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*The stability and growth pact and its
institutional inconsistencies*

Presented by

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Stability and Growth Pact and its Institutional Inconsistencies

Reforming: The Stability and Growth Pact

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Abstract

One of the most illustrating example in history of the EUROPEAN Monetary Union are the growing interactions between sovereign countries -each retaining a large degree of fiscal autonomy- and the single monetary authority, which managing European monetary policy, since the establishment of the monetary union in 1999. Additionally some regulations as the Stability and Growth Pact (SGP; 1997) introduce new conflicts and gets to one of the mainstays in the European fiscal framework. Since the Ecofin-council meeting in November, 2003 and the failure to impose sanctions against sinner states, the 'Stability and Growth Pact' is subject of lively academic and public debate. Different alternatives to the current 'Stability and Growth Pact' exists. There are three main fields of critics about the 'Stability and Growth Pact'. First, the institutional problems. Second, the thresholds and targets and finally the implementation problems. This paper presents a critical assessment of the SGP. The contribution of this paper is: First, summarize the alternative proposals and present a good overview about the huge number of partly vague reform suggestions. In a second step I analyze the the proposals and categorize them into four different 'Reform Alternatives'. Finally, I will extract a reform alternative which takes nearly all critics into consideration and find an answer to: How should the European fiscal framework reformed in future especially the SGP? Moreover the primary target of the paper is to look for new efficient 'supranational-national' interaction mechanisms. A new finding presented here is that efficient 'supranational-national' mechanisms need adequate rewards for the restricted party. Additionally I demonstrate that coordination is necessary but with positive incentives. So the paper concludes and shows: How can you solve the interaction between the 'European' and 'National' interests efficient.

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1 Introduction

The most illustrating example in history of 'European Integration' is certainly the supranational 'Monetary Union', since 1999. The economic and political costs and benefits of European Economic and Monetary Union (EMU) haven been subjects of lively public debate. A wonderful by-product for the economic profession has been the emergence of a new research topic (Dixit, 2002,[22]). The EMU is involved in many interactions for instance between the common monetary policy, the domestic fiscal policies and some other related national policy fields like trade-union policy. These interaction conflicts especially the current problems with the 'Stability and Growth Pact' (SGP,[27]) as well as the institutional consequences for the 'Economic and Fiscal Framework' ('Modes of Economic Governance') in Europe will be analysed in this article (Eberlein and Kerwer, 2004,[26]). The typical conflicts in the 'EMU' between supranational monetary policy by the 'European Central Bank' (ECB) and national fiscal policy by the euro member states show us an interesting research object to solve conflicts effectively. Solution mechanisms which transform 'Prisoner's Dilemma' or 'Chicken games' into a 'Cooperative game' (Axelrod, [3]) is also important for related policy fields like 'Comparative Politics' and 'Intergovernmental Relations' (Alesina et al., 2002,[2]). To investigate the institutional developments within the view of the 'European Monetary Union' east enlargement, it is also important to indicate ways how the middle and Eastern European (MEE) countries should prepare structurally and economically. That kind of research should help us to show: How can interaction conflicts be solved efficiently in an enlarged Europe between 'supranational' and 'national' interests? The remainder of the article is organized as follows. In section 2, I present the existing different 'European Modes of Economic Governance'. Section 3 discusses interaction (conflicts) between fiscal and monetary policy. In the next section 4, I focus on the current solution mechanism the 'Stability and Growth Pact'. Analysing the critics of the SGP show us new ways for solutions. Section 5 describes important ingredients for a good solution mechanism, that solve the typical interaction conflict between 'European' and 'National' interests. Finally, section 6 concludes the article.

2 Modes of Economic Governance in the EU

The question of how to advance both effective and legitimate modes of decision-making and political action in and through the enlarged European Union is not merely an academic one, but also discussed in mass media and in the national parliament. The increasing salience of these issues stems from the adoption of Economic and Monetary Union (EMU), which has opened up new interactions and therefore opportunities for the co-ordinated pursuit of European citizens. At Lisbon (2001) the European Council extended the scope of economic governance within the European Union, first by setting a new target set for the EU's economic development, i.e. 'to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable growth with more and better jobs and greater social cohesion.' Secondly, the European Council implicitly incorporated other policy fields into the economic strategy like social policy, education policy and a new mode of governance, that is the 'Open Method of Coordination' (Colligon, 2003,[15]).²

The new modes of governance (H. Wallace, [51] and Kohler-Koch, [41]) in policy fields of macro-economic policy-making differs considerably from the 'traditional' models of EU governance, particularly from the regulatory model (Majone, 2004, [43],[44])³ and the 'Community method' based on European Commission, European Council, European Parliament and the European Court of Justice (Wallace, 2000).

New theoretical findings in the light of the theory of democratic experimentalism (Eberlein and Kerwer, 2004) are coming up. They show that new modes of governance lead to more effective rules and more opportunities for political participation. Additionally they present us how a voluntary mode of governance can coexist with compulsory regulation. In that light I discuss now in more detail the 'Future of Economic Governance' (Lamy, 2004,[42]). The new challenges between the interaction of centralized European Monetary Policy and decentralized Fiscal Policy need an adequate coordination mechanism like the 'Stability

²Cf. Linsenmann/Wessels (2002): Modes of Economic Governance in the EU; They hope to find insights with her analysis of EMU as modes of governance and their evolution for the development of the EU systems.

³Cf. Majone (2004): European Regulatory Agencies: The Dilemma of Delegation of Powers in the European Union; In this paper Majone distant to the older position of regulatory models in the European Union.

and Growth Pact'. But the current problems with the SGP⁴ induce a search to 'New modes of economic governance' or 'New modes of cooperation' for the 'Euro'-member states (Scharpf, 2003,[48]). The first question is: Are there more efficient coordination mechanisms? And second: Which policy fields have to be more coordinated because of monetary-fiscal interaction? Finally: What are the key ingredients for such an interaction mechanism? In the following subsections I present the different Policy-Making systems in the EU.

2.1 Supranational Policy-Making

The monetary policy, treaty provisions of the 'European System of Central Banks' (ESZB) as well as the 'European Central Bank' (ECB), are complete independent from national and partisan influence. This kind of policy-making can be labelled as 'supranational'. The primary aim of the ECB is to maintain 'price stability' (art. 105 ECT). Instruments, at least those concerning 'interest rate' and 'intervention operations', will be applied in the ESCB-Governing council after majority voting, but with no formal decision-making role (Eijffinger and de Haan, 2000).⁵ But fiscal policy could negatively influence the price stability through excessive debt or deficit accumulation (free-riding). That reflect the reason why we need an additional coordination mechanism like the SGP in the European Monetary Union (EMU).⁶

2.2 Policies of Co-ordination

There are three different types of coordination policies or modes of governance - hard, soft, and open (Issing [39] and Linsenmann/Wessels [52]). These three modes of governance have their foundation in the associated policy fields:

- (a) Fiscal policy co-ordination (art. 104 ECT),
- (b) Economic policy coordination (art. 99 ECT), and

⁴Cf. Early warning scandal in spring 2002 against Germany; Abandon sanction mechanism against French and Germany in autumn 2003.

⁵Cf. W. Duisenberg mention in a 'Press conference' that there is no vote in the Council because all Central-bankers decide in every case in correspondence.

⁶Cf. For additionally information consult Beetsma/Uhlig (1999), Junius et al. (2002, p. 32-81) and Brunila et al. (2001).

(c) Employment policy co-ordination (art. 128 ECT)⁷.

In fiscal policy, member states have established distinct rules for coordination. The basic rule art. 104 ECT, completed by the fifth protocol describes the general targets. Since Amsterdam 1997, the fiscal framework is extended by the well-known 'Stability and Growth Pact', to put into practice the excessive deficit procedure⁸ for all 'Euro-member' states haven been participating in the EMU.⁹ The key ingredients of fiscal policy coordination are:

- Fixed targets
- Cyclical monitoring
- Information exchange
- Mutual control
- Council recommendations (i.e. early warning)
- Sanction mechanism.

Given the possibility of sanctions against 'sinner states', fiscal policy coordination puts considerable constraints on euro member states. The actual problems of the SGP are based on different reasons: First the institutional inconsistencies and second some content problems with the target values and the time horizon (see section 4). Besides of all drawbacks this mode of governance can be labelled as 'hard' co-ordination because of the binding procedures in the Maastricht Treaty (supplementary protocols) and the two council regulations of the SGP (1466/97 and 1467/97).

In contrast to the hard coordination of fiscal policy, the procedures in the area of economic policy co-ordination, art. 99 ECT are 'soft'. The main economic co-ordination procedure is the annual 'Broad Economic Policy Guidelines' (BEPG). This framework has no direct legal impact for member states and do not include

⁷Cf. there is the new 'Open method of coordination'.

⁸Cf. art. 104 ECT prescribes only criteria for the convergence phase. It says nothing about the targets after the III. convergence phase.

⁹Cf. the SGP is based on a proposal 'Stability Pact for Europe' from the former German minister of finance Theo Waigel, in 1995.

any sanction mechanism as in the field of fiscal policy. The main points here are monitoring, benchmarking and the publication of 'best practices'. The modes of economic governance includes recommendations of the Council to member states which deviating from principles of the BEPG's.¹⁰ The BEPG should be on the centre of coordination. It consists of: (A) Cardiff Process, (B) Luxemburg Process, (C) Cologne Process and finally (D) Stability and Growth Pact.

While fiscal and economic policy has been incorporated into the Treaty in Maastricht, the employment part was first added in Amsterdam, 1997. The key difference is that art. 128 ECT does not foresee a formal recommendation of the Council to one member state in case of non-compliance. All 'soft co-ordination logic' is oriented towards the good will of actors and works without any legal incentives.

