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Fiscal Policy Stance in the European Union: the Impact of the Euro

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In the recent years there has been an intense discussion whether the actual behaviour of fiscal authorities is consistent with cyclical stabilization objectives. The question of the appropriate fiscal policy is gaining recognition especially for the countries of the euro zone after entering the European Monetary Union (EMU). Therefore, the aim of this paper is to evaluate the activity of the fiscal policy before and after the entrance to the euro zone for each individual EMU country in 1995–2010 period. For this purpose we will use the cyclical adjusted balance, which is the common tool used to estimate fiscal policy stance. The analysis of the cyclically adjusted balance gives an additional insight into the former activity arrangements of the fiscal policy, which contributes to gauge the ex-post estimation of the fiscal policy. On this base we can determine the causes of general government budgets imbalance in the past. Despite this fact, we should be aware of some caveats in the assessment of cyclical adjusted balance, which appear due the inconsistency in measurement of output gap and potential GDP growth.

To evaluate pro-cyclical or countercyclical fiscal policy stance we compare the dynamic evaluation of the cyclically adjusted balance and output gap. Namely, changes of the cyclically adjusted balance in consecutive years indicate the orientation of fiscal policy, i.e. the fiscal impulse. By comparing the change in the cyclically adjusted balance and output gap between individual years, which indicates fluctuations in the economic cycle, it is possible to assess the orientation of fiscal policy, i.e. the fiscal position. The fiscal policy can be considered as countercyclical if it is expansive in the situation of negative output gap and restrictive in the situation, when the actual growth of GDP is above its potential rate. On the other hand, fiscal policy is characterized to be pro-cyclical if in the situation of negative output gap the government uses restrictive fiscal instruments and when the fiscal policy reacts expansionary in the situation of positive output gap, where the actual output exceeds the estimated potential GDP.

In the empirical analysis we evaluate the fiscal policy stance for each country of the euro zone. In the assessment of government behaviour we cover 14 countries in the 1995–2010 period. The results of the analysis generally confirm that the fiscal policy in most euro-zone member states became more expansionary in the period after entering the EMU. Moreover, these preliminary findings were partly confirmed by a statistical analysis which shows statistically significant differences in expansionary fiscal policy between the aforementioned sub-periods. In addition, we might also conclude the average fiscal stance is expansionary when actual output is above its potential level, which implies a pro-cyclical bias in times of prosperity, and that the fiscal stance tends to be predominantly counter-cyclical when actual output is below its potential level. These conclusions can be associated with asymmetric fiscal behaviour after entering the euro zone because the response of fiscal authorities to cyclical conditions in the economy depends on whether good or bad times are prevailing. These assertions reflect some conclusions made in other similar studies.

Keywords: *fiscal policy, fiscal policy stance, cyclically adjusted balance, output gap, SGP, EMU.*

Introduction

In the 20th century many industrial countries began to record relatively high public deficits, causing further increase in public debt and therefore a deterioration of their fiscal positions. In particular, public expenditures exceeded government revenues in most countries, which had an overall impact on the growth of public debt (Baldwin & Wyplosz, 2009). As a consequence, the need to introduce fiscal rules came to the forefront of political activity, which would constrain public expenditure and consolidate the fiscal stance in the country.

The Maastricht Treaty, signed by the members of the European Community in 1992, is the first milestone on the road to establishing certain fiscal rules for the member states which led to the creation of the EMU and adoption of the euro as their single currency. Certain Maastricht convergence criteria are applied to government finances, such as the annual budget deficit should not exceed 3 percent of GDP at the end of the preceding fiscal year and the ratio of government debt to GDP must also be below the threshold of 60 percent of GDP at the end of the preceding fiscal year (Baldwin & Wyplosz, 2009). The Maastricht Treaty is therefore also important for countries that are not yet members of the euro zone, while for EMU member states the Stability and Growth Pact (SGP) is more important, requiring countries to take their budget balance in the medium term into account (Marinas, 2008).

The foundation of the EMU in Europe in (1999 and 2002) greatly affected the performance of economic policy in the 12 participating member states. The EMU has been a great success in many ways since it has contributed to macroeconomic stability, financial integration and growth convergence in Europe. The only traditional short-term

macroeconomic instrument that remains in the control of national authorities is fiscal policy. Consequently, fiscal policy has gained new responsibilities with the EMU, but at the same time the SGP constrains its operations because EMU members must follow the rules adopted by the Pact, which represents an instrument of fiscal coordination. Its objective is to maintain and enforce fiscal discipline within the euro zone (Marinas, 2008; Gali & Perotti, 2003; Sineviciene & Vasiliauskaite, 2012). Compared with the pre-EMU situation, fiscal policy now plays an extended role in the smoothing of output shocks, particularly demand shocks. Even if the ECB pursues some degree of output smoothing, the single monetary policy cannot be used to smooth asymmetric shocks (Marinheiro, 2005).

In the past decades, how budgetary policy has reacted to the economic cycle has been analyzed thoroughly, but some basic questions still seem to be unresolved. In the recent empirical literature on the cyclical response of fiscal policy in the euro zone we find a variety of results. Some of the reported results show that fiscal policies there have tended to be a-cyclical, almost as many point to pro-cyclical fiscal behaviour and a few others suggest that policies have been counter-cyclical (Golinelli & Momigliano, 2008). This shows a lack of consensus on whether the actual behaviour of fiscal authorities is consistent with cyclical stabilization objectives. An a-cyclical (i.e. neutral) fiscal stance is defined as a fiscal policy in which government expenditure follows the trend of GDP growth, and the revenue side is moving in line with the actual nominal GDP (Buti & Van den Nord, 2004b). In other words, an a-cyclical fiscal policy is characterized as a counter-cyclical response of cyclically-adjusted revenues and a pro-cyclical response of primarily cyclically-adjusted expenditures (Turrini, 2008).

The aim of this paper is to examine the activity of fiscal policy before and after entry to the EMU for each individual country in the period of 1995–2010. A common approach to obtaining information on the behaviour of fiscal policy over the cycle is to compare the fiscal stance, generally measured by the change in the cyclically adjusted balance, and the cyclical indicator, normally denoted as the output gap (European Commission, 2006). This preliminary study of government behaviour in this period will help in establishing some basic premises that may represent the starting point of proposals for establishing fiscal rules and institutional reform. This medium-term fiscal programme is particularly relevant in the European context in order to restore macroeconomic stability and fiscal sustainability. The issue of the appropriate fiscal policy behaviour of particular countries has become intense and the contribution of this research could therefore represent a useful reference regarding this problem.

The paper is structured as follows. The second section presents the theoretical and empirical background derived from recent literature. The third section describes the methodology applied and data used for the purposes of this paper. Section four deals with an assessment of the fiscal behaviour of particular countries of the euro zone. The last section concludes by summarizing the main findings.

Literature review

In recent years there has been an intense discussion of whether the actual behaviour of fiscal authorities is consistent with cyclical stabilization objectives. This issue of the appropriate fiscal policy is particularly interesting for countries of the euro zone after they enter the European Monetary Union (EMU) regarding the role of fiscal policy in the monetary union. Namely, fiscal policy represents one of the few tools in the hands of national authorities facilitating an active economic policy of macroeconomic stabilization (Hauptmeier *et al.,* 2010; Turrini, 2008).

In the 1950s and 1960s fiscal policy as an economic tool for stabilizing the economy was viewed positively by economists and policy-makers. In that period, discretionary fiscal policy was a widely used tool for stabilizing an economy. But in the early 1970s a more pessimistic view took hold, partly associated with the stricter constraints on the use of fiscal policy as an economic policy tool for managing aggregate demand. The accumulated experiences shed light on certain practical constraints of discretionary fiscal policy which in this period led to large and rising budgetary imbalances in countries. In recent years fiscal policy has again gained recognition because it may prove to be an effective tool to counter protracted demand shocks when monetary policy is constrained (Turrini, 2008). In this paper we examine whether in practice fiscal authorities are running fiscal policy in a counter-cyclical manner.

