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The Stability Pact: Safeguarding the Credibility of the European Central Bank

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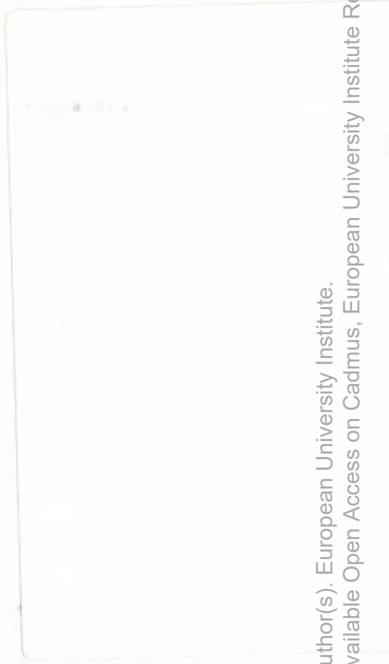

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Abstract

The 'Stability Pact' agreed at the Dublin Summit in December 1996 and concluded at the Amsterdam European Council in June 1997 prescribes sanctions for countries that breach the Maastricht deficit ceiling in stage three of European Monetary Union. This paper explores possible motivations for the Stability Pact as an incentive device for fiscal discipline and as a partial substitute for policy coordination and a common 'stability culture'.

JEL classification: F33, F36, F42, E58, E61

Keywords: Monetary Union, Maastricht Treaty, Incentive Contracts, Policy Coordination

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I. Introduction

The Dublin Summit of 13-14 December 1996 endorsed an outline for a "Stability and Growth Pact" to become effective in Stage Three of Economic and Monetary Union (EMU). Subsequently, the legal details of the Pact have been worked out based on proposals by the Commission and the discussions of the Ecofin meeting in Noordwijk on 4-6 April 1997. Despite intitial calls for a comprehensive renegotiation of the Stability Pact by the new socialist government after the second round of French parliamentary elections on June 1, the Pact has now been concluded as planned at the Amsterdam Summit on 16 June 1997. However, as a concession to French demands a separate "Resolution on Growth and Employment" was adopted alongside the European Council Resolution on the Stability and Growth Pact. A new Title on Employment is also to be included in the Amsterdam Treaty ("Maastricht II") scheduled to be signed in October 1997.

Based on the proposal by the German finance minister, Theo Waigel, first launched in November 1995, the principal purpose of the Stability Pact is to enforce fiscal discipline inside EMU by strengthening, clarifying and speeding-up the 'excessive deficit procedure' of the Maastricht Treaty; and by building in quasi-automatic sanctions to penalize countries found in excessive deficit. The Stability Pact can be viewed as a self- and pre-commitment device attempting to limit discretion in the application of the excessive deficit procedure.

The central features of the Stability Pact provisions regarding the decision procedures, the timing and the size of sanctions and their impact on policymakers' behaviour will be examined in Section Four of this paper. In order to form a balanced judgement on the usefulness (or otherwise) of the Stability Pact, the first step is to try to understand the rationale behind it. Reactions to the Maastricht fiscal criteria, both as an entry condition for EMU and as a permanent constraint to be enforced by the Stability Pact inside stage three of EMU, can be classified into three main groups. The first group is concerned about the costs of restricting the flexibility of fiscal policy, the second - on the contrary - welcomes the discipline the criteria impose on policymakers. Both arguments together give rise to a (familiar) debate over the relative virtues of rules versus discretion (or credibility versus flexibility), here applied to fiscal policy. Both camps are interested in the operation of fiscal policy *per se* and EMU is only relevant to the extent that it affects the costs and benefits of fiscal flexibility or discipline. While most of the debate has been dominated by the first two groups, the main inspiration for the fiscal criteria really has been quite a different one, namely to aid the European Central Bank in its pursuit of price stability. After briefly rehearsing the debate on the

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Stability Pact and its implications for fiscal policy (in section two) the more important task in section three is to try to understand how fiscal restrictions might affect the conduct of monetary policy.

The three different views on the Stability Pact can easily be traced to the respective theoretical frameworks used to assess the role of the fiscal criteria. From the perspective of traditional (Keynesian) macroeconomics and the theory of optimum currency areas restricting fiscal policy, the only remaining national policy instrument in a monetary union, can become very costly. This line of argument has led to the prevalently critical attitude towards the Maastricht fiscal provisions in the economics profession. Arguments in favour of deficit and debt ceilings are usually drawn from political economy or public choice approaches that identify a deficit bias in political decision making processes. In this perspective the Maastricht provisions are useful to help achieve a reduction in deficits and debt desirable in its own right and independently of EMU. Such a view tends to be shared by economists who are sceptical of the role and efficiency of fiscal policy interventions and by those interested in reducing the role of the state in the economy more generally. Besides drawing on the debate over rules versus discretion the discussion of the Maastricht fiscal provisions can also be approached from the perspective of the literature on international policy coordination. If there are fiscal policy spillovers across countries and in a common capital market, deficit ceilings might be seen as a rule-based partial substitute for fiscal policy coordination inside EMU.

None of the above purely fiscal arguments adequately reflects the primary purpose of the Maastricht criteria and the Stability Pact. In the words of the president of the European Monetary Institute Alexandre Lamfalussy (1997) the Maastricht provisions help countries to "exercise concerted discipline in the conduct of their fiscal management ... to minimise the risk of an adverse policy mix and an excessive burden on monetary policy". Any attempt to capture the motivation for the Stability Pact and the Maastricht fiscal criteria must therefore focus on the interaction of fiscal and monetary policy. The premise here is that central bank independence alone is not sufficient for the credibility of monetary policy but requires the support of a generalized "stability culture" (Winkler 1996) and of fiscal discipline in particular. Furthermore, the crucial problem of policy coordination arises between (national and aggregate European) fiscal policies and the common monetary policy, rather than across national fiscal authorities alone.

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II. The Stability Pact and Fiscal Policy

Constraints on fiscal policy, such as the deficit ceiling of the Stability Pact, can be useful if in their absence deficits would tend to be excessive from the national or the international (here: European) point of view. In the first case inefficiency arises from domestic deficit biases, in the second case from policy spillovers across different countries. In both cases the benefits of commitment to rules or deficit ceilings must be weighed against the potential losses from reduced flexibility of fiscal policy in stabilizing economic shocks.

a) Countering domestic deficit bias

There are several possible stories to tell here. The simplest one, put forward most forcefully by public choice theorists (Buchanan 1977, Olson 1965), draws on the observation that special interests pushing for public expenditure programmes are generally well-organized, unlike taxpayers. Moreover, future taxpayers are not represented at all in the democratic process, which favours the build-up of public debt to be repaid by future generations and may also lead politicians to ignore the negative long-run growth effects of deficits via the crowding out of productive private investment. Government instability and a host of other political and institutional factors can be used to explain why the public finance performance of political systems has differed widely across countries (Alesina and Perotti 1995, Roubini and Sachs 1989, Grilli et al. 1991, Corsetti and Roubini 1993). The fact remains that the last two decades have produced a debt build-up in European countries, unprecedented in peace-time, where fiscal policies in several countries have become unsustainable, in particular in view of demographic trends and unfunded pay-as-you-go pension systems (Masson 1996). This suggests that neither the political process nor the discipline of financial markets appears to be sufficient to induce governments always to take heed of the long-run budget constraints.

Furthermore, even if neither governments nor voters or interest groups suffered from myopia but all agreed on the need to reduce deficits and debts, this remains a difficult goal to achieve. Each group will try to minimize its own contribution to deficit reduction, whose benefits have public good characteristics for all of society and future generations. The Maastricht 3% deficit ceiling backed up with an external enforcement mechanism can then be seen as a blunt device to impose an upper limit on the domestic deficit bias, which - depending on the stock of initial debt and the assumptions on nominal growth rates - may (or may not) suffice to guarantee a sustainable budget position. In this context the 3% deficit criterion is internally consistent with the 60% debt criterion leading to a stable debt-GDP ratio under the assumption of

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5% nominal growth. Clearly more sophisticated rules could be derived from public finance considerations (Buiter et al. 1993). Equally clearly it would be preferable to address the (political) distortion of budget policy at source, if possible, instead of imposing arbitrary numbers. However, the Maastricht criteria are best understood as a simple commitment device in a second best world of incomplete contracts.

The fact remains that the Maastricht criteria have been welcomed by many policymakers as an external commitment device to enhance the domestic consolidation of public finances that was seen as necessary independently of EMU. However, it is not clear why countries could not have adopted unilateral self-commitment, e.g. in analogy to the constitutional balanced budget amendment long in discussion in the United States and in widespread use at the state level, or reformed their budget processes. Unless international multilateral commitment is more credible than unilateral reforms the inclusion of the fiscal criteria in the Maastricht Treaty must derive from a fear that monetary union could increase the domestic deficit bias or render its effects more damaging.
The effects of monetary union and a single capital market on the incentives for fiscal policymakers can go in both directions. On the one hand the long-run budget constraint facing governments is hardened to the extent that the Maastricht Treaty's "No-bail out clause" is credible and monetary financing of government debt by the European Central Bank is ruled out (Glick and Hutchison 1993). On the other hand, access to financing will be easier in the unified European capital market and (presumably) cheaper for high debt and deficit countries no longer suffering national interest rate premia for devaluation and inflation risk. Abolishing national currencies removes the disciplining effect of international currency markets on national fiscal policies (Thygesen 1996), even though bond markets may be expected to correctly price the remaining default risk (again if the "No-bail out clause" is perceived as credible).