Since Lisbon the so-called 'Open method of Coordination' (OMC) was established. The key tool is based on peer group review and the EU's institutions surveillance procedure. This new mode of governance was underlined in the Laeken Declaration of the European Council and formulated as a broader long-term strategy. Apart from the fact that there exist no real incentives in the OMC, a game theoretic perspective show us a more ambivalent result. If the OMC implement the best practice in European member states, then countries might have an intrinsically motivation that her own system is moved to the European level. But there exists probably an extrinsically motivation because an implementation of a national system onto the European level saves the transformation costs. The other countries, which have to transform her national systems onto the 'Best practices' system, carry then the whole costs. Therefore governments could have today an incentive to improve the current national systems¹¹ because they hope on the one hand that their own systems will in future be transformed at the European level and on the other hand to save then the implementation costs of the new 'Best practice' system.¹²

¹⁰Cf. Ireland was criticized by the European Council in the year 2001.

¹¹Cf. the government in Germany implement the Agenda 2010 to improve the education, health, pension and further systems.

¹²Cf. this could be one reason why almost all European countries reform her national systems.

2.3 Intergovernmental policy and patterns of participation

Multi-level governance¹³ (Aalberts 2004,[1]; Jachtenfuchs [40]) is defined as pattern of interactions, deliberations and decisions by which actors from distinct arenas joint to solve a 'collective problem' (Wallace, 2000). One example is the installation of the 'Economic and Financial Committee' which gives far-reaching mandates to various key domestic actors (art. 114.2 ECT).¹⁴

This short overview characterises the main European coordination politics in the economic framework or called the 'Modes of Economic governance'. In the following article I have the intention to find the right modes of economic governance primarily in fiscal policy. But you can extend this model under some restrictions also to corresponding policy fields in Europe and international economic policy. In the next sections I show some of the specific issues in monetary-fiscal interaction and the isomorphic problems within the Stability and Growth Pact.

3 Fiscal-monetary interaction

The need for fiscal rules has been at the core of the debate on EMU since the early 1990s. The arguments put forward in favor of and against fiscal rules in EMU context also at current time.¹⁵ The question: "Why Fiscal Rules in the EMU?" is today perhaps more actually as before. In this section I describe the fiscal-monetary interaction mechanism and the sources of danger.

3.1 Rationales for Fiscal Rules

The beginning reflection is that with the creation of a monetary union also club goods¹⁶ are provided (Beetsma, 2001). The typical quality of these goods is that the participating states cannot be excluded by the use. Consequently it can come to a Free-rider or moral hazard behavior which lead then to the fact that those goods are produced in too small quantity. This good is: 'PRICE STABILITY'.

¹³Cf. Aalberts (2004) showing in a 'Constructivist Reading' that multilevel governance can feed into this process. Despite focusing on non-anarchical structures in the international system, hence beyond the conventional hierarchy/anarchy dichotomy the multilevel governance approach seems a radical transformation of the familiar Westphalian system and to undermine state sovereignty.

¹⁴Cf. examples for beyond the modes are found in Linsenmann/Wessels (2002).

¹⁵Cf. Reform proposals and discussion about the SGP have increase strongly since, November 2003.

¹⁶Some authors speak also from a 'pure' public good.

The primary aim of the ECB is to secure the price stability (art. 105 ECT).¹⁷ The traditional monetary 'quantity theory'¹⁸ implies that there is a proportional connection between monetary base (M) and the price level (P; inflation). But in reality the monetary base consists of the behaviour through different agents:

- National public finance
- Banks and no commercial banks.

Before this background two areas of menace arise from the fiscal policy: (A) Monetary financing of budget deficits and debt. (B) The increasing state indebtedness and rising budget deficit, inducing interest rate pressure. This explains again, why a big interest from sides of the fiscal policy exists to influence control over monetary policy (Dornbusch, [24]).

The fiscal-monetary interaction mechanism implies that national fiscal policy can foil the public good price stability, which is secured by the ECB. The influence mechanism generates danger for the European price stability. The consequence is that one country can negatively influence the price stability through excessive deficit and debt accumulation and transform the costs to all other participating member states. Basically four sources of danger arises (Junius et al., 2002, [32]):

- **Free Riding**, because 'rational' member states will benefit from the public 'price stability' in the monetary union. But there are incentives to increase short-run deficits (increase individual benefits), which imply a higher price level for all participating countries (costs).
- **Moral Hazard**, because the 'No-bail-out-clause' is not credible. Additionally that induce disincentives to secure price stability.
- **EZB-Independence**, because free-rider and moral hazard behaviour of member states influence directly the decisions of the ECB and through that the independence.
- **Political Pressure**, arises because of the problem that all decisions taken by the ECB are orientated on average values.

¹⁷Cf. Price stability is defined as a year-on-year increase in the Harmonized Index of Consumer Prices (HICP) for the euro area. Price stability is to be maintained inflation rates close to 2% over the medium term (since 8 May 2003, ECB).

¹⁸Cf. Milton Friedman (1968): $P * Y = V * M$.

3.2 Theoretical Models of Fiscal-Monetary Interaction

Economists have tried to model this interaction mechanism and the consequences implied by the SGP. An early attempt to model the SGP is provided by Beetsma and Uhlig (1999,[4]). They present in a two-period model of monetary union that governments have incentives to issue more debt than a social planner would choose. They conclude therefore that the incentives to restrain debt accumulation are diminished in a monetary union and, hence, the excessiveness of debt will be exacerbated. Thus, the spill over effect arise through increasing public debt in a country, which leads to a looser common monetary policy and hence, affect all the union participants. Similarly to Beetsma and Uhlig (1999) is the work by Chari and Kehoe (1998,2003,[12],[13]) who explore the need for debt restrictions in a two-country model of monetary union. They conclude, that restrictions on public debt are needed, because union members do not fully internalise the welfare effects of an increase in nominal debt on the common union-wide inflation rate.¹⁹ Actually Dixit and Lambertini (2003,[20]) and Beetsma and Jensen (2003,[6]) model a monetary union with fiscal-monetary interaction.²⁰ The results of these models are: prices (or inflation) are higher if the central bank cannot fully commit the aim price stability and a shock-contingent budgetary target leads too an increasing free-riding behavior.

All the papers mentioned so far have in common that the union's central bank is not only concerned with low inflation, but also with other objectives. Debrun (2000,[19]), in contrast provides a rational for short-run (deficit-based) fiscal constraints, despite of the assumption that the ECB is totally committed to its objective (Beetsma, 2001,[5]). The important point here is that fiscal policies affect aggregated demand and supply and, hence the price level in the monetary union. Through a lack of commitment in monetary and fiscal policy the public deficit biased up: First, governments try to stimulate aggregate demand by expansive fiscal policy and second, they use deficits to move the common inflation rate into the direction they individually prefer.²¹ This model prediction is perhaps an empirical rational for the reason why France and Germany with very low

¹⁹Cf. Giovannetti, Marimon and Teles extend the paper of Chari and Kehoe into various directions.

²⁰Cf. But without implementing fiscal restrictions like the Stability and Growth Pact.

²¹Cf. If the actual inflation rate target is to be too tight, they boost aggregate demand further, which increase inflation.

'National' inflation rates and growth rates breaches the SGP. In my own work (Herzog, 2003,[37]), I found that the current SGP works not really to secure price stability. I can show, if more than one country breaches the Pact, a deficit-spiral (debt-spiral) to more excessive government spending will be induced. Additionally I found that the optimal inflation rate by the ECB could be higher under the current Stability and Growth Pact.

The theoretical analysis in that topic explain on the one hand the need of fiscal restrictions and on the other hand the implementation problems of the current SGP. But Beetsma (2001) conclude, that the theoretical literature cannot pass any clear verdict on the SGP: *'Therefore, the pros and cons of the SGP need to be assessed using qualitative arguments.'*

In a nutshell, the need of a strong fiscal framework like the SGP in the European Monetary Union is consensus. The implementation of an efficient coordination mechanism is very difficult, because it have to link 'National and European' interests. There is no 'perfect' rule. But in the next section I will try to assess what are some key ingredients to manage this interaction efficient.

4 The 'Stability and Growth Pact'

The monitoring of fiscal discipline is based on four elements: The two criteria from the SGP and Maastricht Treaty, which restrict deficit to 3% of GDP and debt to 60% of GDP; the third ingredient is fiscal surveillance like the stability programs and finally the fourth is already mentioned above the 'Broad Economic Policy Guidelines.'

According to the article 104 ECT, Member States shall avoid excessive government deficits, with excessive deficits being defined as above 3% of GDP. The SGP concretise the deficit procedure and implement a sanction mechanism. If a country breach the threshold it may pay fines of between 0.2 and 0.5% of its GDP (cf. Figure [A.5] in the graphical appendix). However, a country will not be fined in case of 'exceptional circumstances', i.e. if the deficit is generated by an unusual event out of control of the national authorities, or if output has fallen by more than 2% and may avoid any sanction, if partner countries agree, in the event of a fall in GDP of between 0.75 and 2%. The Treaty and SGP maintain also that the debt to GDP ratios should be below a reference value of 60%. This criterion is relevant

to assess fiscal sustainability (Mathieu and Sterdyniak, 2003,[45]). Additionally the Pact sets out a medium-term objective, which is to reach budgetary positions 'close-to-balance or in surplus' and to implement yearly stability programs. The Commission and the EFC then evaluate these programmes. After the detailed evaluation the Commission addresses a recommendation to the Ecofin council.

The procedure of the SGP attempts to discipline the national fiscal policy in favour to the common price stability. On the one hand works the SGP sometimes like a corset for the fiscal policy. On the other hand is the SGP needed to discipline the fiscal policy. So the question is: What are the costs and benefits in each situation? To make the European monetary union and the currency 'EURO' a successful project it is consensus around all participating countries that the price stability is primary. Concluding, the EMU need a disciplining mechanism like the SGP but also protect national freedom as much as possible (cf. 'Subsidiarity principle', art. 5 ECT) to react for example to idiosyncratic and asymmetric shocks. To do these splits an adequate mechanism is necessary. In the following section I discuss shortly the reform ideas of the current SGP. These alternatives have the intention to cure all existing incentive problems of the actual Stability Pact. This analysis bring us then to the key ingredients for a good 'supranational-national interaction rule'.

