

Flexibility, Fiscal Policy and "Stability and Growth Pact"

by

Fritz Breuss

Research Institute for European Affairs
at the University of Economics and Business Administration
Vienna

Fritz.Breuss@wu.ac.at; Fritz.Breuss@wifo.ac.at

Paper presented at the
Fourth ECSA-World Conference
"The European Union and the Euro"
Working Group I:
Economic Aspects of the Euro for EU Members:
Coordination of National Policies

Brussels, 17-18 September 1998

Published in:

**Fourth ECSA-World Conference – The European Union and the EURO: economic,
institutional and international aspects**

European Commission, Luxembourg 2000, pp. 98-126

Abstract

This paper evaluates the possible caveats of the political and institutional design of EMU before its start on 1 January 1999. A transfer union can be excluded right from the beginning. As an alternative, to be able to cope with external shocks, some suggestions are made to stabilize the economies of the Euro area. The EMU, far of being a political union with a central fiscal capacity, must therefore coordinate fiscal policy based on the arrangements of the stability and growth pact. Finally, the costs and benefits of the asymmetric policy design of EMU (centralized monetary policy and de-centralized fiscal policy) are analysed in this paper.

Keywords: Economic and Monetary Union, Stability and Growth Pact, European Union
JEL Classification: E62, E63, F15, H30, H50.

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1. Introduction

On January 1, 1999, Economic and Monetary Union (EMU) will move to its third and final stage. According to the Decision of the Council of the European Union, meeting in the composition of Heads of States or Government of May 3, 1998 eleven countries (the "ins") will start with EMU. Four countries will not participate (the "pre-ins"): Denmark, Greece, Sweden and the United Kingdom. The exchange rates between the parties will be locked irrevocably and the Euro will be introduced. The responsibility for monetary policy in the participating countries will be entrusted to the newly-created European Central Bank (ECB). The construction of EMU is geared towards the stability of the new currency, and sound public finances. The Member States remain responsible for their national budgetary policies. In order to overcome the seemingly asymmetric architecture of economic policy of the EMU (centralised monetary, decentralised fiscal policy) the Treaty establishing the European Community (TEC) strongly emphasises economic policy co-ordination and the further gradual elimination of budget deficits, as provided for by the Stability and Growth Pact. Together with a well-functioning Single Market, this new policy regime is bound to bring about a new economic environment with fundamental consequences for the behaviour of public and private agents.

In this contribution, the most recent theoretical and empirical findings of studies on fiscal policies in the EMU are reviewed. After sketching the framework of economic policy in the third stage of EMU, the following topics are addressed: (i) Which arguments are in favour, which against fiscal federalism in EMU. As alternative to fiscal federalism some solutions are put forward which may supplement the fiscal policy tool box in order to cushion asymmetric shocks. (ii) The next chapter deals with the question, whether coordination of economic policy is necessary at all in EMU and if so to which degree one should coordinate. (iii) Finally, the potential costs and benefits of the Stability and Growth Pact are analysed. Conclusions concerning the policy implications for the third stage of EMU are drawn.

2. The Framework of Economic Policy in EMU

Compared to the benchmark country USA one has the impression that the European Union seems to have planned to create an EMU with an asymmetric economic policy framework. Whereas in the USA both, monetary and fiscal policy are centralised and they dispose of an inter-state transfer mechanism (fiscal federalism) which seems to be appropriate to cushion asymmetric or idiosyncratic shocks, the coming EMU is build upon an asymmetric architecture concerning economic policy.

According to the ideal architecture of economic policy laid down in the Treaty establishing the European Community (TEC) the EMU framework combines a centralised monetary policy (under the responsibility of the ECB) with decentralised budgetary policies (under the responsibility of national governments, subject to Community rules on budgetary discipline, as the Stability and Growth Pact) and decentralised structural policies and wage setting (see Table 1).

This ideal Euro world implies for a simple and clear assignment of policies: the single monetary policy would, within the framework of preserving price stability, be able to provide a common response to aggregate economic development (an example may be the past behaviour of the Deutsche Bundesbank; see European Commission, 1997B, p. 110), whereas decentralised budgetary policies and other national economic policy instruments would be available for responding to country-specific circumstances (or shocks).

After the Decision of the Council of the European Union, meeting in the composition of Heads of States or Government of May 3, 1998 to start with the EMU on January 1, 1999 with eleven countries, based on Article 103(2) of the TEC the European Commission (1998b, p. 4), has put forward "Broad Guidelines of the Economic Policies of the Member States and the Community" for the "ins" and the "pre-ins" of the EMU, which were confirmed by the Council Recommendation 98/454/EC of 6 July 1998. In its "growth and stability-oriented macroeconomic policy mix" scenario the Commission stresses that the overall macroeconomic *policy mix at the euro-zone level* (for the "ins") will result from the interaction of the common monetary policy on the one hand with the average budgetary development and wage trends in the participating countries, on the other. According to this script for an ideal economic world in Euroland of 11 EU Member States, "in the framework of the Treaty, supplemented by the Stability and Growth Pact and the Amsterdam European Council resolution on 'Growth and Employment', the responsibilities are allocated as follows:

- The *single monetary policy* in the euro-area will be under the responsibility of the independent ECB and ESCB. In conformity with Article 105(1), the primary objective of monetary policy will be to maintain price stability and, subject thereto, to support the economic objectives of the Union, including, in particular, sustained, non-inflationary, growth and high level of employment, as laid down in Article 2 of the Treaty.
- *Budgetary policy* will remain the responsibility of national governments but will be subject to the rules of the Treaty (Article 104 to 104c) and the Stability and Growth Pact, which emphasises the need to have a budgetary position close to balance or in surplus in normal

economic conditions and clarifies the key Treaty provisions on budgetary policy. National governments will have to coordinate their budgetary policies in the framework of the Broad Economic Policy Guidelines.

- *Wage setting* will remain the responsibility of the social partners at the national, regional, sectoral or even at a more decentralised level following their respective traditions. As underlined in the Amsterdam Resolution on "Growth and employment" (97/C 236/02), the social partners are responsible for reconciling high employment with appropriate wage settlements and for setting up a suitable framework for the wage formation process. Since they have an important bearing on the overall macroeconomic policy mix, aggregate wage developments are of general interest." (European Commission, 1998b, p. 4).

For the countries not participating initially in the euro-zone (the "*pre-ins*") the European Commission (1998b, p. 5) stresses that "the need for stability-oriented and convergent macroeconomic policies will be equally strong, especially if they participate in the ERM2, as countries with a derogation are expected to. The strong economic and monetary interdependence between the euro-area countries and the Member States not as yet adopting the euro and the need to ensure further convergence and a smooth functioning of the single market, will require that all Member States are included in the co-ordination of economic policies."

Whether this ideal world concept is sufficient to absorb country-specific as well as area-wide economic disturbances or shocks will be analysed in the next chapters. For this purpose the most recent results of related theoretical and empirical economic studies are briefly reviewed.