There are two main arguments against the need to impose additional fiscal constraints in monetary unions. One holds that bond markets price default risk correctly and that this would act as an adequate deterrent. The second line is to argue, on the contrary, that with sufficient taxing powers and control of the tax base countries will always be able to service their debt and there is little to worry about (Eichengreen and von Hagen 1996). From this the probability of default should be very small for sovereign states with sufficient taxing powers (i.e. as long as tax bases are not too mobile) and large stocks of assets, even if the recourse to the printing press is ruled out. Therefore default premia are unlikely to be sizeable enough to act as an effective deterrent *ex ante*.

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Moreover, market reactions and political crises in response to fiscal problems tend to be discontinuous, i.e. provoke a sudden and abrupt withdrawal of confidence which is difficult and costly to deal with *ex post* and thus may render an explicit or implicit bail-out inevitable. This will at least be the case if financial market instability threatens to spill-over and affect partner countries or the common monetary policy, as discussed below. For these reasons it remains doubtful that market discipline is effective, let alone efficient, in offsetting a domestic political deficit bias. Even if the No-bail-out clause were credible, there are additional conditions for market discipline to be effective such as the timely availability of information and, most importantly, that borrowers must respond to market signals (Lane 1993).

Empirically, the fact remains that governments have been seen to follow irresponsible budget policies in a wide variety of exchange rate regimes and in spite of market discipline. Therefore fiscal constraints can make sense in order to offset domestic deficit biases. Moreover, most federal states have restrictions on borrowing at the state-level (Masson 1996), even if introduced for different reasons as argued by Eichengreen and von Hagen (1996), or they form a Political Union with sufficient power to dissuade deviant behaviour. The additional case for fiscal restrictions under Monetary Union and in the absence of Political Union then rests on the presence of (EMU-specific) fiscal policy spillovers across participating countries.

b) Coordinating fiscal policies

From a standard Mundell-Flemming model we know that the effectiveness of fiscal policy is enhanced in a fixed exchange rate regime such as monetary union (Agell et al. 1996), because expansionary effects on output are no longer countered by an exchange rate appreciation, except via the common external exchange rate. The effect on foreign output, however, is ambiguous since the stimulation via greater import demand may be offset by the dampening effect from higher interest rates (Eichengreen 1997). Under open global (and European) capital markets the effect on interest rates should be very small, however. Still, net spillovers are ambiguous, in principle, and not likely to be very sizeable, even though with increased economic integration the size of fiscal leakages increases and therefore the *a priori* case for coordinated policy responses to shocks (Masson 1996).

The second aspect of fiscal spillovers concerns the crowding out of investment from deficits raising the common interest rate in an integrated (European) capital market. Indeed one justification for formulating the criterion in terms of actual rather than primary or structural deficits is that actual deficits are an

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"expression of the burden on financial markets" (Thygesen 1996) as the relevant spillover. However, a member state will only give rise to an externality if it runs a current account deficit, i.e. if the sum of national investment and the deficit exceeds national savings (Pisani-Ferry 1996). Again, to the extent that world capital markets are integrated the effect from any individual EMU member country on the common real interest rate should be small. Yet, as discussed in the next section the conduct of fiscal policy, both deficits and debt, may affect both the short-run and the long-run credibility of the common monetary policy and thereby nominal interest rates, inflation expectations and actual inflation.

A third externality arises from effects on the common external exchange rate, which should appreciate in response to fiscal expansion and rising interest rates, crowding out partner countries' net exports. A fourth possible channel of fiscal spillovers has already been mentioned in the context of the "No-bail out clause". This channel arises if an increase in default risk in a member country or a subsequent financial crisis cannot be confined to the country in question but leads to expectations of an explicit or implicit bail-out or a systemic financial crisis across the common capital market.

Most of the spillovers of fiscal policies are not directly related to monetary union *per se* but rather rest on the degree of trade or financial market integration (Eichengreen and von Hagen 1996). Moreover the issue of active policy coordination, addressed only scarcely by the Maastricht Treaty in Art. 103 that regards economic policy as "of common interest", needs to be distinguished from the problem of a systematic deficit bias that might be addressed by imposing constraints on deficits. In the latter case the deficit ceiling in the Stability Pact can serve as a blunt coordination device to the extent that undisciplined fiscal policy in any member state country has negative effects on partner countries' economic variables, by crowding out investment or net exports, by undermining the stability of the common financial system or the credibility of the common monetary policy. In the words of Alberto Giovannini (1994, p.190) the role of the fiscal criteria is to "prevent countries from trying to exploit monetary union to export their domestic fiscal problems", as a second best safeguard against free-riding in the absence of a set of rules on financial relations (as common in federal states).

Consider the pay-off matrix depicted in *Figure 1* for a simple illustration of the coordination problem, where two countries can choose between tight and lax fiscal policy, with both preferring to free-ride on the other country's fiscal discipline. Arbitrary payoffs are chosen for illustration, but most of the above spillover stories, with negative externalities from lax policies, can be used to

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underpin *Figure 1*. Here lax fiscal policies reduce the other country's utility by two payoff units. All else equal, governments prefer lax policies, i.e. implementing discipline carries economic and political costs (one payoff unit). Fiscal discipline has public good features for both countries but its provision is costly. Conversely, each country would like to reap the benefits of fiscal expansion (higher output and employment) for itself, while its negative effects via higher interest rates, the crowding out of investment or exports and the risk of financial instability are shared throughout the union.

Figure 1: The Fiscal Prisoner's Dilemma

		Country B	
		tight policy	lax policy
Country A	tight policy	1, 1	-1, 2
	lax policy	2, -1	**0, 0**

Countries get stuck in the inefficient Nash equilibrium (bottom-right), where both pursue lax budget policies. The Pareto-superior cooperative solution (top-left) is not sustainable, because each country has an incentive to deviate, given that the other country provides fiscal discipline. The same payoff structure can be used to illustrate the domestic deficit bias of the previous subsection. In that case the players are different economic interest groups who are interested in overall budget consolidation but try to avoid that cuts hit their own clientele. Dynamic versions of debt or deficit reduction games can be modelled as "wars of attrition", where each side holds out in the hope that the other side gives in and contributes first to the public good (Bliss and Nalebuff 1984, Alesina and Drazen 1991). In this perspective the Maastricht criteria appear as a commitment device for coordinated fiscal adjustment (Allsopp and Vines 1996).

c) Fiscal Stabilization

Whatever the rationale for the Maastricht criteria and the Stability Pact there is a potential price to be paid for satisfying their rigid numerical limits. This price comes in the form of lost flexibility in the use of active fiscal policy or in the operation of the built-in automatic stabilizers of national budgets and has been the major source of criticism of the fiscal criteria. There are two main questions with respect to European Monetary Union, first, on the need for a federal European stabilization scheme and, second, on the implications of Maastricht

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for the functioning of national stabilization. Two aspects of stabilization can be distinguished conceptually, intra-union stabilization in response to asymmetric shocks and pan-European responses to common shock components.

The debate over fiscal federalism examines the question where stabilization mechanisms should be located, i.e. whether at the European or at the national level (e.g. Mélitz and Vori 1992, von Hagen and Hammond 1995). It is obvious that a European wide stabilization scheme is superior in principle since it provides insurance across countries at any point in time, whereas national stabilization has to rely on debt build-up (and concomitant negative side effects) for consumption smoothing over time. If there are significant Ricardian effects, fiscal stabilization may be less powerful to the extent that consumption is reduced in the expectation of a higher future tax burden (Bayoumi and Masson 1996). However, empirically Ricardian effects are likely to be small, especially if deficits are perceived to be strictly temporary. The issue then hinges on the question to what extent capital market imperfections impede private agents and national governments from lending and borrowing in order to achieve consumption-smoothing over time (Gros 1996). Again, integrated financial markets and EMU should make access to credit easier for governments (e.g. the balance of payments constraint is removed) and thus facilitate national stabilization policies.

However, a European-wide scheme could be attractive for another reason since it may be able to stabilize intra-union shocks automatically and in a way that leaves the aggregate fiscal stance unaltered. In this way an unbalanced policy mix from uncoordinated national fiscal policies could be avoided. Unfortunately, there are serious design problems in a centralized insurance scheme which relate to the difficulty of separating out temporary and permanent shocks (and therefore insurance from redistribution issues) and to problems of moral hazard. In any case, unlike in the discussions of monetary union in the 1970s, namely the Werner and McDougall reports, the Maastricht construction does not call for an expansion of the central European budget nor the installation of a European wide fiscal co-insurance mechanism.

