TRANSITION ISSUES FOR THE EUROPEAN MONETARY UNION

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ABSTRACT

If Stage Three of EMU starts on January 1, 1999, transition issues remain on two time scales. Until July 1, 2002, national currencies and the euro co-exist as legal tender. We argue that intra-EMU currency risk exists in principle during that period, but that no EMU member can be forced out through speculative attacks.

Cohabitation of Ins and Outs has an open-ended time scale. We discuss the effect of EMU on incentives for both Ins and Outs to undertake structural reform and the coordination problems associated with the distribution of seigniorage revenue and the Stability and Growth Pact.

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I. Introduction

Stage Three of the EMU process is scheduled to start on January 1, 1999. Even then, the process is far from complete. Transition issues remain on two distinct time scales. The first set of transition issues relates to the co-existence within the EMU of national currencies and the euro. This phase is scheduled to end no later than July 1, 2002, when national currencies lose their legal tender status. The second set of transition issues is open-ended, and will last as long as there remain EU members that have not joined EMU. As EU enlargement beyond the current membership of fifteen is quite likely, this cohabitation between Ins and Outs can be expected to last until well into the next millennium.

Both transition phases present their own sets of issues, many of which have not been analyzed much in the literature. Our paper highlights some of the key issues and attempts to draw out their policy implications.

Following this Introduction, Section II starts by analyzing the co-existence of the euro and the national currencies before July 1, 2002. The key policy questions are whether there remains any intra-EMU exchange rate risk and whether an EMU member can be forced out of the monetary union by speculative attacks. The rest of that section discusses two sets of exchange rate issues that will remain relevant even after the disappearance of the national EMU currencies. These are the exchange rate arrangements between the Ins and the Outs and the tripartite relationship between the euro, the dollar and the yen.

Section III highlights an unfamiliar and unintended possible by-product of monetary unification: its impact on the incentives for both Ins and Outs to undertake structural reform. In Section IV two coordination issues are reviewed, the distribution of seigniorage in EMU and the rationale for and consequences of the Growth and Stability Pact. The last section addresses the question of the impact of the coexistence of Ins and Outs on their incentives for

reform and on the likelihood of eventual successful entry by the Pre-Ins.

II. Exchange Rate Issues

A. Speculative attacks within the In bloc.

The Stage Three scenario starts on January 1, 1999. Early in 1998, the list of Ins will be announced, and the European Central Bank (ECB) and European System of Central Banks (ESCB) will come into being. We assume the indeterminacy problem of the euro conversion rates at the end of December 1998, has been overcome[1]. As this paper is being written, it seems likely that as many as 11 countries may participate in EMU, with only one involuntary Out (Greece) and three voluntary Outs (the UK, Denmark and Sweden) remaining.

In the early years of Stage Three, national currencies will remain in circulation and will retain legal tender status within their countries of issue. Euro notes will be legal tender throughout the EMU area but are not scheduled to be introduced until January 1, 2002. National currencies will retain legal tender status until July 1, 2002 and the euro will be introduced in non-cash form on January 1, 1999. An important issue is whether there remains any exchange rate risk among EMU currencies between January 1, 1999 and July 1, 2002.

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[1]The problem arises when ever at least one country whose currency is included in the ECU basket does not join EMU on January 1, 1999. (See Begg, Giavazzi, von Hagen and Wyplosz (1997) and De Grauwe (1997)). The Maastricht Treaty requires that at the end of 1998, 1 ecu converts into 1 euro. It also does not permit changes in the ecu basket before that time. If not all currencies that make up the ecu basket join EMU at the end of 1998, and if the euro value of these 'Out' currencies at the end of 1998 is market-determined, there is a continuum of conversion rates of the In currencies and the euro at the end of 1998 that constitute equilibrium outcomes. Corresponding to this is a continuum of market-determined exchange rates of the Out currencies and the euro. The Ins cannot pre-announce their bilateral euro conversion rates unless the Outs also happen to pre-announce euro conversion rates that ensure that one ecu indeed converts into one euro at the end of 1998. The Ins can pre-announce their bilateral conversion rates in terms of some other numeraire, but this does not solve the indeterminacy of the euro conversion rates.

