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## *The Use of Fiscal Policy in EMU: First Appraisal and Future Prospects*

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El Pacto de Estabilidad y Crecimiento (PEC) en la UEM compromete a los gobiernos a alcanzar una situación próxima al equilibrio o al superávit presupuestario a medio plazo. Hasta el momento, el marco fiscal ha contribuido satisfactoriamente a la sostenibilidad financiera pública en la UEM y puede haber contribuido a la estabilidad financiera y a un bajo nivel de inflación medio. Sin embargo, estudios empíricos también sostienen que el PEC puede haber entrañado un sesgo procíclico de la evolución de la política fiscal, esto es, que los gobiernos hayan amortiguado el papel de los estabilizadores automáticos para respetar los límites establecidos del déficit. El PEC se encuentra en el punto de mira de las críticas y se han propuesto numerosas reformas.

*EDBko Egonkortasunerako eta Hazkunderako Itunak (EHI) gobernuek engaiatzen ditu epe ertainean aurrekontu-orekaren edo -superabitaren hurbileko egoera lor dezaten. Orain arte, zerga-esparruak laguntza egokia eman du EDBko finantza publikoen iraunkortasunerako, eta baliteke finantza-egonkortasuna eta batez besteko inflazio-maila baxua lortzen ere lagundu izana. Dena dela, zenbait azterketa empirikok esaten du balitekeela EHIk joera proziklikoa ekarri izana zerga-politikan, hau da, gobernuek egonkortzaile automatikoen zeregina leundu izana ezarritako defizit-mugak errespetatzeko. EHIa kritiken jomugan dago, eta hainbat erreforma proposatu dira.*

The Stability and Growth Pact in EMU commits governments to reach a close to balance or in surplus budget position in the medium term. Up to now, this fiscal rule has successfully contributed to ensuring public finance sustainability in EMU and may have been helpful to provide financial stability and a low level of inflation rates on average. Nevertheless, empirical studies have also documented that the Pact could have lead to a pro-cyclical bias in fiscal policy evolution: In order to respect the deficit ceilings, governments may have cushioned the role of automatic stabilisers. The Stability Pact is under pressure and many proposals for reforms have been made.

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### 1. INTRODUCTION

The use of fiscal policy is one of the less consensual question among economists. Few years ago, Robert M. Solow (2004) and Robert E. Lucas (2003) expressed absolute opposite views on this topic in addresses they delivered at the International Economic Association Congress and at the American Economic Association Congress, respectively. Actually, both Nobel Price winners agreed on the followings:

1. As far as “resource allocation” and “income repartition” are concerned, public spending and taxation can be useful and welfare improving.
2. The third traditional rationale for public intervention in the economy, “macroeconomic stabilisation”, had successfully reached its objective in the US postwar-period.

3. If stabilisation policy is regarded as a discretionary management of aggregate demand, it must be ineffective and possibly harmful, due to political reasons and delays of implementation.

In Lucas' view, such stabilisation policies are no longer desirable. The main reason is that the remarkable stability in Postwar US income and consumption can not be further more increased -and if it could, negligible welfare gains could be reached. In line with the theory of Real Business Cycle, Lucas argues that *(i)* most of economic disturbances come from productivity shocks -against which shifts in aggregate demand are inappropriate, *(ii)* nowadays, economies do not face large variability of macroeconomic aggregates and *(in)* plausible values of risk aversion coefficient entail a very small benefit in terms of global welfare from removing the remaining consumption variability.

On the contrary, Solow argued for a need to reinforce automatic stabilisation policies. According to him, reforms in allocation and repartition policies in the US and the

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UK have also reduced the strength of automatic stabilisers: income taxes became less progressive, transfer spendings had been cut under Reagan Administration and Thatcher governments. According to Solow, whatever the effects of such policies in terms of “allocation” or “repartition”, they have contributed to weaken the automatic stabilisers, and then have reduced the ability of the public sector to mitigate the harmful effects of macroeconomic disturbances.

The debate between on the one hand, supply-side reforms -under stability of monetary and spending aggregates as advocated by Lucas, and, on the other hand, tax-system reforms enhancing tax progressiveness and transfers as claimed by Solow, is a rather good illustration of the European discussions about national fiscal policies and the Stability and Growth Pact.