Table 1: The Framework of Economic Policy in EMU with „ins“ and „pre-ins“

Monetary Policy	Fiscal (Budgetary) Policy	Incomes and Wage Policy
11 Euro-„ins“		
<p style="text-align: center;"><i>centralised</i></p> <p>(ESCB and ECB are responsible)</p> <p>Art. 105 and Protocol 3, Art. 2: ESCB and ECB: Primary objective: <i>price stability</i>; support of the general economic policies with a view of the objectives of the Community (Art. 2)</p>	<p style="text-align: center;"><i>decentralised</i></p> <p>(governments of the Member States are responsible)</p> <p>restricted by the <i>Stability and Growth Pact</i>: Deficit < 3% of GDP (clarification of the excessive deficit procedure of Art. 104c in Reg. (EC) 1467/97);</p> <p><i>no Fiscal Federalism</i> in the EU <i>no bail-out</i> (Art. 104b(1)) (and declaration by the ECOFIN Council, Point 6, May 1, 1998)</p> <p>Economic policy <i>coordination</i> („economic policies as a matter of common concern“: Art. 103)</p> <p><i>Multilateral surveillance</i> (Art. 103(3) and (4) and Reg. (EC) 1466/97): <i>Stability programmes</i> before March 1, 1999, thereafter annually¹⁾</p>	<p style="text-align: center;"><i>decentralised</i></p> <p>(Social Partners in the Member States are responsible)</p> <p>Resolution of the European Council on growth and employment 97/C 236/02) and the Commission's Recommendation for Broad Guidelines of the Economic Policies of the Member States and the Community (II/144/98, 13.5.98) suggest a "productivity oriented wage policy" which is enough "flexible" to make the labour markets more efficient (Mundell's precondition for an optimum currency area - OCA)</p>
4 Euro-„pre-ins“		
<p style="text-align: center;"><i>decentralised</i></p> <p>(National central banks - NCB - are responsible)</p> <p>new <i>exchange-rate mechanism</i> in stage III of EMU - <i>ERM2</i> („hub and spokes“ model): Euro is the anchor - standard fluctuation band +/-15% against the Euro (participation in ERM2 is voluntary: Resolution of the European Council 97/C 236/03)</p>	<p style="text-align: center;"><i>decentralised</i></p> <p>(Member States are responsible) obligation to <i>avoid excessive deficits</i> (Art. 104c and Art. 109e(4); each EU member is obliged to a stability oriented economic policy and to economic policy <i>coordination</i> („economic policies as a matter of common concern“: Art. 103)</p> <p><i>Multilateral surveillance</i> (Art. 103(3) and (4) and Reg. (EC) 1466/97): <i>Convergence programmes</i> before March 1, 1999, thereafter annually.</p>	<p style="text-align: center;"><i>decentralised</i></p> <p>(Social Partners in the Member States are responsible)</p>

The Articles refer to the Treaty establishing the European Community (TEC) or "Maastricht Treaty"

¹⁾ According to the Council Recommendation 98/454/EC of 6 July 1998 on the broad guidelines of the economic policies of the Member States and of the Community (OJ L 200, 16/07/1998, p. 34), the stability and convergence programmes should be submitted at the latest by the end of 1998.

3. No Fiscal Federalism, no Bail-out in EMU

3.1 Why not an ETU?

The legal argument:

The architecture of the European Union in general and the EMU in particular excludes the concept of fiscal federalism. According to the division of responsibilities for economic policy between the different authorities in the EMU, the Member States of the EU are responsible for fiscal policy, subject to the obligation to coordination according to Art. 103 TEC.

That implies that former theoretically and sometimes empirically based plans for a fiscal federalism or an European Transfer Union (ETU) in the EU (see the early discussion in European Commission, 1993, Part 1), oriented on the examples of the United States, Canada or even the “Finanzausgleich” of the Federal Republics of Germany or Austria are misled guides for the future conduct of economic policy, in particular fiscal policy in the EMU. Fiscal federalism is only the correct concept for a monetary union with both, centralised monetary and fiscal policy. The question then arises whether the EMU is well- or ill-prepared to deal with asymmetric or idiosyncratic shocks which might hit the participating countries in EMU.

Connected with the rejection of fiscal federalism is the prohibition of bail-out other Member States debts (Article 104b TEC). The no bail-out rule implies that each Member State has to care for its fiscal position, even in case of a recession. In addition the declaration by the Ecofin Council and the ministers in that council accompanying the recommendation to go ahead with EMU with eleven countries of May 1, 1998, under point 6 it is said: "The Council reiterates that the responsibility for budgetary consolidation lies and remains with the Member States and that, in accordance with the provisions of Article 104b(1) TEC, the Community in particular shall not be liable for or assume the commitments of Member States. Without prejudice to the objectives and provisions of the Treaty, it is agreed that Economic and Monetary Union as such cannot be invoked to justify specific financial transfers."

The theoretical argument:

A long tradition in public finance argues that a centralised fiscal system can reach more efficient outcomes by better internalising the numerous externalities associated with both the expenditure and the revenue sides of fiscal policy, particularly when factors are mobile. A second argument for centralised fiscal policy is based on the insurance properties of

redistribution. When different countries are hit by idiosyncratic (country-specific) shocks, they can stabilise the tax base by running a common fiscal policy: the taxable income in the ‘unlucky’ countries decrease, but it increases in the ‘lucky’ countries. Thus, for a given tax rate the revenues available for redistribution are more stable in a centralised system. It follows that a centralised system of redistribution, that encompasses several countries, can better stabilise post-tax incomes and insure individuals against country-specific shocks (Alesina-Perotti, 1998, p. 990). Recent work on fiscal federalism by Persson-Tabellini (1996a, 1996b) studies the trade-offs between risk sharing on the one hand and moral hazard and redistribution on the other.

Alesina-Perotti (1998, p. 990) take a more neutral view. They argue that in a centralised regime more individuals from more countries participate in the decision-making process; consequently, the diversity of the decision-makers may increase, implying in some cases more, rather than less, uncertainty about the policy instruments. In turn, this might lead to more, rather than less, instability in income and consumption. In other words, large jurisdictions can achieve the benefits of a centralised redistribution system, but these benefits may be offset (partially or completely) by the increase in the diversity and, thus, in potential conflicts of interests among the citizens of larger jurisdictions. In the context of a simple two-country economic model with voting behaviour (the tax rate is chosen by majority voting) Alesina-Perotti (1998) derive the conclusion, that one has to weight the economic risks and advantages (here a centralised fiscal policy allows some form of insurance against country-specific shocks) and the political risks connected with the centralisation of fiscal policy. It may be that the latter component is higher than the former. Then a decentralised fiscal policy framework is better suited for an EMU (Alesina-Perotti, 1998, p. 998). Hence, the Alesina-Perotti model allows to justify the approach the EU has chosen in the Maastricht Treaty to create the policy framework of the EMU. Because of the potential trade-off of economic and political risks, Alesina-Perotti (1998) come to the conclusion that in larger EMUs, more countries have a polarised distribution of income. This increases the political risk, and makes fiscal unions less likely to be beneficial to a majority of individuals. This is in particular true for the EU where the Member States were not ready to give up their responsibility for taxation to a centralised EU body.

In a game-theoretic context one can also show (see Rolf, 1996, p. 79-82) that in an income-redistribution solidarity community of two countries a transfer mechanism like one in a fiscal federation (an ETU) leads to higher deficits in both countries. Compared to a situation without ETU (called autonomy without transfers) in an ETU without cooperation (Nash equilibrium)

both countries will have higher deficits in an ETU. The reason is moral hazard because of the negative incentive to make higher deficits in an ETU (externality problem of an ETU). Only if fiscal co-operation (according to Article 103) takes place the deficits in both countries will be lower and will include the deficits in case of autonomy (no ETU). Beetsma-Bovenberg (1998) argue similarly for monetary union without a fiscal union on the combination of a lack of fiscal discipline due to moral hazard, a lack of commitment, and the presence of distortions in the output market. Therefore, a monetary union without a fiscal union is optimal.