The argument against there remaining any currency risk among the EMU member currencies goes as follows. On January 1, 1999, the starting date of Stage Three, the exchange rates between the currencies of the participating member states will be replaced by irrevocably fixed conversion rates. From then on, the participating countries' national currencies will only be expressions of the euro. The analogue is Federal Reserve notes in the US. These are issued through the 12 regional Federal Reserve Banks. These are the analogues of the national central banks (NCBs) of the EMU area and, together with the Federal Reserve Board (the analogue of the ECB), make up the Federal Reserve System (the analogue of the ESCB). Each Federal Reserve note can be identified by its Reserve Bank of issue, but does not constitute a liability of that particular Reserve Bank. Instead, it is a liability of the Federal Reserve System. If private agents decided not to hold any Federal Reserve Bank of Boston notes, for example, and switched massively into Federal Reserve Bank of Richmond notes, this currency shift would be passively accommodated without any real or nominal consequences.

In this view, effectively and legally, the national currencies of the participating countries cease to exist as national currencies on January 1, 1999. They become euros with another (old and familiar) name. For practical and political reasons, the issuance of the euro will remain decentralized and until July 1, 2002, each NCB can issue euros of two varieties, the new euro and its old national currency.

This emphasizes that from January 1, 1999 on, the ECB will have the exclusive right to authorize the issue of banknotes. The ESCB (The ECB and the NCBs) will hold and manage the official foreign exchange reserves of the member states participating in the euro area. The

euro-area NCBs will provide the ECB with foreign reserve assets[2]. The ECB is to hold and manage the transferred foreign exchange reserves[3]. The management may be operationally centralized or decentralized, with interventions conducted by the NCBs, but the policies, rules and regulations will be set by the ECB. The euro-area NCBs can continue to perform transactions in fulfilment of their obligations towards international organizations. All other operations in foreign reserve assets remaining with the NCBs after the transfer of reserves to the ECB, and Member States' transactions with their foreign exchange working balances shall be subject to guidelines and approval by the ECB. This is to ensure consistency with the single exchange rate and monetary policies. Effectively, no matter how active the NCBs remain operationally and no matter what tasks are delegated to them by the ECB, they are no more than the national branch offices of the ECB.

The argument that this rules out all intra-EMU exchange risk needs to be qualified, for both political and legal reasons. In politics as in life, nothing is forever. One can visualize circumstances under which EMU starts and survives intact for a while. Then it either suffers secession by one or more of it members or is dissolved, either by mutual consent (and a new Treaty) or acrimoniously. While there are no provisions in the Treaties for individual countries to leave the Union (or for dissolution of the Union), it is hard to conceive of a country being forced to remain in the Union against its will. A country wishing to withdraw unilaterally from the common currency arrangement and to re-introduce a national currency

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[2]These exclude member states' currencies, ecus, IMF reserve positions and SDRs, which remain with the NCBs. The proportion of the transferred foreign reserve assets to be called up following the ECB's establishment and at later dates, shall be decided by the ECB's Governing Council.

[3]The ECB may also hold and manage IMF reserve positions and SDRs and provide for the pooling of such assets.

will no doubt be able to do so. Historically, monetary unions have been dissolved following political dissolution. The post-World War I Austro-Hungarian empire and the post-Soviet CIS are two such cases. It might even be possible for an EMU member to abandon the common currency while continuing to participate in the rest of the European Union arrangements. The Commission has taken to referring to the Outs as 'Pre-Ins'. A case can also be made for referring to the Ins as potential 'Pre-Outs'.

Since there is always some risk, however small, that EMU will collapse, or that one or more members will quit the common currency, does this mean there is exchange rate risk associated with the national currencies that will continue to circulate between January 1, 1999 and July 1, 2002? The answer is not straightforward. If we follow the US Federal Reserve System analogy, the surviving national currencies after January 1, 1999, would be liabilities of the ECB and not of the individual NCBs[4]. However, while the Treaties make clear that only the ECB can *authorize* note issues after January 1, 1999, it is not clear that the national currency notes and euro notes issued by individual NCBs (and indeed the reserves held by credit institutions in member states on accounts with the NCBs) become the legal liability of the ECB rather than of the NCBs. Even if they were the liability of the ECB, there would be nothing to stop, say, Germany, if it were to quit the common currency, from assuming any outstanding DM notes as liabilities of a newly reconstituted Bundesbank. In this case there would remain exchange rate risk as long as the national currencies co-exist with the euro. We could, therefore, see currency risk premia among EMU currencies after January 1, 1999 and before July 1, 2002, and even speculative attacks.

The key point is that such speculative attacks could only 'succeed' if a country

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[4]Note that both the ECB and the NCBS will have legal personality, but that the ESCB will not.

decides to leave EMU for reasons unconnected to a speculative attack on its currency. A country cannot be forced out of EMU by a speculative attack if it wishes to stay in.

