
Discretionary Fiscal Policy in the EMU Context: An empirical approach (1981-2010) and the Recent Reform of European Governance

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Abstract:

This paper attempts to investigate how the Maastricht criteria and the Stability and Growth Pact (SGP) have impaired the capacity of Euro Zone (EZ) national authorities to conduct discretionary fiscal policy. We estimate fiscal determinants for the structural (discretionary) public deficit over the period of 1981-2010, estimating panel data equations in order to increase the strength of the test by enhancing the time series dimension of the data by the cross section. We find that the degree of the countercyclicality of discretionary fiscal policy has been reduced significantly after the Maastricht Treaty. Also, there is empirical evidence that national fiscal rules have a significant positive impact in budgetary outcomes. Regarding the recent reform of the European governance framework, we consider that the context of the reform seems incapable of dealing with the factors which are responsible for the sovereign debt crisis. We stress the need for reforms in the financial sector which seem necessary to ensure in association with sound fiscal policies the stability in euro area.

Key Words: *Fiscal Policy, Discretionarity, Countercyclicality, Flexibility, Stability and Growth Pact, Business Cycle, National Fiscal Rules, Sustainability, Fiscal Discipline*

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1. Introduction

The debt crisis in the Eurozone (EZ) is one of the most crucial challenges in modern economic history. The decline of public finances of many member states constitutes an explosive mixture that threatens the existence of the Eurozone itself and has significant impacts for the global economy. As the leadership of EU is still searching for solutions and actions which will counteract the problem and restore the stability, the analysis of the causes which led to the systemic crisis, the examination of the institutional framework of European governance and the evaluation of the measures and policies adopted, are considered as matters of great importance which require extensive analysis and critical approach. The current paper attempts to approach these aspects from the perspective of fiscal policy, examining them from both a theoretical and empirical background.

Membership in the Eurozone implies that apart from the delegation of monetary policy to the conservative European Central Bank (ECB), there are obligations and restrictions on fiscal policy for the member states. Even though the latter remains a political tool into the hands of national authorities, they must comply with the rules set at EU level in order the stability to be achieved. The implementation of sound and disciplined fiscal policies and the coordination of them in central level are key elements for ensuring the financial stability in the eurosystem.

As the project of European integration was not associated with a fiscal union, the member states have maintained the independence of their national fiscal policies. However, their autonomy is limited significantly by the existence of the euro zone's supranational fiscal rule. The Stability and Growth Pact (SGP) offers guidance and coordinates the implementation of fiscal policy through the obligation of member states to respect the rules and the procedures that the Pact predicts. The target of the SGP is to perform effectively a dual function: to ensure the sustainability of public finances prompting the governments to run sound policies and to provide the necessary flexibility so as the national authorities to be able to deal with the negative fluctuations of the business cycle.

This paper consists of two parts. In the first section, we are trying to acknowledge the particular structure of fiscal policy in EMU context. We examine empirically how the restrictions of Maastricht criteria and the SGP have impaired the capacity of national authorities to run countercyclical discretionary fiscal policies and whether the stabilization function of fiscal policy is associated with less procyclical discretionary policies. The division of the EZ countries into two subgroups (north – south) will provide us useful conclusions about the different effects the constraints have had on rich north and poor south. Lastly, we will evaluate whether the national fiscal rules can counteract political indiscipline and their efficiency on budget outcomes.

In the second section, we will approach the recent reform of the European governance, providing details of the reform package and discussing its

appropriateness and its potential effectiveness on the restore of the European financial stability.

2. Discretionary Fiscal Policy in the EMU: An Empirical Approach

The main objective of the empirical analysis is to examine to what extent the constraints of both Maastricht criteria and SGP have affected the way national authorities conduct their discretionary fiscal policy. Provided that the monetary policy of all countries in the Eurozone is managed by the ECB, the fiscal policy undertakes the responsibility to operate as a stabilizing tool of the business cycle and to counteract the negative asymmetric shocks. Consequently, it is the foremost tool in the quiver of governments to deal with their country-specific fluctuations. For this reason, we would expect that the process of European integration should be linked to the adoption by the member-states of more countercyclical discretionary fiscal policies. On the other hand, the existence of the Pact sets constraints and limitations on the conduct of fiscal policy. The question we want to answer is whether these constraints prevent the stabilizing role of fiscal policy and if this hypothesis is supported by the empirical findings.

Making clear what the stabilizing role of authorities means, the governments tend to implement restrictive monetary and fiscal policies during booms and loose policies during recessions so as to stabilize the cycle. A rational assumption is that we should expect that European monetary union would be associated with the conduct of more strongly countercyclical fiscal policies which will affect negatively the budget outcome in times of economic recession as this is the way fiscal policy plays a stabilizing role in business cycles.

This analysis is based on that of Gali and Perotti (2003) aiming to amend and extend it. Specifically, we use historical data until the year of 2010 and we add in our model the variable of national fiscal rules. From a methodological perspective, our empirical approach focuses on the variables that constitute indicators of discretionary fiscal policy such as the structural deficit or cyclically unadjusted deficit. It is essential to make a distinction between the changes in fiscal policy that occur as specific measures decided by national authorities discretionarily and the changes as a result of the general economic conditions that affect the automatic stabilizers. The level of the deficit consists of the cyclical deficit which is the result of business cycle fluctuations rising during recessions and falling during booms since the cyclical deficit acts as an automatic stabilizer and the structural deficit which shows how large the deficit would be if the economy were operating at full employment (potential real output) and demonstrates the impacts of the actions adopted by the national authorities whose objective is to cope with the endogenous or exogenous (such as the financing of a war) fluctuations of the cycle. A typical example of the cyclical deficit is the reduction of tax revenues and the increase of payments for social insurance during recessions.