4.1 Current Reform Discussion

The need to reforming the SGP²² became more and more obvious in the course of 2002. A number of economists have made different and sometimes contradicting proposals. Thus there are many coordination mechanisms, which transform non-cooperative constellations into cooperative. The current reforms can be categorized into:

- Radical reforms like more market or more central co-ordination
- Modification reforms to a new target structure and
- Modification reforms on the basis of the current Pact.

²²Cf. Mundell, R. (2004) critics that the SGP focus merely on budget deficits.

Moreover there exists different advantages and disadvantages but for all distinguishing proposals some basic principles are necessary for a good interaction management. The question is now, whether the mechanisms are also sufficient?²³

The radical reform proposals are connected with fundamental changes of the fiscal policy framework in Europe for example 'Tradable Deficit Permits' (Casella, 2001,[11]), 'Rating Agencies to evaluate national Debt' (Eichengreen, [29]) and all proposals to a closer fiscal policy coordination or centralization at the European level (Heise, [34]; Euromemorandum, 2003). The suggestions from Casella (2001) and Eichengreen (2002,[28]) are towards a market solution that works efficient and solve the interaction problem. The other direction to solve the problem efficient is towards a European economic government. But the knowledge that these radical reforms need either a majority around the European countries and/or a closer political union makes both directions in the near future probably unlikely.

On the other hand a modification proposal is only a change in the current framework of fiscal policy in Europe. The reform alternatives in that field are: First to define a new target structure which transform the only focus today (deficit) to a more-dimensional view and bring this together with a longer time horizon. The second group of reforms work near on the current Pact. But similar in all modification suggestions is, they plead to a non-partisan or independent agency (committee) establishment. In Table 1 below, I summarize the most prominent reform proposals in each category.

Some prominent alternative is the 'Golden Rule'^{24,25}. Balassone/Franco (2001, p. 371) mention that the risk that a revision of the rules could harm the credibility of the commitment to fiscal sustainability, which in turn may prevent the adoption of the appropriate policy mix, have to be taken into account. The authors distinguishes between three types of 'Golden rules':

1. Proposal made by Modigliani et al. (1998, [46]). They suggesting the use of a net deficit equal to net investment.
2. German-Rule (Art. 115 of the Constitution), yearly deficits are allowed up to the level of gross investment in the federal budget.

²³Cf. Läufer, N. (2002) critics the current reform discussion and conclude that the economic policy in the bigger countries like French and Germany are not arrived in the EMU.

²⁴Solow/Swan (1956)

²⁵Fabeck (1994) and Balassone/Franco (2001)

3. The UK-Rule which public borrowing cannot exceed the level of net investment over the cycle.

The advantage of this draft is that it can be inserted relatively lightly in the existing system of European fiscal framework and the SGP. Besides, the main idea is always that the net deficit should never be higher than the public investment. Also Creel et al. 2002, propose to import this rule in the euro area: '*structural current government borrowing, i.e. excluding public investment, should be permanently in balance or in surplus*'.²⁶ The ambiguity in the definition²⁷ of public investment imply that their proposal is different to the three 'Golden rule' cases mentioned above. In that tradition Buiter and Grafe (2003, [9]) proposes, that for countries which have significant public investment needs not to cut government borrowing. They mention that lowering public investment is harmful in terms of potential output growth if endogenous growth theory has some relevance.

In the line with Buiter and Grafe (2003), an analog approach is the suggestion by Buiter (2003, [8]) to propose a *permanent balance rule*. This rule leaves room for active economic policy in the short-run. It would allow countries with relatively higher output growth and inflation to run higher public deficits.²⁸ To raise the intergenerational equity and public spending, this rule cannot be ensured by an automatic rule (Buiter, 2003) and the rule sets an optimal national fiscal rule ahead.

Table 1: A summary of some Reform proposals

	Radical proposals	Modification proposals
Bofinger		Inflation targeting
Buiter		Permanent Balance rule
Buti	Higher degree of fiscal integration	Redefining the medium budget target and i.c.
Casella	Tradeable deficit permits	
De Grauwe		Contingent debt and deficit targets
Eichengreen	Rating Agency	Deficit Index and i.c.
Eijffinger		Structural balance targets
Ohr/Schmidt		Fully independent council
von Hagen		Independent council (i.c.)
Wypolysz		Fully independent council

²⁶cf. Mathieu and Sterdyniak (2003, p. 31).

²⁷Balassone and Franco (2001) reject the rule because of the difficulties of measure.

²⁸This fact is very important particularly for the MEE countries.

Going out from this systematisation you find out three theoretical solution mechanisms for 'supranational-national' interaction conflicts: (a) Market, (b) Hierarchy and (c) Coordination. The next sections of my article focus on the structure of efficient 'coordination mechanisms'. In spite of Eijffinger (2003) have told: 'In the end it will be more Hierarchy in the Fiscal Framework', likely similar to monetary policy but with an other structure,²⁹ I focus on co-ordination mechanisms because I think also that a political union is in near future really unthinkable. Moreover all people in Europe know that we need a better and more credible Stability Pact as the current one to discipline national fiscal policy.

4.2 Taken reforms from the EU-Commission

Even the 'European Commission' proposes same changes of the 'Stability and Growth Pact'. In June 2001, on a proposal from the EFC, the Ecofin council adopted the first reform of the procedures (European Commission, 2002, [16]). The main changes were: more effective surveillance process, the presentation of annual stability programs and a closer insert in the framework of the BEPGs as well as some new focus on the time horizon (medium-term) and target objectives like ageing populations. On 13 September 2002, Pedro Solbes [49] was speaking before the European Convention and stated that the functioning of the EMU was satisfactory. However the Commission propose additionally three further reforms:

1. Commission should be entitled to send recommendations directly to the States.
2. The Council should not depart from the Commission's recommendations on BEPGs and on warnings addressed to member countries, unless acting by unanimity.
3. Member countries concerned should not take part to the vote on warning.

Although on 24 September 2002 recognized officially that the target of close-to-balance was out of reach for 2004, the Commission does not intend to put the Stability Pact into question: *"The experience of the early years shows that the question is not about the framework itself, but how can the system be better managed so that the rules are followed the 3% of GDP deficit threshold that is the cornerstone of our stability framework"*. Solbes reasserts the necessity to strengthen

²⁹Cf. German federal structure between 'State' and federal 'Regions'.

fiscal policy co-ordination, but within the Stability Pact. After Prodi's words in 'Le Monde' the Commission present a set of 'five' new measures to strengthen the co-ordination of budgetary policies, on 21 November 2002.

1. The 'close-to-balance or in surplus' target should be interpreted in terms of cyclically-adjusted budget balances.
2. National structural deficits will have to be cut by at least 0.5% of GDP per year, even more rapidly in countries with high deficit or debt, or 'favourable growth conditions'.
3. Avoid the occurrence of expansionary fiscal policies in times of favourable growth.
4. The Commission wishes to give its authorisation for a 'small temporary deterioration in the underlying budget position' to the countries which undertake structural reforms in line with the Lisbon strategy.
5. 'The sustainability of public finance should become a core policy objective'.

The Commissions proposal mention a necessity to transfer as many decisions as possible from the national to the community level, from political to the technocratic level. In this respect, the institutional logic is based on the model of the ECB, hence to increase its authority at the detriment of the Member States. After some political disputes, the Ecofin Council (7 March, 2003) and the European Council (on 20-21 March, 2003) have finally adopted a proposal very close to the Commission's proposal. As Paul de Grauwe wrote in 2002: *'Seen from this political perspective, the Stability Pact is a vote of no confidence of the European authorities in the strength of the democratic institutions in the member countries. It is quite surprising that EU-countries have allowed this to happen, and that they have accepted to be subjected to control by the European institutions that even in IMF does not impose on banana republics.'*

4.3 Theoretical findings for an efficient interaction mechanism (SGP)

In this subsection I present a theoretical economic foundation for incentive based coordination mechanisms. All economic transactions need governance. Much of economic theory assumes that an official legal system provides this service. This

assumption imply implicit that the law worked perfectly and costlessly (Dixit, 2001). In reality of economic life societies have developed alternative modes of governance. Understanding these modes lead to a better understanding of the official system, and even more importantly, of the interrelations among the modes - Can alternative governance modes do as well as, or perhaps even better than, the official law? Are different modes mutual substitutes, or can they be complements?

Every institution is designed to maximize social welfare and solve two basic problems: It must discourage free riding and it must credible promise not misuse the information, for example for extortion.³⁰ Similar to Dixit (2001) you can describe the solution to this problem as following: On the left hand is the expected immediate gains from deviation, conditional on meeting a type without a public Bad label (reputation loss), and on the right hand side is the expected future costs of the deviation. The conclusion from this analysis is that an efficient mechanism balances the benefits of breaching the SGP and the implied costs. In specific constellations in which the public detection probabilities are high then self-governance work automatically and no coordination or intermediation is needed. But if the probabilities are both low and the other side cheat then tow-side intermediation (co-ordination) can help.

Now I develop a 'national-supranational' interaction model with an efficient coordination agency. A new finding in the model is that the national incentive structure to consolidate the financial budget must be rewarded by the supranational level or the agency. I consider the simple case of an indivisible public project (good) that has value S for national consumers. Each member state of a monetary union can realize the project. Its cost function is

$$C = \delta - e \tag{1}$$

where ' δ ' is an efficiency parameter³¹ which can be described as costs for deficit and debt accumulation. The parameter 'e' is the household consolidation effort.³² For expositional simplicity I will assume that efforts remain strictly positive over the relevant range of equilibrium efforts. This can justify, because the member countries are obliged in their stability programs to steadily consolidations and at

³⁰Cf. A good description of the idea is find in Gambetta's (1993) excellent study of the Sicilian mafia.