Suppose speculators move out of lire and into DMs. We first consider the situation between January 1, 1999 and January 1, 2002, when there is not yet any euro note issue. The liabilities of the Bank of Italy are lira notes, commercial bank reserves and euro deposits. On the asset side of its balance sheet it still carries working balances of international reserves denominated in the national currencies of the other EMU members. A private agent sells lire to the Italian central bank and buys marks from it. If the DM working balances of the Italian central bank suffice, that is the end of the story. Both the liabilities and the assets of the Italian central bank contract by the amount of the lira sale. The EMU-wide monetary base contracts. If the ECB considers such an EMU-wide contraction of the monetary base to be undesirable, it could instruct the Bundesbank to issue additional marks. A useful benchmark is the case where the counterpart on the asset side of the balance sheet to the DM issue by the Bundesbank is an accumulation of lira reserves in its working balances. The ECB has the authority to instruct the Bundesbank to do just that. Therefore, for intra-EMU currency flows, there is open-ended, unlimited international reserve support. This is the key difference from the pre-January 1, 1999, situation. If the DM working balances of the Italian central bank are insufficient to meet the demand of lira holders wishing to switch into DM, the Italian central bank can purchase any amount of marks from the Bundesbank, paying either with lira or euro deposits.

Between January 1, 2002 and July 1, 2002, meeting a speculative attack is even more straightforward. The liabilities of the Italian central bank are then lira notes, euro notes, euro commercial bank reserves and euro deposits. The liabilities of the Bundesbank are DM notes, euro notes, euro bank reserves and euro deposits. On the asset side of its balance sheet, each

NCB still carries working balances of international reserves denominated in the national currencies of the other EMU members. In response to a demand to convert lire, the Italian central bank would buy lira notes as before (if necessary until the last one disappeared from circulation), but now it could, and probably would, issue euro notes in exchange. In the benchmark case, the Bundesbank would buy these Italian-issued euro notes and issue marks in exchange. There would be no pain and no stress, except for some currency substitution shoe-leather costs. The Italian central bank would never 'run out of reserves', as its merely swaps euros for lire, thus keeping the Italian-issued component of the EMU monetary base unchanged. The working balances of other EMU members' national currencies need never be touched. Alternatively, the previous scenario, with unlimited mark support for the Italian central bank, could be reenacted.

The bottom line is that, even if the national components of the EMU area monetary base remain the legal liability of the issuing NCBs, no exchange risk attaches to intra-EMU conversion rates as long as no country plans to abandon the common currency arrangement. If a country wishes to remain in the common currency arrangement, no speculative attack can succeed.

B. EMS II: The exchange rate arrangements between the Ins and the Outs.

The exchange rate arrangements between the Ins and the Outs lose much of their interest and importance if, as seems likely now, a broad euro area with as many as eleven participating countries is established from January 1, 1999. No doubt the exchange rates between the Danish crown, the Greek drachma, the Swedish crown and the euro are of considerable importance to, respectively, Denmark, Greece and Sweden, but little systemic

importance attaches to them.[5] If these countries wish to avoid a repeat of the ERM crisis of 1992-93, they might be well advised not to attempt a version of ERM II, with narrow fluctuation bands, a one-sided obligation to intervene in defense of the parity and no guarantee of open-ended support. The experience of 1992-93 and of earlier adjustable-peg episodes suggest that such arrangements are extremely vulnerable and unlikely to be viable except possibly as a short-term transitional arrangement for a very determined Pre-in.[6] Some form of national inflation targeting with a floating exchange rate seems a viable alternative.

The fourth likely Out, the United Kingdom, is a large enough actor in the real and especially the financial domain for its exchange rate arrangement with the euro to have systemic consequences[7]. Here a return to anything like the old ERM arrangements seems politically out of the question. The memories of 'Black Wednesday' are still in the mind of the government and the monetary authorities. While the newly independent Bank of England may be less politically constrained in its use of the interest rate instrument than the Treasury was under the Ancien Régime, the British economy, with its preponderance of variable-rate mortgages and short-term bank lending, remains more vulnerable to swings in interest rates than its continental partners. Dedicating the interest rate to the pursuit of a narrow-band exchange rate target is, therefore, not perceived as an attractive option. Even if the government were to adopt a resolute Pre-in strategy, aiming at EMU membership by 2002, there is unlikely to be a significant change in the current policy of an inflation target and a floating pound. Such a policy would be compatible with the UK satisfying the Maastricht convergence criteria for EMU accession, except for the exchange rate criterion. After more

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[5]See Calmfors et al. (1997).

[6]See Buiter, Corsetti and Pesenti (1997a,b).