3. Methodology

The first step is to examine the stationarity characteristics of each time series. Actually, there are numerous econometric techniques to test for the existence of a unit root. In the current study, we use the popular Augmented Dickey – Fuller methodology (ADF) (Dickey and Fuller, 1979).³

The ADF test is based on the following regression (Kaskarelis 1993):

$$\Delta Y_t = \alpha + \beta t + \rho Y_{t-1} + \sum_{i=1}^m \gamma \Delta Y_{t-i} + \varepsilon_t$$

where Δ is the first difference operator, t is time and ε^t is the error term.

In case the cyclical component is stationary, the secular component has a unit root and Y follows a random walk process i.e. the change in Y is absolutely random. Algebraically a random walk has the following form: $Y_t = Y_{t-1} + \varepsilon_t$. Furthermore, if $\alpha \neq 0$, then Y follows a random walk process with a drift. A drift process is represented as follows: $Y_t = Y_{t-1} + \alpha + \varepsilon_t$. Note that the lag dependent polynomial is incorporated with the aim to deal with the potential serial correlation of the residuals.

However, it is well-known that regarding panel data series, the standard unit root tests based on individual time series are not the appropriate techniques to employ as they do not work effectively. This is why we tend to apply panel data unit root tests that are employed in the investigation of statistical properties in panel data analysis. The results provided by the panel data unit root tests will be more reliable since the panel data analysis increases the strength of the test by enhancing the time series dimension of the data by the cross section. There are several panel unit root tests, some of the most popular are the following: the ADF - Fisher Chi-square (Maddala and Wu, 1999), PP – Fisher Chi-square (Choi, 2001), the LLC (Levin, Lin and Chu, 2002) and the IPS (Im, Pesaran and Shin, 2003)⁴. For our analysis, we use

³ There are several unit root tests that can be used such as the test of Zivot and Andrews (1992), the IPS test (Im *et al.* 1997), the MW test (Maddala and Wu, 1999), or the Choi test (Choi, 2001).

⁴ While the LLC test allows for heterogeneity of individual deterministic effects and a heterogeneous serial correlation structure, it assumes the presence of a homogeneous autoregressive root under the alternative. The latter is identified as a serious limitation for the LLC test. The LLC test procedure involves using pooled t-statistics of the estimator to evaluate the hypothesis of non-stationarity of each individual time series. The more recently developed IPS tests overcame the limitation of the LLC test by allowing for heterogeneity of the autoregressive root under the alternative. The IPS test is simple to calculate and allows for residual serial correlation and heterogeneity of dynamics across groups. However, simulations indicate that the IPS test is sensitive to a correct choice of lag orders in the underlying ADF regressions; the power of the t-bar test is more favorably affected by a rise in time dimension of the data than the cross-section units of the data; and the interpretation of the IPS test results are difficult because of the heterogeneous nature of the alternative hypothesis. Maddala and Wu's (1999) and Choi's (2001) tests were similar in the way that both suggested panel unit root tests performed using a Fisher statistic, but they were developed to overcome the shortcomings of the LLC

the method of ADF – Fisher Chi-square as an alternative approach to the unit root tests. The ADF – Fisher Chi-square test combines the p-values from the individual unit root tests and allows for individual unit root processes so that p-values vary across cross-sections.

The ADF - Fisher Chi-square is based on the following regression (Baltagi, 2001; Fischer, 1932):

$$P = -2 \sum_{i=1}^N \ln p_i$$

The hypothesis that we have to evaluate is $H_0: \rho_i = 0$ against the alternative $H_1: \rho_i < 0$ (the series are weakly stationary or trend stationary). The ADF - Fisher Chi-square test was applied both on the initial original variables of the models and their first differences. Most of the original variables are non-stationary however their first differences are stationary.

Moreover, in order to choose the appropriate coefficient covariance method, we work in full accordance with the Arellano asymptotics (1987). If T (number of periods) is greater than N (number of cross sections) and $T < 2N$ we use the method of White diagonal with Cross Section weights, while if $T > 2N$ we use the method of White Cross section with Cross Section SUR weights. As a result, for models 2,4 we use the method of White diagonal while for models 1,3, the method of White Cross section.

Finally, our sample consists of the data of the 11 initial members – states of the Eurozone (Austria, Belgium, Finland, France, Germany, Greece⁵, Netherlands, Ireland, Italy, Portugal, and Spain). The data are on annual basis, come from the database of OECD and cover the time period 1981-2010, and capturing traces of the current crisis.

4. Empirical Analysis Results

A useful starting point for our empirical analysis would be to regress the following relation:

$$d_t = a_0 + \beta_x X_t + d_{t-1} + u_t \quad (1)$$

where d_t is the deficit of general government as a share of GDP, X_t is the output gap and d_{t-1} is the lagged variable of deficit.

The concept is to regress an indicator of fiscal policy on a cyclical indicator, so we will estimate the relation between the cyclically unadjusted deficit of general

and the IPS tests. Maddala and Wu's (1999) and Choi's (2001) tests solves the problems related to previously mentioned tests by providing the combination of probability values for a unit root tests applied to each group in the data set. With this in mind, we employed the LLC, the IPS, ADF-Fisher and PP-Fisher panel unit root tests in this paper. For the LLC and IPS test, the optimal lag length is determined according to Schwarz criteria.

⁵ Greece joined EMU in 2001.

government and the output gap which is an economic measure of the difference between the actual output of an economy and the potential output (the output that can be produced at full employment). The use of the lagged variable helps us to account for the likely of error autocorrelation and it allows explanatory variables to have effects beyond the current period.

Even though this relation does not identify the systemic response of national authorities as discretionary policy to the fluctuations of the cycle, it provides a useful descriptive relation between public finances and cyclical activity. Our results demonstrate the contribution of cyclical conditions on the implementation of balanced or surplus budgets and hence on the ensuring of the sustainability of public debt.