Namely, in the phase of economic deterioration (prosperity) economic policy should adopt instruments to encourage (restrain) the economy. Indeed, in a phase of weak economic growth or even recession appropriate measures would be to cut taxes or increase spending. In contrast, when the economy is in a phase of prosperity, restrictive measures would be an appropriate tool to dampen the economy, such as an increase in the tax rate or cutting government expenditures (Cimadomo, 2005)

Over the last decade, a large body of literature has analyzed the characteristics of the fiscal behaviour of countries in the EMU period (Holm-Hadulla *et al.,* 2010; Turrini, 2008; Gali & Perotti, 2003; Annet, 2006; Golinelli & Momigliano, 2006, 2008 etc.). We are particularly interested in examining the cyclical behaviour of fiscal policy. In spite of the consensus that fiscal policy should be geared in a counter-cyclical manner over the cycle, evidence of pro-cyclical behaviour is quite common. (Alesina & Tabellini, 2005; Talvi & Vegh, 2005; Manasse 2006) find evidence of pro-cyclical fiscal behaviour in developing countries.

Turrini (2008) analyses the cyclical behaviour of fiscal policy in euro-zone countries over the 1980–2005 period. The research which estimates separate fiscal policy reaction functions reveals that the average fiscal stance is expansionary when output is above its potential level, thus implying a pro-cyclical bias in times of prosperity. In contrast, the assessment does not show statistically significant implications of a pro-cyclical fiscal stance when the actual output is below its potential. The estimation of separate reaction functions for expenditure and revenue policy reveals that this pro-cyclical bias is an entirely expenditure-driven phenomenon. These implications provide support for the view that expenditure rules can be

helpful in curbing the expansionary tendency of expenditure policy during economic prosperity.

Contrarily, Gali and Perotti (2003) found that discretionary fiscal policies became more counter-cyclical over time in the period of 1980–2002. They found an evidence of the opposite behaviour in EMU countries when comparing the pre-Maastricht and post-Maastricht periods. Overall, the research shows that the Maastricht criteria have not significantly impaired the stabilization role of fiscal policy in the EMU, thereby showing a more counter-cyclical fiscal policy before entering the monetary union. With regard to this conclusion, we would like to re-evaluate the fiscal stance in the euro zone. We assume that the Maastricht Treaty as well as the SGP has impaired the fiscal behaviour of most countries in the EMU.

Most of the available analyses on the cyclicality of fiscal policy focus on the reaction of the cyclically-adjusted primary balance (which captures the stance of fiscal policy) with respect to the output gap (which captures cyclical conditions). In their study, Golinelli and Momigliano (2008) compared studies seeking to explain fiscal behaviour in the euro zone. In their research they stress that determination of the fiscal stance depends to a certain degree on the sample considered, data source and specification adopted. Some studies do not support the view that, after the introduction of the EU's fiscal framework, the fiscal policy became more pro-cyclical, like for example (Gali & Perotti, 2003; Annett, 2006; Wyplosz, 2006). The studies point to a more a-cyclical or neutral fiscal policy after entering the monetary union, which should work constantly over the cycle. This fact is consistent with the original formulation of the SGP where stabilization should only be achieved by automatic stabilizers (Cimadomo, 2005)

According to the analysis of the previous literature we now compare the fiscal stance of each individual country before and after the EMU was launched. The empirical comparison of this particular issue is quite scarce. In particular, we compare changes in the cyclically adjusted balance and output gap between individual years in this period, which is a commonly used tool in the literature reviewed above to estimate a fiscal policy stance. However, we found a variety of results in the literature. This reveals the lack of consensus on whether the actual behaviour of fiscal authorities is consistent with cyclical stabilization objectives. Consequently, the paper provides an empirical analysis of fiscal stances using the most recent data available, acquired from the IMF database. The findings can help answer the question of whether the past fiscal behaviour is the cause of the current fiscal imbalances, and whether those imbalances may have future implications regarding the implementation of fiscal rules and other institutional reforms.

Methodology and Data

In this paper we use the cyclically adjusted balance to evaluate pro-cyclical or counter-cyclical fiscal policy stances, which is a helpful approach for observing the stance of fiscal policy. Further, the cyclically adjusted balance remains one of the key indicators in the EU surveillance framework to track the stabilization objectives. In particular, we compare the dynamic evaluation of the cyclically adjusted balance and output gap. Namely, changes in the cyclically adjusted balance in consecutive years indicate the orientation of fiscal policy, i.e. the fiscal impulse. By comparing the change in the cyclically adjusted balance and output gap between individual years, which indicates fluctuations in the economic cycle, it is possible to assess the orientation of fiscal policy, i.e. the fiscal position (IMAD, 2011; European Commission, 2006).

We should first introduce the main concepts, such as output gap and cyclically adjusted balance. The concept of potential output and, derived from that, output gap provide policy recommendations to member governments (IMF, 1997). Estimates of output gaps used for this research are obtained from assessing the potential output based on the concept of the production function which allows the supply components of the potential output to be identified. In addition, the Hodrick-Prescott filter is used to smooth out the total factor productivity[1] (IMF, 2008).

In our case, the potential and, derived from that, output gap are used to measure the cyclical position of the economy. In order to determine the restrictive or expansionary character of a fiscal policy, the structural or cyclically adjusted balance should be calculated. It is necessary to assess this variable because the government's actual budget balance reflects the influence of both cyclical (transitory) factors and some structural (permanent) ones. The transitory component alludes to variations generated by the cyclical component of GDP, while the structural component takes account of the modification of the budget balance if the economy were to produce at the level of the potential GDP (Marinas, 2009).

The output gap is calculated as the difference between the actual GDP (Y_a) and potential GDP (Y_p):

$$\Delta Y = Y_a - Y_p \Rightarrow Y_a = Y_p + \Delta Y \quad (1)$$

The actual output is composed of two different components, the potential and the cyclical. According to this relation, the decomposition of the actual budget balance can be obtained as follows:

SBA = *SBS* + *SBC*, where: (2)

SBA– actual budget balance;

SBS – structural budget balance at the level of Y_p;

SBC – the cyclic budget balance (which corresponds to the output gap).

SBA is obtained as the difference between budget revenues (from taxes T) and budget expenditures (including transfers) and can be written as follows:

$$SBA = T - (G + TR) \quad (3)$$

The function of taxes takes into consideration both taxes which are independent of the revenue level (autonomous taxes – *n*) and those directly influenced by its evolution ($t \times Y$), where *t* represents the marginal rate of taxation). Accordingly, we can derive the following equations for the actual budget balance (*SBA*) and structural budget balance (*SBS*):

$$SBA = t \times Y_a - (G + TR - n) \quad (4)$$

[1]For a detailed description of approaches to calculating potential output, see De Masi (1997).

$$SBS = t \times Y_p - (G + TR - n) \quad (5)$$

The estimation of the structural budget balance (*SBS*) shows the character of a fiscal policy. If a restrictive fiscal policy is promoted, then the structural budget balance will increase (SBS > 0). If it records a decrease, then the promoted fiscal policy becomes expansionary (Marinaş, 2009). A fiscal policy can be considered counter-cyclical if it is expansive in the situation of a negative output gap and restrictive in the situation where the actual growth of GDP is above its potential rate. On the other hand, a fiscal policy is characterized as pro-cyclical if in a situation of a negative output gap the government employs restrictive fiscal instruments and when the fiscal policy reacts in an expansionary way in the situation of a positive output gap, where the actual output exceeds the estimated potential GDP (IMAD, 2011).