[7]The behaviour of sterling is of special important for the Irish Republic.

than four years of inflation targeting, the UK was, in May 1997, with an annual inflation rate of 1.6 percent, very close to the EU 15 average of 1.5 percent[8].

It is clear that such a monetary policy arrangement can produce wide swings in nominal and real exchange rates. The sharp depreciation of sterling following September 16, 1992 and its equally sharp appreciation since the summer of 1996 illustrate the point. While these swings may have been due in part to uncertainties surrounding the start of EMU, it would be highly optimistic to anticipate a floating but stable sterling-euro exchange rate. Any sharp depreciation of sterling would cause a 'competitive depreciation' outcry from the producer lobbies of the euro-zone. The experience since the ERM crisis suggests, however, that the political consequences of such exchange rate wobbles are not so severe as to preclude the UK from joining EMU at a future date of its choosing.

The 20-percent appreciation of sterling's effective exchange rate since the summer of 1996, has been in part due to a 'safe-haven' effect associated with uncertainty about the starting date and scope of the euro area. There is a widely held view that a broad euro area will mean a weak euro. This would imply that the safe-haven effect is unlikely to unwind. We do not share the opinion that a large initial membership implies a less restrictive ECB monetary policy stance and a softer euro. Our assessment derives from our, admittedly tentative, views on the likely future shape of the decision-making process of the ECB.

The decision-making personalities and procedures of the ECB are a subject of importance and complexity. As the institution will be untried, any views on its likely modus operandi can only be speculative. What will be the objectives of the members of the Executive

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[8]On the harmonized indices of consumer price inflation used to evaluate performance in relation to the inflation convergence criterion. Source: Bank of England Quarterly Bulletin, August 1997, p. 271.

Board and the Councils[9]? What will be the actual and perceived constraints under which they will operate? What will be their sources of information and advice and how will they interact with the permanent professional staff of the ECB? (Similar questions can be raised with respect to the ECB bureaucracy.) Will the members of the Executive Board and the Councils view themselves as owing their loyalties to the supranational central bank or will they view themselves as national delegates? If the latter, do they view themselves as delegates of their national central banks, of a wider national political class or of sub-national regional or sectional interests? What coalitions and other cooperative arrangements will be cemented? Who has the agenda-setting powers? Will votes and opinions of the individual members be recorded and published? Can bargains be made and enforced over time and across issues? Will there be scope for strategic voting?

The research agenda is vast. Here it suffices to point to the following. There will be formal and substantive ECB independence; a likely internalization of the price stability mandate by the members of the ECB Executive Board and Councils (the 'going native in Frankfurt' phenomenon); a selection of Board and Council members with an anti-inflationary bias; the perceived need to invest early in a reputation for anti-inflationary rectitude. All this points to a restrictive monetary policy stance by the ECB.

C. The dollar, the yen, and the euro.

The experience of the post-Bretton Woods era suggests that the importance national economic policy makers attach to their currency's external value is positively related to the

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[9]The Governing Council will consist of the members of the Executive Board of the ECB and the Governors of the euro-area NCBs. As long as there are member states with a derogation, there will be a General Council consisting of the President and Vice-President of the ECB and the Governors of the euro-area NCBs.

relative size of its internationally exposed sectors. The relatively closed USA has a long-standing policy of benign neglect of the dollar's external value. The comparably closed Japanese economy has likewise gone through wide gyrations in its exchange rate without strong domestic pressures for unilateral or internationally coordinated policy aimed at influencing the value of the yen. Even the larger EU nations, such as Germany, France, the UK and Italy are considerably more open to international trade than the USA or Japan and have always attached considerable importance to the impact of the exchange rate on their international competitiveness.

A broad euro zone, even without the UK, would have foreign trade to GDP ratios comparable to those of the USA and Japan. We expect therefore, that in the longer run, the euro/yen and euro/dollar exchange rates will be given less weight in the European monetary and fiscal authorities' policy deliberations. This means both that the exchange rate consequences of unilateral euro-area policy decisions will be de-emphasized and that there will be less pressure for international macroeconomic policy coordination (both formal and informal) among the new G3. We expect this reduced emphasis on international macroeconomic policy coordination to occur even though the logistics of coordination become easier when the number of players is reduced to three.

In the short run, the situation may be different. First, the initial members of the ECB Executive Board, the ECB General Council and the ECB Governing Council will have had their practical and policy experiences shaped in national economic environments that were considerably more open than the new euro area. It will take a while for them to adopt more autarkic thinking.