The table displays the results for our specification. Even if our model is simplistic, it has an appealing interpretative capacity. The explanatory variables are statistically significant at the significance level of 95%. Particularly, the results demonstrate a clear positive relation between the level of cyclically unadjusted deficit and the output gap. A reduction in the negative output gap or an increase in the positive output gap by 1%, would reduce the level of deficit by 0,5%. It would be wrong to conclude that the national authorities tend to conduct procyclical fiscal policy due to the fact that we have not used the appropriate indicators of discretionary policy in our specification.

Interpreting the empirical results of the model 1, they highlight the weaknesses in the structure of SGP. Regarding the Excessive Deficit Procedure (EDP) which includes the imposition of fines in the case there is a deficit in excess of 3% of GDP, we approve of the reviews which state that the SGP restricts the necessary flexibility fiscal policy should have in order to stabilize the cycle. Moreover, the SGP should take into account the growth rate of member-states and also their position into the business cycle since the rule refers to the cyclically unadjusted deficit (debt dynamics equation: $g - t + (r - x)b = \mathbf{b}$) and to the structural deficit.

In order to examine how authorities utilize fiscal policy as a tool to stabilize the fluctuation of business cycle, we use the structural deficit as an indicator of fiscal policy stance. An additional problem that must be addressed is to determine properly the timing of fiscal policy decisions so as we will be able to define the nature of the variable, the national authorities react to. Actually, the measures are usually decided approximately a year before their implementation, excluding exceptional cases. Therefore, national authorities' decisions should be based on the expectation of the output gap, conditional available on information available in the period $t-1$ ($E_{t-1} X_t$). However, reality proves that the process of policy making is characterized by complexity and inertia, so a plausible alternative would be to assume that the structural deficit responds to the output gap in the period $t-1$, rejecting a forward looking approach. Furthermore, in our model we incorporate the variable of the measure of gross debt relative to potential output gap as a debt

stabilization motive (Gali and Perotti, 2003; Bohn, 1998; Wyplosz, 2002) and the variable of the lagged dependent variable (by one year) in order to avoid autocorrelation error and to deal with endogeneity possibilities⁶. The introduction of these two explanatory variables enables us to take into account the initial limitations faced by the government. The resulting specification we estimate is the following:

$$d_t^* = a_0 + \beta_x X_{t-1} + \beta_b b_{t-1} + b_s d_{t-1}^* + u_t \quad (2)$$

where d_t^* is the structural deficit divided by potential output, X_{t-1} is the output gap for the period t-1, b_{t-1} is the gross debt of general government as a share of GDP for the period t-1 and d_{t-1}^* is the lagged dependent variable.

A negative (positive) value of the coefficient β_x implies that fiscal authorities use discretionary fiscal policy in a countercyclical (procyclical) way. A negative value of the coefficient β_b , as well as a value of the coefficient b_s less than 1, implies that policymakers are subject to initial restrictions regarding the level of deficit and debt (Gali and Perotti, 2003). The higher the initial level of debt or deficit, the lower they conduct strongly countercyclical discretionary policy. Since our primary objective is to detect whether the constraints of Maastricht criteria and SGP have impaired the way policymakers conduct discretionary fiscal policy, we split our sample into two sub periods: the pre-Maastricht period and the post-Maastricht period. The first sub period covers observations for the period from 1981 to 1991 (one year before the criteria of Maastricht Treaty come into force). The empirical results for this period will demonstrate the tendency of policymakers in fiscal policy making process and how they conduct discretionary policy without constraints and limitations. We estimate the following version:

$$d_t^* = a_0 + \beta_{xBM} X_{t-1} + \beta_b b_{t-1} + b_s d_{t-1}^* + u_t \quad (2a)$$

where the initials BM and AM refer to pre-Maastricht and post-Maastricht periods respectively.

Looking at the results of the model 2a from the table, in the pre-Maastricht period when governments had at their disposal also the monetary policy as a stabilizing tool, they tended to utilize the tools of fiscal policy in a systemic countercyclical way. The coefficient of output gap has a negative value which indicates that policymakers conduct restrictive fiscal policy during booms and loose fiscal policy during recessions. As far as the initial restrictions are concerned, we notice that initial limitations exist only in respect of the initial level of deficit, while the higher the initial debt, the lower the structural deficit national authorities set discretionarily. The magnitude of the gross debt does not constitute a deterrent

⁶ Dealing with the problem of endogeneity is a complicated task. In econometric theory, it is vague whether a variable is endogenous or exogenous. It depends on the assumptions made by the analyst and his theoretical background. A way to deal with the “fear” of endogeneity is to use an instrumental variable which allows consistent estimation when the dependent variable causes at least one of the explanatory variables. That means that there is a reverse causation and our results are biased.

factor for the adoption of countercyclical fiscal policy. Note that both the model and the independent variables are statistically significant at the 0.05 level.

The second sub period under examination covers the period from 1992 (when the criteria of Maastricht came into force regarding the membership in the Eurozone) to 2010 including the effects of the adoption of the supranational rule for EZ member states.

$$d_t^* = a_0 + \beta_{RAM} X_{t-1} + \beta_B b_{t-1} + b_s d_{t-1}^* + u_t \quad (2b)$$

The results of the analysis support our hypothesis that the integration of monetary policy with a clear mandate to the focus on the target of price stability is associated with countercyclical fiscal policies in the EMU countries even if the flexibility of fiscal policy is being reduced when the medium-term target of the SGP has not been achieved. Nevertheless, even though the explanatory variable is not statistically significant at level lower than 20%, there is an indicative tendency of a significant reduction in the degree of countercyclicality of discretionary fiscal policy. Additionally, it is concluded that the supranational fiscal rule for the level of deficit has significantly limited the capacity of policymakers to use fiscal policy a stabilizing tool of the cycle as the empirical data confirm the failure of member-states (especially France and Germany) to comply with the rule.