An alternative route takes Kletzer (1998). In a game-theoretic model with two countries transfers are allowed between both countries. It is a repeated game model of sovereign borrowing and lending with infinite repetition. The cooperative outcome is possible, where cooperation means any path of policies such that at least one of the government realises social welfare higher than the noncooperative (barred) level. The idea is that the foreign country makes a positive transfer to the home country when the transitory shock to output (measured as the deviation of actual from potential output) in the foreign country is greater than in the home country, because the future transfers that the foreign country will receive from the home country in a cooperative equilibrium make up for the reduction in current foreign absorption. That is the foreign government makes a transfer because this increases its social welfare looking forward. Kletzer (1998, p. 118) concludes from his formal analysis that international insurance schemes for stabilising national outputs in the presence of asymmetric transitory shocks can be supported without a central fiscal or political authority. As long as the participating governments act in the long-term interest of their nations, mutually beneficial cooperation using intertemporal fiscal transfers is possible. However, as we mentioned earlier, the Ecofin Council in its declaration of May 1, 1998 excluded explicitly transfers between members of the EMU.

The empirical argument:

Early empirical studies found a considerable stabilisation effect of fiscal federation. The overall stabilisation effect of federal budgets for the United States amounted to around 30%-40% (Sachs-Sala-i-Martin, 1992; Bayoumi-Masson, 1995; Goodhart-Smith, 1993)¹. Most recent estimates with Canadian data for the federation and provincial deficits, taxes and transfers by Bayoumi-Masson (1998) reach similar size. Every dollar increases in the federal deficit which is specific to the province in question raises private consumption by 44 cents.

¹ In response to a fall in state income of 1 dollar, disposable income falls by only between 56 and 65 cents. Or to put it otherwise: fiscal flows may offset as much as 20-30% of the initial reduction in income.

An equivalent increase in the federal deficit at the national level or in the provincial deficit raises consumption by 16 cents in the dollar. Bayoumi-Masson (1998, p. 1043) conclude by recurring to the Ricardian equivalence argument. If consumers are Ricardian, automatic stabilisers operating through (non-distorting) taxes and transfers will have no effect in cushioning shocks at the national level, since they will involve creation of debt whose debt service will be anticipated by consumers. The same is true of attempts to use stabilisation policy by lower levels of government. In the context of the Ricardian equivalence proposition local governments are unable to provide fiscal stabilisation within their locality, as their actions will be offset by the private sector. To the extent that deficits across differing regions cancel out, however, federal governments can provide fiscal stabilisation across regions as fiscal insurance is being provided across regions rather than across time, unless the shocks they respond to are perfectly correlated and the regional cycles perfectly synchronised, which is unlikely². However, regional stabilisers which involve redistribution across a federation can in principle be more effective because they do not create a future regional tax liability. Bayoumi-Masson (1998) tested this hypothesis using data for Canada, a decentralised federation which engages in fiscal stabilisation policies at both the national and provincial levels. Their regressions of private consumption on various measures of fiscal position (national liability-creating, national non-liability-creating, and provincial) allow a test of Ricardian equivalence (a zero effect for liability-creating stabilisation) as well as of the greater effectiveness of non-liability-creating flows. In effect, the liability-creating change in the federal budget has no stabilising effect, the stabilisation policy within a federal system that involves some degree of redistribution is much more effective in cushioning shocks to consumption than the fiscal policy on a provincial level. As a conclusion, the authors see in this evidence another argument for the EU to consider expanding fiscal policy at the Union level, rather than relying on national fiscal policies to offset idiosyncratic shocks.

However, many other studies, re-estimating the Sachs-Sala-i-Martin (1992) results come to much smaller stabilisation effects of fiscal federalism. Von Hagen (1992) finds only a stabilisation effect of 10% for the United States. Pisani-Ferry-Italianer-Lescure (1993, p. 522) are a little bit higher with 17%. However they find for the federal budgets for France and

² Empirical work by Frankel-Rose (1998) prove, however, that there is a strong positive relationship between the degree of bilateral trade intensity and the cross-country bilateral correlation of business cycles within 21 OECD countries. They test the endogenous nature of the relationship between various OCA (optimum currency area) criteria (1) the extent of trade; 2) the similarity of the shocks and cycles; 3) the degree of labour mobility; and 4) the system of risk-sharing, usually through fiscal transfers which allows a nice application of the celebrated Lucas Critique. Although not all of the eleven EMU members have synchronised business cycles within the EMU via a centralised monetary policy the degree of integration might increase and may provide a substantial impetus for Intra-EU trade expansion.

Germany relative high stabilisation effects of 37% and 33%-42% respectively. The stabilisation effect is measured by one minus the ratio of the change of regional disposable income over the change of regional GDP (Pisani-Ferry-Italianer-Lescure (1993, pp. 514-515). These results would make the creation of a system of fiscal federalism in EMU not worthwhile.

The so-called insurance effect (the federal budget acts via automatic stabilisers as an interregional insurance) is estimated to be quite low (Fatás, 1998). He criticises that former estimates considered only the impact that the response of taxes and transfers have to changes in income. One also needs to consider the impact that this has on the overall federal budget. The interstate insurance provided by the federal budget in the United States is very small. According to Fatás (1998, p. 191) the previous estimates of the amount of insurance provided by the US federal budget overestimates the true amount of insurance by a factor of three (stabilisation effect of around 10%). The reason is that the original estimates simply measured the stabilisation effect of the tax system on disposable state income. This can be identified as insurance only under the assumption that there is no aggregate risk in the federation (overall budget constraint). Otherwise, when a state (country) suffers a recession, and the fall in its tax revenues is not compensated by revenue increases coming from other states (countries), then the federal budget (hypothetically the EU budget) will run a deficit that will need to be paid in the future by all states (countries). Fatás (1998) applies the same reasoning to data from countries of the European Union and finds estimates of insurance potential that are very close to those for the USA. Even if a European-wide fiscal system managed to reduce the volatility of disposable income by 30%, it would be providing less than 10% insurance. The other two-thirds would be intertemporal stabilisation through countercyclical budgets - a tool that is already available to European countries and will be available to future member countries of EMU. This result highlights the importance of maintaining future flexibility in conducting fiscal policy at the national level, and signals the possible costs of the Stability and Growth Pact (Fatás, 1998, p. 191). If government deficits are constrained by the limits of the Stability and Growth Pact, the ability of the current national systems to adjust to shocks through intertemporal transfers will disappear. Furthermore, Fatás (1998, p. 192) finds evidence that the potential insurance benefits of a European fiscal federation have decreased over time. Some countries, such as the UK and Ireland, could greatly benefit from a system of fiscal federalism, but others, such as France and Austria, could benefit much less. Europe already has national tax systems that partially insure regions from idiosyncratic risk. Fatás (1998, p. 192) estimates the importance of these

systems by comparing the current system with a hypothetical European-wide system that would replicate the stabilisation properties of the national systems. He finds that the current national systems insure more than 50% of a European fiscal federation. This findings are strong arguments against too much tax-harmonisation and are more in favour of tax competition.

3.2 Alternative models to an ETU

3.2.1 The Country insurance model

A European Transfer Union (ETU) would be advantageous but would also entail the problem of moral hazards such inter-country insurances would involve (Obstfeld-Peri, 1998, p. 245). There are several suggestions to reduce these problems (transfers only temporary etc.). Since shocks in Europe tend to have persistent effects (as in the case of the rising unemployment rate), such transfers would provide only a small degree of risk sharing. An ETU (implying a greater fiscal authority in Brussels - an "Economic government") would create a more efficient political counterweight to the ECB. That evolution could make the ECB more accountable, as the French hope, but this process could lead to accommodation and other inflationary errors, as the Germans fear. The compromise was the installation of the informal Euro-11 Council.