³¹Cf. Adverse selection rate. But because of the Stability programs that parameter is observable.

³²Cf. Moral hazard rate.

the same time the SGP prescribes a well-balanced or even surplus budget. A first question is: What is the optimal consolidation effort? Let U be the national's utility level:

$$U = \zeta - \psi(e) \quad (2)$$

The utility increases with ' ζ ' a transfer from the supranational (or agency) level like 'price stability' and it decreases with disutility³³ ' $\psi(e)$ ' from national consolidation because of the partial loss of sovereignty rights in fiscal policy. Now I assume that the coordination agency is a Stackelberg leader and makes a take-it-or-leave-it offer to the member states. The agency maximize the following welfare function:

$$W^S = S + U - (1 + \lambda)[\zeta + \delta - e] \quad (3)$$

Under complete information³⁴- that is, knowing δ and observing e - the agency would solve and maximize social welfare (cf. Laffont, J. and Tirole, J. 1993). Now substitute in the welfare function defined by (3), the utility function (2). After some trivial transformations you get:

$$\max_{U,e} [S - (1 + \lambda)(\delta - e + \psi(e)) - \lambda U] \quad (4)$$

subject to $U \geq 0$ and $\lambda \geq 0$ denote the shadow cost of public finance. All technicalities are relegated to an Appendix (available up request). The solution of this program is

$$\psi'(e) = 1 \iff e \equiv e^* \quad (5)$$

$$U = 0 \iff \zeta = \psi(e^*) \quad (6)$$

That is, the marginal disutility of effort, $\psi(e)$, must be equal to marginal cost of savings, one. Furthermore the existence of a shadow cost of public finance implies that the national member state receive no rent ($U = 0$).

³³With $\psi'(e) > 0$ for $e > 0$ and $\psi''(e) < 0$, and satisfies $\psi(0) = 0$ and $\lim_{e \rightarrow \infty} \psi(e) = +\infty$.

³⁴The main general economic conclusions are: (1) Asymmetric incentives (information) allows the regulated actors (nation) to enjoy a rent. (2) Asymmetric incentives (information) reduces the power of the incentive schemes (effort decreases).

Proposition 1: In the optimum is the 'supranational' reward ' ζ ' equal to the equilibrium disutility of consolidating the budget.

Proof: Solution set (5 and 6) \square

More interesting for my purpose, the agency can offer the member state a fixed-rate contract (with $a = \psi(e^*)$):

$$\zeta(C) = a - (C - C^*) \quad (7)$$

Proposition 2: The fixed-rate incentive contract is efficient and imply to set the consolidation effort $e = e^*$.

Proof: For the equilibrium $e = e^*$ result: $\zeta(C) = \psi(e^*)$ \blacksquare

Proposition 3: The supranational reward must correspond proportional with disutility.

Proof: The derivative of $\zeta(C)$ is: $\frac{d\zeta}{de} = \psi'(e^*) = 1 > 0$ and $\frac{d^2\zeta}{de^2} = \psi''(e^*) > 0$ \blacksquare

Proposition 2 and 3 imply that an efficient 'supranational-national' coordination mechanism have to include an adequate 'reward' to the budget consolidation effort to every participating member state. That implies no negative incentives like sanction fees, but positive as described later in my proposal to the SGP. This result is consistent with findings in other models by Heinemann/Hüfner (2002) and Fuchs/Lippi (2003). The novel part in that modelling is an explicit design of a coordination agency (SGP) in a stylised monetary-fiscal interaction framework. In that framework I analyze efficient incentive mechanisms like the Stability and Growth Pact in Europe. The finding is that all interaction relations, which restrict one side for benefits in the whole environment, works only efficient with equivalent 'rewards'.

4.4 Why the bigger countries have more problems with the SGP?

In this subsection I give some theoretical explanation for the reasons why the bigger countries have more problems with rules of the Stability and Growth Pact than the smaller countries.

Some authors argue that the choice between numerical and procedural rules depends on several factors (Buti and Guidice, [10]). Von Hagen and Harden

(1994, [50]) find a clear correlation between the size of a country and the nature of its commitment of fiscal discipline: 'The larger the EU Member States, such as Germany and France, which were relatively successful in maintaining fiscal discipline during the 1980s, relied on procedural rules, while the smaller countries tended to opt for numerical targets.' This could partially explain why the bigger countries have more problems with numerical targets as the Stability and Growth Pact. But the real reason is behind this empirical observation. Why? There are two important points that illustrates the '*Paradox of the big country*' behavior.

The first point is a new finding from a theoretical model that analyze fiscal-monetary interaction in a Monetary Union with the modelling of a Stability and Growth Pact (Herzog, [37]).

The monetary union is formed by n countries. The European common central bank (ECB) is responsible for the whole monetary policy. The fiscal policy is de-central. In the monetary union exists i ($i = 1, \dots, n$) governments. For simplification, I assume that all i economies are identical. Each country produces a single perfect substitutable good. The inflation rate π is uniform across monetary union. Labor is assumed internationally immobile. Trade union objective is to set the log real wage rate $r_t^* > 0$. Nominal-wage contracts are signed before policies are selected. So the trade unions are "Stackelberg-leaders". Expectations are rational $p^e = E[p]$.

The normalized output equation for 'y' is

$$y_{i,t} := \hat{y}_{i,t} - [-r_t^* + \ln(\eta)]z = z * [\pi_t - \pi_t^e - \tau_{i,t}] + \mu_t \quad (8)$$

where ' π ' represents inflation, ' π^e ' expected inflation, ' μ ' is a stochastic shock and ' z ' is an abbreviation for elasticities. Two distortions reduces output below its first best level. First, the output tax $\tau_{i,t}$ which drives a wedge between the social and private output. Second, the power of the trade unions allows them to drive the real wage 'r' above its social optimum.

To calculate the optimal monetary and fiscal policy I minimize two different loss functions (Dixit (2000), Engwerda (2001), [21], [31]). The loss function of a fiscal authority is in general:

$$L_i^F = \frac{1}{2} \sum_{t=1}^2 \beta_F^{t-1} \left[\alpha_{\pi,s} (\pi_t - \pi_t^*)^2 + (y_{i,t} - \bar{y}_{i,t})^2 + \alpha_{x,s} (x_{i,t} - \bar{x}_t)^2 \right], \quad (9)$$

with $0 < \beta_F \leq 1$ as the discount-factor and $\alpha_{\pi,s}, \alpha_{x,s} > 0$ are weights. The welfare loss increases in: (1) deviation of inflation, (2) deviation of output and (3) deviation of government spending, from the targets level. To simplify the further calculations, I assume that $\pi^* = 0$. In Europe, is this nearly correct because the target inflation is near 2%³⁵. Moreover the inflation measures are normally biased up.

The monetary policy is delegated to an independent central bank (European Central Bank), which exercises direct and perfect control over the inflation rate. One could also assume that the ECB could prefer stabilizing policy outcomes (art. 2 ECT) if the inflation target is achieved. The ECB loss function is assigned by means of contractual agreement with the principal (e.g. legislature). That is:

$$L_{ECB} = \frac{1}{2} \sum_{t=1}^2 \beta_s^{t-1} \left[\alpha_{\pi,M} (\pi_t - \pi_t^*)^2 + (y_{i,t} - \bar{y}_{i,t})^2 \right]. \quad (10)$$

where π_t^* is the inflation target imposed in period t. Without loss of generality, I assume in the whole paper that the inflation target is zero. Moreover, the relative weight the ECB attaches to inflation is $\alpha_{\pi,M}$ and may deviate from society's corresponding weight, α_{π} ($=\alpha_{\pi,S}$). The intuition behind that function is the Common Central Bank consider only its primary target price-stability but if this is satisfied it also looks at the output values (art. 105 ECT).³⁶

Moreover the fiscal authority (government) is confronted with the following (intertemporal) budget constraint:³⁷

$$x_{i,t} + (1 + \rho)d_{i,t-1} + \phi_{(0,1)}^L (b_{i,t} - \bar{D}) = \tau_{i,t} + d_t + \frac{\phi_{(0,1)}^R}{n-1} \sum_{j=1, j \neq i} (b_{j,t} - \bar{D}), \quad (11)$$

where $d_{i,t-1}$ denotes the stock of public debt carried over from the previous period, while $d_{i,t}$ represents the outstanding debt at the end of the current period t. The real rate of interest is ρ . This is assumed to be exogenous because the countries in the monetary union are relatively small to the rest of the world. The variable τ stand for distortional tax. \bar{D} is the deficit threshold of the SGP and parameter ϕ is a characteristic or index function. The variable $b_{i,t}$ represents the actual deficit amount. The deficit is defined as $b_{i,t} = d_{i,t} - d_{i,t-1}$. If a country

³⁵cf. ECB Press Release (8 May 2003): The ECB's monetary strategy.

³⁶cf. Beetsma and Bovenberg, 2003.

³⁷cf. Beetsma/Uhlig, 1999, [4].

j breaches the deficit criteria then is $\phi^R = 1$ (also interpreted as the probability to breach the Stability Pact) but in the other case (no breach of the SGP) is $\phi^R = 0$. Moreover, I assume that countries feature the same initial stock of public debt $d_{i,t=0} = d_0$ ($i=1,\dots,n$). Without loss of generality, it is set equal to zero ($d_0 = 0$). All debt is paid off at the end of the last period ($d_{i,t} = 0, i = 1, \dots, n$). The assumption indicates "No-Ponzi-Game" and is similar to the well-known transversality condition in dynamical optimization.³⁸

The solution of the model can qualitatively be condensed in the following figure 1, below.³⁹ The key finding is: If one country breaches the rules for instance Germany then all other countries have incentives to follow that country. If Germany as one of the bigger countries in EMU breaches the rule in 2001 then France and the other countries like Italy, Netherlands and United Kingdom (in 2004) have incentives to follow (cf the grey areas). If more than one country breaches the deficit or debt thresholds a 'cascade to the top' is induced. This development was empirically shown between Germany and France: While the deficit in Germany was 3,6% and in France 3,1% in 2001, in the next year it developed to 3,9% in Germany and 4,1% in France.