Now, we repeat the same exercise, having divided our sample into two sub groups. We split our sample of countries into the poor south or PIGS (including Greece, Italy, Spain, Portugal and Ireland) and the rich north (including Germany, France, Finland, Austria, Belgium and Netherlands). This will enable us to extract the different features and the asymmetries between the two sub groups as far as the conduct of fiscal policy is related. The pattern that emerges, shows that the southern European countries run systematically countercyclical discretionary fiscal policies in the post-Maastricht period which is statistically significant at 0,05 level, but there is a reduction in the degree of countercyclicality from the pre-Maastricht period which is statistically significant at 0,10 level. On the other hand, regarding the northern countries, they appear to conduct procyclical discretionary policies in the post-Maastricht period in contrast to the previous when there is a statistically significant negative relation between structural deficit and output gap. The above finding demonstrates an aspect of the decreasing synchronization among the counterparts of the Eurozone⁷.

Following the lead of several authors, we also incorporate into our model the independent variable of national numerical fiscal rules (Iara and Wolff,2010; Debrun et al., 2008 Ayuso-i-Casals et al., 2006; Commission, 2007; Deroose et al., 2006). Apart from the rules imposed by the SGP, there are numerous national fiscal rules which are designed to prevent the decline of public finances and to hit the

⁷ Papageorgiou et al. (2010) testify a decreasing synchronization among the counterparts of the emu zone after the introduction of the euro coin".

profligacy of governments. A concise definition of the national fiscal rule is the one proposed by Kopits and Symansky (1998) which defines the national fiscal rule as "a permanent constraint on fiscal policy, expressed in terms of a summary indicator of fiscal performance". In order to meet the needs of the scientific research, Commission firstly compiled a dataset on national fiscal rules in force across EU countries and then created the Fiscal Rule Strength Index which evaluates numerically the strength and the efficiency of domestic fiscal rules. Five criteria have been taken into consideration: the statutory/legal base of the rule, the room for setting or revising objectives, the nature of the body in charge of monitoring respect and enforcement of the rule, the enforcement mechanisms of the rule and the media visibility of the rule⁸. The ranking of the index takes values from -1,12 to 1,54⁹. The use of the variable of national fiscal rules enables us to evaluate the contribution of domestic restrictions on the conduct of balanced budgetary outcomes and to what extent their strength affects the level of the structural deficit produced. The resulting specification that we estimate is thus:

$$d_t^* = a_0 + \beta_x X_{t-1} + \beta_b b_{t-1} + \beta_s d_{t-1}^* + \beta_f f_t + u_t \quad (3)$$

The most natural interpretation of the above findings is that there is an undeniably positive relation between domestic fiscal rules index and the level of structural deficit. The higher the fiscal rule strength index is for a country, the greater contribution of domestic constraints on the level of deficit produced. However, this relation is not statistically significant at a level lower than 25%. Moreover we find that the presence of national numerical fiscal rules increase the extent of countercyclicality of fiscal policy. Finally, it must be noted that there is a strong negative relation between the output gap for the period t-1 and the structural deficit for the period which proves one more time that governments run strongly countercyclical discretionary fiscal policy.

Table 1. Panel Data Regression Results

Independent variables	Model 1	Model 2 (a-b)		Model 2 (southern countries)	
Output gap t-1		-0.167585 (-2.017307)*	-0.047525 (-1.243943)	-0.255622 (-1.823910)**	-0,089698 (-1,917188)**
Gross debt t-1		0.087848 (2.383029)*	0.024174 (3.791262)*	0,151052 (5,757249)*	0,027754 (3,016101)*
Lagged adjusted deficit		0.288348 (2.084699)*	0.813873 (19.52911)*	0,336790 (2,133473)*	0,812107 (15,27963)*
Output gap	0.499090 (5.510424)*				

⁸ http://ec.europa.eu/economy_finance/db_indicators/fiscal_governance/documents/fiscal_rules_calculation_fiscal_rule_index_2010.pdf

⁹ http://ec.europa.eu/economy_finance/db_indicators/fiscal_governance/fiscal_rules/index_en.htm

Independent variables	Model 1	Model 2 (a-b)		Model 2 (southern countries)	
Deficit t-1	0.715293 (9.988716)*				
Fiscal Rules Index					
Constant	-0.741778 (-3.126519)*	-9.828870 (-3.392398)*	-2.192489 (-4.494069)*	-17,11492 (-8,660905)*	-2,889977 (-3,542233)*
R2	0.759422	0.841258	0.874724	0.694813	0,838122
Durbin-Watson stat	1.530709	1.612692	1.856546	1.559896	1,693448
F-stat	75.08105	32.23887	104.7353	8,130985	64,34871
Countries included	11	10	11	5	5
Total panel observations	283	86	209	33	95
Coef. Covariance Method	White Cross section	White diagonal	White diagonal	White Cross section	White Cross section
Period	1981 - 2010	1981 - 1991	1992 - 2010	1981 – 1991	1992 - 2010

Independent variables	Model 2 (northern countries)		Model 3
Output gap t-1	-0.131373 (-2.161651)*	0.065972 (1.050242)	-0.092046 (-2.108149)*
Gross debt t-1	0.012280 (0.639387)	0.015535 (1.723184)**	0.019723 (2.666155)*
Lagged adjusted deficit	0.363182 (4.012788)*	0.7443 (11.70722)*	0.823360 (20.25733)*
Output gap			
Deficit t-1			
Fiscal Rules Index			0.202563 (1.152632)
Constant	-3.303735 (-2.4966613)*	-1.329439 (-2.037808)*	-1.823903 (-3.387655)*
R2	0.852416	0.839483	0.872487
Durbin-Watson stat	2.263396	2.062901	1.928381
F-stat	37.13004	68.64201	91.88301
Countries included	5	6	11
Total panel observations	53	114	114
Coef. Covariance Method	White Cross section	White Cross section	White diagonal
Period	1981 - 1991	1992 - 2010	1992 - 2010

Note: In parenthesis are depicted the t-stat values. Model 1: dependent variable is the cyclically unadjusted deficit as a share of GDP. Model 2,3: dependent variable is the structural deficit as a share of potential GDP. * the independent variable is statistically significant at 0.05, ** the independent variable is statistically significant at 0.10.