In the empirical part we apply the above-mentioned methodology to evaluate the activity of fiscal policy before and after entering the euro-zone for each individual EMU country. Accordingly, the analysis mainly aims to prove that, in the period before entering the monetary union, the fiscal policy conducted by governments was more counter-cyclical and restrictive than in the period after that. For this purpose, we gathered data on the cyclically adjusted balance and output gap published on a regular basis by the IMF's Government Finance Statistics (GFS) and IMF Staff Country Reports. The data refer to the period of 1995–2010 and encompass all the available data for countries of the euro zone. The exceptions are Luxemburg, Estonia and Malta due to a lack of data on those variables for those countries. Estimates of the output gap, as a percentage of potential GDP, and the cyclically adjusted balance are based on IMF staff calculations.

Empirical results

A fiscal policy can be considered counter-cyclical if it is expansive in a situation of a negative output gap and restrictive in a situation where the actual growth of GDP is above its potential rate. On the other hand, a fiscal policy is characterized as pro-cyclical if in a situation of a negative output gap the government employs restrictive fiscal instruments and when the fiscal policy reacts in an expansionary way in the situation of a positive output gap, where the actual output exceeds the estimated potential GDP (IMAD, 2011). We considered that the fiscal policy is neutral for a small variation of structural budgetary balance (between -0.2 and 0.2 percentage points) based on the estimation by Cimadomo (2005).

The analysis of the cyclically adjusted balance gives additional insights into the former activity arrangements of fiscal policy which help with the ex-post estimation of the fiscal policy. On this basis, we can determine the causes of past general government budget imbalances. Despite this fact, we should be aware of some murkiness in the assessment of the cyclically adjusted balance which appears due to inconsistency in measurement of the output gap and potential GDP growth.

Table 1 represents the fiscal stances in euro-zone member states (EMU-14) in the period of 1995–2010. First, we analyzed the fiscal stance in the included member states of the euro zone (EMU-14) and found that most of the economies promoted a restrictive and pro-cyclical fiscal policy before they entered the euro zone. Most countries on average registered a negative output gap in this period, accounting for 0.8% on average, which should be supported with an expansive fiscal policy characterized by a decrease in the structural balance. However, in the considered period of four years before the entrance to the EMU we notice an average increase in the cyclically adjusted balance of around 0.6 %, which implies restrictive measures in the fiscal policy conducted in this period, as shown in the table for Germany, Italy, Greece, Spain and Belgium where a restrictive fiscal policy prevails. This trend in the conduct of fiscal policy was influenced by the application of the rules of the Maastricht Treaty which the member states had to take into account before launching the EMU. The above was also corroborated by the European Commission (2006) which reported that most EU countries in the period before the EMU was launched embarked on a process of consolidating their public finances and recorded an improvement in their cyclically adjusted balance due the reduction of expenditures and taking advantage of the interest rate reductions in most member states.

Table 1

Fiscal policy stances in euro-zone member states

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Austria	E.C.	R.P.	R.P.	E.C.	E.P.	E.P.	R.C.	N.(E)	N.(R)	E.C.	N.(R)	E.P.	N.(E)	N.(E)	E.C.	E.C.
Belgium	R.P.	R.P.	R.P.	R.P.	E.P.	E.P.	R.P.	R.P.	E.C.	E.C.	R.C.	E.P.	E.P.	E.P.	E.C.	R.P.
Cyprus	n/a	E.P.	E.C.	R.P.	E.C.	R.C.	N.(E.)	E.C.	E.C.	R.P.	R.P.	N.(R)	R.C.	E.P.	E.C.	R.P.
Finland	E.C.	R.P.	N.(R.)	R.C.	R.C.	R.C.	E.P.	E.C.	E.C.	E.P.	R.C.	R.C.	N.(E.)	E.P.	E.C.	E.C.
France	E.C.	R.P.	R.P.	E.P.	R.C.	E.P.	N.(E.)	E.P.	E.C.	R.P.	R.P.	R.C.	E.P.	N.(R.)	E.C.	R.P.
Germany	E.C.	N.(R.)	R.P.	R.P.	R.P.	E.P.	E.P.	E.C.	N.(R.)	N.(R.)	R.P.	R.C.	R.C.	R.C.	E.C.	E.C.
Greece	R.P.	R.P.	R.P.	R.P.	R.P.	E.C.	E.C.	E.C.	E.P.	E.P.	R.C.	E.P.	E.P.	E.P.	E.P.	R.C.
Ireland	N.(R.)	R.P.	R.P.	E.C.	E.P.	R.C.	E.P.	E.P.	E.P.	R.C.	E.P.	E.P.	E.P.	E.P.	R.P.	R.P.
Italy	R.P.	R.P.	R.P.	R.P.	R.P.	E.P.	E.P.	N.(E.)	E.C.	R.C.	R.P.	R.C.	R.C.	N.(R.)	E.C.	R.P.
Netherlands	E.C.	R.P.	N.(E.)	E.P.	R.C.	R.C.	E.P.	E.C.	N.(R.)	R.P.	R.P.	E.P.	E.P.	N.(E.)	E.C.	N.(R.)
Portugal	R.P.	E.C.	R.P.	E.P.	R.C.	E.P.	E.P.	R.C.	E.C.	E.C.	E.C.	R.P.	R.C.	E.C.	E.C.	E.C.
Slovakia	n/a	n/a	n/a	R.C.	E.C.	E.C.	R.P.	E.P.	R.C.	R.P.	E.P.	E.P.	R.C.	N.	E.C.	E.C.
Slovenia	n/a	n/a	E.P.	R.P.	E.P.	E.P.	R.P.	N.(R.)	R.P.	E.C.	N.(R.)	E.P.	E.P.	E.P.	E.C.	R.P.
Spain	R.P.	R.P.	R.P.	E.P.	R.C.	N.(E.)	E.P.	R.C.	N.(E.)	N.(E.)	E.P.	R.C.	N.(E.)	E.P.	E.C.	R.P.

Note: ***(Database: IMF, 2012 own calculations)***

E.P. – expansive and pro-cyclical fiscal policy
E.C. – expansive and counter-cyclical fiscal policy
R.P. – restrictive and pro-cyclical fiscal policy
R.C. – restrictive and counter-cyclical fiscal policy
N.(E, R) – neutral fiscal policy in the context of economic expansion (E) or economic recession (R)

Further, despite reservations due to the calculations of changes in the structurally adjusted deficit and output gap, we estimate that fiscal policies have generally become more expansionary in the period after entering the EMU. In addition, we also notice a more pro-cyclical fiscal policy stance when we compare the dynamic evaluation of the cyclically adjusted balance and the output gap. Although on average over the period of comparison after the entrance in the EMU the countries in the EMU recorded a positive output gap, accounting for 0.5 % on average, we also observe a deterioration in the cyclically adjusted balance of around 0.3 % on average, which suggests expansionary measures of fiscal policies. According to a European Commission report (2006), the public finance consolidation process stopped after entering the EMU. Consequently, it reported a deterioration of the cyclically adjusted balance in most countries.

In the second part of the study we split the period in our sample into two sub-periods, representing the (four-year) period before and (five-year) period after introduction of the single currency. For the most countries we compared a period of four years before entering the EMU and a period of five years after adopting the common currency. The exceptions are countries like Slovenia, Cyprus and Slovak Republic, where the post-entrance period was adjusted due to the availability of data and considered time period in our empirical research. For the purpose of the comparison between these sub-periods we assign each country values for specific fiscal behaviour in time. We give a restrictive fiscal policy the value 0, an expansive one the value 1 and a neutral fiscal policy the value 0.5. We apply the same procedure to the evaluation of the pro- or counter-cyclical behaviour of government authorities. In this case we assign a counter-cyclical fiscal policy the value 1, a pro-cyclical one with the value 0, while neutral fiscal behaviour is given the value 0.5. According to this evaluation of fiscal policy stances we estimated the shares of how much time during particular sub-periods an expansionary and counter-cyclical fiscal policy was conducted by the government. In addition, we weighted the shares of conducted fiscal policy during the particular sub-periods with each country's share of GDP in our sample group. With this procedure we proportional assigned an individual country's influence on fiscal behaviour in the euro zone.