After the launch of the Euro, Member-States committed themselves to maintain their public deficit under 3% of GDP. As repeatedly pointed out by the European Commission (2002, 2003, *inter alia*), the global aim of this “Stability Pact” is to reach national public finance surpluses “close to balance or in excess” in “the medium term”. The Stability Pact must preserve the tool of automatic stabilisers as far as public finance ceilings are respected. Thus, the implementation of the Stability and Growth Pact (hereafter SGP) raises a twofold question for governments: How to seek permanently a balanced position in the medium term? How to preserve and to promote the role of automatic stabilisers? Answers to these questions are quite qualified. In summary, it is widely recognized that the Stability Pact is too much strict: The structural balanced-budget objective looks contradictory with the need to enhance automatic stabilisers. Governments seem

to give greater place to the former and miss rooms-to-manoeuvre for the later. Consequently many proposals to reform the Pact are discussed. We can distinguish reforms dealing with the “numerical” rule of the Pact and reforms dealing with the need to build a new institutional framework for budgetary processes.

The outline of the paper is as follows. In the next section we report standard justifications of fiscal rules in EMU and we discuss the ability of the Pact to mitigate fiscal externalities in terms of financial stability within the monetary union. Section 3 focuses on the macro stabilisation purpose of fiscal policy. These two sections lead to a balanced appraisal, hence section 4 summarizes the main proposals of budgetary reforms in EMU. The last section concludes.

## 2. RATIONALES FOR FISCAL RULES

From its creation in 1997 in the Treaty of Amsterdam, the Stability Pact has frequently been criticized. In the same time, arguments in favor of the Pact (or even in favor of a “modified” Pact) have changed. Initially, the SGP looked as a continuation of the famous Maastricht criteria which were said to select participants in the future Monetary Union. The main argument for deficit ceilings was the need for a fiscal coordination in EMU, that could avoid the “lax” bias generated by a single supra-national monetary policy and free-riding governments. Another justification, becoming more important, relies on the need for monetary-fiscal coordination in an non-inflationary union<sup>2</sup>.

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<sup>2</sup> A simple comparison between the statutes of the US Federal Reserve and those of the European Central Bank can show the greatest attention paid by European policy makers to inflation stability.

## 2.1. Excessive deficit bias in a monetary union

In the early 90's, the Treaty of Maastricht introduced ceilings on public debt and deficit ratios as a way for removing free-riding behaviour from governments. This can be justified if the monetary union creates negative fiscal spillovers, i.e. if an expansionary policy in one country could have recessive effects in other Member-States. In this national fiscal expansion would be regarded as a negative shock by the remaining participants in the Union. Consequently, these latter would react by an expansionary policy. Nevertheless, it is still unclear whether negative fiscal spillovers could dominate positive spillovers due to the standard external absorption.

Early justifications of negative fiscal spillovers in a monetary union deal with the dilution of the crowding-out effect. As a fiscal expansion leads to an increase in the common interest rate, it can generate a negative effect on investment in every country of the monetary union that face the rise of the interest rate. According to Buiter, Corsetti and Roubini (1993) and Eichengreen and Wyplosz (1998), the dilution of the crowding-out effect is based on the assumption of non-efficient bond markets, which receives few empirical support.

The monetary union can also create inappropriate incentives for governments to raise their deficits and debts that can make the European Central Bank under pressure for preserving financial stability. However, Eichengreen and Wyplosz (1998) claim that the financial structures and political institutions play a crucial role in order to prevent inflationary debt bailouts. Actually, the bailout risk deeply depends on the diffusion effect on bond market and on the bank exposure to national public debts.

Another argument in favor of negative spillovers is based on the intra EMU terms-of-trade. Andersen and Sorensen (1995) and Jensen (1996) point out the negative effect of a domestic fiscal expansion on other countries' outputs. The domestic expansion increases demand in the whole union and leads to a rise in prices that reduces their competitiveness and the net effect can become negative in partner countries.

Without clear-cut response on the sign of the "net" spillover effect, the need for fiscal coordination becomes questionable. This observation is the starting point of Beetsma, Debrun and Klaassen (2001). In a standard Keynesian framework, where domestic demand is positively linked to foreign output, the sign of the "net" spillover effect depends on the combination of both fiscal and monetary reactions with respect to different shocks (supply/demand; symmetric/asymmetric). The model allows the authors to analyse various kinds of coordination (by "ex ante" rule or by "ex post" discretion) between fiscal and monetary authorities. This model exhibits cases of counter-productive coordination due to free-riding behaviour and/or conflicts on the orientation of the policy mix. In particular, the risk of counter-productive coordination becomes higher when Member State's economies are hit by highly correlated shocks.

## 2.2. Beyond the monetary union: fiscal sustainability and inflation stability

Despite the lack of consensus about the required coordination mechanism between fiscal policies in a monetary union, there is a widespread agreement about the need to adopt a fiscal rule in Europe. Furthermore, fiscal rules are implemented in many countries that do not participate in a monetary union.