5. The Reform of European Governance Framework – A Critical Review

The global financial crisis revealed not only the member states' real fiscal state but also the undercover weaknesses of the European institutional framework of European governance. In 2010, the global financial crisis reverted into a debt crisis for the entire euro area which is now characterized systemic. In order to overcome the impacts of the crisis and to restore stability, the leadership of the EU decided to adopt radical measures so as to shield the Eurozone countries from the ongoing and a potential future debt crisis. The reform of the European governance is considered as a decisive step towards the fiscal and political integration. The second section of the paper asks whether these reforms seem sufficient and appropriate to deal with the matter of the restore of stability in the EMU.

Concisely, the reform package contains the following:

- A stronger version of the Stability and Growth Pact associated with more severe enforcement mechanisms and sanctions. Also, the introduction of a new debt criterion under the Excessive Deficit Procedure (corrective arm).
- A new directive on national budgetary frameworks which predicts the setting of minimum requirements in consistency with fiscal framework of the EU into the domestic legislation and the adoption of the golden rule for balanced national budgets (over the cycle).
- A robust framework for preventing and correcting macroeconomic imbalance. The introduction of the Excessive Imbalance Procedure aims to identify and alleviate the macro-economic imbalances via the use of an indicative scoreboard, combined with techno-economic judgment.
- The enhancement of economic coordination with several interlinked and coherent policies for sustainable growth, convergence and high-level competitiveness through the implementation of the Euro Plus Pact.
- The establishment of a permanent European stability mechanism (ESM) which will offer financial assistance to member-states incapable of accessing market financing. Access to ESM will be provided on the basis of strict economic policy conditionality, under an adjustment programme and a rigorous analysis of public-debt sustainability. ESM will coexist with the EFSF and their overall financial capacity will be 500 billion Euros.

A rational assumption is that the efficiency of the reform package depends on the addressing of the factors that caused the crisis. What we can conclude from the nature of the reform is that the major problem which must be addressed is the profligacy of national authorities and the fiscal indiscipline. This is why the

leadership of the EU promoted inter alia the enhancement of the SGP with both stricter rules and enforcement mechanisms. Upon this, a question arises: is the fiscal indiscipline the root of the European sovereign debt crisis?

5.1 Wrong Approach

Data analysis shows that the period before the outbreak of the global financial recession, the public finances for the euro area were highly satisfactory. Particularly, in 2007, the average deficit of the union reached 0,7%, demonstrating not only a great reduction of the level of deficit since the beginning of EMU but at the same time it was a record low since the 70s. Similarly, the average gross public debt declined from 73% in 1998 to 66,5% in 2007, while the level of public expenditures decreased by 9 percentage points (Uxo and Paul, 2011). Consequently, one conclusion that emerges is that the sovereign debt crisis is not the result of the inability of governments to run sound fiscal policies. The countries that have been afflicted more by the impacts of the debt crisis used to run prudent fiscal policies in compliance with the rules of the SGP (see Spain and Ireland). The great exception to this story is the case of Greece, whose governments manipulated the data, producing the “famous” Greek statistics. The main reasoning behind the deterioration of the public finances can be found in two factors. Firstly, in order to alleviate the consequences of the global financial crisis, governments took the responsibility to save the banking system providing both liquidity and guarantees and at the same time they were forced to sustain economic activity at pre-crisis levels through the conduct of loose discretionary fiscal policy (De Grauwe, 2010). These actions undertaken by the national authorities, illustrate both the inherent flaws of the financial sector and the failure of monetary policy which did not manage to apply stricter controls on the functioning of banking system or to provide a regulatory framework so as to ensure stability. The recession appears thus to be the result of the unsustainable private debt explosion which forced governments to protect the private sector from the impacts of bubbles the financial sector itself caused. As a result, what we can conclude is that the sovereign debt crisis has been created by a combination of complex factors and that the deterioration of public finances seems to appear more as a consequence of the crisis and not its fundamental cause.

5.2 Stricter SGP

The above conclusion raises doubts over the appropriateness of a more rigorous rule (as the Commission introduced) whose objective is to counteract the current sovereign debt crisis. But beyond this, there are also problems which have been identified regarding the expected efficiency of the SGP and its structure in general.

To begin with, in the short term, the direct implementation of the new provisions will bring about a wave of measures of austerity which contain huge

social cost and will result in the deepening of the recession with dramatic consequences for the real economy. This is why the adoption of radical measures will undeniably reduce the aggregate demand and will lead to a prolonged decline while there will not be any available tool to restore the economy. This is what is called vicious cycle. Moreover, the reduction in government expenditure will lead to a great fall in activity that gross debt ratio will get even worse, at least in the short term. This assumption is based on the fact that the cutting on spending will lower the GDP and as a result the gross debt ratio will increase. This will occur only if the multiplier (Keynesian models) is higher than 1.0 which means that if the government reduces its deficit by 1% of GDP by cutting expenditures while the multiplier is 1.8, the spending cut will lower GDP by 1,8% and the debt ratio will augment (Gros, 2011).

