 7. Monetary and bank supervisory functions in EU countries**

	<b>Regime</b>	<b>Monetary Agency</b>	<b>Supervisory agency</b>
Austria	S	National Bank of Austria (CB)	(Federal) Ministry of Finance (MF)
Belgium	S	National Bank of Belgium (CB)	Banking and Finance Commission
Denmark	S	Danmarks Natonalbank (CB)	Finance Inspectorate (MI) <sup>1</sup>
Finland	S	Bank of Finland (CB)	Bank Inspectorate (MF)/ Bank of Finland (CB)
France	C	Banque de France (CB)	Banque de France (CB)/ Commission Bancaire <sup>2</sup>
Germany	S	Deutsche Bundesbank (CB)	Federal Banking Supervisory Office/ Deutsche Bundesbank <sup>3</sup>
Greece	C	Bank of Greece (CB)	Bank of Greece (CB)
Ireland	C	Central bank of Ireland (CB)	Central Bank of Ireland (CB)
Italy	C	Banca d'Italia (CB)	Banca d'Italia (CB)
Luxemb.	C	Luxembourg Monetary Institute (CB)	Luxembourg Monetary Institute (CB)
Netherl.	C	De Nederlandsche Bank (CB)	De Nederlandsche Bank (CB)
Portugal	C	Banco de Portugal (CB)	Banco de Portugal (CB)
Spain	C	Banco de Espana (CB)	Banco de Espana (CB)
Sweden	S	Sveriges Riksbank (CB)	Swedish Financial Supervisory Authority
UK	S	Bank of England (CB)	Securities and Investment Board <sup>4</sup>
Switzerl.	S	Swiss National Bank (CB)	Federal Banking Commission
US	S/C	Federal Reserve Board (CB)	Office of the Comptroller of the Currency (CB)/ Federal Reserve board (CB)/ State Governments/ Federal Deposit Insurance Corporation <sup>5</sup>

**Notes:**

C = Combined

S = Separated

CB = Central Bank

MF = Ministry of Finance

MI = Ministry of Industry

(1) The Danish National bank is the granter of liquidity support, while the Inspectorate is responsible for the supervision of banks. The inspectorate has no formal link with the Nationalbank, although there is in practice cooperation between the two on any issues.

(2) The Banking Commission (Commission Bancaire) is a composite body chaired by the governor of the Banque de France, with representatives from the treasury. The Banking Commission supervises compliance with the prudential regulations. The inspections and on-site examinations are carried out by the Banque de France on behalf of the Banking Commission.

(3) The Federal Banking Supervisory Office (Bundesaufsichtsamt für das Kreditwesen) is entrusted with the supervision of banks. It is responsible for sovereign acts, such as licensing and issuing regulations, whereas the Bundesbank is involved in current supervision by collecting and processing bank prudential returns. The Banking Act provides for cooperation between the Supervisory board and the Bundesbank (i.e. the two bodies communicate information to each other, and the Supervisory Office has to consult the Bundesbank on new regulations).

(4) Under proposals of the Blair government, the banking supervisory responsibilities will be taken away from the Bank of England and put into an extended Securities and Investment Board, which will supervise the whole financial sector.

(5) The Office of the Comptroller of the Currency, an agency within the US Treasury Department supervises national banks and federally licensed branches of foreign banks. The Federal Reserve Board and the State Governments supervise state chartered banks which are members of the federal Reserve System. State chartered non-member banks are supervised by the State Governments. The Federal Reserve Board has the authority to supervise all bank holding companies and their subsidiaries. In addition, the autonomous Federal Deposit Insurance Corporation has some supervisory responsibilities.

Source: adapted from Goodhart and Schoenmaker (1995) p. 558.

**Table 8**  
**Daily Turnover and Collateral in the UK CHAPS (in bn ECU)**

1994	reserves with CB	collateral	intraday liquidity	daily turnover	bank deposits	balance sheet total
UK CHAPS	1,8	11,1	12,9	128,9	648,1	930,3

Sources: Folkerts Landau et al. (1996), and OECD (1996).