Second, the new ECB will be anxious to gain a reputation as a guarantor of low inflation. This takes time to establish. In the interim, the external value of the euro is a visible

indicator of the market's assessment of the ECB's performance. The problem is that the euro/dollar and euro/yen exchange rates reflect other influences than the underlying inflationary implications of the ECB's policies. They reflect other fundamental developments, both in the euro area and abroad, such as the Ins' fiscal stance, and the monetary and fiscal policies adopted in the USA and Japan. They also reflect fundamental developments in the private sectors of the three currency zones. Shocks originating outside the euro area, the USA and Japan will likewise influence the two key bilateral euro exchange rates. Finally, non-fundamental shocks such as speculative bubbles can impair the informational content of exchange rate movements as indicators of fundamental economic developments.

Nevertheless, we expect the newly established ECB will be loath to see a significant depreciation of the euro against the dollar and the yen. An early lack of credibility is likely to be met with high euro interest rates, quite possibly to an extent that the inflation objectives are overachieved in the short run, at the expense of a lower level of demand in the euro area as a whole.

III. EMU and Structural Reform

In this Section we consider some unintended and unexpected consequences of monetary union and the Maastricht criteria for the pace of structural economic reform in Europe. These considerations should influence the choices of countries still contemplating joining and the policies pursued by those who have already become full EMU members.

A common currency area imposes a single currency on countries with different stabilization and financing needs. This suggests that a monetary union is more likely to be successful if countries do not need national monetary policies to offset shocks to output demand or supply or to improve their revenue collection. Thus, it appears that members of a

successful monetary union should have flexible labour markets and efficient tax systems. The imposition of the Maastricht criteria can be viewed as an indirect attempt to ensure this is the case in Europe, as it is costly to meet these criteria without structural reform.

The benefits and costs from undertaking structural reform in the European economies are not invariant to the choice of international monetary regime. It may be that membership of the monetary union will itself influence the level of fundamental economic reform. In this section we consider whether monetary union is more conducive to economic reform than independent monetary policy making. If monetary union does not lead to reform, we ask if insisting that countries meet the Maastricht criteria will improve matters.[10]

Does monetary union lead to more or less reform than uncoordinated policy making? We argue that this depends on the type of reform. To see this, consider economies with two types of distortions which could be lessened or eliminated. First, there are frictions, such as distortionary labour income taxes, causing the socially desirable rate of unemployment to be lower than the natural rate and creating an inflationary bias in policy making. Second, there are frictions causing labour markets to be inflexible that make policies to stabilize employment desirable.

With the first type of friction, nominal-wage contracting gives policy makers an incentive to inflate to raise employment. This occurs despite wage setters' rationality ensuring there will be no equilibrium gain. Policy makers could improve matters by undertaking costly reforms narrowing the gap between the socially desirable and natural rates of employment. They might also lower their inflation by joining a monetary union. Then, union membership

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[10]Sibert (1997) and Sibert and Sutherland (1997) analyze the impact of monetary union on economic reform. Ozkan, Sibert and Sutherland (1997) study the impact of the Maastricht criteria on economic reform. The arguments here draw on these papers.

becomes a substitute for enacting reforms. If reforms by one country have positive spillovers for other countries, or if the domestic cost-benefit analysis does not allow fully for the opportunity cost of foregone reform, this may be a cost of a common currency.

With the second type of distortion, shocks to labour markets may give independent central banks an incentive to use monetary or exchange rate management as a beggar-thy-neighbour policy. A country hit by a bad shock has an incentive to inflate to lower its real wages relative to those abroad, exporting its unemployment. If countries form a monetary union, it is no longer possible to use monetary policy to offset country-specific shocks. This gives countries an increased incentive to make their labour markets more flexible.

If monetary union impedes reform, does the imposition of conditions such as the Maastricht criteria mitigate the problem? We argue that it may not. Consider, for example, an inflation target. The central bank of a country anxious for membership may have an incentive to meet the target, when it otherwise would not. This gives that central bank enhanced credibility and this credibility can be a substitute for fundamental reform of the country's labour markets or revenue-raising institutions.

IV. Coordination Problems in EMU

A. Distribution of seigniorage in EMU

Inflation taxes are distortionary and play little role in government finance in most of the EU. However, if a country has a large black market sector, or a tax system which is expensive to administer and comply with, then it may be desirable to collect significant seigniorage revenue. A cost of EMU is that the imposition of a common currency on countries with different seigniorage needs represents an inefficient coordination of one of the national revenue instruments.