Empirical research on fiscal federalism has looked at the experience of federal states such as the US, where the federal budget does perform a sizeable stabilization function in the order of 20% of income shocks in most of the more recent studies (e.g. Bayoumi and Masson 1995). This does not necessarily imply that the same stabilization function could not be performed equally effectively at the state level. In the US state budget policies are both less important for stabilization and more severely constrained (in the choice of tax instruments and in many cases by balanced budget provisions) compared to European countries.

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Moreover, the size of the state sector and the volume of welfare and unemployment benefits is generally much greater in Europe and therefore national automatic stabilizers should be more powerful (Allsopp and Vines 1996). Bayoumi and Eichengreen (1995) have estimated the elasticity of the central government revenue/GDP ratio with respect to output in the order of 0.3-0.5 for a number of European countries, as a measure of the fraction of changes in disposable income that is offset by changes in government revenues. Buti et al. (1997) find that the cyclical sensitivity of the budget balance for Europe as a whole is around 0.5% (increase in the deficit in response to a deterioration of the output gap of 1%).

The second issue, therefore, is to examine how well equipped national fiscal policy would be to perform stabilization within monetary union. There are really two questions concerning how necessary and how effective national fiscal stabilization will be in EMU. The first point, addressed by the empirical OCA literature (see Bayoumi and Eichengreen 1996) regards the incidence of asymmetric shocks. These could well be less important compared to the US, given that European economies appear to be more diversified than US regional economies. Moreover, compared to historical data, the part of asymmetric shocks that is due to or amplified by divergent policy responses should be much reduced in EMU. On the other hand, OCA theory stresses the importance of fiscal policy when national monetary and exchange rate policy are forsaken in EMU and as long as prices/wages are rigid and labour mobility remains low.

The effectiveness of national fiscal policy has already been discussed. Again, in a simple Mundell-Flemming world fixed exchange rates make fiscal interventions more powerful, where the presence of cross-border leakages (even though of ambiguous sign) could provide a case for policy coordination. The main concern from the stabilization and OCA perspective is that the Stability Pact could hamper the operation of automatic stabilizers at the national level, just when they are most needed. In particular the fear is that in a recession countries will be induced to undertake "perverse" pro-cyclical measures in order to avoid hitting the 3% deficit ceiling. The main recommendation from this line of argument is to formulate any deficit targets in terms of structural deficits or "constant-employment budget balance" (Eichengreen 1997) rather than actual deficits. The problem with the NAIRU adjusted deficit targets, besides disputes about measurement, is that they provide no reassurance at all about the long-run sustainability of public finances, unlike the combination of 60% debt and 3% deficit targets in the Treaty.

How much of a constraint on fiscal stabilization the Stability Pact turns out to be depends, of course, on the average, structural deficits that countries aim for,

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on the size of shocks and whether countries will decide to honour the 3% ceiling in a recession or not. We will examine the incentive effects of the Stability Pact in more detail in section four, where we argue that a rational government should be induced to aim for a structural deficit much below 3% in order to reduce the *ex ante* probability of incurring fines under the Stability Pact. Thus a constraint on actual deficits in practice may not operate much differently from targets for structural deficits, where the size of the "cushion" depends on the distribution of shocks, the probability and size of fines and the costs of fiscal discipline. Moreover, in the event of large shocks, the Stability Pact does foresee the possibility of sanctions being waived, thus combining *ex ante* deterrence with a limited degree of *ex post* flexibility.

Indeed the Stability Pact calls on countries to keep their structural deficits close to balance or in surplus and if "the structural deficit is close to zero ... the operation of automatic stabilizers should still be available" (Lamfalussy 1997). Over the course of normal business cycle fluctuations the difference between actual and structural deficits is unlikely to exceed 3% very frequently. Masson (1996) has calculated a standard deviation of ca. 2%, suggesting that aiming for 1% deficits or below might be sufficient. Eichengreen (1997) reports cases where European countries have experienced shifts in their fiscal positions exceeding 3%, i.e. implying a violation of the Maastricht ceiling under the assumption that countries start out in fiscal balance, for four EU countries in the mid-70s, one country in the early 80s and five countries in the early 1990s. This inspires reasonable confidence that the Stability Pact need not be unduly restrictive in the face of "normal" size business cycles. Buti et al. (1997) provide a retrospective application of the Stability Pact assuming starting points either of a balanced budget or a 2% deficit for pre-recession years. Since pre-recession years tend to have a higher-than-average capacity utilization their results should make the Stability Pact look more restrictive than it really is, provided that its medium term aim of budgets "close to balance or in surplus" is taken seriously.

The real question therefore becomes whether the Stability Pact's target for structural deficits is desirable, realistic and credible and what happens in the early days of EMU if countries should enter with deficits right up against the 3% ceiling and even without their economies being in the trough of a recession. A common line of defence for the Maastricht fiscal criteria is the argument that a substantial reduction in structural deficits and debt is required independently of EMU in particular in view of demographic trends in Europe (Masson 1996). From this reasoning prudent governments would be well-advised to perhaps even aim for budget surpluses on average in the coming decades. In this perspective the 3% deficit ceiling does not appear to be excessively ambitious at

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all. Moreover, turning the critics' argument on its head, fiscal consolidation might be necessary precisely in order to regain the room for manoeuvre that allows automatic stabilizers to operate effectively. In the pre-EMU situation of a number of countries (e.g. Italy with deficits close to 10% of GDP for much of the 1980s) market fears of further deterioration in public finances already effectively curtailed both the advisability and the effectiveness of letting automatic stabilizers operate fully. According to Buti et al. (1997, p.13) EU countries with above average pre-recession debt and deficits actually have pursued pro-cyclical policies in the past, reducing structural primary deficits in recessions by 1.2% of GDP on average.

Put in this perspective the trade-off between discipline and flexibility disappears, at least in the long-run, and the debate really is one about the transition period in the run-up to EMU and in the early years of stage three. Even here it has been argued that fiscal retrenchment need not always compromise output especially if it restores confidence in public finances over the longer term (Giavazzi and Pagano 1991, Bertola and Drazen 1991, IMF 1991), even though the empirical evidence for "anti-Keynesian" effects appears to be mixed at best (Cour et al. 1996, Hughes-Hallett and McAdam 1996). For high debt countries EMU-entry by itself should improve the fiscal outlook even in the short term via a reduction in the interest burden. The obvious way to reduce the risk of the Stability Pact imposing excessive constraints on fiscal stabilization in the early years of EMU is, of course, to insist on strict entry conditions and large enough safety margins for EMU participants from the start. It is important to recall that the Treaty not only establishes numerical reference values for the fiscal criteria but emphasizes the need for the sustainability of budgetary positions. The same point has been emphasized in the resolution of the German parliament from 2.12.1992 stating that compliance with the criteria must not only be statistical, but "durable" and "credible" (Deutscher Bundestag 1992). This could be read as being much like a condition on structural deficits which should prevent countries with a high risk of violating the 3% ceiling subsequently from joining in the first place.

III. The Stability Pact and Monetary Policy

The considerations reviewed in the previous section may all be relevant for the cost-benefit analysis of the Stability Pact but they do not reflect the principal motive of the insertion of the fiscal criteria in the Maastricht Treaty, which is to facilitate the ECB's primary task of achieving low and stable inflation. The relevant spillovers in this perspective regard the negative effects of undisciplined fiscal policy on the incentives, credibility and performance of the

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common monetary policy. As is stated in para.18 of Annex 1 of the Presidency conclusions of the Dublin summit (Ecofin 1996):

> "Sound government finances are crucial to preserving stable economic conditions in the Member States and in the Community. They lessen the burden on monetary policy and contribute to low and stable inflationary expectations such that interest rates can be expected to be low."

The primary task of the Stability Pact is to safeguard the credibility of monetary policy both in the long term (by preventing excessive public debt build-up) and in the short-run by keeping deficits in check and thereby reducing the risk of imbalances in the macroeconomic policy mix. However, the extensive literature on the credibility of monetary policy has little to say on the effect of fiscal policy on central bank behaviour and the inflation process. It proposes the delegation of policy to an independent central bank which is either more conservative than the population at large (Rogoff 1985a) or subject to an inflation performance contract (Walsh 1995) as a solution to time-inconsistency problems of monetary policy in isolation. The first of these solutions, just like commitment to fixed rules on monetary growth suggested by Milton Friedman, gives rise to a trade-off between credibility and flexibility, i.e. the benefit of reduced inflation at the cost of suboptimal stabilization. This is much like the trade-off between fiscal rules and stabilization that was explored under the assumption of a (political) deficit bias in section two. The optimal contract solution, by contrast, appears to make monetary credibility a "free lunch" by exactly offsetting the underlying distortion. Again, the equivalent for the previous section would be a reform of the political system that induces politicians to maximize long-run social welfare.