That finding describes the typical 'cascade effect' and explains why actually the bigger countries are in breach with the SGP. The effect characterized here is the well-known 'free-rider' behavior. Such 'free-riding' emerges because the public good 'price stability' is influenced from the local fiscal policies in Europe.

Moreover the smaller countries can not so well internalize expansive effects from fiscal policy in comparison to the bigger countries (Heise, 2001, [34]). Because of that fact the smaller countries benefit more from fiscal-policy 'spill-over effects' of the big countries than their own national fiscal policy.

³⁸cf. appendix B and Chiang (1998, [14]) and Dixit (1990, [23]).

³⁹The technical solution is in Herzog (2004).

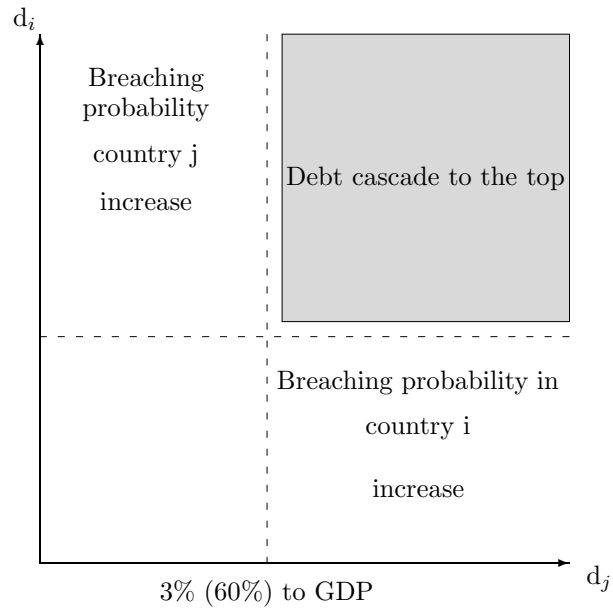


Figure 1: Summary of the model results

To understand the differences of the 'free-rider' between the small and big countries more it is important to analyze also the consolidation incentives of the countries. I model the consolidation speed of the fiscal budget and found the following interesting results (Herzog, 2004, [36]):

1. A separating equilibrium in the current EMU is more likely. That implies different consolidation speeds.
2. Big countries or former stable countries as Germany consolidate slower because of the past fiscal reputation (cf. lower interest rates and risk premium).
3. Higher variance in output shocks and more equivalent fiscal policies in the MU boost also the consolidation speed up.

To understand these effects more see figure [A.6] in the graphical appendix.⁴⁰

⁴⁰The theoretical Propositions are shown in the paper Herzog, 2004c.

5 Good interaction rules

From the analysis above we have seen that the structure of a good coordination mechanism depend strongly from the environment.⁴¹ Additionally in fiscal policy there are also some normative claims: (1) the financial sustainability of the state, (2) the efficient financing of public spending and (3) macroeconomic stability, that is, the elimination of unnecessary and undesirable fluctuations in economic activities (Buiter, 2003,[8]). Now it is a formidable task to design a rule, or a set of rules, that makes sense for the whole Euro group.⁴²

5.1 Key ingredients for good fiscal rules

In the list below I summarize criteria for good coordination rules between a 'supranational-national' gravity field (Buiter, 2003).

- Good rules are simple and easily verifiable.
- Good rules should ensure the solvency of the government.
- Good rules should not encourage pro-cyclical behaviour.
- Good rules makes sense also in the long-run.
- Good rules allow to distinguishing in economic structure.
- Good rules make sense at the national level and for the EMU as a whole.
- Good rules are credible.
- Good rules are enforced impartially and consistently.
- Good rules include efficient incentives to the targets.
- Good rules discipline the actors by positive sanctions.

The ingredients seen in the list above are a multi-dimensional target set with perhaps partially conflicting directions or trade-off's (Buti and Giudice, 2002,[10]). So we can call this as a 'Magic Polyeder'. The rational for some requirements are obvious. Complex rules are likely to add noise and uncertainty to the system. Based on the aim for more 'financial sustainability' we need rules which ensure the

⁴¹Cf. Theurl, T. (1999) explains that the institutional structure play an important role within a currency union and also in currency crisis.

⁴²Cf. Which consists of western industrial countries and in near future (form 2007-2010) also the eight Central and East European transition countries.

solvency, make sense in the long-run and not encourage to pro-cyclical behaviour. It's also well-known that numerical constraints as in the SGP imply that 'one size fits all'. Thus induce that in a heterogeneity area we need rules, which make differences between countries and differences between economic situations. More technical assumptions for a good rule are the last four points. These final facts are more and more important. The greater the danger of an external influence is or the decision-actors to the national or supranational level belongs, the higher the probability that the rules lose: credibility, efficiency and its disciplining character. All mentioned ingredients above are necessary for a good fiscal rule. But the final rule (combination of the ingredients) is only sufficient if it possess credible sanction threats. The current crisis in the Stability and Growth Pact emerge crucially because of the high inaccuracies in the institutional credibility of the sanction mechanism. On account of this my following own solution proposal mainly focus on the last four points and contrast them with my theoretical findings above. The next subsection characterize my modification proposal more circumstantial.

5.2 Syntheses of the Reform Proposals

The fiscal policy framework in the euro area especially the Stability and Growth Pact raises a number of problems. What is its real objective? Is the objective to avoid that a country generates negative externalities on partner countries, then the rules should bear directly on theses spill-overs. If the objective is economic policy co-ordination, then the ECB and the Member States should discuss and define openly the policies to be implemented in Europe, taken into consideration the distinguishing business cyclical developments in Member States. Finally, if the objective is to adopt a common economic policy then a democratically elected economic government of Europe is necessary (cf. Mathieu/Sterdyniak, 2003).

Within a more precise comparison of the above suggestions, four main points distill themselves out:

1. Independence
2. Sustainability
3. New target set
4. New time horizon

Now subsequently it is a matter to evaluate these four main points again more exactly, analyzing it and bringing them in connection with the original proposals. Subsequently I look no more to the radical reform suggestions. The reason is because the topical discussion and also political weather condition runs out in the short-run -after the European Union enlargement in May, 2004- rather to modify the SGP in the existing framework than to make a radical reform.

The ideally image of independence orientates itself in the EU always by the model of the ECB. However, within the scope of the discussed reform alternatives, in fiscal policy in the EMU is relatively far away from the entire independence model of monetary policy. Rather it is a matter to establish a new committee which will deliver a plausible recommendation to the Ecofin-council on account of his expertise and independence. Different models are conceivable. Ohr/Schmidt (2003) propose a new committee to enforce credibility and accountability for a better control and depoliticization of the decision process. After the EU commission have assessed the deficit and debt criteria, the new committee evaluate the commission suggestion in reference to the national and global economic conditions. Afterwards the decision passes the Ecofin council. Additionally this committee would negotiate directly with affected countries and when required it impose the sanction but only on the base of more unambiguously economic criteria. The sanction would be no more negotiable by the Ecofin council. This constellation awards a considerable independence to the new council. Another model proposes Eichengreen (2003) to avoid a bias toward excessive deficit over time. He suggests creating an independent committee of fiscal policy experts that define an index of budgetary levels. Otherwise permitting the politicians and officials responsible to alter the index of debt target would open the door to lobbying and backroom deal making. The new committee works independent but with much limited power in comparison to the proposal from Ohr/Schmidt and from Ricardo Hausmann, Juergen von Hagen⁴³ or Charles Wypolysz⁴⁴ and Simon Wren-Lewis⁴⁵. Eijffinger (2003, p.14-15) proposes also 'Non-partisan' implementation of the rules. He says: "*A strong criticism of the Treaty and the SGP is that enforcement is partisan: national authorities are supposed to apply the rules*

⁴³See Ricardo Hausmann, Juergen von Hagen (1999): Reforming Budgetary Institutions in Latin America.

⁴⁴C. Wypolysz (2002): The Stability Pact Meets its Fate; C. Wypolysz (2002): Fiscal policy in EMU: Rules or Institutions?

⁴⁵S. Wren-Lewis (2000): The Limits of Discretionary Fiscal Stabilisation Policy

to themselves, thereby having incentives for collusion and horse-trading. In order to move to a non-partisan implementation (...) one has to distinguish between three types of decisions"; technical, political and implementation (of sanction) decisions. The open question is whether the implementation decision is a technical or a political decision. Eijffinger suggests that the implementation decision is both a technical and a political one. So he pleads to link the sanction decision between the Ecofin-council and the new independent committee (cf. Eijffinger [30]). Leading the implementation decision exclusively to the independent committee (EU-Commission) would be unthinkable. Another possibility to overcome a complete independent council would be to move from a Commission *recommendation* to a Commission *proposal*. The difference is that the Council can move away from the Commission proposal only with unanimity and not with a qualified majority as in the case of Commission recommendation (Eijffinger, p.15).

Finally the last models of an independent fiscal council or committee correspond highly with the aim of 'Sustainability'. Explicitly propose the organization CEPR a sustainable council which operates in entire independence. This council should receive no concrete political competence in contrast to the ECB. Rather it should make public warnings and wake up comments to consciousness for public finances unbearable on a continuing basis. The Ecofin council covers sanctions further. The advantage would be that the complete fixation on the annual budget deficit in favour of a more long-term, sustainable and load-bearing consolidation of the national public finance. A right draft of lasting financial policy seems to exist in none of the suggestions. The reason for that is perhaps that a sustainable draft is brought immediately in connection with the 'Golden rule'.

The last two points 'farther and other purposes take into consideration' and 'an increasing time horizon' is economically absolutely desirable. De Grauwe (2003) and Bofinger (2003) and many more proponents propose that. There are a flood of possibilities:

- deficit and debt targets
- consider also the inflation rate
- long-run view of the deficit around the business cycle
- and so on.