Obstfeld-Peri (1998, p. 246 ff.) make an alternative proposal to an ETU based on four options:

1. Relax the excessive deficit procedure and the Stability and Growth Pact as soon as possible after EMU starts. Since these provisions of the EMU constitution reduce local fiscal powers while providing no substitute at the centre to cushioning temporary asymmetric shocks.
2. The EU's total borrowing power could be limited - a guarantee against fiscal pulls on the centre.
3. Vigorous internal restructuring - including further reductions in the generosity of pension and other support programmes, lower taxes on employment, more hiring and firing flexibility, vigilant financial liberalisation and housing market reform (these are necessary conditions for the proper functioning of an optimum currency area).
4. The fact that in Europe markets for human capital insurance are missing provide much of the theoretical basis for believing that an ETU might be beneficial. Instead, each individual national government could act as a capital market intermediary for its residents, making insurance pay-outs to them in the form of higher transfers or lower taxes. To accomplish

this end, governments would issue perpetual euro-denominated liabilities indexed to domestic nominal per-capita GDP growth. Nominal rather than real GDP indexing would protect buyers of the securities against inflation. The proceeds would be invested in an internationally diversified portfolio of assets. In this way, each government could lay off some of its GDP risk; its net cash flow would tend to go up when GDP growth was unexpectedly low, just as under an ETU. Permanent and transitory shocks alike could be handled. But no central EU institutions is needed to carry out the plan. Each country would need to strive for good macroeconomic performance to maintain favourable terms for marketing its GDP-linked securities. The price of the securities would plummet if a country ever tried to issue enough to make deliberate macroeconomic policy failure attractive.

3.2.2 A Separate Stabilisation Fund

Italianer-Vanheukelen (1993) propose an automatic stabilisation mechanism without the necessity of creating an ETU. They propose a system of transfers based on unemployment rates. It is assumed to consist of payments to Member States' governments, which then decide how to spend these funds. The Member States would keep their large degree of tax autonomy and it would not be necessary to create a centralised fiscal policy framework (fiscal federalism). It would work as follows: for each Member State, the national unemployment rates are measured at regular intervals on a harmonised basis. Unemployment rates are used as an indicator of asymmetric shocks. The stabilisation scheme has to be financed: either in a countercyclical fashion through offsetting payments by Member States experiencing higher than average economic activity; through the general Community budget (in which case an adequate provision for the funds needed would have to be foreseen), or out of a *separate stabilisation fund* which would have to be constituted to this specific end (Italianer-Vanheukelen, 1993, p. 496).

The link between changes in the unemployment rate and the occurrence of economic shocks is obtained by estimating an equation for the so-called Okun's law, relating changes in the unemployment rate to deviations of GDP from trend growth. This gives a crude guide to the empirical link between shocks in real economic activity and changes in the unemployment rate. A relative decrease in the GDP growth rate of 1% (due to an external shock) will lead to a relative increase in the unemployment rate of 0.18 percentage points on EU average.

The proposed system is not one of unemployment benefits (no interpersonal transfer); a one-time increase in unemployment which does not disappear will only lead to a transfer once,

since payments are based on changes in the unemployment rate (hence avoiding moral hazard). The upper limit of the payment is 2% of the GDP of the Member State concerned (by referring to the example of the German “Finanzausgleich”, although the “Finanzausgleich” only partly may be considered as a stabilisation mechanism).

Two stabilisation mechanisms are proposed:

- 1) A *full stabilisation mechanism*: this would provide the same degree of stabilisation as in the United States; payments up to a maximum of 2% of a Member States GDP would cost 0.2% of EU GDP and provide a degree of stabilisation of 19% (19% of the shock to GDP is stabilised).
- 2) A *limited stabilisation mechanism*: below 0.3 percentage points changes in the unemployment rate no transfers will be payed; the upper limit of transfers is 1.5% of a Member States GDP; this would cost the Union 0.2% and provide a degree of stabilisation of 18%.

It seems that some of the arguments by Italianer-Vanheukelen (1993) found acceptance indirectly in the Agenda 2000 (1997). As preparatory work for enlarging the EU towards the East the Commission proposes the reform of the structural funds (from six to three objectives: 1, 2 and 3). The most important criteria for being eligible for structural transfers (in particular in the objective regions 2 and 3) is the unemployment rate (Agenda 2000, p. 24).

3.2.3 A Seigniorage-financed Stabilisation Fund

EMU eliminates the ability of governments to pursue independent monetary policies, restricting the use of fiscal policy instruments by national governments. With a single currency, the equilibrium rate of inflation of the prices of traded goods is the same across borders and equilibrium rates of inflation in nontraded goods' prices differ to the extent that national productivity growth rate differentials between traded goods and nontraded goods diverge. With the adoption of a common currency, seigniorage revenues must accrue to the ECB to be allocated across members or, equivalently, to be divided between the member national central banks (NCB) of the ESCB (Kletzer, 1998, p. 94).

Seigniorage and the inflation tax are related but readily confused concepts. Seigniorage is defined as the resources raised by the government through an expansion of the monetary base. Seigniorage as a fraction of nominal GDP is the absolute change of base money relative to nominal GDP. The inflation tax is defined as the reduction in the real value of the monetary base due to increases in the price level. Inflation tax revenues are the proportionate rate of

increase in the price level times the real monetary base. As a fraction of GDP, the inflation tax revenues have to be divided by GDP (Kletzer, 1998, p. 94-95).

Monetary unification implies that national governments lose the capacity to impose differential anticipated and unanticipated inflation taxes. Public finance theory implies that an optimal fiscal policy would include seigniorage collection and inflation taxation when no non-distortionary tax instruments are available. In the EMU, the ECB as the sole issuer of Euro money for Euroland collects seigniorage and inflation taxes. According to Article 32.2 and Article 32.5 of Protocol No. 3 on the ESCB and ECB the sum of the "monetary incomes" (seigniorage) of the NCBs is redistributed to the NCBs according to their shares of capital of the ECB. Some authors estimate that this socialisation of the seigniorage may result in Eurowinners and Eurolosers compared to the present situation (e.g. Sinn-Feist, 1997). The authors use a wealth concept of seigniorage (monetary base minus those private bank reserves on which central banks pay interest). An Eurowinner would be France. Eurolosers might be Germany, Spain, the Netherlands and Austria. Although at practical level, seigniorage and the inflation tax have been of little importance for members of the EU in recent years, the average seigniorage in the EU in the period 1990/94 amounted to 0.42% of GDP (with exceptional high levels in Portugal with 2.9%, Greece with 1.9% and Sweden with 1.5% of GDP). The inflation tax in the period 1990/94 amounted on EU average to 0.53% (with exceptional high values in Portugal with 2.2%, Greece with 2.6%, Spain with 1.3% and Italy with 1% of GDP; see Buiter, 1995, p. 46).

Instead of redistributing this Euroland-wide seigniorage and inflation tax (in a non-Pareto optimal way) to the Member States (or their NCBs) one could directly pay these monetary incomes into a stabilisation fund. Countries which are hit stronger than others by an asymmetric shock (measured by the deviation of actual from potential GDP) could draw transfers from this seigniorage-financed stabilisation fund. This fund should be administered by the ECB in order not to create a new administrative body and to secure that only countries with real disturbances are financed and not those which tend to inflate and hence endanger the major objective of EMU, the price stability.

4. How much if any Coordination of Economic policy?

Coordination in the Maastricht Treaty:

The Treaty establishing the European Community (TEC) is not very specific when it talks about coordination of economic policy (Art. 103(1)). In European Commission (1997B, p. 105) the term "policy coordination" is used in a broad sense in conformity with normal usage in international and Community debate, including in the TEC. Accordingly, it encompasses information exchange (e.g. the dialogue between the Council and the ECB; Art. 109b; see Euro Papers, 1998), surveillance (Art. 103(3)), policy discussions and recommendations (e.g. the Broad Guidelines by the Commission in conformity with Art. 103(2)), as well as jointly agreed policy actions. Coordination may also include "approximation" of certain policies with a view to achieve greater similarity in economic structure across countries. If co-ordination is used for the most binding form, involving mutually agreed modifications in the participants national policies, such instances are termed "co-ordinated policy actions" or "joint policy actions" (European Commission, 1997B, p. 105, footnote 1).