In terms of policy implications for EMU both of the above "commitment by delegation" solutions can be misleading in two main ways. First, as pointed out by McCallum (1995) and formalized by Jensen (1997), the commitment itself must be made credible. One possible enforcement mechanism suggested by Lohmann (1996) can be provided by reputational forces. For example the reason why the Bundesbank has been successful is seen to be the reputational backing it receives from the inflation-averse German public. The second main shortcoming of the credibility literature is that it looks at a single policy area in isolation. In practice the credibility of monetary policy depends on the help it receives from fiscal and wage policies in particular, as well as public support (Eijffinger and De Haan 1996) and a country's overall "stability culture". In both dimensions, the credibility of commitment and the interdependence of policies, even a central bank which is independent *de jure* may turn out to be extremely dependent *de facto*.

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In both respects there is reason to be concerned about the likely performance of the European Central Bank. Its credibility neither has its own stock of history and reputation nor is it reputationally anchored or politically legitimized by the support of the European public. The only back-up commitment it has can be found in Germany's exit threat in the event of a high inflation EMU that is implied in the German supreme court's Maastricht judgement (Gros 1996). Moreover, fiscal policies and wage setting remain decentralized with the necessary degree of stability culture not assured and not uniform across Europe. In this perspective the Stability Pact appears as a surrogate discipline and coordination device in the absence of a common stability culture, public support or common institutions to back up the "empty shell" of central bank independence. Consider the simple illustration of monetary-fiscal policy interaction in *Figure 2*. Again payoffs are arbitrary and chosen to capture the value of fiscal and monetary policy paths to be coordinated in the short run and mutually consistent in the long-run. Conversely, if policymakers are on a collision course payoffs are much lower. For example a lax fiscal policy combined with tight money leads to an unbalanced policy mix, high interest rates, currency appreciation and output losses. Note that both sides have an incentive to fall in line. Faced with lax fiscal policy monetary authorities will in the end be forced to accommodate and, likewise, when facing a tough ECB fiscal authorities will "chicken out" and accept discipline.

Figure 2: A Game of Chicken

		Fiscal Authorities	
		tight policy	lax policy
ECB	tight policy	**4, 2**	-1, -1
	lax policy	0, 0	**1, 3**

There are two Nash equilibria in the game of *Figure 2*. The central bank prefers the "conservative" equilibrium (top-left) with tight monetary and fiscal policies, whereas fiscal authorities prefer the "liberal" outcome (bottom-right) with relaxed policies. The payoffs are as in the standard "game of chicken" (except here we make the conservative equilibrium the socially more attractive one), where players have an incentive to coordinate their actions but differ over the preferred outcome and therefore each side would like to precommit in advance. Depending on which side gains strategic leadership in this way, we can distinguish two regimes, "monetary dominance" and "fiscal dominance" in the terminology of Canzoneri and Diba (1996).

The game can be given economic interpretations both with respect to the long-run or the short-run strategic interaction between monetary and fiscal

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policymakers, as discussed in the following subsections. The long-run interpretation focuses on the intertemporal government budget constraint and the credibility of low inflation and no-bail out promises. The short-run interpretation looks at the issue of the appropriate policy mix for macroeconomic stabilization. The Maastricht criteria can be seen as an attempt to secure pre-commitment to the monetary dominance regime, i.e. select the better of the two possible equilibria and in particular to avoid costly conflict (leadership battles) between monetary and fiscal policy.

a) Long-run credibility

A first link between fiscal and monetary variables can be established even in a simple Barro-Gordon (1983) framework. As stressed by De Grauwe (1996) the presence of nominal (long-term) debt undermines the central bank's anti-inflation incentives, because of the temptation to inflate away the stock of debt. His policy recommendations are either to suspend the voting rights of the representatives of high debt countries on the ECB board or to issue short term debt. The former solution runs against the spirit of the ECB as being an independent and collegiate European institution, the latter has the drawback of undermining ECB credibility in the short run, as public finances become more vulnerable to variations in short term interest rates.

More generally, monetary and fiscal policy are linked via the intertemporal government budget constraint, which says that a stream of expenditures can be financed via taxes, issuing bonds or printing money. Here a regime of "fiscal dominance" would mean that the government can precommit to a path of net deficits and thus ultimately force the central bank to inflate in order to avoid insolvency as in the "unpleasant monetarist arithmetic" of Sargent and Wallace (1981). Under "monetary dominance" the central bank can commit not to inflate (no explicit or implicit bailout) and thus force the government to adjust its path of spending and taxes as in the "unpleasant fiscal arithmetic" of Winckler et al. (1996).

There are a few papers that have explored the fiscal-monetary policy interaction that could be interpreted to underpin a situation as in *Figure 2* in more detail. Mourmouras and Su (1995) present a differential policygame between the central bank and the government in the context of debt stabilization. Under the assumption that central bank independence implies the pre-commitment of ruling out the inflation tax it will be able to discipline fiscal policy also, i.e. ensure monetary dominance in our terminology. Alesina and Tabellini (1987) have three players, the central bank, fiscal authorities and wage setters. In the presence of distortionary taxation monetary commitment is not necessarily

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welfare-improving, if fiscal and monetary policy are not coordinated. The fiscal-monetary interaction in Beetsma and Bovenberg (1995a), as in the Alesina-Tabellini paper, centres on the incentive for surprise inflation and seigniorage revenues in the presence of distortionary taxation. If the central bank lacks the ability to pre-commit, then government financing requirements, debt in particular, embody the stock of credibility problems faced by the central bank leading to higher inflation. An independent central bank that can credibly ignore the government budget constraint can serve as a substitute for the Maastricht restrictions. Beetsma and Bovenberg (1995b) also have debt build-up undermine the credibility of the central bank, which can be seen as a public good. Here the solution of an independent conservative central bank will not be sufficient in the presence of additional fiscal distortions, say from government myopia. In this case debt targets as in the Maastricht criteria are required on top of central bank independence.

In the model by Canzoneri and Diba (1996) in a regime of fiscal dominance the fiscal authorities do not respect the implications of the intertemporal budget constraint, which leads to current inflation *irrespective* of the central bank's monetary policy. Under monetary dominance fiscal authorities conform to their long-run budget constraint and therefore the central bank is undisturbed in achieving its inflation target and enjoys "functional independence". The latter regime requires that primary surpluses respond to the level of debt in a systematic way. If not, the price level will be determined by the present value government budget constraint, "by the dictates of fiscal solvency", and *not* by the supply and demand for money (Woodford 1995). This can happen even if monetary authorities ignore the path of debt completely (e.g. only care about inflation) as long as fiscal policymakers do not follow a "Ricardian fiscal policy rule" (Woodford 1996), that offsets any change in debt exactly by a compensating change in the present value of future government surpluses.

Whether an economy finds itself in a monetary or fiscal dominance regime depends on financial markets' beliefs about whether primary surpluses will respond fast enough to rising government debt. A deficit rule, like the one endorsed by Maastricht and the Stability Pact, can be shown to ensure this responsiveness and thus establish monetary dominance and the "functional" as opposed to "legal" independence of the ECB. From this perspective the Stability Pact seems right in focusing on deficits rather than debt. However, large stocks of debt may reduce the credibility of the deficit rule if the required primary surpluses become too large. The debt criterion may still be important for this reason and also as a safeguard against manipulations of the deficit figures, which sooner or later require stock-flow adjustments and show up in the level of debt.

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The picture is complicated in models that introduce fiscal policy coordination issues on top of the fiscal-monetary interaction as in Jensen (1996). Using a two-country general equilibrium model he finds that fiscal coordination may be bad if the common monetary policy lacks credibility with the private sector. This mirrors an earlier result by Rogoff (1985b) showing that coordination of a subset of players can be counterproductive. In other words, in a second best world, removing one distortion in the presence of another may make matters worse. If the central bank cannot precommit, fiscal coordination would reduce the credibility of the central bank further, supporting the Maastricht choice of fiscal constraints rather than full-fledged fiscal coordination, also in line with the conclusions of Bryson et al. (1993). Similar results are obtained by Levine and Pearlman (1992), who highlight fiscal policy spillovers via the crowding out of investment and terms of trade effects. They compare cooperative and non-cooperative equilibria under different assumptions on ECB credibility. Again, in regimes where the ECB would accommodate public debt build-up, fiscal coordination will be counterproductive, unlike the case where the ECB can commit to credible inflation targets.

Agell et al. (1996) have a version of the coordination *cum* commitment story with a more Keynesian flavour, i.e. not based on the inflation tax as the link between fiscal and monetary policy (which arguably is of scant empirical relevance). The government faces an *ex ante* trade-off between stimulating economic activity and containing budget deficits. It may or may not heed the intertemporal budget constraint, while for the monetary authorities both discretion and commitment via permanently fixed exchange rates (monetary union) is considered. Under discretion both inflation and deficits will be high, i.e. the situation of a wage-devaluation cycle with debt build-up. Under monetary union inflation will be low, but the deficit bias is worsened, which provides a case for introducing fiscal constraints when moving to EMU.