It is the case in the US, the UK and also in Japan, New Zealand, Norway, Canada, Switzerland among others. The institutional arrangement differs from one country to the other, but the general principle of the fiscal rule as defined by Kopits and Symanski (1998) is “a permanent constraint on fiscal policy, expressed in terms of a summary indicator of fiscal performance, such as the government budget deficit, borrowing, debt or a major component thereof”. In addition, according to Kopits and Symanski (1998), fiscal rules have to satisfy some criteria: they should be *well-defined* -a correct summary indicator is chosen; they should be based on *transparency in government operation* -in order to gain popular support; they should also be *simple* and *flexible*, i.e. able to mitigate exogenous shocks; fiscal rule should be *adequate* and *enforceable*.

The fiscal rule creates an institutional constraint for governments that have to adopt sustainable fiscal policy. Stabilisation policies are then expected to let debt burden unchanged over a business cycle movement. Deficits increase during downturns, but have to decrease during following upturns. It is worth noting that fiscal rules do not prohibit cyclical public deficits, thus they can be seen in line with both Keynesian and Neo-Ricardian theories. The institutional constraint is helpful to mitigate the bad incentives of government to postpone debt consolidation, mainly due to political reasons<sup>3</sup>.

Actually budgetary criteria, introduced in the Treaty of Maastricht seem to have significantly modified the behaviour of governments. According to Ballabriga and Martinez Mongay (2003, 2005) budget

surpluses tend to react more strongly to accumulated debt in a stabilising way. Many cross-country differences in the debt consolidation have been pointed out. In Belgium and Italy the slow reduction of debt starts in the early 90s and lasts all the decade long. In Ireland, the consolidation happens earlier in the mid 80s, it is massive and brief. On the contrary France, Germany and Sweden begin to reduce their debt in the mid 90s. Fatás and Mihov (2002) document other interesting facts. The composition of the debt consolidation differs from one country to another. Globally the consolidation was based on revenue-rise policy in countries where public receipts were initially low (e.g. Italy and Spain). Other countries rely on spending-cuts based policy (e.g. Belgium, The Netherlands, Sweden). France and Germany, which have hardly any reduced their public expenditures, are still facing increase in their debt burden<sup>4</sup>.

European Treaties of Maastricht and Amsterdam may have (opportunistically) helped countries to limit their debt-to-GDP ratio. Even if public debt is still above 60% of GDP, its accumulation does not look explosive anymore. Besides ensuring government solvency, a growing literature highlights a new positive effect of sound public finances: make inflation stability easier.

In countries that have adopted fiscal rule, the independent Central Bank is in charge of the implementation of the monetary policy and is accountable for inflation stability. A growing literature emphasizes the need for an anti-inflationary monetary policy to

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<sup>3</sup> Starting points of the huge literature dealing with the political economy of debt consolidation are Alesina and Tabellini (1990) and Alesina and Drazen (1991).

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<sup>4</sup> Composition effects in consolidation policy are well documented in literature, see *inter alia* Alesina and Perotti (1995), von Hagen et al. (2002). Empirical evidence of European convergence towards more disciplined fiscal policies are provided in De Bandt and Mongelli (2000).

be complemented by a disciplined fiscal policy. The seminal paper of Sargent and Wallace (1981) and later contributions by Leeper (1991) and especially Woodford (1995, 1998, 2001) have proposed a new interpretation of the inter-temporal budget constraint of the government, which is the basis of “The Fiscal Theory of Price Level” (FTPL)<sup>5</sup>. The inter-temporal budget equation states the real amount of public debt equals the real discounted value of future government receipts net of expenditures (i.e. public budget surplus). Traditionally, this equation is regarded as a constraint: an increase in nominal debt is supposed to be compensated by an increase in future receipts (e.g. tax revenue) and/or a decrease in future public expenditures. On the contrary, advocates of the FTPL argue that changes of the price level can remove any nominal unbalances between public debt and future budget surpluses. The main assumptions of the FTPL are, first, monetary policy cannot perfectly control inflation stability, it cannot fully compensate the inflationary effect of fiscal shocks<sup>6</sup>. Second, a key assumption is the possibility of government to neglect the development of the public debt when it defines current fiscal stances. There is a possibility for the public deficit not to react to the past debt burden. This behaviour is called “dominating” (by Sargent), “active” (by Leeper) and “non Ricardian” (by Woodford) fiscal policy. According to the FTPL, this assumption does not lead to an explosive

growth of the real debt as prices will increase in order to satisfy the inter-temporal budget equation.