The tightening of the rules and the automaticity of enforcement mechanisms are going to reduce the flexibility that discretionary fiscal policy should have. Full compliance with the mid-term fiscal consolidation plans and the assessment on the basis of expenditure developments will definitely disable the capacity of fiscal policy to be used as a stabilizing tool for the fluctuations of the business cycle. On the other hand, the fact that building on the SGP, budget finances must be expressed in structural terms which seems to be in the right direction as it may be proven a mean capable of coping with the reasons which provoke the tendency for deficit bias¹⁰. To sum up, the new revised SGP predicts the conduct of countercyclical discretionary fiscal policy only in good times and leaves little room for countercyclicality during negative shocks. The necessary balance between flexibility and discipline is not achieved.

Structural problems are not avoided. The new obligation for member-states to keep debt below or sufficiently declining towards 60% of GDP seems excessively ambitious especially for countries subject to high gross public debt. Tamborini's technical analysis (2011) demonstrates the degree of difficulty of the above target. Tamborini attempts to evaluate the new SGP rules by means of dynamic models of the debt/GDP ratio focusing on its determinants: the real growth rate, the inflation rate and the nominal interest rate on the accumulated debt stock. He finds out that the convergence of debt/GDP ratio at 60% and the target of keeping it stable over time can be achieved if only if the prerequisite of uniform growth, interests and inflation rates for the entire euro area is satisfied. This appears quite difficult since the interest rate convergence seems impossible to be achieved due to the historical differences in risk measures. Finally, he concludes that heterogeneity and interdependence entails different features for m-s regarding the chances of success, the efforts and the spillovers towards the SGP target which finally seems infeasible.

¹⁰ Calmfors and Wren-Lewis (2011) distinguish six reasons for deficit bias: (i) impatience, (ii) informational problems, (iii) common pool problem, (iv) electoral competition, (v) exploiting future generations and (vi) time-inconsistency problem.

The revised SGP entangles the assignment of national responsibilities (decisions on tax policy and public spending) to EU institutions. The role of supranational institutions becomes more extensive and gains in power. In particular, the Commission may impose sanctions under the jurisdiction of the European Court of Justice, it may ask from member states to reduce public expenditure or to adjust their tax policy. This entails firstly that there is a democratic deficit in EU affairs and secondly that member-states should surrender their national sovereignty to the EU. These procedures also lack legitimacy as the European supranational institutions do not face the democratic political sanctions of their decisions and actions¹¹ (De Grauwe, 2010).

It is worth mentioning that there are reviews which are in favor of the content of the revised SGP but they pose concerns for its efficiency. Their main concern is the lack of automatic sanctions. Even though the penalties will have a much greater degree of automaticity via the use of reverse QMV¹², the lack of automatic sanctions will allow member-states to avoid their obligations under the Pact, increasing the room of discretionary maneuvers for the national authorities in the European Council (Von Hagen, 2010). Fuest (2011) states that the reform package gives a lot of emphasis on the coordination and supervision approach instead of introducing more compliance via automatic sanctions and enforcement mechanisms. Schuknechat et al. (2011) asks for greater independence for the Commission services in its administration of the Pact and restrictions in member states right for veto.

5.3 Competitiveness and the Excessive Imbalance Procedure

It is generally admitted that fiscal policy does not guarantee by itself the fiscal stability and therefore should not be examined in isolation. There should be a broader macroeconomic surveillance to ensure the sustainability of public finances. The existence of excessive macroeconomic imbalances including divergences in current account and competitiveness directly affects the public finances and makes member-states public finances more vulnerable to negative shocks. In order to shield member-states from macroeconomic imbalances, the EU leadership decided to introduce a completely new procedure for excessive imbalance, the Excessive Imbalance Procedure. The philosophy underpinning the new provision seems to be the correction of trade imbalances across the EU through the enhancement of competitiveness.

However, the direction of the approach adopted seems to have serious weaknesses which may jeopardize the functioning of single market. The correction of the current account imbalances does not require only the increase of the

¹¹ There cannot be taxation without representation.

¹² According to the so-called reverse qualified majority vote, the decision on the sanctions will be adopted unless a qualified majority of the Council vote against it.

competitiveness of countries with high-level current account deficits but also that deviations in both directions should be addressed since the side of surplus countries have a great margin of fiscal maneuvers. A symmetric approach seems more appropriate to cope with the solution of imbalances within the EMU (Uxo and Paul, 2011; Belke, Schnabl and Zemanek, 2010; Goodhart and Tsomocos, 2010; Pisany-Ferry, 2010; Dadush and Eidelman, 2010; Stockhammer, 2010). On the contrary, the Commission decided to promote an asymmetric approach which is based on the reasoning that current account deficits or trade deficits are the results of the lack of competitiveness, and surpluses come from the high-level economic efficiency, hence aiming at the improvement of competitiveness for the entire euro area (Wyplosz, 2010; Budesbank, 2010). Notwithstanding, the asymmetric approach ignores the fact that there is an intense interdependence among the member states as far as the trade is related. The structure of EU trade (intra-community trade mainly) suggests that if a member-state increases its competitiveness, another country must lose competitiveness. Overall improvement of EU competitiveness can be achieved only if the terms of trade with the rest of world become better.

Furthermore, it is generally accepted that macroeconomic imbalances within a monetary union are not necessarily negative as they demonstrate an improvement of the regional allocation of capital (Von Hagen, 2010). Also, changes in competitiveness reflect the convergence of standards of living for certain countries in the euro area. Finally, it is likely that under the procedure of trade imbalances correction there may be conflicts with other areas of EU policy such as regional development policy, labor market policy, single market policy etc.