In the models discussed usually two regimes could be distinguished, depending on the assumption about pre-commitment abilities and corresponding to the two equilibria in *Figure 2*. In what ways can the Stability Pact help the ECB to acquire strategic leadership and why isn't central bank independence enough to ensure this? On the face of it, the ECB seems in an extremely strong strategic position, enjoying legal independence, an explicit commitment to price stability and facing a fiscal player that is fragmented among national governments (Masson 1996). However, recall our concerns about central bank independence being an empty shell, the experience that even the most independent central banks like the Bundesbank occasionally have to fight hard to reassure their leadership against the fiscal authorities and that they need to draw on widespread public support to be able to succeed. The fragmented fiscal policy

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landscape may turn out to be a burden not a blessing, since there is no coordination device to ensure that aggregate fiscal outcomes are compatible with a monetary leadership regime let alone an optimal policy mix either in the short or the long run. Furthermore the lack of pan-European legitimacy for the ECB and its political isolation from public preferences may weaken not strengthen its resistance to political and economic pressures to ease monetary policy. The fiscal rules and the Stability Pact try to prevent such pressures from building up (Masson 1996).

b) Short-term credibility and policy-mix

Critics of the Stability Pact have argued that "discipline is a long-term issue" and that, if anything, restrictions should be placed on the debt stock rather than on current deficits (Pisani-Ferry 1996). From the Canzoneri-Diba (1996) perspective of the previous subsection, by contrast, what matters is the *responsiveness* of current deficits to a debt build-up and therefore a deficit rule would be needed. Discipline becomes a short-term issue because the long-run deficit-debt dynamics can affect inflation expectations and current inflation directly. However, the stock of debt can also affect the *short-term* credibility of monetary policy by making public finances more vulnerable to variations in short-term interest rates.

In addition to the long-run compatibility of fiscal and monetary policy paths as reflected in the interaction via the intertemporal government budget constraint, the choice of policy-mix also becomes important in short-term macro-economic management. Conflicts between fiscal and monetary authorities can be very costly, as the episodes of Reagonomics in the early 1980s and in the wake of German unification demonstrate. In both cases an expansionary fiscal policy collided with tight monetary policy and the real economy paid a high price for the re-establishment of the strategic leadership of the monetary authorities. In normal times, when monetary leadership is uncontested, it is very helpful in coordinating economic agents' responses to shocks and expectations (especially for wage bargaining and financial markets) and in reducing economic uncertainty if agents can rely on the central bank to keep inflation low at least over the medium term. European countries' differing responses to the oil price shocks in the 1970s neatly illustrate the virtue of monetary dominance with respect to fiscal dominance. The long but unbalanced struggle of European economies to regain stability over the course of the 1980s also illustrates the costs of an unbalanced policy mix (Allsopp and Vines 1996, p. 97), resulting from a credibility bias towards monetary policy (perhaps excessively constrained by the EMS) but too lax fiscal regimes. The story here applies both to the medium-to-longer term disinflation effort as well as the short run.

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In the case of EMU the short-run concern over an unbalanced policy-mix mainly relates to the fear that undisciplined fiscal policies (in the aggregate) will force the ECB to keep short term interest rates higher than desirable in order to offset inflationary pressures, this on top of any upward pressure large public deficits might exert on real interest rates. More generally if other economic players affecting the determinants of inflation (fiscal authorities and wage setters in particular) do not play their part the ECB will either be induced to accommodate (i.e. accept the fiscal dominance outcome) or impose great real economic costs in an attempt to reassert its leadership. The Stability Pact is designed as a (blunt) safeguard to limit the extent to which the ECB will be confronted with this dilemma. Again the criteria are an (imperfect) substitute for explicit or implicit coordination mechanism via common institutions or a shared stability culture. They try to limit the risk that the ECB's independence is tested or contested too severely.

The deficit ceiling, to the extent that it is credible, can also perform an important coordination function simply by providing information - both to the European Central Bank and the markets - on the likely future evolution of fiscal policy. However, the Maastricht deficit limit represents an asymmetric constraint and therefore is informative for short-term macroeconomic management only when countries are close to the ceiling, i.e. generally in recessions not in booms. Again, the Maastricht limits are an inperfect substitute for full coordination. The main risk with the Stability Pact is that it could actually achieve the exact opposite of what it sets out to do, as long as fiscal-fiscal and monetary-fiscal coordination remains rudimentary. Tying the fiscal authorities' hands may well turn out to *increase* rather than decrease the burden on monetary policy with respect to stabilization policy. In particular, the macro-economic policy-mix may become unbalanced in the opposite direction, if unduly tight fiscal policy in a recession forces monetary authorities into a much laxer monetary stance.

The Stability Pact attempts to pre-empt any potential leadership battles between fiscal and monetary policy in favour of the ECB and to prevent an unbalanced policy-mix of a lax fiscal stance and tight money. Here, it is not quite clear how the European Council Resolution on Growth and Employment, adopted at French insistence in Amsterdam, would play out. It calls for "developing the economic pillar" and "enhancing policy coordination" under Articles 102a and 103 of the Maastricht Treaty (European Council 1997). This could be harmful for stability if it undermines the strategic leadership of the ECB, but it could also be helpful if policy-coordination serves to provide support for the ECB's objectives and contributes to finding an appropriate policy-mix.

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The key remaining arena of conflict concerns exchange rate policy, a "grey area" where the Maastricht Treaty in Article 109 balances the operational independence of the ECB with the right of the European Council to determine the euro's participation in international exchange rate systems (where unanimity is required), to formulate general orientations for exchange rate policy and conclude international agreements on monetary and exchange rate matters (both by qualified majority vote), where ECB and Commission are consulted. In fact, the Amsterdam Conclusions of the Presidency (European Council 1997, p.7) invite the Council and the Commission, in cooperation with the EMI, to study effective ways of implementing all provisions of Article 109", which could be read as an indication that (some) governments are keen to exert direct influence over the euro exchange rate policy.

The implications of the Stability Pact, taken by itself, for the euro exchange rate can go in two directions. By reducing the risk of conflicts between fiscal and monetary policy (in particular a lax fiscal *cum* tight money policy-mix) it may help avoid exchange rate misalignment and overvaluation in particular. On the other hand the constraints on fiscal policy and the lack of coordinated macroeconomic responses may place additional burden on the euro exchange rate to stabilize (common) shocks. This may increase pressures to use exchange rates as a discretionary policy instrument or as a check on the ECB's monetary policy. Exchange rate policy is likely to be the decisive testing ground for the *de facto* independence of the ECB and for the degree of *de facto* coordination across macroeconomic policy actors in Europe in the absence of a unified "economic government".

Finally, on top of intra-European problems of policy coordination strategic interaction with the rest of the world complicates the picture further. Drawing on a three-country Mundell-Fleming model Eichengreen and Ghironi (1997) examine the impact of EMU (i.e. intra-European monetary policy coordination) and the question of whether intra-European fiscal policy coordination would also be desirable given that both monetary and fiscal policies remain uncoordinated with the rest of the world. Their (simulation) results depend on the output effects of fiscal contraction, which could be negative or positive (in the "anti-Keynesian" case). Again the general conclusion emerges that coordination between a subset of players or across a subset of policy areas is not necessarily welfare improving. This could mean that moves towards coordinating intra-European fiscal polices beyond the Stability Pact should be resisted; but it could also mean that monetary and/or fiscal policy ought to be better coordinated globally, in the G7 context and in particular with Japan and the US. By fostering greater symmetry in the global financial and commercial system EMU by itself may facilitate efforts in this direction.

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IV. The Operation of The Stability Pact

a) The Stability Pact as an Incentive Device

Before looking at the provisions of the Stability Pact in more detail we explore how a stylized version with a fixed penalty for breach of the 3% deficit criterion would operate. The presentation here draws on the analysis presented in Winkler (1997a) in the context of the Maastricht entrance conditions[1].

In *equation 1* the 3% deficit criterion can be seen to determine $p(E)$, which is the probability of *avoiding* fines under the Stability Pact as an increasing function of consolidation effort (E). E only concerns the extra adjustment effort induced by the Stability Pact, i.e. neglecting the part of adjustment that policymakers would find in their *own interest* to undertake in the absence of the 3% constraint. For the fiscal authorities this *extra* convergence is costly, with increasing marginal costs. The higher β, the more (economically and politically) painful it is for a government to pursue fiscal rigour or unpopular budget reforms in compliance with the fiscal criteria. The (discounted) penalty, i.e. the "fine" imposed by the Stability Pact, is denoted by T. It could include both pecuniary as well as political costs of breaching the criteria.

$$U = p(E)T - \frac{\beta}{2}E^2 \qquad (1)$$

In the absence of uncertainty $p(E)$ will be a two-valued function; it will be equal to one if the 3% limit is satisfied and zero if not. In this case a country will undertake the required minimum level of fiscal adjustment if the benefit of avoiding the fine exceeds the costs of convergence. However, uncertainty in relation to the Maastricht conditions arises from two principal sources. First, given that a vote in the Council of ministers is required, it is unclear *ex ante* how strictly the fines of the Stability Pact will be applied and whether exceptions may be granted. Second, there is forecasting uncertainty concerning the economic conditions which affect the success of fiscal adjustment and there is instrument uncertainty regarding how the budgetary measures adopted will impact on the actual deficit. On both counts uncertainty can be seen to intervene between adjustment effort and the actual deficit.