One way to deal with different preferences over seigniorage is to choose monetary expansion so that seigniorage is a weighted average of that desired by countries with high and low inflation-financing needs. This is unlikely to be optimal, however. A strategy preferred by all countries may be to collect little seigniorage in aggregate and to allocate the bulk to those countries with greater need.

How likely is EMU to produce this outcome? The euro is likely to be a more important international reserve asset than were individual member countries' currencies in aggregate. For any level of nominal monetary expansion, real seigniorage may rise. However, the Maastricht Treaty mandates price stability as the primary objective of monetary policy. This suggests that seigniorage collection will be closer to what is desired by countries with small black markets and efficient tax systems.

How is the seigniorage to be allocated? The Maastricht Treaty defines the monetary income accruing to national central banks as income derived from assets backing a country's monetary base (Article 32). This income is transferred to the ECB, which transfers it back to central banks in proportion to their capital shares in the ECB (Article 33). Capital shares in the ECB are determined by the average of countries' population shares and GDP shares. Thus, seigniorage is transferred from countries which currently have high national monetary income relative to their size to countries whose current national monetary income is low relative to their size.

Thus, there will two categories of losers. First, countries, such as Germany, which at present have currencies which are important international reserve assets and vehicle currencies. Second, countries which have currencies which are widely used for internal transactions, because of the relatively undeveloped state of their domestic payments systems and the large size of their black and underground economies. A third category would be those

countries with high interest-free reserve deposit ratios. However, these countries might liberalize their banking systems prior to entry. Germany has in fact already done so.

It seems likely that the first category includes countries which have little seigniorage need. The second is likely to include countries with greater seigniorage needs.

Thus, seigniorage resulting from the Maastricht Treaty may be close to efficient. But, given the allocation, not all countries may be better off from a national public-finance point of view. The calculations of Sinn and Feist (1997) suggest that Spain, for example, which has a large black market sector and a currency widely used for transactions, may lose. France and the United Kingdom, which have currencies less widely used for domestic transactions and smaller seigniorage needs may win.

B. The stability pact

The Stability and Growth Pact is an attempt to ensure that member governments avoid excessive budget deficits even after joining EMU, and thus complements the Maastricht Treaty's fiscal criteria for candidate EMU members. Both the Pact and the Treaty raise the following questions. What are the consequences of excessive deficits? How do we establish whether deficits are excessive (specifically, is there any presumption that a general government deficit in excess of three percent of GDP and general government gross public debt in excess of sixty percent of annual GDP are excessive)? Is there any presumption that the political process will produce excessive deficits?

There appear to be two possible reasons for the Stability and Growth Pact and the Maastricht fiscal criteria. First, excessive deficits are viewed as detrimental to growth and employment. Second, excessive deficits are seen to be inflationary or to be a means of transferring the burden of servicing the debt from the fiscally improvident to the fiscally

prudent through a bail out prompted by the threat of default.

The first reason is a bit difficult to understand. Rational and benevolent governments want to smooth consumption over time and this may entail running public sector deficits, especially if some private agents are liquidity constrained. Labour market and goods market inefficiencies can further amplify the adverse impact of shocks on employment and output. Even if private agents can lend and borrow freely, and with efficient labour and product markets, distortionary tax smoothing, entailing unbalanced budgets, may be socially efficient. An increase in one country's debt raises another country's interest rates, but absent distortions, such pecuniary spillovers are desirable; they ensure that loans are correctly allocated. In the presence of distortionary taxation the higher interest rates may represent a negative spillover which coordination might internalize. However, it is unlikely that the impact of most European countries on world interest rates is large enough for this to be a serious concern.

One justification for the fiscal criteria, and for their asymmetry (deficits can only be too high, never too low) is that lack of credible precommitment mechanisms may cause public debt to be excessive. This can affect even a benevolent government not subject to electoral constraints[11]. Alternating partisan governments with conflicting preferences for public expenditure may bequeath socially excessive debt levels to restrain their successors' spending (Alesina and Tabellini (1990)). The quantitative importance of these and other political economy externalities (surveyed in Alesina and Perotti (1995)) does not appear to be major. Also, to grant the theoretical case for an excessive deficits bias is not to underwrite the arbitrary numerical criteria embodied in the Pact and the Treaty.

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[11]If, in a world with distortionary taxes, a benevolent government would issue positive (negative) public debt under full commitment, lack of commitment would result in a larger amount of debt (credit) being issued.

The fear of fiscal bailout blackmail seems overstated. First, a deliberate default threat hardly seems credible in the EU context. Second, the Maastricht Treaty explicitly rules out this option. Third, the remedy is to remove the threat of systemic risk through appropriate financial-sector regulation to ensure no key financial institution is excessively exposed to the sovereign debt of any member country.