The main problem here is that only a change in that dimension without looking to the real problems of the 'Stability and Growth Pact' hinders the view. The pact has 'broken down' in November, 2003 not because of their purposes like the 3% deficit threshold, but rather for the reason that some member states in the Ecofin-council dominate other interests (partisan influence).

5.3 New Reform proposal: Synthesis

When a father calls his baby ugly, people take notice and expect to find a seriously aesthetically challenged child. When the President of the European Commission⁴⁶ calls the fiscal rules of the Stability and Growth Pact 'stupid' and 'rigid' it is clear that changes to the Pact are in the air (Buiter, 2003). In that sense I will establish here a 'New Reform' of the current Stability and Growth Pact. The reform suggestion consists of a detailed analysis of almost all existing reform proposals and the logic idea, which I have found in the analysis above, and another paper (Herzog, 2004a,b,[38],[35]).

To explain this in more detail look now to figure 2. The starting point is a clear 'supranational target' which have priority and is consensus around all member countries. This is for example 'price stability' because all actors benefit from the public good. The conflict comes about because there are partial sovereignty rights in the hands of the member states, which can contradict (pressure) the 'supranational-target'. The knowledge that there is no majority in the near future for radical reforms like more market or centralization imply to search an efficient 'co-ordination' mechanism as the SGP. The middle plain in figure 2 show that. Conflict coordination implies always disciplining. The arrows left and right illustrate this. A negative disciplining mechanism like sanctions deteriorate (Danger) the supranational target in this constellation. On the other hand helps a positive incentive mechanism to protect (secure) the supranational target. Additionally the findings in subsection (4.2) show that every disciplining task (consolidation) must correspond with equal rewards. That means that every coordination or interaction mechanism in that constellation should simultaneously support both disciplining and reward for the loosen national sovereignty rights.

⁴⁶Cf. Interview with Le Monde on 18 October 2002, EU Commission President Romano Prodi said: "I know very well that the Stability and Growth Pact is stupid, like all decisions that are rigid."

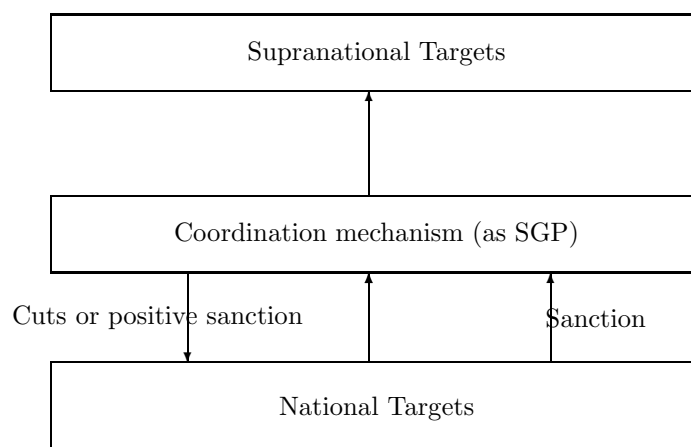


Figure 2: Incentive mechanism

Apart from the economically absolutely desirable changes of the target variables and their application period (De Grauwe, 2003,[18],[17]; Bofinger, 2003,[7]) the decision procedure is certainly the most important one for the purpose of 'supranational targets' and sustainable fiscal policy.⁴⁷ All other changes to a more-dimensional 'target set' are pointless, provided that there aren't guaranteed adequate penetration.

Therefore we need a more independent decision council to increase credibility and too enforce the importance of fiscal policy in Europe. To strengthen the European 'fiscal policy' and thus to generate an adequate opponent to monetary policy lies in the interest of the whole European society. So I suggest a 'negative escape clause'. This has the following function: If the 'supranational' targets are excessive beached by member states⁴⁸ then the Ecofin council will pass the decision competence to the independent council. The mechanism is as described in the current Pact no more monetary which would be aggravate the situation, rather an equivalent punishment in the same amount but in a positive manner like budget cuts.

A more modest solution for independence in the decision process is achievable with a 'Vote- and Reputation function'.⁴⁹ The idea is the following: Sanction

⁴⁷Moreover it is even the key-novel part in the SGP and first implement by Amsterdam (not Maastricht).

⁴⁸Cf. The 'exception criteria' of the SGP; VO 1466/97 and 1467/97 be valid further.

⁴⁹Cf. more details are in my own proposal paper 'Vote- and Reputation function' for the SGP.

decisions in the Ecofin council should crucial depend on the number of votes from the countries with prudent and sustainable fiscal policy. So the number of votes should correspond with its reputation in fiscal policy.⁵⁰ A country with a prudent and sustainable fiscal policy structure should get more votes than unsustainable and breaching countries. I construct a 'reputation index', which depends on inflation, debt and deficit (perhaps growth) and calculate the amount of votes for each country. A country with prudent fiscal policy means - low inflation, low debt and deficit- gets more votes than a country with bad fiscal policy. This mechanism induces two advantages: First it avoids trading votes ('logrolling') between the member states. Second it generates an intrinsically incentive through a market mechanism to more prudent and sustainable policy.

Therefore the Ecofin council and the national member states keeps her entire sovereignty, as long as they trade contract-correspondent. The costs of breaching the pact are also very high but without aggravation of the economic situation and with the advantage to make more credible and accountable decisions. These imply in that circumstances a more fitting opponent to the ECB and do not worsen national financial bankruptcy. Moreover empirical findings in von Hagen et al. (2003) and Fatás/Mihov (2003) show that such a positive incentive mechanism works better in the fiscal framework than monetary sanctions.

5.4 Vote- and Reputationfunction

In theory it would be possible to apply appropriate market design and mechanisms to a huge number of common policy decisions, from coordinating fiscal positions for example. Many such mechanisms have been shown to possess desirable properties and some are simple enough that real world applications could at least be considered (Lane, 2003). The common weaknesses of such mechanisms is they rely on profit maximization, which maybe problematic in government interactions because the Governments goals cannot be reduced to monetary gains. Money is the most natural candidate, but it is ill-suited to political application. Is there any alternative?

Thus it seems very natural for an economist to search voting rules or interaction mechanisms where votes would function as prices, or more precisely would be

⁵⁰cf. 'Länderbonitäts-Liste', Handelsblatt p. 23, 6 April 2004.

equivalent to resources spent to bring about desired outcome. The classical scheme considered by the literature is 'logrolling'; the possibility of trading votes. Under certain circumstances, logrolling may indeed increase efficiency, but it induce also some weaknesses: First, trading votes is illegal in all democratic countries and second, it leads only then to efficient outcomes, if 'prices' (votes) are full flexible, which can only correct in a full Coasian bargaining framework.

A pioneered alternative to vote trading to shift votes not interpersonally, but intertemporally is done by Casella (2001). In other word Casella creating a system of storable votes. That imply that each committee member is allowed to save his vote for future decisions and increase so his relative weight in future deliberations. Intuitively, the possibility of shifting votes across the time should allow individuals to smooth their utility from voting, or in other words to equate the expected marginal return of casting one's vote (Casella). Thus the intertemporal arbitrage of vote imply possible efficiency gains.⁵¹

Starting from the idee in the subsection above I develop now a 'Vote- and Reputationfunction' in the Econfin council voting mechanism, which can be a real substitute for a more independent council as suggested in many of the reform proposals for a new SGP. As defined above fiscal reputation depends on a three-dimensional vector ' \mathbf{r} '. The fiscal reputation imply then the correlated votes in the Econfin council. So all countries compete about the votes in the council which depends on the fiscal reputation. Thus this mechanism imply a kind of competition about votes. Additionally I assume that each agent (government) have the possibility as described above to save votes intertemporally. That generates the incentive around states to accumulate votes for situations in which they are absolutely necessary. The advantages of the mechanism is also explained above. But modelling this functional form imply some interesting findings that are summarized in the following Propositions.

Proposition 1: A vote-reputation mechanism ' \mathbf{r} ' improve the welfare of all 'normal' countries in the decision process.

Member states must choose '*No sanction*' and '*sanction*' against 'sinner' states. Ex ante either state vote with probability 1/2 and with varying intensity ψ , where

⁵¹Casella show this for the case of two interaction agents.

ψ is drawn from a distribution $F(\psi)$ defined over the support $[0,1]$ and is iid. across time and individuals.

Proof: A reputation mechanism is similar to storable votes (Cassela, 2001) which accumulates the votes intertemporally. Thus, I indicate W as the expected value of the one-period game and \tilde{W} the value of the corresponding two-period game. The two-period welfare-decision without a reputation effect is: You win the case if your probability is greater $1/2$ plus the coin choice ($1/2 * 1/2 = 1/4$). Formally is that

$$\tilde{W} = W + \delta W \quad (12)$$

$$\tilde{W} = \frac{3}{4} \int_0^1 \psi dF(\psi) + \delta W \quad (13)$$

On the other hand if you incorporate reputation effects $\mathbf{r} \in (0, 1)$ the expected welfare changes to:

$$E\tilde{W} = \int_0^{\mathbf{r}} \psi dF(\psi) \left(\frac{2 + F(\mathbf{r})}{4} \right) + \int_{\mathbf{r}}^1 \psi dF(\psi) \left(\frac{3 + F(\mathbf{r})}{4} \right) + \delta W \quad (14)$$

For all $\mathbf{r} \in (0, 1)$ is the last term bigger than equation (14) above because the function is concave ■

All countries with middle term reputation that mean, reputation between $(0, 1)$ (normal countries) improve their welfare. The rim reputation zero and one is unrealistic to achieve for a more dimensional target set. In the next proposition I show an additionally attribute of my 'New' decision mechanism.

Proposition 2: The fiscal-reputation ' \mathbf{r} ' decreases in time. Moreover structural, economic and political breaks imply also a decrease in fiscal reputation.