Table 2 presents the calculated descriptive statistics in which we compared the time of a conducted expansionary and counter-cyclical fiscal policy before and after entrance to the EMU. The data show that in 13 countries (out of 14) the fiscal policy was indeed more expansionary after entering the euro zone. This assertion is related to the economic upswing between 1999 and 2002 because the fiscal plans and targets reflect the expectation of budgetary revenue growth (Marinas, 2008). The reason for countries like Slovenia, Cyprus and Slovak Republic conducting a more expansionary fiscal policy after entering the EMU relates to the current economic and financial crisis, where we recognize changes of fiscal stances in countries of the euro zone (see Table 1). Namely, in 2009 all of the Member States, except Greece and Ireland, ran an expansionary and counter-cyclical fiscal policy to stimulate aggregate demand in the context of this crisis.

When we observe the counter-cyclical fiscal behaviour we might argue that the fiscal policy appeared to be slightly more counter-cyclical compared with the period before entrance to the EMU. This pattern is observed in the ten member states of the EMU included in our research. This is in line with most studies, which do not support a pro-cyclical bias after the introduction of fiscal constraints for EU countries (Turrini, 2008; Gali & Perotti, 2003; Annet, 2006; Golinelli & Momigliano, 2006, 2008), although some studies provide evidence of pro-cyclical fiscal behaviour in developing countries (Alesina & Tabellini, 2005; Talvi & Vegh, 2005; Manasse, 2006). These results are confirmed by a comparison of the averages before and after entry to the EMU for the whole euro zone.

Table 2

Weighted descriptive statistics before and after entering the EMU with regard to fiscal behaviour

Country	GDP share	Expansionary fiscal policy		Counter-cyclical fiscal policy	
		pre-entrance period	post-entrance period	pre-entrance period	post-entrance period
Austria (N=1999)	**3.1**	50.0/ 1.54	60.0/ 1.85	50.0/ 1.54	40.0/ 1.23
Belgium (N=1999)	**3.8**	0.0/ 0.00	60.0/ 2.26	0.0/ 0.00	20.0/ 0.75
Cyprus (N=2008)	**0.2**	37.5/ 0.06	50.0/ 0.08	37.5/ 0.06	50.0/ 0.08
Finland (N=1999)	**1.9**	37.5/ 0.73	60.0/ 1.16	62.5/ 1.21	80.0/ 1.55
France (N=1999)	**21.2**	50.0/ 10.61	70.0/ 14.86	25.0/ 5.31	50.0/ 10.61
Germany (N=1999)	**29.1**	37.5/ 10.92	70.0/ 20.38	37.5/ 10.92	30.0/ 8.73
Greece (N=2001)	**2.3**	25.0/ 0.57	80.0/ 1.81	25.0/ 0.57	60.0/ 1.36
Ireland (N=1999)	**1.7**	37.5/ 0.64	80.0/ 1.36	37.5/ 0.64	20.0/ 0.34
Italy (N=1999)	**17.5**	0.0/ 0.00	70.0/ 12.22	0.0/ 0.00	30.0/ 5.24
Netherlands (N=1999)	**6.2**	62.5/ 3.90	50.0/ 3.12	37.5/ 2.34	70.0/ 4.36
Portugal (N=1999)	**1.9**	50.0/ 0.93	60.0/ 1.11	25.0/ 0.46	60.0/ 1.11
Slovakia (N=2009)	**0.5**	50.0/ 0.23	83.3/ 0.39	25.0/ 0.12	100.0/ 0.47
Slovenia (N=2007)	**0.3**	62.5/ 0.22	75.0/ 0.26	25.0/ 0.13	25.0/ 0.09
Spain (N=1999)	**10.4**	25.0/ 2.60	40.0/ 4.16	0.0/ 0.00	60.0/ 6.24
Average		**2.35**	**4.64**	**1.66**	**3.01**

Note:

Pre-entrance period – a period of four years before entering the EMU (N- 4 to N-1);
Post-entrance period – a period of five years after entering the EMU (N to N+4); with the exceptions of Slovenia (N to N+3), Cyprus (N to N+2) and Slovak Republic (N to N+1) due to data deficiency.
In the last four columns, the first number reflects the shares of fiscal stance during the particular sub-periods and the second number presents a weighted descriptive statistic with each country's share of GDP.
Source: *IMF 2012, own calculations*

To statistically support our preliminary findings we performed an independent sample paired t-test using the SPSS 19.0 statistical package. We tested the statistically significant difference between the sub-periods according to the fiscal policy stance. The above results of the sample of 14 countries were tested against the zero and alternative hypotheses, namely that in the period before entry the fiscal stance was more expansionary and counter-cyclical than in the period after entering the EMU. With the zero hypothesis we assume that the average of conducted expansionary and counter-cyclical fiscal policies was the same in both sub-periods ($H_0 : \mu_p = 0$). According to our research, we posit an alternative hypothesis in which we argue that there is a statistically significant difference between the fiscal policies in the above-mentioned sub-periods ($H_1 : \mu_p > 0$). Therefore, we test the hypothesis that the average of expansionary and counter-cyclical fiscal policies between the sub-periods statistically significantly differs from zero. In the case of an expansionary fiscal stance, the zero hypothesis was rejected and the alternative hypothesis accepted, namely that there is a statistically significant difference regarding expansionary fiscal behaviour after the introduction of the single currency for the Member States. When we compare the countercyclical fiscal behaviour we cannot reject the zero hypothesis with a level of significance of 5 %, which implies there is no statistically significant difference regarding the countercyclical behaviour of the fiscal authorities after entering the EMU[2]. Therefore, in the next section we would like to more formally analyse episodes of both pro- and counter-cyclical fiscal behaviour in the considered period.

Generally, these preliminary conclusions can be associated with asymmetric fiscal behaviour before and after entering the euro zone. Namely, Buti and Van den Nord (2004b) report that the fiscal rules applied in the EMU were impeded by politico-economic motives which prevented automatic stabilizers from working symmetrically throughout the cycle. They argue that various political incentives played a crucial role in the different fiscal behaviour before and after entering the EMU because of the expansionary bias due to the election cycle. These findings are consistent with Buti and Van den Nord (2004a) and Von Hagen (2003) who confirm loose fiscal policy behaviour for years preceding elections. This could help explaining the more expansionary fiscal policy seen after joining the EMU. Indeed, the empirical analysis confirms the expansionary bias towards easing the discretionary fiscal policy between election years (see Table 1). The most important euro-zone countries changed their fiscal policy from restrictive to expansionary in periods of upcoming elections. For instance, the fiscal policy in Germany, France, the Netherlands and Ireland changed from being restrictive in character to expansionary in the pre-election year 2001 and continued in 2002 when general elections were held in these countries.