The inflation rationale for the Stability and Growth Pact is somewhat more attractive. A country which has accumulated euro-denominated debt would have an incentive to put pressure on the ECB to increase inflation. The higher inflation would represent a negative spillover for the union as a whole.

Given the desire to limit budget deficits, the European Council had the option of mandating limits on deficits, with automatic fines assessed for violations. Instead, it has provided loopholes and leeway. In effect, the Stability and Growth Pact provides a framework for governments to bargain over fiscal policy rather than a mechanism for committing governments to deficit ceilings.

On the surface, it might appear that this approach is preferable. Situations may arise which treaty framers do not anticipate; it is impossible to write a pact binding nations to fiscal policy which will be optimal in all states of the world. With the flexibility provided by the pact, countries could negotiate until all the gains from trade were exhausted and the result would be efficient. It need not be the case, however, that the pact is preferable to hard targets. This can be either because the anticipation of future fiscal bargaining has adverse effects on ongoing structural reform efforts or because the bargaining process itself is inefficient.

A country's desire to run excessive deficits may depend in part on the underlying structure of its economy. For example, a country with an inefficient tax system may have

more volatile fiscal balances than a country with a more efficient system. If the pact mandated inflexible limits on deficits and automatic sanctions for violations, then countries would have an incentive to invest in reforming their tax system. With negotiation, the incentive might be far lower.

When countries bargain over fiscal policy, what each country gets depends on what happens if negotiations break down. The more costly it is for other countries if agreement is not reached, the more a country gains from bargaining. This may give countries an incentive to lower their reform efforts in an attempt to get a larger share from the bargaining process; a less restrained fiscal policy (with negative international spillovers) is credible given a lower level of reform. Thus, a flexible Stability and Growth Pact may (at most) get ex post efficiency at the cost of reduced economic reform.[12]

Finally, the Growth and Stability Pact does not provide a framework for coordinating fiscal policy among the Ins with the monetary policy set by the ECB nor for coordinating monetary and fiscal policy among the Ins and the Outs. The Maastricht Treaty provides for two channels of communication between the ECB and the political leadership of the European Union (the Council). First, the President of the Council and a member of the Commission may participate, but not vote, in meetings of the Governing Council of the ECB. The President of the Council may also submit motions to the Governing Council of the ECB. Second, the President of the ECB may be invited to Council meetings when the Council is discussing matters relating to the ESCB. While useful, these arrangements fall short of what is required

[12]This is related to the *hold-up* problem of the industrial organization literature. See, for example, Hart and Moore (1988).

to ensure a coordinated monetary-fiscal policy mix for the EMU area as a whole[13]. There appears to be a perception that central bank independence and monetary-fiscal policy coordination are mutually exclusive. We believe this to be mistaken. Both formal and substantive independence are compatible with cooperation, coordination and the making of binding agreements.

Whether coordination of monetary and fiscal policy in the EU is in practice preferable to uncoordinated monetary and fiscal policy design and implementation depends on a range of considerations that are difficult to formalize or quantify. Even if the relevant authorities can make static (instantaneous) commitments to each other, they may lack the ability to make credible commitments vis-a-vis the private sector over time. Such restricted cooperation may, for second-best reasons, be worse than no cooperation at all. The bargaining processes characterizing any practical coordination attempts may be far removed from the efficient bargaining that would put the EMU members on the contract curve of efficient outcomes. Cooperation and coordination in the monetary and fiscal stabilization areas may impede progress on structural reform in other fields.

VI. The Ins and the Pre-Ins

The Maastricht criteria were designed in part to keep countries with distorted or inflexible economies out of the EMU. It is believed that such economies would contribute an inflationary bias to the union. It would be preferable (for the low inflation countries and,

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[13]The President of the ECB and the other members of the Executive Board may be heard by Committees of the European Parliament. The European Parliament is so far removed from any real role in EU-wide macroeconomic policy design, however, that, whatever the merits of this procedure from the point of view of ECB accountability, it does not constitute a mechanism for policy coordination.

possibly for the inflation-prone ones as well) to wait until more reform has taken place. A case can be made, however, that it may be better to interpret the criteria loosely. Denial of membership may lower the path of reform of the Outs below what it would have been and increase their inflationary bias.

To see this, suppose there are negative spillovers, such as competitive depreciation, associated with more expansionary and inflationary monetary policies. The propensity to inflate depends on the degree of underlying structural reform. Countries with relatively efficient economies have less incentive to inflate. If the criteria are interpreted strictly, it may be that only relatively reformed economies join the monetary union.