The Treaty in Article 103 is not very explicit concerning the authorities which should be involved in the coordination of economic policy. Is only a coordination between the Member States concerning fiscal policy necessary, or a coordination in a much broader sense: one between the ECB and the Member States, i.e., a grand coordination set-up of monetary and fiscal policy? What about the remaining areas of economic policy, e.g. the wage and incomes policy and structural policy? In its Broad Guidelines of the Economic Policies of the Member States and the Community the European Commission (1998b, p. 4) speaks only of the necessity to coordinate the budgetary policies of the national governments (see the description of the responsibilities of economic policy in Table 1). The Economic and Financial Committee (Art. 109c(2)) could be the practical body to co-ordinate the economic policy between the Ecofin, the Commission, the ECB Board, the NCBs the national ministers of finance.

In the literature on EMU, coordination of budgetary policies is advocated to achieve three objectives (European Commission, 1997B, p. 105): (i) to maintain budgetary discipline; (ii) to provide an adequate degree of budgetary stabilisation and ensure an appropriate monetary-budgetary policy mix; and (iii) to promote economic efficiency by avoiding unfair tax competition and taking into account the public goods nature of some types of public

expenditure. Additionally, (iv), coordination of budgetary policy could have external effects (spill-overs to other countries)³.

Coordination in model simulations:

In a simulation exercise for the case of an EMU, formed by only two countries and an ECB, Krichel-Levine-Pearlman (1996)⁴ play through several variants of monetary-fiscal policy coordination or interaction⁵. The two countries are responsible for the fiscal policy (decentral fiscal policy), the ECB is executing the centralised monetary policy. The authors use a calibrated dynamic macro model for two countries with two goods (home and foreign good) and analyse dynamic games of cooperation and non-cooperation in a three-players game set-up. Consumers maximise their intertemporal utility, firms maximise their profits and states (the governments responsible for the fiscal policy) maximise a national welfare function which include positively both consumer goods and the public expenditure on the home good and negatively the inflation rate, the tax rate and the public debt. The ECB maximises a global welfare function (which encompasses the welfare functions of both countries). If the ECB has an conservative attitude, its primary goal is price stability (as in the TEC and the Protocol No. 3 of the ESCB). If the ECB is not responsible for ensuring the solvency of the Member States the weight on the public debts of the states is zero. The Maastricht treaty gives the ECB no statutory mandate to act as a lender of last resort (LLR; see Obstfeld, 1998, p. 20). Financing public debts is forbidden by Art. 104 TEC.

The credibility of policies and the associated problem of time inconsistency (Kydland-Prescott, 1977) is a major issue in the debate over EMU. In their model (Krichel-Levine-Pearlman (1996, p. 40-41) time inconsistency originates from three sources. First, it arises from the optimal choice of consumption, savings and demand for money by each household where taxes are distortionary. The second source of time inconsistency is that treasuries issue nominal rather than indexed bonds and as a consequence there arises an incentive to erode the

³ The size of gains to coordinating macroeconomic policies is not much higher than 0.5 to 1 percent of GDP (see McKibbin, 1997).

⁴ Similar model simulations are done by Hughes-Hallett-Ma (1996). They study the benefits of cooperation between fiscal and monetary policy in EMU by using a three-country macro model (Germany and France form the EMU; the USA is third country). The assignment of the targets (price stability, output) to the policy instruments (nominal interest rate for monetary policy, public expenditures for fiscal policy) is rather complex. After simulating symmetric (similar inflation shocks to all countries) and asymmetric inflation shocks they reach the conclusion that an EMU with an adequate assignment of instruments and targets could function very well also in an asymmetric EMU. But in a symmetric EMU it could lead to problems. These results contradict the general wisdom of OCA theory that an asymmetric EMU must break sooner or later.

⁵ In a more demonstrative Prisoner's dilemma game, Artis-Winkler (1998, p. 93) study the different outcomes of the interaction of monetary and fiscal policy in EMU. In a "monetary dominant regime" the ECB prefers a tight Nash equilibrium (tight monetary and tight fiscal policy). In a "fiscal dominant regime" a lax Nash equilibrium is the result (lax monetary and lax fiscal policy).

debt/GDP ratio by engaging in surprise inflation. Thirdly, there exists the familiar role for surprise inflation in the labour market. Given these features their model (and rational expectations) can distinguish between the cases when an authority has or does not have a reputation for pre-commitment. A fiscal or monetary authority which enjoys reputation can exercise the greatest leverage over the private sector because an announced path of instrument settings would be credible and would affect private sector behaviour immediately in the desired way. With the distinction between reputational and non-reputational policies in mind, Krichel-Levine-Pearlman (1996, p. 42) derive four regimes of policy stance. (i) the socially optimal policy is for the ECB and national governments to agree on a global welfare function and to be able to precommit in their joint choice of all policy instruments in its maximisation. Thus, the ECB is given the same bargaining power as the two combined national governments. This regime is called *CR (cooperation with reputation)*. (ii) Suppose that both the ECB and the fiscal authorities lack a reputation for pre-commitment to the private sector. This leaves three possibilities. The first is where the ECB is not independent and monetary and fiscal policies are fully coordinated without reputation. This is regime *CNR (cooperation with no reputation)*. (iii) The second possibility is with an independent ECB (as foreseen in the Maastricht Treaty) and uncoordinated fiscal policies. This is the non-cooperation equilibrium in the three-player game, *NCNR (non-cooperation with no reputation)*. (iv) An intermediate regime is also considered where fiscal authorities alone cooperate but the ECB remains independent. This is in effect a two-player non-cooperative equilibrium which is referred to as *NCNRF (non-cooperation between fiscal and monetary authorities but fiscal cooperation between both governments)*. This last set-up is in fact the framework of economic policy co-operation, foreseen in the Maastricht Treaty.

The simulation results of the long-run equilibria of the four regimes are given in Table 2 relative to the original baseline steady state about which all variables are measured (Krichel-Levine-Pearlman (1996, p. 43). This is the case where there is no monetization of debt by the ECB (no LLR role). In the CR regime, there is an immediate increase in government spending and taxation, the latter dominating so that the debt/GDP ratio falls towards its desired value. In the long run, this drop-in government debt allows for a fall in the primary surplus, and the taxation/GDP ratio falls by more than the government spending/GDP ratio, reducing tax distortions. Inflation increases sharply in the first period by around 3 per cent contributing to the erosion of government debt and output rises in response to this once-and-for-all surprise. Thereafter inflation drops to its desired level. The long-run equilibrium involves a lowering of the government spending/GDP and debt/GDP ratios. In this non-Ricardian economy, this

must result in a long-run fall in the real interest rate. Investment is crowded in and output and national welfare rise. All other regimes result in long-run worse economic effects than in the benchmark regime CR. The regime NCNRF, which is in conformity with the Maastricht scenario would - according to Krichel-Levine-Pearlman (1996, p. 46) - lead to a sub-optimal solution. If fiscal authorities alone cooperate then their incentive to inflate increases because the combined fiscal expansion has a greater impact on the common inflation rate. The result is that the upward bias in government spending worsens. Thus, with an independent ECB setting the nominal interest rate, *fiscal policy coordination is counter-productive*. The fiscal externality arising from each country's public-sector deficit or government spending or distortionary taxation can only be successfully internalised if fiscal coordination is accompanied by fiscal and monetary coordination, preferably with reputation (regime CR), but also without reputation (regime CNR). Variations of the theme are simulations where the degree of conservatism of the ECB (primary goal is price stability) is changed. If the ECB is also concerned with rising debt/GDP ratio in the two countries (if it plays the LLR role) then the debt variable gets a positive weight in the global welfare function of the ECB. The effect of a NCNR regime in the spirit of Sargent-Wallace's (1981) "unpleasant monetary arithmetic" in which the ECB is forced to share responsibility for solvency is striking. Inflation rises significantly and debt/GDP ratios (and with them the real interest rate) rise substantially. Global welfare would decrease (Krichel-Levine-Pearlman, 1996, p. 47). This result would nicely underline the necessity of the Stability and Growth Pact.