The fiscal theory of price level faces numerous objections, in particular as far as its logical coherence, and over-identification issues. Buiter (2002) is, among others, one of the stronger opponent to the FTPL. Christiano and Fitzgerald (2000) provides a model in which the FTPL assumptions are still coherent with the remaining macroeconomic relations described in the model. They show that, under a non-Ricardian fiscal policy, the central bank can control the average rate of inflation, but it cannot determine the variance of inflation because it cannot remove the impact of fiscal shocks on the price level. A fiscal rule, as a strong commitment of government to set a sound fiscal policy (i.e. with a corrective reaction to the public debt development, ensuring the budget constraint is respected without pressure on prices) can help the monetary policy (defined as by a Taylor-type interest rate rule) to achieve a low inflation rate with a lower variability. Ending with theoretical aspects, it is worth noting that a low level of inflation is widely regarded as source of economic efficiency, but there is less consensus about the welfare gains provided by low inflation variability.

The widespread emergence of fiscal rule in numerous countries show that such agreement is not due to whatever external effects of national fiscal policies in a monetary union. These rules are mainly devoted to contribute to both inflation stability and public finance sustainability. Besides these two central objectives, fiscal rules are also supposed to stabilise cyclical development of economic activity. Under the limit of 3% of GDP, variations of the public deficit are regarded as an effective tool for smoothing

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<sup>5</sup> Christiano and Fitzgerald (2000) provide a synthetic presentation of this theory and its related controversies.

<sup>6</sup> Different channels explain the impact of fiscal shocks on inflation. Fiscal expansionary shock rises inflation as any demand component. Moreover, Woodford (1998) describes the rise in prices as the outcome of a wealth effect: an expected fall in tax leads to an increase in private consumption which increases prices in the long run.

asymmetric shocks in EMU, while the single monetary policy reacts to area-wide price developments. In the following section, we document some empirical results dealing with fiscal policy rooms-to-manoevre within a fiscal rule.

### 3. FISCAL POLICY AND ECONOMIC ACTIVITY

Fiscal policy devoted to aggregate demand management had been questioned by both academics and policy makers in the 80's. Stylised facts highlight that the growth of both public deficits and debts did not prevent European-wide economic growth and employment from falling. Nevertheless, increases in deficits during downturns is still considered as welfare improving, even in the neo-Ricardian model of tax-smoothing by Barro (1989). According to him distorsive taxes constitute the main objection to the Ricardian equivalence: frequent shifts in taxes in order to balance changes in public expenditures can generate distortionary effects and important welfare loss. Instead of implementing balanced fiscal stances, governments must adjust tax rates to the only permanent changes in public spendings. Empirical studies in Europe do not conclude that governments have such a rational behaviour<sup>7</sup>. Fiscal rules do not prohibit cyclical adjustment of fiscal components. Counter-cyclical reactions of government revenues and transfers are expected to mitigate exogenous shocks.

#### 3.1. Discretionary Fiscal Policy

The development of large dataset collecting fiscal variables at semi-annual and

quarterly frequencies has recently lead to numerous empirical studies addressing the real macroeconomic effects of fiscal policy. So far, fiscal multipliers were computed thanks to large macroeconomic models as QUEST and INTERLINK. New empirical developments provide several advantages: empirical results are more easily replicable, they also allow for more comparison tests and robustness checks. A leading academic contribution is Blanchard and Perotti (2002), which exposes an original approach for identifying fiscal shocks in Structural Vector Autoregressive (S-VAR)<sup>8</sup>. Marcellino (2006) adapts this approach for a larger set of variables and computes estimates of S-VARs. He then simulates the impulse responses to shocks in four European countries.

S-VAR methodology is a powerful tool to investigate the empirical effects of economic policy as it requires few theoretical assumptions. Nevertheless, interpretation of the results must be done carefully. A particular attention must be paid to the meanings of the "structural policy shocks". Statistically, they correspond to the unexpected changes of endogenous variables (among wich a fiscal policy indicator is included). This unexpected component is usually regarded as an indicator of non-systematic or discretionary fiscal policy. It thus corresponds to a change in fiscal policy which is not related to any particular cyclical situation. Marcellino (2006) shows these fiscal policy shocks have few significant effects on output gaps and inflation rates. This general result is still verified with different components of government budgets

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<sup>7</sup> Tax-smoothing is supported on US an UK data. As we mentioned in the introduction, debt adjustments are frequently delayed for political reasons.