The fact that each member country will maximize its profits and votes in the Ecofin-council imply that countries in indifferent situations storage votes for situations in which they are more important like the case of 'excessive deficit procedures'. Similar to the literature about 'political business cycles' (Drazen, 2000, [25]) my 'Vote- and Reputationfunction' imply incentives to increase reputation

through decreasing 'r' in time if a new and important decision will be imminent in future. The conjuncture of all implications imitates an independent council because there exists competition about votes and the vote decisions depends on fiscal reputation. An equivalent independent council or committee should also decide on the economic facts (fiscal reputation) and without of logrolling (interpersonally) but with a longer perspective as political agents and without partisan influence.

5.5 Empirical Findings

An interesting finding is that since the convergence period 1994-1998 all countries in Europe consolidate the budget, (cf. von Hagen et al. 2003, [33]). After the 'Euro' introduction in 1999 nearly all countries pass the consolidation path from the convergence period. This is shown by figure [A.2] and [A.3] in the graphical appendix. Additionally figure [A.1] illustrates that fiscal discipline at the supranational level works not very well through the SGP. The other curve presents the budget development of the federal regions in Germany. In these regions works a so-called National Stability Pact, with positive incentives as described above.⁵² A similar 'National Stability Pact'⁵³ exists for example in Austria.⁵⁴ The main differences between the both institutional coordination mechanisms are the incentive schemas. The 'National Stability Pact' works with positive incentives and the 'Supranational Pact' with negative sanctions. Two findings are now seen from figure [A.1]. First: the 'National Pact' works not asymmetrical in good times as the SGP. Second: the 'National Pact' disciplining more in bad times, since 2001. These two effects are also important for a more efficient incentive mechanism like the SGP in Europe. Obviously, since 2001 works the national Pact better than the big brother on the supranational level, although Germany breaches the SGP three-times.⁵⁵

In Figure [A.4] is seen the development of the growth rate in the Euro zone.

⁵²Cf. The federal organization in Germany imply similar to the supranational level autonomous budget sovereignty. Moreover on both levels there are structural funds like 'Länderfinanzausgleich' in Germany and 'Structural and Agricultural funds' in Europe.

⁵³Cf. §§ 51, 51a HGrG i.V.m. Art. 7 SFG.

⁵⁴Cf. Österreichischer Stabilitätspakt 2001 in Bundesgesetzblatt 2002, Nr. 39 (Art. 1 - Art. 20).

⁵⁵Cf. Wissenschaftlicher Beirat des BFM (2003) proposes also some reforms for the 'German National Stability Pact' because they thought that the 'Länder' budgetary development contribute very much to the high 'German national deficit' in the last two years.

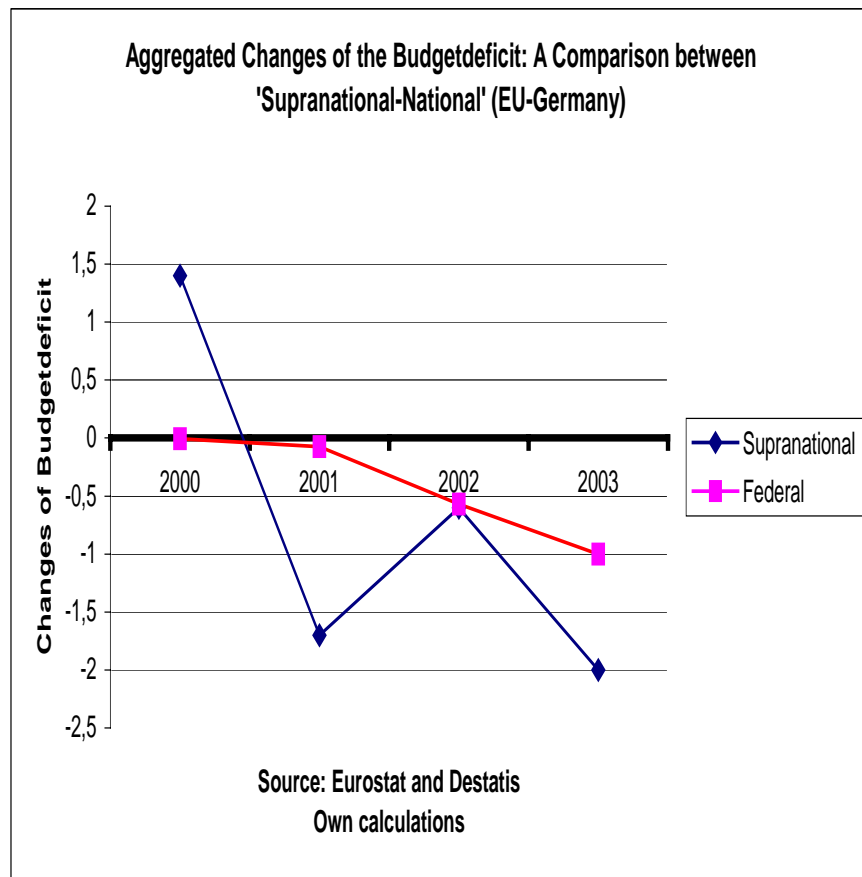
From here you can see that the budget developments and growth developments are highly correlated with some time lag's. Besides of that correlation figure [A.2] illustrates the deficit development in nearly all big countries. You can see that nearly all big countries in Europe are in breach with the SGP. The open question is: Why the big countries only breaches the Pact? One possible explanation of that empirical fact was given above in subsection (4.4). An other is that the SGP works different for different countries because the incentives and rewards in the current fiscal framework is asymmetric and also incredible. That was shown by the early warning scandal in February 2002 and the failure to strengthen the 'excessive deficit procedure' against Germany in November 2003. These two facts show us that the adequate 'rewards' are really very different between the bigger and smaller countries.

6 Conclusion

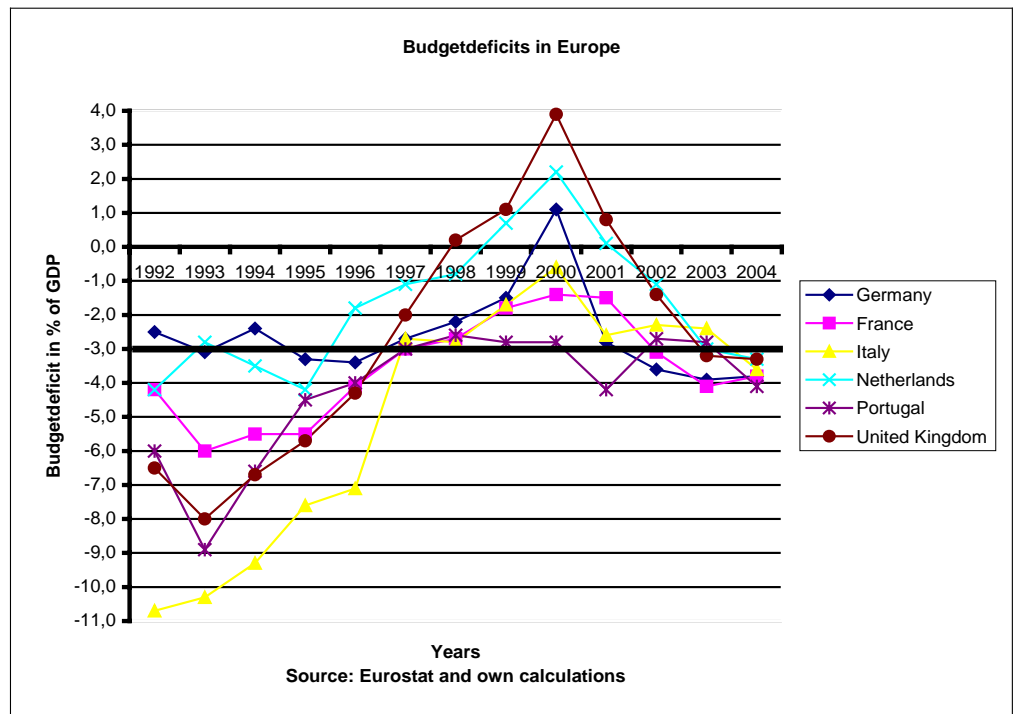
A rethinking of the fiscal-monetary framework for the EMU is necessary and urgent. Revising the Stability and Growth Pact will not be easy, because we have a target set of a 'magic polyeder'. Taking a more long view, I hope that this paper describes a 'new alternative proposal' which is approximately the minimum from the sum of all deviations. Therefore I call my proposal a 'second-best' or 'best-practice' solution. The second purpose of this article was to work out a general framework for typical 'national-supranational' interaction conflicts. The analysis above have shown what are the key solution ingredients for a general interaction-conflict-framework. This approach is certainly only a first step to an implementation theory that explains efficient co-ordination solution mechanisms also in other related fields (Raiffa, 2003,[47]). Every policy area, which is similar structured as the 'monetary-fiscal' interaction relation in the European Monetary Union will be an empirical test case of the new thinking described here. The federal organisation of Germany between 'Bund' and 'Länder' shows that a positive incentive mechanism with equivalent rewards as in the 'German National Stability Pact' works better than the big brother on the supranational level with negative economic sanctions despite Germany breaching the Stability Pact three times.