Table 2: Long-Run Equilibria of four Regimes for EMU: Results of Model Simulations

Regime	g	t	m	π	d	r	y	i	c	U^F
CR	-0.4	-1.3	2.3	-3.0	-41	-0.2	0.8	0.4	0.0	44
CNR	1.4	0.5	-2.4	3.3	-41	-0.05	0.2	0.1	-1.5	-281
NCNR	16.8	16.9	-2.6	2.1	-16	0.8	-2.8	-1.8	-15.0	-406
NCNRF	20.7	21.0	-2.7	1.6	-24	1.4	-6.2	-3.6	-17.1	-608

g = government spending/GDP, t = taxation/GDP, m = money, π = Inflation rate, d = debt/GDP, r = real interest rate, y = real GDP, i = real investment, c = private consumption, U^F = national welfare function for the home country. All variables are deviations of the long-run steady state baseline solution. CR = cooperation of ECB (centralised monetary policy) with the governments of the two countries (decentralised fiscal policy) with reputation; CNR = cooperation with no reputation; NCNR = non-cooperation with no reputation; NCNRF = non-cooperation between fiscal and monetary authorities but fiscal cooperation with no reputation (ECB remains independent).

The ECB plays no part in ensuring the solvency of the fiscal authorities (no LLR role of the ECB)

Source: Krichel-Levine-Pearlman (1996), p. 43.

When is co-ordination of fiscal deficits necessary?

National budget deficits can create externalities through their effects on international interest rates. In a brilliant paper, Huizinga-Nielsen (1998) examine the scope for fiscal rules restricting government borrowing for the case where government revenues stem from capital income taxation. They find that there is no need to coordinate national borrowing, if governments have access to both a saving and an investment tax instrument. In the absence of a saving tax, however, national fiscal policies affect welfare abroad through the international interest rate. A reduction in first period deficits tied to increased government spending later is always welfare improving. Reducing first period deficits without future coordination of subsequent tax and spending policies will generally not improve welfare.

In a stylised two-period model of taxation and public spending Huizinga-Nielsen (1998, pp. 11-16) derive three propositions:

- (i) The first proposition postulates *non-cooperation* (world interest rates do not change national welfare): There is no scope to coordinate tax, spending and borrowing policies if governments have access to both investment and savings taxes and there is government spending in both periods. Savings taxes is thought of a residence-based tax on the capital income of the domestic residents.
- (ii) The second proposition postulates *conditional cooperation* (an increase in the world interest rate affects national welfare negatively). As financial markets become internationally integrated, it becomes increasingly easy to evade the residence-based tax and the return to savings. A de facto diminution of the saving tax base implies that countries are left to tax capital income solely by way of source-based capital income taxes, as proxied by the investment tax in the model by Huizinga-Nielsen (1998, p. 12). To counter these developments in the EU, the European Commission made several recommendations to harmonise at least the taxation on capital income (20% and/or the duty to inform the authorities of the resident's countries; see European Commission, 1998a). Another approach is to formulate a "code of conduct" in order to avoid harmful tax competition of firms. The second proposition by Huizinga-Nielsen (1998, p. 13) says: The noncooperative tax and expenditure equilibrium with only investment taxes will not be efficient from a world perspective. Thus, there is a scope for international policy coordination. In particular, countries can gain by: (a) raising both, the investment tax and public expenditure in period 2 (while leaving public expenditure in period 1 constant) from the noncooperative equilibrium; (b) raising public expenditure in period 2 and lowering

public expenditure in period 1 (while leaving investment tax constant) from the noncooperative equilibrium; (c) raising both, investment tax and public expenditure in period 1 (while leaving public expenditure in period 2 constant) from the noncooperative equilibrium if the elasticity of investment with respect to the firm's tax-inclusive cost of funds is higher than the marginal propensity to save in the first period out of the first period income.

- (iii) The third proposition says: A (binding) *limitation of countries' first period budget deficits* (in the spirit of the Stability and Growth Pact) will be welfare improving if and only if special conditions concerning the elasticity of investment, marginal propensity to save and the investment tax elasticity are fulfilled (Huizinga-Nielsen (1998, p. 16). Simulations with a calibrated model cast doubts whether international ceilings on deficit spending in the first period results in higher national welfare (the opportunity to consume consumption and public goods in the two periods).

5. The Costs and Benefits of the Stability and Growth Pact

The legal framework:

The Stability and Growth Pact (SGP) consists of two Council Regulations and two Resolutions of the European Council⁶ (Euro Papers, 1997). The major justification and objectives in these legal texts is summarised in the following passage from the "*Stability and Growth Pact*" (OC C 236, 02/08/1997, p. 1, point I): "In stage three of EMU, Member States shall avoid excessive general government deficits: this is a clear Treaty obligation. The European Council underlines the importance of safeguarding sound government finances as a means to strengthening the conditions for price stability and for strong sustainable growth conducive to employment creation. It is also necessary to ensure that national budgetary policies support stability oriented monetary policies. Adherence to the objective of sound budgetary positions close to balance or in surplus will allow all Member States to deal with normal cyclical fluctuations while keeping the government deficit within the reference value of 3% of GDP". In accordance with Article D of the Treaty on European Union (TEU), firm political guidelines are issued in order to implement the Stability and Growth Pact in a strict

⁶ Council Regulation (EC) No 1466/97 of 7 July 1997 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies (OJ L 209, 02/08/1997 p. 1); Council Regulation (EC) No 1467/97 of 7 July 1997 on speeding up and clarifying the implementation of the excessive deficit procedure (OJ L 209, 02/08/1997, pp. 6-11); Resolution of the European Council on the Stability and Growth Pact, Amsterdam, 17 June 1997 (OJ C 236, 02/08/1997, p. 1); Resolution of the European Council on growth and employment, Amsterdam, 16 June 1997 (OJ C 236, 02/08/1997, p. 3).

and timely manner and in particular to adhere to the medium-term objective of budgetary positions of close to balance or in surplus, to which all Member States are committed, and to take the correct budgetary action they deem necessary to meet the objectives of their stability and convergence programmes.

The Council Regulation (EC) No 1466/97 aims to *strengthen the surveillance of budgetary positions and the surveillance and coordination of economic policies*. In particular in Article 1 it "sets out the rules covering the content, the submission, the examination and the monitoring of stability programmes (Article 3 referring to the participating Member States - the "ins" - of EMU) and convergence programmes (Article 7 referring to the non-participating Member States - the "pre-ins" - of EMU) as part of multilateral surveillance by the Council so as to prevent, at an early stage, the occurrence of excessive general government deficits and to promote the surveillance and coordination of economic policies". Stability and convergence programmes have to be submitted before 1 March 1999 (according to the Council Recommendation 98/454/EC at the latest by the end of 1998). In the declaration by the Ecofin Council and the ministers meeting in the council accompanying the recommendations concerning the participation in EMU of May 1, 1998 it is proposed to start to implement this Regulation already on 1 July 1998 in the following way: (i) "We are committed to ensure that the national budget objectives set for 1998 are fully met, if necessary by taking timely corrective action. (ii) The Council agrees to have an early consideration of Member States' budgetary intentions for 1999 in light of the framework and objectives of the Stability and Growth Pact." "Each of the ministers undertakes to submit, at the latest by the end of 1998, national stability or convergence programmes which will reflect these important elements."