In the third part of the research we look at changes in the structural budget balance in more detail over the period of 1995–2010 for the euro zone Member States. Cyclical conditions are captured by differentiating between years and whether the output gap is measured to have been positive (good times) or negative (bad times). Table 3 presents the fiscal stance for each individual country in the period before and after entering the EMU. In contrast, we notice that pro-cyclical fiscal behaviour prevailed in most countries. Namely, we identify that in nine (out of 14) countries in half the period since 1995 fiscal authorities promoted pro-cyclical fiscal behaviour (Austria, Belgium, France, Greece, Ireland, Italy, the Netherlands, Slovenia and Spain). In addition, we notice the asymmetric behaviour of fiscal authorities over the period before and after entering the EMU depending on the economic conditions. Therefore, we will look at whether there is a statistically significant difference of conducted fiscal policy by government in the economic upswings and downturns, which would support the preliminary premise of the research that the Maastricht Treaty as well as the SGP have impaired the fiscal behaviour of most countries in the EMU. To statistically support our findings we performed a binomial test using the SPSS 19.0 statistical package. For the purpose of comparing fiscal policy in different economic conditions we apply the same procedure to the evaluation of the pro- or counter-cyclical behaviour of government authorities as in the first part of the analysis. This approach differs from the previous analysis in that we excluded the neutral fiscal policy (i.e. a small variation of the structural budget balance between -0.2 and 0.2), because it does allow us to formally characterize the orientation of the fiscal policy (i.e. fiscal position) in a particular year. Similar to the preliminary analysis, we assign a counter-cyclical fiscal policy the value 1 and a pro-cyclical fiscal behaviour the value 0, respectively. According to this evaluation of a fiscal position, we estimated the proportion of how many times during a particular period a counter- and pro-cyclical fiscal policy was conducted by the government, where we distinguish whether the output gap was positive or negative. We tested statistically significant differences in proportion of counter- and pro-cyclical fiscal stances in good and bad economic conditions in three different situations, namely for the whole period under consideration, as well as before and after entry to the EMU. The sample of 14 countries was tested against the zero hypothesis that, on average, the conducted fiscal stance was proportionally the same in both upswing and downturn periods for all formally tested situations ($H_0 : \mu_p = 0.5$). According to our research, we posit an alternative hypothesis in which we argue that there is a statistically significant pro-cyclical bias in regard to whether the output gap was positive or negative ($H_1 : \mu_p \neq 0.5$). Therefore, we first test the hypothesis that the proportion of pro-cyclical fiscal policy in good and bad times for the whole period statistically significantly differs from 0.5. According to our analysis, we cannot reject the zero hypothesis at a level of significance of 5 % that the pro-cyclical fiscal stance prevailed in the observed period during bad times. In contrast, we reject the zero hypothesis at the same 5 % level of significance that the proportion of fiscal behaviour is equally distributed in upturns.

[2]The paired samples t-test shows that the significance value (p) is significant for the difference in expansionary (t=-2.220; p=0.045) and counter-cyclical (t=-2.034; p=0.063) fiscal policy.

Table 3

Fiscal stance in good and bad times in euro-zone Member States over the period of 1995–2010

	OG	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	Average	Number of years with pro-cyclical policy
AT	**≥0**					**-0.5**	**-0.8**	2.7	0.1				**-0.7**	0.0	**-0.1**			0.1	**8**
	<0	-1.3	**1.8**	**2.2**	-0.6					**0.1**	-0.8	**0.0**				-0.5	-0.7	0.0	
BE	**≥0**					**-0.5**	**-0.3**					0.7	**-0.8**	**-0.3**	**-0.6**			**-0.3**	**12**
	<0	**0.5**	**1.1**	**0.9**	**1.6**			**0.8**	**0.6**	-0.4	-0.4					-1.4	**0.4**	**0.4**	
CY	**≥0**	**n/a**	**-1.5**				2.2	**-0.0**						1.3	**-0.5**			0.3	**7**
	<0			-1.2	**0.4**	-0.6			-2.0	-2.7	**2.7**	**1.7**	-0.1			-3.8	**0.6**	-0.5	
FI	**≥0**				2.2	0.3	4.7	**-1.3**			**-1.0**	0.5	0.6	0.0	**-0.4**			0.6	**4**
	<0	-0.6	**2.0**	-0.1					-0.4	-1.4						-1.7	-1.2	-0.5	
FR	**≥0**				**-0.3**	0.3	**-0.4**	0.1	**-0.8**				0.6	**-0.5**				**-0.2**	**10**
	<0	-0.3	**2.0**	**0.3**						-0.3	**0.4**	**0.3**			**0.1**	-1.9	**0.3**	**0.1**	
DE	**≥0**						**-0.2**	**-1.2**					0.4	1.2	0.4			0.1	**7**
	<0	-1.2	**0.2**	**0.4**	**0.3**	**0.5**			-0.3	-0.1	-0.2	**0.7**				-0.4	-1.3	-0.1	
EL	**≥0**									**-1.8**	**-2.5**	2.4	**-2.2**	**-2.0**	**-3.3**	**-4.9**	7.2	**-0.9**	**11**
	<0	**2.5**	**0.4**	**0.6**	**2.2**	**1.0**	-0.8	-1.0	-0.6									**0.5**	
IE	**≥0**					**-0.6**	1.1	**-3.2**	**-1.2**	**-0.3**	0.5	**-0.7**	**-0.5**	**-2.8**	**-4.9**			**-1.3**	**11**
	<0	**0.1**	**1.1**	**2.4**	-0.3											**1.8**	**2.7**	**1.3**	
IT	**≥0**						**-1.4**	**-1.8**	0.0		0.3		1.2	0.8				**-0.1**	**9**
	<0	**0.7**	**0.8**	**3.2**	**0.4**	**1.5**				-0.5		**0.2**			-0.2	-1.3	**0.8**	**0.6**	
NL	**≥0**			**-0.1**	**-0.3**	0.5	1.3	**-2.5**					**-0.4**	**-1.3**	0.2			**-0.3**	**8**
	<0	-5.0	**6.8**						-0.3	-0.1	**1.4**	**1.3**				-3.3	-0.1	**0.1**	
PT	**≥0**				**-0.4**	0.6	**-1.1**	**-0.8**	0.4					0.6				**-0.1**	**6**
	<0	**2.6**	-0.6	**1.2**						-0.3	-0.4	-0.4	**1.7**		-0.5	-5.3	-0.3	-0.2	
SK	**≥0**	**n/a**	**n/a**	**n/a**	1.2				**-2.0**	5.5		**-0.6**	**-0.6**	1.1	**-0.1**			0.6	**6**
	<0					-0.8	-5.0	**5.2**			**0.5**					-3.8	-0.3	-0.7	
SI	**≥0**	**n/a**	**n/a**	**-1.3**		**-0.2**	**-0.6**						**-1.0**	**-0.6**	**-1.3**			**-0.8**	**10**
	<0				**0.8**			**0.5**	-0.1	**0.5**	-0.4	-0.0				-0.6	**0.5**	**0.1**	
ES	**≥0**				**-0.5**	0.7	**-0.1**	**-0.6**	0.6	0.1	0.0	**-0.6**	0.3	0.1	**-3.9**			**-0.3**	**9**
	<0	**1.1**	**1.7**	**1.1**												-4.0	**1.8**	**0.3**	

Note:

Numbers in bold indicate a pro-cyclical fiscal stance in the time interval (1995–2010), where we differentiated whether the output gap (OG) was positive or negative, respectively (ΔSBS<0 if OG≥0; ΔSBS≥0 if OG<0).

Database: IMF, 2012, own calculations

Consequently, the alternative hypothesis was accepted, namely that according to the results the fiscal policy was pro-cyclical in good economic times during the observed period. These findings are associated with asymmetrical fiscal behaviour over the business cycle. Secondly, we test if there is a statistically significant difference in the period before the entrance regarding the defined economic situation. According to the result obtained from the binomial test, we might conclude that there is statistically significant evidence of a pro-cyclical bias in bad times before the introduction of the single currency. In contrast, we cannot reject the zero hypothesis that before entry to the EMU none of characterized fiscal stances was pronounced during the period of positive output gaps despite the fact that pro-cyclical fiscal policy also prevailed in the considered time period. Finally, we also tested the proportion of fiscal policy conducted after the entrance to the EMU depending on whether the output gap was positive or negative.