Therefore, more specifically, a fine under the Stability Pact will be avoided if fiscal adjustment exceeds some threshold value M, the 3% criterion. In

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[1] The framework is as in Dornbusch's (1991) model of exchange rate based stabilization in developing countries.

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equation 2 fulfilment F of the deficit criterion depends on adjustment effort E, but also on a random term θ. The marginal "productivity" of effort with respect to deficit reduction, i.e. its effectiveness, is measured by α. From this we can derive an expression for the probability of success $p(E)$ for some distribution function $f(\theta)$, in *equation 3*.

$$F = \begin{cases} 0 & if \quad \alpha E + \theta \ < M \\ 1 & if \quad \alpha E + \theta \ \geq M \end{cases} \tag{2}$$

$$p(E) = p(\theta \geq \psi) \ = \int_{\psi}^{\infty} f(\theta)\, d\theta \qquad where\ \psi \equiv M - \alpha E \tag{3}$$

A country faced with the 3% deficit threshold M and a prospective fine of size T maximizes *equation 1* with respect to E, which yields the first order condition for optimal effort E^*.

$$E^* = \frac{\partial p}{\partial E}\frac{T}{\beta} \ \equiv -f(\psi)\frac{\partial \psi}{\partial E}\frac{T}{\beta} \ \equiv f(\psi)\frac{\alpha T}{\beta} \tag{4}$$

With adjustment costly and reward uncertain, optimal convergence effort will not guarantee that a fine can be avoided. The probability of success can be obtained by substituting the optimal adjustment effort into *equation 3*. Optimal convergence effort E^* is increasing in the size of the fine T, decreasing in β. A higher M (more ambitious deficit target) increases effort for $f'(\psi)>0$, otherwise it reduces effort. The effect of changing α is negative for $f'(\psi)>0$, positive otherwise. The corresponding equilibrium probability p^* is always increasing in T and α, decreasing in β and M.

A (credible) *tightening of the deficit limit*, all else equal, leads to increased convergence effort (as long as $f'(\psi)>0$), but always a lower probability of success. For the designer of the criteria this gives rise to a potential trade-off, if he is interested in keeping the probability and frequency of violations of the Stability Pact low as well as in fiscal discipline *per se*. The targets should not be overly ambitious if frequent violations would undermine their credibility and hence their effectiveness as incentive devices.

The *impact of a recession* on adjustment incentives can operate through three channels in our model. If it makes the deficit target look further away it is equivalent to raising M. If recession makes any given level of effort more painful (e.g. unpopular or economically costly) it increases β; if it makes convergence results harder to obtain, for given effort, it lowers α. An increase

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in the size of the fine T increases adjustment effort and the probability of success. Note that for different countries parameter values will differ. In particular the Maastricht numercial targets are the same for all countries, but the implied *extra* discipline that is required varies considerably. The uniformity of the numerical criteria for all countries (a "non-discrimination constraint") means that they cannot be designed as a tailor-made incentive device for each country.

The above analysis has interpreted the deficit criterion as a simple threshold incentive contract. Under uncertainty governments will equate the marginal cost of undertaking fiscal adjustment with the marginal benefit of reducing the risk of incurring penalties under the Stability Pact. Rational governments optimizing *ex ante*, will aim for a deficit much below the 3% as a "cushion" against subsequent unfavourable shocks. This cushion will be even greater in the presence of self-fulfilling credibility feedbacks. If countries react to the Stability Pact in this way automatic stabilizers need not necessarily be compromised as feared by Eichengreen (1997), in particular in view of exceptions in the event of unusually large shocks.

In our *ex ante* interpretation the 3% ceiling on the actual deficit induces behaviour not much different from a target on structural deficits. The main difference is that countries can choose their target structural deficit for themselves, i.e. the optimal size of their "cushion" depending on their own preferences. Likewise, the choice of the nature and instruments of fiscal adjustment is left to the individual countries. The criticism of the 3% target as arbitrary and "one-size-fits-all" (Eichengreen 1997) is therefore only partially justified. Moreover, the same criticism would equally apply to the alternative suggestions of NAIRU adjusted deficit targets or a centrally imposed reform of national budget procedures proposed by von Hagen and Harden (1994). It is also difficult to imagine that the latter would be politically feasible, contractible and enforceable in an international treaty. Both the alternatives suffer from the additional drawback of not giving any assurance at all on the stabilization of the deficit-debt dynamics.

The justified concern, however, is that governments, because they behave myopically or find it expedient, will not optimize *ex ante* but wait with deficit reduction measures until "the last minute" after the realization of shocks. In the extreme, governments would cling close to the 3% ceiling throughout the cycle and only adopt *ad hoc* budget measures whenever the deficit limit was to be violated. Such a behaviour would of course be exactly pro-cyclical and extremely damaging, but its prospect cannot entirely be discarded in light of the experience of countries trying to meet the EMU entry conditions. Here the

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incentive structure was very similar, except that the reward for convergence, i.e. EMU entry, is perceived to be much greater than the fines of the Stability Pact. Why then, even with so much more at stake, did countries wait so long after the signing of the Treaty to undertake serious fiscal adjustment and then were forced to do so under very unfavourable cyclical conditions? Winkler (1997b) points to some possible answers such as the political uncertainty surrounding the *if* and *when* of the EMU-launch which reduces the expected reward from convergence effort. Moreover, the application of the convergence criteria in the entry decision, just like the decision on the launch of EMU itself, was uncertain and seen to depend on the relative convergence performance not only compliance with absolute numbers. Both made it rational for countries to sit and wait until late in the game.

The clarification of procedures in the Stability Pact should be helpful in addressing some of these problems, but it is entirely possible that countries allowed to enter EMU with high structural deficits might indeed respond to perverse procyclical incentives initially. This distortion of economic stabilization, or alternatively paying the fines, may however be a price well worth paying for low-stability entrants, and perhaps even worth tolerating for high-stability members, if the Stability Pact succeeds in limiting negative spillovers in particular on the common monetary policy, at least in the longer term. In the terminology of the previous section, the Stability Pact's primary task is to ensure a regime of monetary dominance, which largely hinges on the credibility of medium to longer-term fiscal adjustment paths, not on the precise initial conditions.

b) The provisions of the Stability Pact

The declared purpose of the "Stability and Growth Pact" concluded at the Amsterdam Council meeting on 16 June is to provide "both for prevention and deterrence" in securing budgetary discipline while "in no way changing the requirements for the adoption of the euro" (European Council 1997, Annex 1, II and III). The Pact consists of three components, a European Council Resolution and two Council Regulations. The **Council Regulation on the strenthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies** (building on Article 103 of the Maastricht Treaty) requires euro members to annually and publicly present "stability programmes", while non-euro member submit annual "convergence programmes" specifying medium-term budgetary objectives. The Council, on recommendation of the Commission, gives an opinion on the programmes, monitors their implementation and can pass recommendations that may be made public.

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The **European Council Resolution on the Stability and Growth Pact** (see Appendix A) "solemnly invites all parties, namely the Member States, the Council and the Commission, to implement the Treaty and the Stability and Growth Pact in a strict and timely manner" and "provides firm political guidance" (**para. IV.**), but - unlike the Council regulations - without being *legally* binding. The **Council Regulation on speeding up and clarifying the implementation of the excessive deficit procedure** (see Appendix B) seeks to render more precise the definition of an excessive deficit given in Article 104c(2a) 2nd indent, which allows for breaches of the 3% criterion if they are "exceptional", "temporary" and if the deficit remains "close" to the reference value. It also seeks to provide incentives for avoidance of excessive deficits by defining the nature of sanctions and the procedures for their imposition.

To evaluate how the Stability Pact would operate in practice, apart from potential "pedagogic effects" from the provisions on early warning and multilateral surveillance, the important elements are the size and the timing of the envisaged sanctions, the circumstances under which exceptions are granted and the degree of discretion in the application of sanctions. The size of sanctions must be of an order that serves as an effective *ex ante* deterrent but without being so severe as to render the control of public finances too difficult *ex post*, if sanctions are indeed imposed. The trick is to maximize deterrence while minimizing the damage when sanctions are actually imposed. For the latter reason an upper limit of 0.5% of GDP on the total annual fine has been introduced and the nature of sanctions changes over time. The main way to reduce the damaging effects of sanctions actually imposed is due to the time that elapses until their become due.