Finally, technical problems are unavoidable. The competitiveness of an entire economy is very difficult to determine as the relative prices and the remunerations depend on many aspects of labor and capital market institutions. Evaluating and enhancing competitiveness constitutes a difficult task to deal with since many criteria which define the production cost must be examined, not only the aspect of direct labor cost on which all attention has focused. Lastly, the determination of specific thresholds for each member-state beyond which an existing imbalance becomes crucial and dangerous lacks technical methodology and seems to be unreliable and abstract (Belke, 2010).

5.4 Need for a New Financial Sector

Taking into account that the major causes of the sovereign debt crisis in the Eurozone are the accumulation of private debt and the fiscal indiscipline, the reform of European governance should not only focus on the fiscal surveillance framework but also on the financial sector and on the conduct of monetary policy.

The adoption of a permanent mechanism that will help preserve the economic and financial stability of the Union itself by providing financial assistance and containing specific provisions for debt restructuring should be associated with fundamental reforms in the financial sector since debt and banking crisis are the two

sides of the same coin. The reforms in the financial system should firstly provide clauses and guarantees in order to prevent the outbreak of a new banking crisis and secondly they should undertake corrective actions so that the financial sector may be sufficiently robust to absorb the impacts of a sovereign default or a potential debt restructure.

The accumulation of the private debt in banks is the greatest concern. European institutions should establish a regulatory framework that will govern banking transactions and monitor the operation of the banking system. In that framework, the sustainability of European banks should be assessed via austere stress tests¹³ monitored and supervised by independent European institutions. Actually, a crucial parameter is the monitoring of economic indicators that may prevent the creation of bubbles into the financial sector. Authorities should identify the risks and send warning and alarms to national authorities so as they can get prepared for a potential collapse.

The Eurozone's permanent bailout fund with a lending capacity of 500 billion euro offers financial assistance only to member-states when their regular access to market financing is impaired, while the granting of loans and assistance to bank institutions depends on the discretionarity of the national authorities. From this perspective, if the ESM made room for the support from the banking system with extra capitals under specific terms, the moral hazard related with the rescue of banks by governments would be reduced significantly. Concerning the involvement of the private sector in debt restructuring, this should not be unique and exceptional regarding the Greek debt but standardized and identical procedures and provisions seem essential to be introduced. In addition to that, these provisions should be associated with guarantees and clauses which will indeed ensure the sustainability of the banking system. The main conclusion we may derive is that the reform package is judged insufficient to improve financial sector stability. This also applies for the Basel III process which contains specific measures for broader financial stability. We keep our doubts whether the measures provided will make the sector more stable and rigid¹⁴ over the long run, thus raising economic growth. Furthermore, an ongoing issue of great concern is the debate related with the role of rating agencies and the operation of derivatives market¹⁵. In particular, investors can buy Credit Default Swaps (CDS) contracts referencing national debt without owing any national bond which implies that there may be financial speculative motives. As collective speculative actions may set the stability of the system in danger, EU should adopt measures to ban CDS speculation.

¹³ Authorities have to deal with the problem of the undercapitalization of banks and how the latter ensure liquidity for the real economy.

¹⁴ There should be provisions which make sure that banks in countries undergoing a debt restructuring still have access to the liquidity of ECB or to refinancing through ECB (Fuest, 2011).

¹⁵ Derivative markets are investment markets for financial instruments that get their value, or at least part of their value, from the value of another security, which is called the underlier.

It is also considered essential that European authorities push towards a bilateral agreement with countries known as tax havens in order to get valuable fiscal information for the fight against tax evasion and corruption, giving European societies *inter alia* a sense of justice.

6. Conclusions

This paper made an attempt to answer some crucial economic questions: a) whether the limitations of Maastricht criteria and SGP have impaired the ability of national authorities to run countercyclical discretionary fiscal policy in the EMU context approaching the time period 1981-2010 and b) whether the recent reform of the European governance framework seems sufficient to deal with the impacts of the current sovereign debt crisis and to restore stability.

Estimating the model adopted, several interesting conclusions emerge. Firstly, discretionary fiscal policy has become less countercyclical overtime as we have found a significant reduction in the degree of countercyclicality of discretionary fiscal policy. Secondly, there are differences in the manner the two sub groups of EZ countries conduct their discretionary fiscal policy. More precisely, the countries that form the PIGS are found to run to some extent countercyclical policies while the northern countries tend to conduct procyclical fiscal policies after the process of monetary integration. Finally, the results confirm the popular view that the adoption of national fiscal rules is associated with more sound fiscal policy and fiscal discipline. However, readers should take into account the limitations associated with the empirical analysis and not to overestimate the findings provided.

From our perspective, the recent reform does not confront the roots of the crisis. The adoption of a stricter SGP will deepen the decline and will reduce the flexibility of discretionary fiscal policy to be used as a stabilizing tool. The introduction of Excessive Imbalance Procedure seems to be in the right direction but a symmetric approach is needed. Lastly, we lay emphasis on the need for reforms in the financial sector in order the European economy to be shield from future crises.

Concluding, we want to stress that even though we have identified several weaknesses and flaws concerning the nature of the recent European governance reform and its appropriateness, we would rather to consider our remarks and the context of our critical review in general, as useful caveats to the debate opened about the future of EMU.