According to the result, we might conclude that the proportion counter-cyclical fiscal stance prevailed during downturns and, on the contrary, that in upswings there is an obvious pro-cyclical bias in conducting appropriate fiscal policy. This assertion is in line with most studies, namely that the average fiscal stance is expansionary when actual output is above its potential level, which implies a pro-cyclical bias in times of prosperity, and that the fiscal stance tends to be predominantly counter-cyclical when actual output is below its potential level. In the case of the fiscal behaviour that prevailed in the time of prosperity we can reject the zero hypothesis at a level of significance of 10 % and accept the alternative hypothesis that there is a significant difference in the fiscal stance after entering the EMU, namely that a pro-cyclical fiscal stance was pronounced in good economic conditions. Although there is a high proportion of countercyclical fiscal behaviour in downturns (see Table 4), there is no significant evidence of a counter-cyclical fiscal stance in downturns.

These findings are corroborated by (Turrini, 2008; Manasse, 2006; Alesina & Tabellini, 2005) who report that fiscal policy is on average pro-cyclical in good times. In addition, (Marinhero, 2005) argues that fiscal policy after implementation of the EMU fiscal rules was asymmetrically applied over the cycle, despite their positive impact on the counter-cyclical properties of fiscal policy. Hence, fiscal policy tends to be more expansive in downswings than restrictive in upswings in economic activity. Similar conclusions are reported by the European Commission (2006) and (Golinelli & Momigliano, 2006) that the response of fiscal authorities to cyclical conditions in the economy depends on whether good or bad times are prevailing. In sum, the analysis seems to support the advocated hypothesis that a pro-cyclical bias was quite common fiscal behaviour for the euro zone in the period of 1995-2010.

Table 4

Binomial test for fiscal stances in good and bad times

		Category	N	Observed Prop.	Test Prop.	Exact Sig. (2-tailed)
Whole period – bad times	Counter-cyclical	1.00	50	0.46	0.50	0.501
	Pro-cyclical	0.00	58	0.54		
	Total		108	1.00		
Whole period – good times	Pro-cyclical	0.00	56	0.63	0.50	0.019
	Counter-cyclical	1.00	33	0.37		
	Total		89	1.00		
Pre entrance – bad times	Counter-cyclical	1.00	18	0.31	0.50	0.005
	Pro-cyclical	0.00	40	0.69		
	Total		58	1.00		
Pre entrance - good times	Pro-cyclical	0.00	13	0.68	0.50	0.167
	Counter-cyclical	1.00	6	0.32		
	Total		19	1.00		
Post entrance - bad times	Pro-cyclical	0.00	20	0.38	0.50	0.126
	Counter-cyclical	1.00	32	0.62		
	Total		52	1.00		
Post entrance – good times	Pro-cyclical	0.00	43	0.61	0.50	0.072
	Counter-cyclical	1.00	27	0.39		
	Total		70	1.00		

Database: IMF, 2012, own calculations

In addition, we can argue that a pro-cyclical fiscal stance is a characteristic of discretionary policy in good economic conditions. Thus, the adoption of the single currency and implementation of the SGP framework was unable to curb the persisting pro-cyclical bias characterising the conduct of fiscal policy in an upturn. In contrast, we might argue that entrance to the EMU has been associated with a deterioration of the pro-cyclical bias during bad economic conditions. These results are partly consistent with our expectations that the fiscal policy became more expansionary. In the case of pro-cyclical fiscal behaviour, we can conclude that it is persistent before and after entry to the EMU, especially in times of economic prosperity.

The reasons for the pro-cyclical behaviour of fiscal policies in bad times relate to the trade-off faced by fiscal authorities between cyclical stabilization measures and the need to disrupt budgetary imbalances. The main explanation for a pro-cyclical fiscal policy in bad times is associated with an impaired fiscal position which requires a correction irrespective of the prevailing fiscal position (European Commission, 2006). In the period before the single currency was introduced (1999 and 2001), countries tried to fulfil the Maastricht criteria by running on average tight fiscal policies despite the fiscal position of each individual Member State (Deroose *et al.,* 2008). Thus, the most important countries promoted restrictive fiscal policies to eliminate excessive deficits (see Table 2). Namely, before entering the EMU we conclude that in seven countries fiscal authorities promoted a restrictive fiscal policy for less than 50% of the time (Germany, Belgium, Cyprus, Greece, Finland, Ireland, Portugal and Spain). This is consistent with the pro-cyclical behaviour before joining the EMU since most countries recorded a negative output gap in this period. (Alesina & Tabellini, 2005) argue that additional reasons for pro-cyclicality in bad times are financing constraints because countries rely on foreign borrowing to finance their deficits, which is difficult to obtain in periods when the economy is experiencing a contraction.

After entering the EMU we notice more pro-cyclical fiscal policy behaviour, especially in the good times during 1999-2010. This period was characterized on average by a positive output gap, which should correspond to a restrictive and counter-cyclical fiscal policy to improve budgetary positions. This is in line with the objective to stabilize output and debt during economic prosperity, which ensures countries sustain fiscal activity in bad times (European Commission, 2006; Marinas, 2008). This is subjected to the fundamental asymmetry of an appropriately conducted fiscal policy.

The reasons to justify pro-cyclicality in good times are more subtle. European Commission research (2006) generally identifies two broad sets of explanations. One set relates to problems in correctly measuring the cyclical condition. It explains the excessive growth of expenditures in good times with identification and implementation lags. The latter occurs because government expenditure plans follow budgetary decisions with some delay, which are influenced by current and recent growth developments. Since it is hard to accurately predict the turning points in the cycle, governments run the risk that their expenditures will not correspond to the current phase of economic activity. The issue of identification lags relates to the lack of tools to adequately assess the current cyclical conditions because estimates of output gaps in real time involve substantial uncertainty. The second set of reasons for the observed pro-cyclical behaviour of fiscal policy refers to political motives. The government is subject to the pressure of certain interest groups to spend proportionally more when in good times a larger amount of budgetary resources is available. When governments decide not to accumulate budgetary surpluses in good times, they may prefer to cut taxes instead. This argument, provided by (Talvi & Vegh, 2005) refers to the revenue side of the budget.

In addition, the deficit bias in good times can be corroborated with the political economic motives as policy makers may attach more weight to objectives other than the stabilisation of output, which is emphasized in times of prosperity as more overall resources are accessible, also known as the "common pool problem" (Deroose *et al.,* 2008). Consequently, the prevalence of a pro-cyclical fiscal stance in good times is responsible for a considerable share of the growth of debt in EU countries (European Commission, 2006). These results are consistent with our expectations that in the period after entering in the EMU fiscal behaviour became more expansionary. In addition, we also conclude that the response of fiscal authorities to cyclical conditions in the economy depends on whether good or bad times are prevailing.

Conclusions

In recent years there has been an intense discussion of whether the actual behaviour of fiscal authorities is consistent with cyclical stabilization objectives. The question of the appropriate fiscal policy has been gaining recognition especially as regards euro-zone countries after they enter the European Monetary Union (EMU). Namely, fiscal policy represents the one of the few tools in the control of national authorities to support an active economic policy of macroeconomic stabilization to counter protracted demand shocks. In addition, implementation of the criteria of the Maastricht Treaty and later the SGP represents an instrument of fiscal coordination. Their objective is to maintain and enforce fiscal discipline in the medium term within the euro zone. Therefore, we evaluated the activity of fiscal policy before and after entering the euro zone for each EMU country. To determine a pro-cyclical or counter-cyclical fiscal policy stance we compared the dynamic evaluation of the cyclically adjusted balance and output gap. However, we should be aware of some murkiness in assessment of the output gap itself and the cyclically adjusted balance which appears due to inconsistency in measurement of the output gap and potential GDP growth.