The Council Regulation (EC) No 1467/97 aims to *speed up and to clarify the implementation of the excessive deficit procedure*. Article 2(1) defines the normal and exceptional situations for fiscal policy. "The excess of a government deficit over the reference value (3% of GDP) shall be considered exceptional and temporary, in accordance with Article 104c(2)(a), second indent, resulting from an unusual event outside the control of the Member State (external asymmetric or idiosyncratic shock !!) concerned and which has a major impact on the financial position of the general government, or when resulting from a severe economic downturn." The economic downturn (recession) is exceptional when there is an annual fall of real GDP of at least 2%. The Member States "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 Resolution on the SGP, The Member States, point 7). The

Commission prepares the report (Article 2(2)) and the Council decides (Article 2(3)) within three months (Article 3(3)) whether and excessive deficit exists. Additionally, in speeding up the excessive deficit procedure, 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 3(4)). If the Member State concerned acts in compliance with recommendations made by the Council the excessive deficit procedure shall be held in abeyance (Article 9). The Commission and the Council will monitor the implementation of action taken by the Member States concerned (Article 10). A rather complicated procedure of sanctions is regulated in the Articles 11 to 16. If the excessive deficit has not been corrected by a participating Member State within the time limits specified in the recommendations, the Council shall immediately take a decision (Article 10(3)). This actions imply sanctions in form of a non-interest-bearing deposit (Article 11). Article 12 specifies the exact amount of the first deposit. This 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 preceding year and the reference value of 3% of GDP (Article 12(1)). Each following year, until the decision on the existence of an excessive deficit is abrogated, the Council shall assess whether the participating Member State concerned has taken effective action in order to reduce the deficit. In this assessment the Council shall decide, to intensify the sanctions. If an additional deposit is decided, it shall be equal to one tenth of the difference between the deficit as a percentage of GDP in the preceding year and the reference value of 3% of GDP (Article 12(2)). Any single deposit referred to in paragraphs 1 and 2 shall not exceed the upper limit of 0.5% of GDP. The deposit shall be converted by the Council into a fine if two years after the decision to require the participating Member States concerned to make a deposit, the excessive deficit has in the view of the Council not been corrected (Article 13).

The rationale for the SGP:

The economic justification for the SGP is the same as for the fiscal convergence criteria (see Breuss, 1998):

- The danger that increasing (excessive) deficits would lead to crowding-out of private investments;
- The loss of overall economic efficiency with negative consequences for economic growth;

- The effects of incomes distribution between generations (public deficit today have to be repaid by tax payers tomorrow - Ricardian equivalence);
- The temptation for politicians to inflate in order to lighten the real burden of long-term debts;
- Excessive deficits are dangerous because of potential insolvability of the state;
- Increasing interest payments to serve the public debt reduces the room for manoeuvre of governments in conducting fiscal policy (e.g. to assist in employment policy);
- Missing fiscal discipline in one country could easily "spill-over" to other member states (to limit this danger, Art. 104b TEC prohibits bail-out of debts of Member States by the Community and by other Member States).

Behind such "official" arguments for the fiscal criteria of the Maastricht Treaty and those in the SGP one can identify several aspects of modern macroeconomics (see Breuss, 1998 for an overview). One of the most important arguments is those of "market discipline". The hypothesis that financial markets are disciplining the national fiscal policies starts from the assumption that markets give necessary signals and incentives for potential credit demanders, which is consistent with its "solvency" (credibility problem). This implies that the intertemporal budget constraint of a state must hold in order to guarantee solvability.

In the literature, there are at least three strands of thoughts, which are able to justify theoretically the fiscal convergence criteria (and hence also its continuation in the SGP):

- The *Domar* formula on the limits of public debt ($0.60 \text{ (debt/GDP)} = 0.03 \text{ (deficit/GDP)}$ divided by $0.05 \text{ (growth rate of nominal GDP)}$) (Domar, 1944).
- *Dornbusch's* commitment model: High debts are an invitation to inflation in order to lighten the (real) burden of long-term debts. The temptation for politicians to inflate is therefore always present (Dornbusch, 1997).
- *Woodford's* new fiscal theory of price determination: In a policy regime, similar to that of the EMU, the ECB determines the money supply for Euroland. Given the path of GDP the price level is determined (quantity equation of money). Fiscal policy has to adjust in such a way via producing current and future primary surpluses (inclusive seigniorage) as to be able to finance the discounted value of public debt. Such an intertemporal budget constraint secures solvability of the state (Woodford, 1995).

Technically speaking: Countries which already have reached exactly the reference values of 3% deficit/GDP ratio and 60% debt/GDP ratio can sustain this position as long as the nominal

GDP growths with 5%. This implication stems from the Domar formula. As at the start of the EMU not all participating countries fulfil these conditions and it is not sure that nominal GDP will grow in each member country with 5%, the SGP has to be stricter in order to satisfy debt sustainability of 60% in the long-run. Therefore, the SGP implies as a medium-term target of a budgetary positions close to balance or in surplus.

In analysing the different arguments for the SGP, Eichengreen-Wyplosz (1998), firstly deal with the argument of "preventing inflationary debt bailouts" in the context of recent experiences in Mexico (one could also add the Asian crisis and more recently the Russian financial crisis, partly resulting from the over-indebtedness of these countries). They conclude that the Maastricht Treaty already contains a no-bailout rule for the ECB (Art. 104 TEC) and a no-bailout rule for the Community and the Member States (Art. 104b TEC). The former prohibits the ECB from purchasing public debt directly from the issuer. To justify reinforcing this rule with a SGP, it is necessary to show that the factors heightening bailout risk - threats to the banking system and bond market contagion - will operate in EMU. However, they do not find enough evidence for a general EMU-wide risk for bank failures for debt-related reasons. However, they identify Italy and Spain as potential risk countries (Eichengreen-Wyplosz, 1998, p. 79)⁷. Also, the spill-over risks concerning interest rates are not as high as suspected. In an econometric causality test they find only an interest rate spill-over from the rest of the world (USA, Canada, Japan) to Europe and also to Germany. European countries borrow on a global capital market with only small interest rate spillovers between EMU members (Eichengreen-Wyplosz, 1998, p. 87).

Empirical ex-post evaluations of the impact of the SGP:

There are several serious studies which analyse the past experience of industrial countries with budgetary policy in the light of the SGP (e.g. Buti-Franco-Ongena, 1997; European Commission, 1997B; Url, 1996; Eichengreen-Wyplosz, 1998) with similar findings. Taking the results of the European Commission (1997B, p. 68-69) which is based on Buti-Franco-Ongena (1997) as representative for these empirical studies one can briefly draw the following conclusions:

⁷ In a historical study Flandreau-Le Cacheux-Zumer (1998) try to draw lessons from the gold standard (1880-1914). It was a system of fixed exchange rates that offered little opportunity for carrying out monetary policies, short of suspending gold convertibility. One clear lesson for EMU is that debt matters. Another basic finding is that the stability of the European gold standard depended on the underlying price trend. For EMU, this implies that stability will hinge on the ECB's policy not being too restrictive. Other lessons concern the fragility of institutions in the face of deep public finance difficulties.