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<sup>8</sup> Perotti (2002) provides an interesting extension of Blanchard and Perotti (2002). He also discusses the different methods available in the literature for the identification of fiscal shocks.

(consumption, transfers, investment, direct taxes on households, business direct taxes and indirect taxes). The general conclusion one can draw from these analysis concerning the usefulness of discretionary policy is far from positive. Fiscal shocks do not provide any macroeconomic stabilisation, indeed, they contribute to raise public deficits and threaten public finance sustainability.

Other interesting results are provided by Fatás and Mihov (2003). This paper is based on cross-country and panel estimates of the relationship between the volatility of discretionary fiscal policy and the volatility of economic growth<sup>9</sup>. Fatás and Mihov (2003) show that a higher volatility of discretionary policy leads to a higher output volatility. In addition, fiscal discretion is also costly in terms of economic growth. A 1% increase in output volatility generated by a 1.2% increase in fiscal discretion reduces the trend of growth of about 0.8%.

### 3.2. Fiscal automatic stabilisers

Considering the criticisms raised by fiscal activism, fiscal rules rely on the working of automatic stabilisers. The latter are expected to provide several advantages: at first sight no political decision is needed to trigger off countercyclical development of government deficits. In turn, no lobbying pressure, nor institutional control, neither administrative implementation are required, furthermore, working “automatically” stabilisers operate without delay with respect to the bad

disturbances they are expected to mitigate. Automatic stabilisers work thanks to the cyclical dependence of various budget components. Unemployment subsidies and other transfers rise during downturns and decrease during upturns. More important, fiscal revenues coming from direct and indirect taxes are deeply pro-cyclical. The measure of the elasticity of public deficit with respect to output-gaps raises some methodological issues<sup>10</sup>. Early OECD studies derive a fiscal elasticity to cycle of about 0.5: when economic growth declines by 1%, public deficit rises of 0.5%. Subsequent estimations by Wyplosz (1999) and Méltiz (2000) find a smaller elasticity of about 0.1-0.2. Two complementary elements can explain the fall in the elasticities during the 90s: first the degree of automatic response has decreased consequently to other economic and political reforms, second automatic stabilisers remain as strong as in the past, but their action is overlooked by pro-cyclical discretionary policy -aiming at maintaining public deficits under the ratio of 3% of GDP every year.

Without surprise the second explanation is well reported by various academic papers such as van den Noord (2000) and Wyplosz (2002)<sup>11</sup>. On average, European governments do not take advantage of good times for

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<sup>10</sup> One particular issue is due to endogeneity of output gaps as budget balances are a component of aggregate demand. Moreover, another source of endogeneity is analysed by Méltiz (2005), when cyclically adjusted budget components and output gaps are expressed as ratios to potential output, they can be inefficiently estimated if potential output is not deterministic but subject to supply shocks.

<sup>11</sup> One important exception is Gali and Perotti (2003), they show that active fiscal policies in EMU and OECD countries have become more countercyclical in the post-Maastricht period. Authors, themselves, carefully remind that European countries had faced lesser real recessions in the 90s than in the past.

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<sup>9</sup> Using panel data, authors extract a public deficit adjusted from automatic and discretionary reaction to business cycle and then compute the variance of the residuals they interpret as the size or the aggressiveness of discretionary changes. In a last step, they estimate a linear regression of economic growth variance on the variance of fiscal policy residuals.



reducing their structural deficit and then recovering rooms-to-manoeuvre in order to face following downturns. Consequently, governments must prevent their deficit from increasing above 3% and are compelled to rise taxes or to cut expenditures during bad times, while the contrary would be much more desirable. Besides reducing the degree of macroeconomic stabilisation, this fiscal behaviour generates an accumulation of public debt that binds more and more the ability of governments to let automatic stabilisers work.

The competing explanation of the decline in cyclical sensitivity of public budget deals with tax and welfare policies implemented in order to increase economic efficiency but which may have cushioned gains provided by cyclical stabilisation. Supply-side policies such as cuts in social transfers and reductions of taxes are usually expected to reduce some economic wastings due to bad incentives generated for suppliers. Removing such welfare losses, by increasing efficiency in output and input markets can increase economic growth. Tax-base grows up, even with a lower tax rate, it can provide a sufficient level of fiscal revenues for financing regalian public expenditures. Nevertheless, this kind of policy can reduce automatic stabilisers and then it can increase macroeconomic volatility. Many empirical studies, from Gali (1994) to Fatás and Mihov (2001,a,b) have repeatedly highlighted that the degree of automatic stabilisation is correlated with the public sector size. Then, any reduction in public spendings could have negative effects on automatic stabilisers.