Five components can be distinguished counting from the date (March 1) when national deficit data are transmitted to the Commission. First, the decision time for the Council upon recommendation from the Commission amounts to three months. Then the Member State has four months to react to Council recommendations by announcing corrective action, which, second, leads the excessive deficit procedure to be held "in abeyance". Third, if and when the procedure is resumed, a further three months can elapse until sanctions are imposed. In the case of defiance of Council recommendations from the start (i.e. without intermittent abeyance) sanctions must be imposed within 10 months (i.e. within the same calendar year, counted from March 1). Fourth, "unless there are special circumstances" the Member State is expected to have corrected the excessive deficit in the year following its identification. Therefore in cases where countries pay "lip-service" to Council recommendation but the measures taken turn out to have been ineffective, a full two years will have passed until hard data are available (again March 1), plus up to another three months until

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sanctions are decided. Fifth, an additional two years pass before a non-interest bearing deposit "should be" transformed into a fine.

The lengthiness of the procedure, in particular the likelihood that the Member State will hold up the procedure by announcing corrective action which will take time to monitor, should allow countries to avoid pro-cyclical actions and sit-out normal recessions without even incurring the non-interest bearing deposit. The financial impact of the latter should be negligible, while the transformation into a fine takes up to almost three years in the case of a Member State defiant from the start (i.e. not even announcing that it will heed Council advice), i.e. 10 months plus two years. If the procedure is held in abeyance only once, 2 1/4 years will usually pass until a deposit becomes due, 4 1/4 years for a fine, always counting from when data first become available. Thus unless a recession is extraordinarily persistent (which would likely lead to exemptions anyway) the effect of the fine, or even of corrective action to avoid a fine, need not be pro-cyclical, except where measures or a fine happen to hit in the *next* recession following the one responsible for the original excessive deficit!

Under the assumption that most countries would choose to announce corrective action and that the Council is unlikely to impose sanctions until there is hard evidence that the adopted measures have failed, to avoid a deposit (fine) it is technically sufficient to bring the deficit ratio below 3% once every three (five) years. Moreover only the most recent of the three (five) consecutive deficit years becomes relevant for the calculation of the deposit (fine), which may create incentives to front-load deficits. Any such behaviour, while not ruled out legally, would destroy the credibility of the 3% ratio as an absolute ceiling and of the medium-term target of budgets in "surplus or close to balance", together with the credibility of government announcements, stability programmes and surveillance procedures.

The second set of issues, besides the size and timing of sanctions, regards the exceptions granted and the degree of discretion. The first thing to note is that the Stability Pact only gives tighter definitions of the "exceptional" and "temporary" escape clauses of Article 104c(2a) but is not any clearer on what is to be meant by "close to the reference value". In case of exceptionally severe recessions exceeding a 2% annual output loss, sanctions will be waived. According to Eichengreen (1997), who considers output declines over four quarters, such deep recessions have only occurred thirteen times over the last 30 years in the 15 EU countries. Moreover the Stability Pact has opened a window of discretion for recessions falling in between 0.75% and 2%, which are much more frequent, and for which special circumstances can be pleaded. It is not clear from the wording of the text whether the decline in output refers to annual

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data (as for the deficit figures) or to 12-month comparisons of quarterly data throughout the year. Only in the latter case would recessions be treated the same independently of when they occur, but then the problem would arise of how to match them with the deficit data. Considering annual changes Buti et al. (1997) have counted 7 cases (5 distinct episodes) of real GDP declines exceeding 2% in the 1961-1996 period for all 15 EU countries, and 30 cases (25 separate episodes) in the case of the 0.75% limit.

Note that the 2% reference value is included in the Council regulation and has therefore stronger legal status, whereas the 0.75% rule is based on self-commitment by the Member States. Both values are applied "as a rule", i.e. are not strictly automatic, and they do not supercede the possibility under Article 104c (3) and (6) that other factors will be taken into account in the decision on whether a deficit is excessive. Inside the corridor of discretion, for output losses between 0.75% and 2%, two additional decision criteria are mentioned explicitly, "the abruptness of the downturn" and "the cumulated output loss relative to past trends".

Where there is room for interpretation the voting dynamics of the Ecofin Council become decisive. The imposition of sanctions requires a qualified majority where the country in question is excluded together with euro-outsiders. However, the prior decision on whether an excessive deficit exists according to Article 104c (6) of the Maastricht Treaty is voted by qualified majority by *all* Member States under Article 148 (2), i.e. including the country under examination and even including euro-outsiders. This means that a blocking minority of 26 votes (for example Italy, Spain, Portugal and Greece have 28 votes) could prevent the excessive deficit procedure getting off the ground in the first place, even if there should be a qualified majority of insiders in favour of the imposition of sanctions.

The original Maastricht Treaty "excessive deficit procedure" has an asymmetry in requiring a qualified majority both for the imposition of a verdict of an "excessive deficit" as well as for abrogating the verdict according to Article 104c (12), as pointed out by Gros (1996). The same asymmetry holds for the imposition of sanctions but not for the decision to hold the procedure in abeyance. In order to proceed with the excessive deficit procedure a qualified majority must find that the Member State in question has *failed* to comply with Council recommendations according to Article 104c (8), (9) and (11). The way the voting requirement goes can of course make a big difference to the "bite" of the Stability Pact, not only in the "corridor of discretion". The asymmetry in decision making means that it is very difficult to initiate and proceed with the excessive deficit procedure without a hold-up, i.e. an abeyance appears easy to

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obtain. By contrast it is more difficult to lift sanctions, once imposed, and to terminate the procedure altogether. For the decision on sanctions (voted only by euro-insiders, excluded the country under examination) the size of the monetary union matters. Eichengreen (1997) suspects that the application of the Stability Pact will be more rigid in a large EMU as a counterweight to the perceived greater (inflation) pressures on the ECB. On the other hand the presence of fiscally less disciplined countries should affect the voting behaviour of Ecofin in the opposite direction.

In fact a vote on the imposition of sanctions is required even outside the "corridor of discretion" and the question therefore is, how serious is the declaration of intent, the "solemn invitation" to the strict and timely application of the Stability Pact? How binding is the implied pre-commitment of future voting behaviour embodied in the Stability Pact? How will it be enforced if it comes to the crunch? According to Article 104c(10) of the Maastricht Treaty violations of the fiscal provisions in Article 104c(1-9) cannot be brought before the European Court of Justice and this is not changed by the Stability Pact. What would happen if the the majority of the Council chose to ignore the Stability Pact in practice or if a Member State refused to pay the fines?

Moreover, even the formulation of the text is far from the automaticity originally demanded by the German side; the numerical values and sanctions will only be applied "as a rule". Given the amount of discretion that is retained it must also be asked how likely it is that finance ministers will impose sanctions on colleagues, possibly knowing that they themselves may well soon end up in the same situation. Put more provocatively, can the self-enforcement of fiscal virtue be entrusted to a club of notorious (or at least potential) sinners? In particular, voting behaviour is likely to reflect not only the absolute 3% reference value but the relative budgetary positions of partner countries (and their probabilities of also breaching the deficit ceiling). A relative performance application of the Stability Pact would be desirable if the fact that many countries are in difficulties is due to a common adverse shock and not a sign of a generalized lack of discipline. The drawback is the opportunity for countries to collude in order to escape the discipline of the 3% ceiling.

In all this, it should not escape notice that financial penalties may be exacted by the bond market even if they are not enforced by the Pact; and these penalties may easily be much larger than those that even a keen observer of the Pact might impose (Thumann, 1997).

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V. Conclusion

On closer inspection the Stability and Growth Pact seems to have much less "bite" than has been commonly thought (or feared), to judge by many economists' reactions to it. This has partly to do with its legal structure, in particular its heavy reliance on declared self-commitment, and partly with the room for discretion retained in the wording of the provisions and with the time profile of sanctions and decision procedures. Much like central bank independence, the Stability Pact appears to be an "empty shell", which does not mean that it is necessarily ineffective. The framework and procedures that are created together with the numerical benchmarks may well by themselves influence incentives in the desired direction, but "soft" factors like peer pressure and the degree of shared "stability culture" are likely to be at least as important as the legal force and details of the Pact's provisions.

The focus on the numerical values of the Maastricht fiscal criteria and in the Stability Pact, even more pronounced in the public debate than in the actual wording of the provisions, runs the risk of diverting attention to ways of fiddling with the numbers, of taking token measures and manipulating budget forecasts. Yet, *some* such measure of actual performance had to be chosen, however imperfect, in order to provide incentives for discipline. Moreover, the reference values have to be seen together with the emphasis both in the Treaty and the Stability Pact on the sustainability of medium-term budget policies. As argued by Masson (1996), the Maastricht criteria may be sensible, but the measures taken to fulfil them are not. Even if an increased emphasis on structural reforms, including those of national budget procedures themselves (von Hagen and Harden 1994), is called for, this does not obviate the need for providing a numerical target for the outcomes of any such reforms.