- *Budgetary policies in recessions during the period 1961-96*: There has been no systematic tendency to loosen budgetary policy during recessions. A severe recession which is "exceptional" is one with negative growth of less than 2% but of at least 0.75%. The SGP only refers to real GDP growth rates. In many budgetary analyses, however, one uses output gaps as business cycle measure (European Commission, 1997B, p. 72 finds that the latter measure is implicitly referred to in the SGP). While the Nordic countries pursued active counter-cyclical budgetary policies during their multi-year recession episodes, most other EU Member States carried out a fiscal retrenchment policy during periods of economic slowdown. In the period 1961-96 the total number of cases with a negative annual real GDP growth rate is 45 for the fifteen EU Member States. Most of these negative growth rates are concentrated around the three major recession periods 1974-75, 1980-82 and 1991-93. There were 30 cases when negative growth was 0.75% or worse (severe recessions) and only 7 cases where real GDP fell by 2% or more in one year (exceptionally severe recessions; European Commission, 1997B, p. 73).
- *Breaching of the 3% reference value during recessions*: Over the past 36 years, an initially balanced budget or a country-specific surplus, would have prevented all one-year recessions from leading to a budget position which remains into excessive deficit in the year following the recession. However, the early years of EMU, when some countries might still have a deficit of about 2% of GDP, are likely to prove highly problematic in the event of a severe recession. The room for manoeuvre for a flexible budgetary policy essentially depends on the initial conditions reached before EMU starts. Here are those countries with still high debt/GDP ratios (in particular Belgium and Italy) in a risky position. In order to reach fiscal sustainability, they have to continue to realise a primary surplus in each year over the next 14 or 19 (see Breuss, 1998).
- *Major policy implications*: The European Commission (1997B, p. 69) sees no need for EU Member States to substantially change budgetary policies carried out during recessions as members of the EMU. As in case of recessions, the margins for implementing large-scale discretionary counter-cyclical policies are rather limited, the medium-term balanced budget is highly recommendable. The new policy regime in EMU (see Table 1) has several implications on budgetary policy. It will be - besides the wage setting behaviour of the Social Partners - the main macro-economic policy instrument still available for individual Member States to combat recessions, especially when shocks are country-specific. The impossibility of lowering interest rates and resorting to currency devaluations might require larger deficit changes. On the other hand, according to the Mundell-Fleming

framework, budgetary policy will in principle become more effective in dampening the amplitude of cyclical fluctuations, in the new policy environment of EMU with centralised monetary policy and irrevocably fixed exchange rates between Member States. If one takes into account, however, that the process of monetary integration complementing the Single Market leads also to higher intra-EU trade integration, trade leakages of national (uncoordinated) budgetary policies will gradually increase, thereby reducing the domestic effectiveness of budgetary policies (European Commission, 1997B, p. 91). If national fiscal policies are coordinated, however, this could lead to an increase of the impact of fiscal policy multipliers (like in the United States).

Eichengreen-Wyplosz (1998, pp. 87 ff) test the hypothesis that the SGP could increase the volatility of EMU output. With a simple structural model (output gap depends on past gaps, past inflation rates and fiscal impulse - budget deficit) they test the hypothesis for France, Germany, Italy and the United Kingdom. In comparing the base line scenario (with the actual budget deficits) with a scenario in which the budget deficit is capped at 3%, as if the SGP had been strictly binding they find the following impact on output. The cumulative output loss over the period 1974-95 would be 9.3% in Italy, 4.8% in the UK and 4.7% in France. However, in Germany, the SGP would have resulted in practically no loss at all. This, so Eichengreen-Wyplosz (1998, p. 95) highlights, why Germany is such a strong advocate of the SGP compared to its neighbours. Volatility of output would have not increased by applying the SGP ceilings.

An even stronger negative impact of the SGP find Hughes-Hallet-McAdam (1998) by applying the concrete rules of the SGP (medium-term target of the deficit ratio of 1% and refundable fines for those who exceed the 3% limit). Tax increase would be necessary and would have to be permanent, if the proposed deficit reductions are to be sustained below the 3% limit. Also changes in the policy-mix are necessary - a loosening in the real value of money relative to fiscal policy - to avoid liquidity shortages or a debt explosion. Finally, and by far the most important result, is a sharp rise in real interest rates. In the longer term, this destroys investment, employment and output capacity. That is a more serious cost than short-term losses in output itself. These simulations are carried out with the very powerful IMF world model MULTIMOD over the period 1996 to 2023. The results might have been a little bit less dramatic if Hughes-Hallet-McAdam (1998, p. 28) would have started with the actual deficit/GDP ratios for Germany, France, Italy and UK which were all within the 3%

convergence criteria reference value. Instead, in the MULTIMOD all countries reach this reference value only in the year 1999.

Whereas Eichengreen-Wyplosz (1998) conclude that the costs and benefits of the SGP are probably minimal, Hughes-Hallet-McAdam (1998) would disagree concerning the costs. Furthermore, Eichengreen-Wyplosz (1998, p. 101) speculate about the enforcement of the SGP and find that it will be relatively loose, but still tight enough to affect some member states' deficits. "EU officials will be reluctant to levy fines and lose goodwill. Member states will be reluctant to incur fines and suffer embarrassment. As in most EU affairs, a negotiated settlement just acceptable to both sides is the likely outcome. EU decision-makers will compromise, allowing the 3% ceiling to be violated. Governments will compromise, eliminating deficits that egregiously violated the Stability Pact. They will modify their fiscal policies just enough to avoid forcing their neighbours to impose fines"⁸.

6. Conclusions

Economic policy in EMU implies a major regime change compared to the pre-EMU situation. Monetary policy is centralised in the ESCB and ECB, fiscal policy remains decentralised in the responsibility of the Member States, restricted by the obligations of the Treaty ("economic policy as a matter of common concern" implies cooperation) in general and by the Stability and Growth Pact in particular. Some authors conclude that the SGP is a minor nuisance if participants of EMU succeed in moving their budgets into balance or, better into surplus, making room for their automatic stabilisers to work. But if their deficits remain high up against their 3% reference values when EMU begins, the SGP becomes more of a problem. Into the group of countries (out of the eleven participants of EMU) with few problems with the SGP belong Ireland, Luxembourg, the Netherlands, Finland and according to the revised figures for 1997, Austria. These countries had a deficit/GDP ratio of less than 2% in 1997. Their debt/GDP ratios are close to 60% or even below that reference value. The second group of countries (deficit/GDP ratios between 2% and 3%) with potential problems with the SGP consists of Belgium, Germany, Spain, France, Italy and Portugal. Out of this sample the biggest sustainability troubles will have Belgium and Italy, both with a debt/GDP ratio of 122%. The other countries have debt/GDP ratios close to 60% or even below that reference value (see European Commission, 1998c, p. 16).

⁸ Similar reservations about the practical enforcement of the SGP in case of great political difficulties are expressed by Sutter (1997). He analyses this problem in a game-theoretic decision-making setting.

One gets the impression that "coordination" is not more than a catchword in the Maastricht Treaty. It is never clearly defined, what is meant by coordination, nor which authorities in which context should coordinate which economic policy. Is a grand coordination set-up necessary, one between monetary policy (ECB), fiscal policy (Member States) and wage setting (Social Partners)? Or is it enough, when only the Member States coordinate their fiscal policy stance? Furthermore, the term "economic policy" is never clearly defined in the Treaty. Reading the Broad Guidelines of Economic Policies by the Commission, one gets the impression that economic policy encompasses monetary policy, fiscal (budgetary) policy, wage setting policy and structural policy (improving the efficiency of the Single Market via more flexibility of the labour market etc.). So, how much coordination is needed in EMU and in which policy-mix context remains an open question, legally, theoretically and empirically. In this paper mixed results of coordination studies have been presented. The fact that coordination is not exactly defined, however, could also be interpreted as chance to be more flexible in this area as in so many other policy areas of the EU.

The big question then is, whether EMU is ready or not. Given that coordination of economic policy is executed somehow, are the participants of EMU prepared to handle the adverse effects of asymmetric shocks? A long discussion in the literature on fiscal federalism, taking the USA and Canada as examples think that EMU is ill-prepared to handle economic crises. As the Treaty excludes fiscal federalism, alternative instruments are proposed here. One is an old one (a separate stabilisation fund) and two are new. A country insurance model could function as a buffer stock in case of idiosyncratic shocks. Another possibility would be to create an EU-wide stabilisation fund, financed by the seigniorage revenues, the ECB will collect in EMU.

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