Nevertheless, Hairault, Langot and Portier (2001), Buti et al. (2002) and Wijkander and Roeger (2002) have shown that a reduction of the tax burden, even a less generous social security system can not

always be contradictory with more effective macroeconomic stabilisation. These papers exhibit cases in which supply-side effects of automatic stabilisers are stronger than standard smoothing effects of demand disturbances. In Buti et al. (2002) there is a critical threshold value of the tax burden over which automatic stabilisers switch off, i.e. become destabilising. The threshold value mainly depends on the relative size of the economy and its degree of openness. In small open countries the tax burden threshold is smaller than in large countries: the tax burden quickly jeopardizes the working of automatic stabilisers<sup>12</sup>.

Table 1 displays results from simulations aiming at computing the degree of automatic stabilisation provided by tax codes and social security systems in EMU countries. In the first two columns we report simulation results respectively based on the Interlink model of the OECD and the NiGEM model of the National Institute of Economic and Social Research. The coefficient of automatic stabilisation is calculated by the root mean squared deviation between the volatility of OECD estimated output gaps from 1991 to 2000, and the volatility of simulated output gaps in which the cyclical effects of public budget items are removed by discretionary policy.

NiGEM reports smaller coefficients, mainly because contrary to Interlink, it does not only focus on the smoothing effects of internal demand shocks<sup>13</sup>. On average, cyclical

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<sup>12</sup> Automatic stabilisers smooth the effects of exogenous shocks by supporting aggregate demand. In small open countries these demand-side effects largely run over the domestic economy, but a high tax burden reduce market flexibility and adjustment to shocks.

<sup>13</sup> More details on Interlink's results can be found in van den Noord (2000) and NiGEM model is presented in Barrel and Pina (2000).

Table 1  
**Degree of Automatic Stabilisers**

Countries	Interlink	NiGEM	QUEST			
			Cons.	Invest.	Export	Product.
Belgium	22	5	19	5	9	3
Germany	31	18	29	8	12	7
Greece	14	–	35	9	11	5
Spain	17	13	29	7	19	4
France	14	7	38	10	14	5
Ireland	10	7	14	3	5	1
Italy	23	5	30	10	14	11
The Netherlands	36	6	20	5	8	3
Austria	7	12	20	5	8	3
Portugal	–	10	30	5	10	5
Finland	58	7	32	5	11	1

Notes: Results for Interlink and NiGEM come from European Commission (2001) quoted by Brunila et al. (2003). Figures for QUEST are extracted from graphs displayed in Brunila et al. (2003).

Cons, means consumption shock, Invest, investment shock, Export, export demand shock and Product, labour productivity shock.

reactions of public budget components smooth between 10% and 30% of economic volatility according to Interlink model, the range of the smoothing effect is about 5%-10% in NiGEM model.

Brunila et al. (2003) use the QUEST model for analysing the role of automatic stabilisers with respect to various shocks, this disaggregated approach allows to analyse with more precision important cross-country differences observed in previous studies. In order to compute this estimation a 3-step method is used. First, authors compute the sensitivity of the budget component with respect to different economic fluctuations. Then short-run fiscal multipliers are calculated. Finally, the stabilisation impact of budget components is given by the product of the cyclically change in public budget

balance and short term fiscal multipliers. In every country fiscal automatic stabilisers have the strongest effect in smoothing private consumption shocks: about 30% of induced GDP fluctuations are removed. The impact is less than 20% in Belgium and Ireland.

In the case of investment shocks, the impact of fiscal automatic stabilisers is smaller in every country. It is around 5% in smaller countries and close to 10% in larger economies: Germany, Spain, France and Italy. The same still applies as far as shocks on export demand are concerned. Automatic changes in public budget balance smooth more than 10% of GDP development generated by external shocks in the four bigger countries, while the impact differs more largely between smaller countries.

Actually the size of automatic stabiliser effect depends on the cyclical reaction of budget components -which is lower in countries that have adopted small direct tax rates, like Ireland. It also depends on the short-run fiscal multipliers -that are lower in more open countries, typically in small open countries.

In the case of a negative supply shock that reduces potential output and increases prices, fiscal automatic stabilisers are expected to be negligible in order to reduce the anti-inflationary response of the central bank. Moreover if the supply shock is permanent, a fiscal counter-shock on aggregate demand could let the economy postpone the adjustment of output to its new potential. Except in the case of Italy, QUEST model shows that automatic stabilisers are the weakest in response to labour productivity shocks. Larger countries still have the larger smoothing effect, which this time cannot be so desirable.