A Graphical appendix

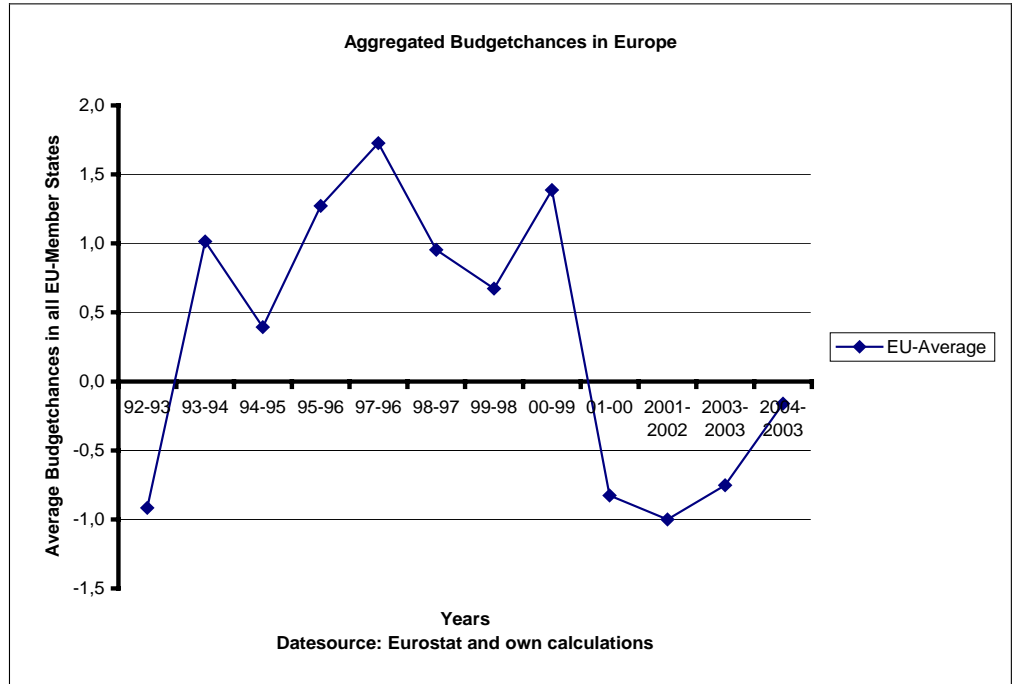
A.1 Comparison of negative and positive sanction schemas



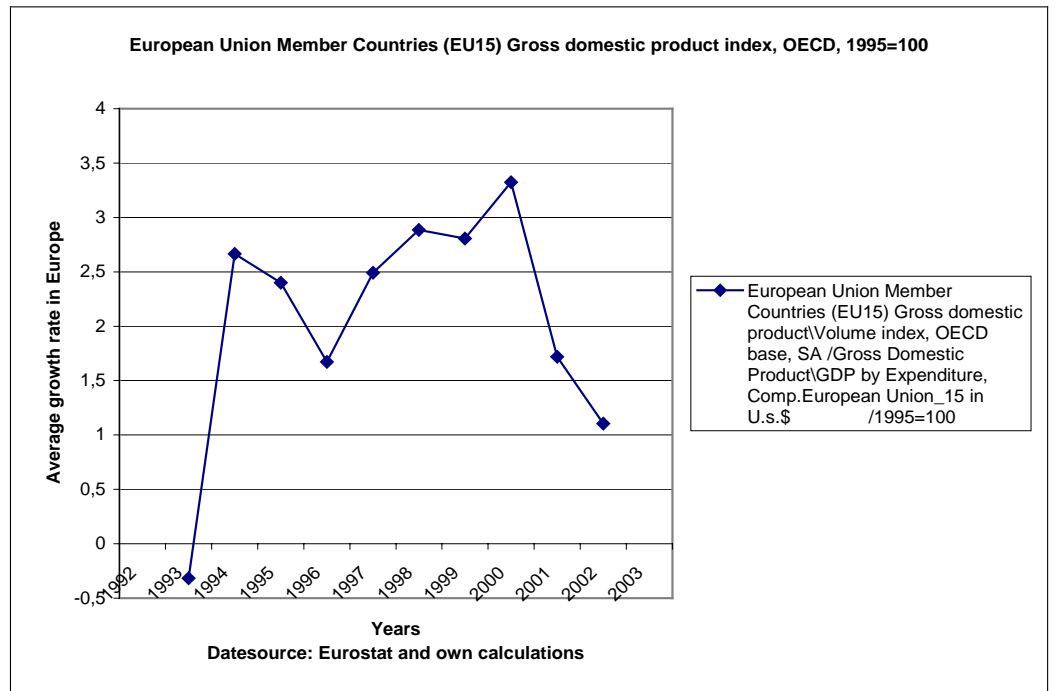
A.2 The Fiscal Budget Development of the bigger countries, since 1992



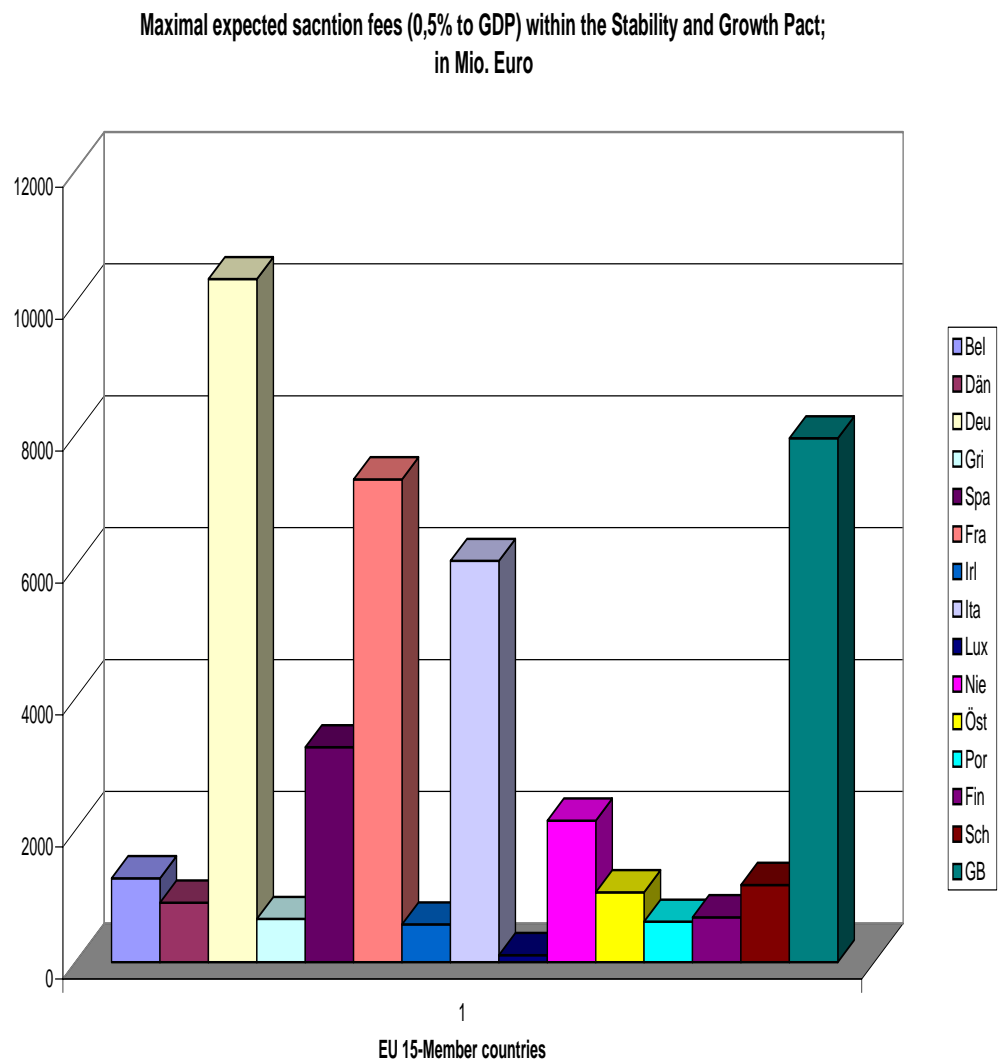
A.3 EMU Aggregat Budget Development



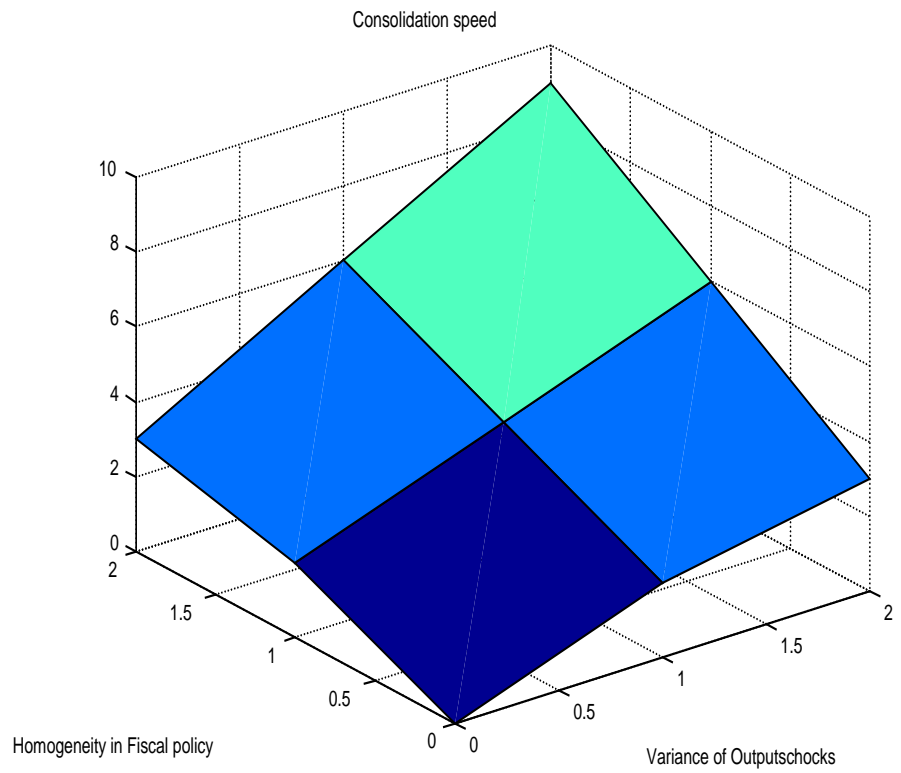
A.4 EU Growth Development



A.5 Maximal Sanction fees through the SGP



A.6 Consolidation Speed in a MU



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