References

1. Arellano, M., (1987), "Computing Robust Standard Errors for Within-Groups Estimators," *Oxford Bulletin of Economics and Statistics*, 49(4), 431–43.
2. Ayuso-i-Casals, J., Hernande, D., Moulin, L. and Turrini, A. (2006), "Beyond the SGP - Features and Effects of EU National – Level Fiscal Rules", *European Commission*.
3. Baltagi, B.H. (2001), "Econometric Analysis of Panel Data", 2nd ed. Chichester , John Wiley and Sons, Ltd.
4. Bundesbank, (2010) "On the problems of macroeconomic imbalances in the euro area", *MonthlyReport*, July, Deutsche Bundesbank.
5. Belke, A. (2010), "Reinforcing EU Governance in Times of Crisis: The Commission Proposal and Beyond", *Diw Berlin*, Discussion Papers 1082.
6. Belke, A., Schabl, G, Zemanek, H (2010), "Current account imbalances and structural adjustment in the euro area", *Journal of International Economics and Policy*, Vol. 7, 83-127.
7. Bundesbank, (2010) "On the problems of macroeconomic imbalances in the euro area", *MonthlyReport*, July, Deutsche Bundesbank..
8. Calmfors, L., Wren-Lewis, S. (2011), "What Should Fiscal Councils Do?", *University of Oxford, Discussion Paper Series No 537*.
9. Bohn, H. (1998), "The behaviour of US public debt and deficits", *Quarterly Journal of Economics*, August, 949-963.
10. Choi, I., 2001. "Unit Root Tests for Panel Data", *Journal of International Money and Finance*, 20, p. 249–272.
11. Dadush, U., Eidelman, V., (2010), "Germany: Europe's Pride or Europe's Problem?", *CarnegieMoscow Center*
12. De Grauwe, P. (2010), "Fighting the Wrong Enemy", *Voxeu.org*, May.
13. Debrun, X., Moulin L., Turrini, J. A., Ayuso-i-Casals, Kumar M. S., (2008), "Tied to the Mast? National Fiscal Rules in the European Union," *Economic Policy*, 299–362.
14. Deroose, S., Moulin, L. and Wierds, P. (2006), "National Expenditure Rules and ExpenditureOutcomes: Empirical Evidence for EU Member States," *WirtschaftspolitischeBlaetter*, 1/2006, pp. 27–42.
15. Dickey, D. A., & Fuller, W. A. (1979), "Distribution of the estimates for autoregressive time series with a unit root", *Journal of the American Statistical Association*, 74, 427–431.
16. *European Commission* (2007), Public Finances in EMU.
17. Fisher, R. A. (1932), "Statistical methods for research workers", Edinburgh, Oliver and Boyd.
18. Fuest, C. (2011), "Will the Reform of the Institutional Framework Restore Fiscal Stability in the Eurozone?", University of Oxford.
19. Gali, J., Perotti, R. (2003), "Fiscal Policy and Monetary Integration in Europe", *NBER*, Working Paper 9773.
20. Goodhart, C., Tsomocos, D., (2010), "How to restore current account imbalances in a symmetric way", *Eurointelligence*.
21. Gros, D. (2011), "Can austerity be self-defeating?", *Voxeu.org*, November.
22. Hallerberg, M., Strauch, R., Von Hagen, J. (2007), "The design of fiscal rules and forms of governance in European Union countries", *European Journal of Political Economy* 23, 338-359.
23. Iara, A., Wolff, B.G. (2010), "Rules and risk in the euro area: Does rules-based fiscal rules governance contain sovereign bond spreads?", *Economic Paper* 433.
24. Im, K. S., Pesaran, M. H., & Shin, Y. (1997), "Testing for unit roots in heterogeneous panel", Department of Applied Econometrics, University of Cambridge.
25. Kaskarelis, I. (1993), "Investigating the features of Greek business cycles", *SPOUDAI*, 43(1), 19–32.

26. Kopits, G., Symansky, S. (1998), "Fiscal Policy Rules", *IMF*, Occasional Paper No 162.
27. Koumparoulis, D. (2004), An Essay for the European Single Market (Unity in Diversity), lecture notes, *Panteion University of Political and Social Sciences*
28. Levin, A., Lin, C. F., and C. Chu (2002), "Unit Root Tests in Panel Data: Asymptotic and Finite-Sample Properties," *Journal of Econometrics*, vol. 108, pp. 1–24.
29. Maddala, G. S., & Wu, S. (1999), "A comparative study of unit root tests with panel data and a new simple test", *Oxford Bulletin of Economics and Statistics*, 61, 631–652.
30. Papageorgiou, T., Michaelidis, P., Milios, G.J. (2010), "Business Cycles Synchronization and Clustering in Europe (1960-2009)", *Journal of Economics and Business*, vol. 62, issue 5, 419-470.
31. Perotti, R. (2011), "The Austerity Myth: Gain Without Pain?", *International Macroeconomics and Public Policy*, Discussion Paper Series No 8658.
32. Pisani-Ferry, J., (2002), "Fiscal discipline and policy coordination in the Eurozone: Assessment and proposals.", Paper for the European Commission President's Group for Economic Analysis.
33. Schuknecht, L., Moutot, P., Rother, P., Stark, J. (2011), "The Stability and Growth Pact, Crisis and Reform" *ECB*, Occasional Paper Series No 129.
34. Stockhammer, E., (2010), "Greek debt and German wages. The role wage policy and economic policy coordination in Europe", Economic policy: in search of an alternative paradigm, *Middlesex University*
35. Tamborini, R. (2011), "The New Rules of the SGP. Threats from Heterogeneity and Interdependence", *University of Trento*.
36. Uxo, J., Paul, J. (2011), "The reform of the economic governance of the eurozone: macroeconomic supervision and coordination", *University of Castilla*.
37. Von Hagen, J. (2010), "The Sustainability of Public Finances and Fiscal Policy Coordination in the EMU", *CASE Network Studies & Analyses*.
38. Wyplosz, C., (2002), "Fiscal discipline in EMU: Rules or institutions?", mimeo, *Graduate Institute for International Studies*, Geneva.
39. Wyplosz, C., (2010), "Germany, current accounts and competitiveness", *VoxEU*, 31th March.