The empirical results show the superiority of automatic stabilisers upon fiscal activism as a powerful tool to mitigate negative economic shocks. Nevertheless, the Stability and Growth Pact is commonly regarded as too much strict. Some European governments have dampened the automatic stabilisers in order to respect the deficit ceiling involved in the Pact. The next section summarizes academic contributions to a new fiscal rule for European governments that can remove these drawbacks.

#### **4. REFORMING THE PACT**

Issues raised by the implementation of a fiscal rule in Europe deal with the need to recover budgetary rooms-to-manoeuvre (in order to let automatic stabilisers fully work) without jeopardizing public finances

sustainability. Two kinds of proposals can be distinguished: a change in the “numerical” rule or a modification of European and/or national institutions.

##### **4.1. Alternative numerical rules**

According to Kopits and Symansky (1998), the design of a good fiscal rule deeply depends on the “summary indicator of the fiscal performance” that is chosen as a target. The SGP constraints the total public budget balance. One can see such a target as “simple”, moreover as it includes the net interest payments, this target takes care of the debt burden and can preserve public finances sustainability. However, the ceiling of public deficit to GDP ratio may overlook the cyclical development of public budget.

Many economists claim that a fiscal rule should take the cyclically-adjusted deficit as the constrained variable. In turn, the European Commission recognizes the Pact is based on a close-to-balance position in the medium-run i.e. a rule of 0% of structural deficit over the cycle. Nevertheless such a rule may be difficult to implement, first it requires a correct measure of the cyclically-adjusted balances as well as a relevant reference for the time-period used to characterize the cycle and to appreciate the efforts governments would make to reach the target.

Coricelli and Ercolani (2002) have proposed to overlook these measurement issues by introducing a rule of public expenditures. One interesting feature is that this component is not so much dependent on the cycle. This rule states the public expenditures at year  $t$  would have to equal the total receipts induced by the potential output of year  $t$ . Buiter and Grafe (2003)

have proposed a Permanent Budget Rule based on the tax-smoothing principle. The permanent budget deficit would be computed as the difference between the long run average of future values of public expenditures and tax receipts, this permanent deficit would be constrained to equal zero.

Both contributions can be realistic, and more economically meaningful, but none of them justifies the arbitrary choice of 0% structural deficit as a target. The point is highlighted by economists who worry that a too much strict fiscal rule leads to a recessive bias. When a government is compelled to some spending-cuts, it would prefer to reduce spendings like public investments that do not matter politically. Blanchard and Giavazzi (2004) claim public investments can efficiently be financed by borrowing inasmuch as they would mainly benefit to future generations of taxpayers. Conversely, funding public investments by current receipts could increase distortionary effects induced by tax variability. Consequently a tight budget constraint would jeopardize government's incentives to undertake some investments.

The positive effect of public investment on potential growth constitutes the main motivation for replacing the current SGP by some golden rule i.e. a constraint holding on the net-of-investment structural balance (Modigliani et al.,1998). This proposition is not consensual. First there are some statistical (and political) issues for correctly distinguish public investment and public operating expenditures, second there is no clear-cut answer whether the rule might exclude gross public investment or net public investment, the former can threaten the reduction of debts and deficits while the latter turns to very little difference with

the actual SGP inasmuch as net-public investment amounts to only 1% of GDP on average over a cycle<sup>14</sup>.

Calmfors and Corsetti (2002) have proposed to take into account the debt burden. The deficit ceiling would be higher in more indebted countries. This proposition has the advantage of providing country distinction and gives priority to debt reduction only when the debt burden is still important. Fiscal policy can recover more flexibility when government solvency is far from threatening EMU's financial stability.

#### 4.2. No rules but institutions

Other proposals deal with substantial changes in European and national fiscal institutions. Rationales for such reforms are twofold. First it is widely recognized that the actual SGP is not as credible as it could be. The excessive deficit procedure for instance is submitted to a vote of the European Council (acting by a qualified majority). France did not follow European recommendations in 2002 and did not present a balanced budgetary position neither in 2004, nor in 2006. Second a fiscal rule can be an inappropriate way for coordinating policies in EMU as pointed out by Beetsma, Debrun and Klaassen (2001). It is frequently recognized that fiscal policy should remain decided at national level, an every proposition to built a federal fiscal policy never goes out from academic debate<sup>15</sup>.

Wyplosz (2002) has proposed to create in every Member-State, a Fiscal

<sup>14</sup> Mathieu and Sterdyniak (2003)

<sup>15</sup> A Union-wide budget would create automatic transfers from countries meeting good cyclical positions to countries facing downturns *Inter alia*: Sala-i-Martin and Sachs (1992) and Bayoumi and Masson (1995).