The euro area is larger relative to the EU as a whole than were the individual countries. Thus, it has less incentive to use the competitive depreciation associated with higher inflation as a beggar-thy-neighbour policy against the rest of the area than individual EMU countries would have had. This gives individual Outs a chance to free ride on the Ins. They can inflate at the expense of the Ins with little fear of reprisal. The gains from this may outweigh the lost benefit of the lower inflation associated with union membership. This may give the Outs less incentive to reform and a greater incentive to inflate than they otherwise would have had.

Thus, the decision to admit or not admit a country may have an effect on its path of economic reform. A free-rider problem may ensure that the path of reform is lower than it would be if it were admitted. This may make it desirable to admit countries, even if their current level of reform is such that their membership temporarily imposes costs on the other members.[14]

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[14]Martin (1995) makes this point in a model with exogenous reform.

The weaker commitment to anti-inflationary rectitude of the Outs compared to the Ins may also bestow positive externalities on the Ins through a different, more Keynesian channel. In Buiter, Corsetti and Pesenti (1997a,b) it is shown that, in a world with predetermined nominal contracts or any other short-run Phillips curve mechanism, monetary policy by the inflation-prone Outs may permit the inflation-averse Ins to achieve a better mix of employment and inflation in response to shocks. Consider the case of an expansionary aggregate demand shock originating among the Ins. The appropriate equilibrating response is a higher EU-wide real interest rate and an appreciation of the real exchange rate of the euro against the Outs' currencies. With nominal rigidities, a real appreciation would require either a nominal appreciation of the euro or, at a fixed nominal exchange rate, some combination of higher inflation among the Ins and lower inflation among the Outs. Higher inflation among the Ins would be costly, as would increased disinflation among the Outs. A nominal appreciation of the euro would be preferable for both sides. The Outs will, if they have no overriding incentive to maintain their nominal pegs to qualify for future membership in EMU, have an incentive to expand their money supplies and depreciate their currencies against the euro to offset the effect of the high EU wide real interest rates on their domestic economies. The nominal appreciation of the euro in turn allows the Ins to get closer to their desired inflation rate. It may also counteract excess demand pressure associated with the initial demand shock. The argument relies on there being a relatively weak incentive for the Outs to maintain their currency pegs vis-a-vis the Ins. If, as a result of a strict interpretation of the exchange rate criterion for EMU membership and a strong desire by the Outs to join, the Outs decide to maintain their currency pegs with the euro, monetary policy among the Outs will tighten in response to the shock under consideration.

Both the negative and positive spillover cases make it less likely that the Outs will join

eventually. The importance of these spillovers is, however, inversely related to the relative economic size of the Outs. With an eleven member In-group, its significance will be diminished.

VII. Conclusion

Our conclusions can be summarized in nine points. First, intra-EMU exchange risk remains during the period of co-existence of the national currencies and the euro, to the extent that there remains a possibility of any member country leaving the EMU. Second, if a country does not plan to leave the EMU, it cannot be forced out through a speculative attack. Third, for the Pre-Ins, some form of inflation targeting with a floating exchange rate seems more likely to prevent a recurrence of the 1992-93 crises than a narrow-band ERM II. Fourth, we do not believe that a broad euro will necessarily be a weak euro. Fifth, we expect, that the euro/yen and euro/dollar exchange rates will be given progressively less weight in EMU macroeconomic policy design. Sixth, the costs and benefits of structural reform in the European economies depend on the international monetary regime. It is possible that a common currency is less conducive to structural reform than independent national monetary policies, and that the imposition of Maastricht-style criteria will not improve matters. Seventh, EMU may involve an arbitrary redistribution of seigniorage among its members. Eighth, the international interest rate spillover and debt default rationales for the Stability and Growth Pact are unconvincing. The weakening of the automatic fines mechanism makes the pact a mechanism for bargaining over fiscal policy. Ninth, strategic interactions between the Ins and the Outs may impede the future accession of the Outs.

EMU represents a step into the unknown, but not a leap in the dark. The transitional problems that are likely to be encountered when Stage Three gets under way are real, but not

insurmountable. Both the analytical tools to understand them and the institutional arrangements to cope with them appear adequate to the task. A key issue that remains is how to cope with country-specific shocks without the aid of independent national monetary and exchange rate instruments. Structural reform, both of budgetary instruments and procedures and of labour markets and financial institutions will be required if the EMU and its member states are to possess the ability to respond flexibly and efficiently to the shocks and structural transformations that lie waiting in the next millennium.

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