In principle there need neither be a contradiction between the 3% numerical target and longer-run reforms and sustainability, nor between discipline (credibility) and stabilization (flexibility). If the Stability Pact operates as an effective (*ex-ante*) incentive device, countries should be induced to keep a safety margin that would allow automatic stabilizers to deal with normal size shocks without breach of the 3% ceiling. Moreover, the degree of flexibility and the procedures of the Stability Pact make it quite possible that countries can get by with repeated violations of the numerical target without incurring any sanctions. This could be welcomed for the increased *ex post* flexibility, but it undermines the *ex ante* deterrence of the Stability Pact. The problem here is that there is an ambitious, declared numerical norm (the 3% deficit ceiling throughout a normal economic cycle), while sanctions for violations of this norm are only likely to bite in cases of persistent or outright defiance. Here

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there is room for a potential conflict between those who might come to view sanction-free behaviour as an acceptable standard, leaning towards a state-contingent reading of the 3% rule, and between those defending the 3% rule at face value. A further negative side-effect of the Stability Pact could be that planned and actual deficits will diverge even more than at present, especially with respect to medium-term projections, since holding up the excessive deficit procedure (and thus avoiding sanctions for past deficits) hinges so much on *announced* government policies.

Trade-offs between discipline and stabilization are likely to arise in the early phase of EMU if countries join stage three with deficits right up against the 3% ceiling. The provisions of the Stability Pact would then face an early test just at the same time when the new ECB will be keen to establish its reputation. The seriousness of the problem (the strain on the ECB and the Stability Pact) will depend on the cyclical position of the European economies and on how strictly the Maastricht entry criteria will be applied. Therefore the scope for a trade-off between the Stability Pact and the entry criteria appears to be limited. On the one hand the Stability Pact should give reassurance on the longer-run stability orientation of EMU and therefore could allow a more relaxed attitude to the entry-conditions and a larger initial memberhip (Artis 1996). However, in the short-run, if cyclical conditions and budget figures remain weak, the Stability Pact could prove counterproductive by either inducing pro-cyclical behaviour or by being shown as ineffective (if overshoots of the 3% are allowed) right from the start. Even more caution in the application of the entry criteria is required to the extent that pre-EMU consolidation success was the product of one-off measures or a shifting of revenues and expenditures over time.

While there is some reason to doubt the effectiveness of the technical provisions of the Stability Pact in guaranteeing the desired discipline and flexibility in practice, the mere fact that Member States have agreed to subject national budget policies to a concerted European joint discipline is of great significance on two counts. First, by regarding fiscal policy effectively as of common concern the chances are increased that for the various coordination problems that were identified, namely fiscal-fiscal, monetary-fiscal and the policy-mix with respect to the rest of the world, over time "positive" solutions can be found, moving beyond the "negative", sanction- and constraint-based approach of the Stability Pact. A first step in this direction could be the Amsterdam Resolution on Employment and Growth with its emphasis on the coordination of economic policies. This is likely to be a slow and painful learning process and we have pointed to exchange rate policy as a likely arena of conflict. Conceding concerted fiscal discipline in order to safeguard the leadership and credibility of the ECB may be a first significant step towards further implicit or

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explicit coordination. It also serves as an important signal to the financial markets of Europe's credibility credentials that may help build stability reputation ahead of the leap into EMU (Masson 1996).

Second, the conclusion of the Stability Pact also represents a small, but important, transfer of national sovereignty in the budgetary field. Unlike Gros (1996) and Thygesen (1996) we believe that there is a nexus between Political Union and Monetary Union. In the final analysis EMU will only be successful if all the main policy actors are sufficiently ready to subordinate national or special interests for the common good and the stability of the common currency and if the ECB enjoys public support across Europe - or at least a sufficient degree of legitimacy. Otherwise, monetary stability and political cohesion in Europe may yet become lost in the "Bermuda triangle" between national and European institutions and responsibilities. Here, too, the Stability Pact serves as an important test.

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APPENDIX A

Key provisions of the European Council Resolution on the Stability and Growth Pact

Member States

1. commit themselves to respect the medium-term budgetary position of **close to balance or in surplus** set out in their stability or convergence programmes [...];

5. will correct excessive deficits as quickly as possible after their emergence; this **correction** should be **completed in the year following its identification**, unless there are special circumstances;

7. commit themselves not to invoke the benefit of Article 2 paragraph 3 of the Council Regulation on speeding up and clarifying the excessive deficit procedure unless they are in **severe recession**; in evaluating whether the economic downturn is severe, the Member States will, as a rule, take as a reference point an **annual fall in real GDP of at least 0.75%**.

The Commission

3. commits itself to **prepare a report** under Article 104c(3) whenever there is the risk of an excessive deficit or **whenever** the planned or actual government **deficit exceeds**the **3%** of GDP reference value, thereby triggering the procedure under Article 104c(3);

4. commits itself, in the event that the Commission considers that a deficit exceeding 3% is not excessive and this opinion differs from that of the Economic and Financial Committee, to **present** in writing to the Council the **reasons for its position**;

5. commits itself, following a **request from the Council** under Article 109d, **to make**, as a rule, **a recommendation** for a Council decision on whether an excessive deficit exists under Article 104c(6);

The Council

3. is **invited to impose sanctions** if a participating Member State fails to take the necessary steps to bring the excessive deficit situation to an end as recommended by the Council;
4. is urged to always require a **non-interest bearing deposit**, whenever the Council decides to impose sanctions on a participating Member State in accordance with Article 104c(11);

5. is urged always to **convert** a deposit **into a fine after two years** [....], unless the excessive deficit has in the view of the Council been corrected;

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APPENDIX B

Key Articles of the Council Regulation on speeding up and clarifying the implementation of the excessive deficit procedure

Article 2

1. The excess of a government deficit over the 3% reference value shall be considered **exceptional** and **temporary** [...] when resulting from an **unusual event** outside the control of the Member State concerned and which has a major impact on the financial position of the general government, or when resulting from a **severe economic downturn**. In addition, the excess over the reference value shall be considered temporary if budgetary forecasts as provided by the Commission indicate that the deficit will fall below the reference value following the end of the unusual event or the severe economic downturn.

2. The Commission when preparing a report under Article 104c(3) shall, as a rule, consider an excess over the reference value resulting from an economic downturn to be **exceptional** only if there is an annual **fall of real GDP of at least 2%**".

3. The Council when deciding, according to Article 104c (6), whether an excessive deficit exists, shall in its **overall assessment** take into account any observations made by the Member State showing that an annual fall of real GDP of less than 2% is nevertheless exceptional in the light of further supporting evidence, in particular on the **abruptness of the downturn** or on the **accumulated loss of output** relative to past trends.

Article 3

3. The Council shall **decide** on the existence of an excessive deficit [...] **within three months** of the reporting dates [...].
4. The Council recommendation [....] shall establish a **deadline of four months** at the most for effective action to be taken by the Member State concerned. The Council recommendation shall also establish a deadline for the **correction of the excessive deficit**, which should be completed **in the year following its identification** unless there are special circumstances.

Article 4

2. The Council, when considering whether effective action has been taken [...], shall base its decision on **publicly-announced decisions** by the Government of the Member State concerned.

Article 5

Any Council decision to **give notice** to the participating Member State concerned to take measures for the deficit reduction in accordance with Article 104c(9) shall be taken **within one month** of the Council decision having established that no effective action has been taken in accordance with Article 104c(8).

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Article 6

Where the conditions to apply Article 104c(11) are met, the Council shall **impose sanctions** in accordance with Article 104c(11). Any such decision shall be taken **no later than two months after** the Council decision giving notice [...].

Article 7

If a participating Member State fails to act in compliance with the successive decisions of the Council [...], the decision of the Council to impose **sanctions**, [...], shall be taken **within ten months** of the reporting dates [...]. An expedited procedure will be used in the case of a deliberately planned deficit which the Council decides is excessive.

Article 9

1. The excessive deficit procedure shall be held in **abeyance:**
- if a Member State concerned acts in **compliance with recommendations** made in accordance with Article 104c(7),
- if a Member State concerned acts in **compliance with notices** given in accordance with Article 104c(9).

Article 11

Whenever the Council decides to apply sanctions to a participating Member State in accordance with Article 104c(11), a **non-interest bearing deposit** shall, as a rule, be required. [...]

Article 12

1. When the excessive deficit results from non-compliance with the criterion relating to the government deficit ratio in Article 104c(2a), the amount of the first deposit shall comprise a **fixed component** equal to 0.2% of GDP, and a **variable component** equal to one tenth of the difference between the deficit as a percentage of GDP **in the preceeding year** and the 3% of GDP reference value.
2. Each following year, [...]. The amount of an additional deposit shall be equal to one tenth of the difference between the deficit as a percentage of GDP **in the preceeding year** and the 3% of GDP reference value.
3. Any single deposit [...] shall not exceed the **upper limit of 0.5% of GDP**.

Article 13

A deposit shall, as a rule, be **converted** [...] **into a fine** if two years after the decision to require [...] a deposit, the excessive deficit has in the view of the Council not been corrected.

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