Policy Committee: independent vis-à-vis governments and accountable to the Parliament. The Committee would set the budget balance in line with sustainability constraint, while tax and expenditure policies would remain the responsibility of the government. For instance, the Committee could compel the government to reduce the debt burden over a given time period or to balanced budget position over the cycle. This proposition relies on independent institution to overlook political short-run considerations in defining fiscal stances.

We have already mentioned that most of issues raised by the Pact come from its asymmetric aspects: while binding excessive deficits even in downturns, it provides no incentives to reduce deficits during upturns. Cassela (2001) claims for the creation of tradable deficit permits. Once defining an aggregate amount of deficit for the Union as a whole and an initial distribution of deficit permits, governments could deviate from the initial allowed deficit by buying permits from other countries in surplus. The mechanism looks well designed to mitigate asymmetric shocks but it assumes that national deficits are perfect substitutes (and then, generate the same externalities). Moreover, such a market can be efficient (i.e. do not entail rents nor wastings) only if it is competitive: there are many suppliers of surpluses and many demanders of additional deficits.

Relying on market mechanism or on national committees to remove some drawbacks of the SGP can look appealing but these proposals can also be regarded as far from giving European policies more democratic objectives and control. Fitoussi and Saraceno (2002) show that the importance given to sound public finance or inflation stability at the European level leads national governments to satisfy these

“intermediate objectives” before or even instead of national actions claimed by voters such as better employment policies or higher standards-of-living. According to these authors, shortcomings of the European governance and of its economic priorities play an important role in the slowing down of European potential growth.

Pisani-Ferry (2004) has proposed the Eurozone Council to become a much more important decision-making institution, capable to define and to implement consensual and even discretionary policies among national policymakers. Such propositions aim at introducing discretionary coordination in EMU's macroeconomic policy. Coeuré and Pisani-Ferry (2005) have exposed a detailed Sustainability and Growth Pact that combines both an alternative numerical rule and a new governance process. This new pact would be based on national balance sheets that take into account the net present value of Age-Related Net Implicit Liabilities (ARNIL) in order to measure net future commitments of general government due to demographic change (e.g. more pension payments and less education spending) at different horizons of time. A five-year target value for the net public deficit would be computed as an average of the net present value of all other future expenditures and a percentage of ARNIL. This more sophisticated approach aims at taking into account important national disparities as far as -potential growth, aging population, and incentives to implement reforms are concerned. It would allow more discretion in national policies, but each year governments would have to published: a fiscal plan (rather close to actual stability programmes) a reform plan and a contingency plan. Those plans would have to be discussed by the European Council of Finance Ministers (Ecofin) and then would have to be adopted by national

parliaments. This proposal deeply highlights the need for the European Union to adopt a better governance.

## 5. CONCLUSION

National governments in EMU are constrained by the Stability and Growth Pact to maintain their public deficits under 3% of GDP. Academics and even policy makers have constantly questioned this deficit ceiling as its positive outcomes in terms of inflation stability and public finance sustainability are often seen as contradictory with the usual role of fiscal policy: smoothing real activity variations in case of asymmetric exogenous shocks. Actually, a fiscal rule like the Stability Pact mainly relies on fiscal automatic stabilisers to mitigate such shocks. European governments have to reach budgetary positions “close to balance or in surplus” in the “medium term” and to let cyclical changes in budget components thwart macroeconomic disturbances. Wondering if such a rule work, economic studies provide a balanced response:

- Numerous empirical results have pointed out the harmful and destabilising effects of fiscal activism, and thus have given support to some institutional arrangements to bind governments hands.

- Globally, public debt and deficit ceilings have entailed a change in European fiscal policies that have become more disciplined and sustainable.
- Budget balances sensitivity to cycle have declined in the 90s, automatic stabilisers may have been dampened by discretionary actions aiming at reducing the debt burden or limiting the deficit during downturns.
- Besides the difficult implementation of the rule induced by the pro-cyclical behaviour of fiscal authorities, the effectiveness of automatic stabilisers is quite different from a country to another. The case of small-open countries particularly matters..

Consequently, many economists who claim for reforming the Pact have proposed alternative fiscal rules or new institutional arrangements that can enhance the ability of European fiscal policies to smooth macroeconomic shocks. Some proposals claim for a change in the target variable of the Pact, others advocate that the need for more coordination, more discretion and more democratic legitimacy in defining macroeconomic policies requires a new institutional framework at both national and European levels.

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