In the empirical analysis we evaluated the fiscal policy stance for each country of the euro zone. In the assessment of government behaviour we covered 14 countries in the period of 1995-2010. The results of the analysis generally confirm that fiscal policy in most euro-zone member states became more expansionary in the period after entering the EMU. Moreover, these preliminary findings were confirmed by the statistical analysis which shows statistically significant differences in expansionary fiscal policy between the aforementioned sub-periods. The more detailed analysis of the fiscal stance that differentiated whether the output gap is positive or negative implies that the overall policy stance of the euro zone is pro-cyclical. In particular, across the countries in the euro zone nearly half of the period since 1995 was denoted by a pro-cyclical fiscal stance. Namely, we identify that in nine (out of 14) countries half of the time since 1995 fiscal authorities promoted pro-cyclical fiscal behaviour (Austria, Belgium, France, Greece, Ireland, Italy, the Netherlands, Slovenia and Spain). According to our results, we might also conclude the average fiscal stance is expansionary when actual output is above its potential level, which implies a pro-cyclical bias in times of prosperity, and that the fiscal stance tends to be predominantly counter-cyclical when actual output is below its potential level. Thus, the adoption of the single currency and implementation of the SGP framework was unable to curb the persisting pro-cyclical bias characterising the conduct of fiscal policy in an upturn. In contrast, we might argue that entry to the EMU has been associated with a deterioration of the pro-cyclical bias during bad economic conditions. These conclusions can be associated with the asymmetric fiscal behaviour after entrance to the euro zone because the response of fiscal authorities to cyclical conditions in the economy depends on whether good or bad times are prevailing. These assertions reflect some conclusions made in other similar studies.

We can find the reasons for the asymmetric fiscal behaviour after entering the euro zone in politico-economic motives which prevent automatic stabilizers from working symmetrically throughout the business cycle in both periods. Indeed, the empirical analysis confirms the expansionary bias towards easing the discretionary fiscal policy between election years. For instance, after entering the EMU the fiscal policy in Germany, France, the Netherlands and Ireland changed from a restrictive to expansionary character due to the upcoming elections. Other reasons for the pro-cyclical behaviour of fiscal authorities, especially in bad times, are associated with an impaired fiscal position which requires a correction irrespective of the prevailing cyclical conditions. Namely, before entering the EMU we conclude that in eight countries the fiscal authorities promoted a restrictive fiscal policy for less than 50 % of the time (Germany, Belgium, Cyprus, Greece, France, the Netherlands, Portugal and Slovak Republic), which can be associated to the need to eliminate excessive deficits. This is consistent with the pro-cyclical behaviour before joining the EMU since most countries recorded a negative output gap in this period.

We recognized two sets of reasons for the pro-cyclical behaviour in good times. The first set of reasons is related to problems with identification and implementation lags in correctly measuring the cyclical conditions. The second set of reasons refers to political motives when a government decided to conduct expansionary fiscal policy in good times. In particular, after entering the EMU countries on average recorded a positive output gap of 0.8% associated with a deterioration in the cyclical adjusted balance of around 0.3 %, which implies expansionary measures of fiscal policies, especially in the period of 1999-2007. The reason for countries like Slovenia, Cyprus and Slovak Republic conducting a more expansionary fiscal policy after they entered the EMU is related to the current economic and financial crisis, where we recognize changes of fiscal stances in countries of the euro zone. Namely, in 2009 all of the Member States, except Greece and Ireland, ran an expansionary and counter-cyclical fiscal policy to stimulate aggregate demand in the context of this crisis.

Finally, we should stress that the variety of results in the literature encourages further research on this topic. This could have future implications regarding the implementation of the fiscal rules and other structural reforms. Nevertheless, the questions of whether the discretionary fiscal policy acts counter- or pro-cyclically or whether their reaction is symmetric or asymmetric throughout the cycle after introduction of the single currency remains unsettled. As a result, further empirical research employing more sophisticated methodological approaches is needed in order to support our preliminary conclusion.

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Fiskalinės politikos padėtis Europos Sąjungoje: Euro įtaka

Santrumpa

Pastaraisiais metais buvo intensyviai diskutuojama ar tikrasis fiskalinės valdžios elgesys dera su ciklišk ais stabilizacijos tikslais. Tinkamos fiskalinės politikos klausimas įgyja pripažinimą, ypač euro zonos šalyse, po jų įstojimo į *Europos monetarinę sąjungą* (EMS). Todėl, šio *darbo tikslas* yra palyginti kiekvienos EMS šalies fiskalinės politikos veiklą prieš ir po įstojimo į euro zoną 1995–2010 laikotarpiu. Šiam tikslui mes naudosime ciklišk ai pakoreguotą balansą, kuris yra įprasta priemonė ir naudojama įvertinant fiskalinės politikos padėtį. Ciklišk ai pakoreguoto balanso analizė leidžia geriau suprasti apie ankstesnius fiskalinės politikos veiklos suderinimus, kurie padeda išmatuoti fiskalinės politikos *ex-post* vertinimą. Tuo remiantis, mes galime nustatyti bendro vyriausybės biudžeto disbalanso priežastis praeityje. Be šio fakto, mes turėtume būti tikri dėl tam tikrų įspėjimų, vertinant ciklišk ai pakoreguotą balansą, kuris atsiranda dėl gamybos deficito ir galimo BVP augimo matavimo nesuderinamumo.

EMS įkūrimas Europoje 1999 metais (ir 2002 metais) labai paveikė ekonominės politikos veiklą 12-oje, joje dalyvaujančių šalių narių. EMS buvo didelė sėkmė daugeliu atžvilgiu, nes prisidėjo prie makroekonominio stabilumo, finansinės integracijos ir augimo konvergencijos Europoje. Vienintelė tradicinė trumpalaikė makroekonominė priemonė, likusi nacionalinės valdžios kontrolėje, yra fiskalinė politika. Taigi, fiskalinė politika įgijo naujų pareigų, atsiradusių EMS. Tačiau tuo pačiu metu *Stabilumo ir Augimo paktas* (SAP) suvaržo jos operacijas, nes EMS nariai turi laikytis taisyklių, kurias priėmė *Paktas.* Jo tikslas yra palaikyti ir priversti vykdyti fiskalinę discipliną euro zonos viduje (Marinaş, 2008; Galí ir Perotti, 2003). Lyginant su situacija, buvusia prieš atsirandant EMS, galima teigti, kad dabar fiskalinė politika atlieka platesnį vaidmenį (turima omenyje gamybos sukrėtimus, ypač poreikio sukrėtimus). Net jei ECB užsiima tam tikro laipsnio gamybos sukrėtimų išlyginimu, atskiros monetarinės politikos negalima naudoti norint išlyginti asimetrinius sukrėtimus (Marinheiro, 2005).

Praėjusiuose dešimtmečiuose buvo kruopščiai analizuojama kaip biudžetinė politika reagavo į ekonominį ciklą, tačiau kai kurie pagrindiniai klausimai atrodo vis dar liko neišspręsti. Naujausioje empirinėje literatūroje apie fiskalinės politikos ciklišką reakciją į euro zoną mes randame įvairių rezultatų. Kai kurie paskelbti rezultatai rodo, kad fiskalinė politika turėjo tendenciją būti *ne-ciklišk a*, beveik tiek pat rezultatų nurodė į *pro-ciklišką* fiskalinį elgesį, o keletas kitų autorių mano, kad politika buvo *kontra-ciklišk a* (Golinelli ir Momigliano, 2008). Tai rodo sutarimo nebuvimą dėl to, ar tikrasis fiskalinės valdžios elgesys atitinka ciklišk o stabilizavimo tikslus. *Ne-ciklišk a* (t. y. neutrali) fiskalinė padėtis yra apibrėžiama kaip fiskalinė politika, kurioje vyriausybės išlaidos laikosi BVP augimo krypties, o biudžeto įplaukų dalis juda vienoje eilėje su tikruoju nominaliu BVP (Buti ir Van den Nord, 2004b). Kitaip tariant, *ne-ciklišk a* fiskalinė politika yra apibūdinama kaip ciklišk ai suderintų biudžeto įplaukų *kontra-ciklišk a* reakcija ir ciklišk ai iš pradžių sureguliuotų biudžeto įplaukų *pro-ciklišk a* politika (Turrini, 2008).

Norėdami įvertinti *pro-ciklišk os* arba *kontra-ciklišk os* fiskalinės politikos padėtį, mes lyginame ciklišk ai pakoreguoto balanso ir gamybos deficito dinaminį įvertinimą. Būtent ciklišk ai pakoreguoto balanso pokyčiai, iš eilės einančiais metais, rodo orientavimąsi į fiskalinę politiką, t.y. fiskalinį impulsą. Lyginant ciklišk ai pakoreguoto balanso ir gamybos deficito pokyčius kiekvienais metais, kurie parodo ekonominio ciklo svyravimus, galima įvertinti fiskalinės politikos orientaciją, t.y. fiskalinę poziciją. Fiskalinę politiką galima laikyti *kontraciklišk a*, jei ji yra besiplečianti esant neigiamam gamybos deficitui ir ribojanti, kai tikrasis BVP augimas viršija savo potencialių tempą. Iš kitos pusės, fiskalinė politika yra apibūdinama kaip *pro-ciklišk a*, jei esant neigiamam gamybos deficitui, vyriausybė naudoja ribojančias finansines priemones ir, kai fiskalinė politika reaguoja plėsdamasi esant teigiamam gamybos deficitui, kur tikroji gamyba viršija apskaičiuotą galimą BVP. Mes laikėmės nuomonės, kad fiskalinė politika yra neutrali mažiems struktūrinio biudžetinio balanso pokyčiams (nuo -0.2 iki 0.2 procentinių taškų), remdamiesi skaičiavimais, kuriuos atliko Cimadomo (2005).

Empirinės analizės metu buvo įvertinta kiekvienos euro zonos šalies fiskalinės politikos padėtis. Įvertindami vyriausybių elgesį, mes tyrėme 14 šalių per 1995–2010 laikotarpį. Nepaisant abejonių dėl struktūriškai pakoreguoto deficito ir gamybos deficito pokyčių skaičiavimų, analizės rezultatai daugiausiai patvirtina, kad fiskalinė politika daugelyje euro zonos šalių narių, tapo labiau besiplečianti tuo metu, kai jos įstojo į EMS. Šiuos pradinius duomenis patvirtino statistinė analizė, kuri rodo statistiškai svarbius skirtumus besiplečiančioje fiskalinėje politikoje tarp anksčiau minėtų *sub-laikotarpių*. Dar išsamesnė fiskalinės padėties analizė gauta, diferencijuojant ar gamybos deficitas daro teigiamą ar neigiamą įtaką. Vadinasi bendra euro zonos politikos padėtis yra *pro-ciklišk a*. Ypač euro zonos šalyse, beveik pusė laiko nuo 1995 metų buvo pažymėtos *pro-ciklišk os* fiskalinės padėties. Būtent, mes nustatėme, kad devyniose (iš 14) šalių, pusę laikotarpio nuo 1995 metų fiskalinė valdžia rėmė *pro-ciklišką* fiskalinį elgesį (Austrija, Belgija, Prancūzija, Graikija, Airija, Italija, Olandija, Slovėnija ir Ispanija). Remdamiesi gautais rezultatais, mes taip pat galime daryti išvadą, kad vidutinė fiskalinė padėtis yra besiplečianti, kai tikroji gamyba viršija savo potencialų lygį. Tai reiškia ne-ciklišką nukrypimą klestėjimo laikotarpiu, o kad fiskalinė padėtis turi tendenciją būti daugiausiai *kontraciklišk a*, kai tikroji gamyba yra žemiau potencialaus lygio. Tokiu būdu, vienos valiutos ir *Stabilumo ir augimo pakto* struktūros priėmimas negalėjo pažaboti išlikusio *pro-ciklišk o* nukrypimo, apibūdinančio fiskalinę politiką esant augimui. Priešingai, galime teigti, kad įstojimas į EMS buvo susijęs su *pro-ciklišk o* nukrypimo pablogėjimu esant blogoms ekonominėms sąlygoms. Šios išvados gali būti susietos su asimetriniu fiskaliniu elgesiu po įstojimo į euro zoną, nes fiskalinės valdžios reakcija į ciklišk as sąlygas ekonomikoje priklauso nuo to, ar geri, ar blogi laikotarpiai dominuoja. Šie tvirtinimai atspindi kai kurias išvadas, padarytas kituose panašiuose darbuose.

Asimetrinio, fiskalinio elgesio po įstojimo į euro zoną priežastis, galime rasti politiniuose – ekonominiuose motyvuose, kurie saugo, kad automatiniai stabilizatoriai neveiktų simetriškai per verslo ciklą abiejuose laikotarpiuose. Iš tiesų, empirinė analizė patvirtina besiplečiantį nukrypimą, siekiant palengvinti savarankišką fiskalinę politiką laikotarpiu tarp rinkimų. Pavyzdžiui, po įstojimo į EMS, fiskalinė politika Vokietijoje, Prancūzijoje, Olandijoje ir Airijoje pasikeitė iš ribojančio į besiplečiančio pobūdžio, dėl artėjančių rinkimų. Kita fiskalinės valdžios *pro-ciklišk o* elgesio priežastis, ypač nesėkmingais laikotarpiais, yra susijusi su susilpnėjusia fiskaline pozicija, kuriai reikia koregavimo, neatsižvelgiant į vyraujančias ciklišk as sąlygas. Būtent, prieš įstojant į EMS mes padarėme išvadą, kad aštuonių šalių fiskalinė valdžia rėmė ribojančią fiskalinę politiką trumpiau nei 50 % viso laiko (Vokietija, Belgija, Kipras, Graikija, Prancūzija, Olandija, Portugalija ir Slovakijos Respublika). Tai atitinka *pro-ciklišką* elgesį prieš įstojant į EMS, kadangi dauguma šalių šiuo laikotarpiu turėjo neigiamą gamybos deficitą. Mes atpažinome dvi grupes priežasčių *pro-ciklišk am* elgesiui sėkmingu laikotarpiu. Pirmoji grupė priežasčių yra susijusi su problemomis todėl , kad vėluoja nustatymas ir įdiegimas tiksliai matuojant ciklišk as sąlygas. Antroji grupė priežasčių, paremta politiniais motyvais, kai vyriausybė nusprendžia laikytis besiplečiančios fiskalinės politikos sėkmingu laikotarpiu ar ne.

Aptarę tai, mes turėtume atkreipti dėmesį į tai, kad rezultatų įvairovė literatūroje skatina tolesnius tyrimus šia tema. Tai galėtų ateityje turėti didžiulę reikšmę diegiant fiskalinės politikos taisykles ir jas susiejant su kitomis struktūrinėmis reformomis. Ši vidutinės trukmės fiskalinė programa yra ypač svarbi Europos mastu, norint atstatyti makroekonomikos ir fiskalinį stabilumą. Tam tikrų šalių, tinkamo fiskalinės politikos elgesio klausimas tapo labai aktualiu, todėl šis tyrimas galėtų būti naudingas sprendžiant tokio pobūdžio problemas.

Raktažodžiai: *fiskalinė politika, fiskalinės politikos padėtis, ciklišk ai pakoreguotas balansas, gamybos deficitas, EMS.*

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