

Discretionary Fiscal Policy Measures and Growth in the Selected Eurozone Countries

Rosaria Rita Canale* and Giorgio Liotti

Department of Business and Economic Studies, University of Naples "Parthenope", Italy

Abstract

The aim of the paper is to evaluate the effects on growth of discretionary fiscal policy measures in selected Eurozone countries in the period ranging from 2001 to 2013. The analysis suggests a positive effect of discretionary fiscal policy measures on GDP and support the conclusion that structural public balance adjustments have negative effects on growth irrespective of macroeconomic conditions. These results show that, if the reduction of the structural balance has to be considered as an objective to be achieved per se, such a goal should not be pursued in times of deteriorating macroeconomic conditions.

Keywords: Fiscal policy; Structural adjustment; Growth; Cross section analysis; Dynamic panel data analysis

Introduction

Many European countries have been forced to manage the unsustainability of their public finances as a consequence of the 2007 financial crisis because public deficits have been increased in order to counteract output fluctuations. Public debt levels have been affected both by the need to finance the additional deficits and by the higher yields required to compensate investors for the additional risk on sovereign debt associated with decreasing growth.

This was particularly true in the Eurozone from 2008 to 2013, when current account imbalances, in the absence of a national monetary policy, gave rise to different behaviors of foreign lenders towards individual countries. The so-called PIIGS countries (Portugal, Ireland, Italy, Greece and Spain), who had current account deficits, experienced massive capital outflows, increasing interest rates on their national bonds and a consequent inability to finance their deficits through debt without incurring "crowding-out" effects and raising the possibility of default. At the same time, for countries with current account surpluses, capital flowed in and interest rates went down, giving rise to a self-fulfilling process of divergence in public account sustainability and growth [1]. The situation became so untenable that a balanced public budget became the prerequisite for any credible government: the relation between fiscal policy and output growth was turned upside down, transforming government expenditure from an instrument into an objective. Without fiscal consolidation programs, growth will be compromised, and, although fiscal retrenchment might have, in the short-run, negative outcomes, the alternative results would be even worse [2,3]. The underlying idea is that, in the long run, expansionary fiscal policy is unable to produce any positive effect on growth and, as a consequence, restrictive fiscal policy does not have any negative effects on growth either.

The aim of the paper is to estimate the effect of discretionary fiscal policy measures on growth in selected Eurozone countries in the years 2001-2013¹. The indicator adopted to evaluate fiscal stance is the structural public balance adjustment defined as change in structural public balance. As a matter of fact, changes in structural balance "can be seen as a cause rather than an effect of output fluctuations and may be interpreted as indicative of discretionary policy adjustments" (the OECD definition)². The structural adjustment effects on growth are a measure, therefore, of the efficacy of fiscal policy. The estimates,

concentrating on the effect of structural adjustment programs on growth, given the other policy variables and the cycle, are conducted by using: a) the intuitive cross section analysis, in which structural adjustments are put into relation with cumulative growth [4,5] and b) the panel dynamic ordinary least squared (PDOLS) analysis, through which the countries' cumulative growth effects of structural adjustments are evaluated in terms of adjustment speed. In the preliminary analysis of the PDOLS econometric technique, variables appear to be non-stationary and cointegrated, so that a long-run relationship exists between growth and structural adjustment. Furthermore, the sample and the time interval considered allow us to estimate the effects without considering particular situations and to reflect on the general implications of structural adjustment policies. Both techniques generate results consistent with a positive value of discretionary fiscal policy multipliers. The sample selected ranges from 2001 to 2013, therefore results support the conclusion that the positive value of fiscal multipliers is not dependent on the special situation of the crisis. Even when the sample is divided into the two sub-samples of before (2001-2007) and after the crisis (2008-2013), the outcomes do not change significantly.

The paper's argument is not that different growth rates were due simply to austerity measures, but that structural adjustment programs further influenced GDP, causing, in times of declining macroeconomic conditions, unsuccessful fiscal consolidations. Many other causes of both GDP growth and fiscal imbalances should be considered³. For example, the initial conditions of the public accounts are very relevant. However, the effects of these other factors cannot be considered as contradicting the main finding regarding the effectiveness of discretionary fiscal policy. As a consequence, if a balanced public

³In the Eurozone, for example, current account imbalances should be considered the root causes of diverging growth rates and deteriorating fiscal positions as in Gross [8], Belke and Dreger [9], and Canale and Marani [6,7].

*Corresponding author: Rosaria Rita Canale, Department of Business and Economic Studies, University of Naples "Parthenope", Italy, Tel: 966 11 467 0000; E-mail: rorita.canale@uniparthenope.it

Received February 12, 2015; Accepted April 22, 2015; Published April 29, 2015

Citation: Canale RR, Liotti G (2015) Discretionary Fiscal Policy Measures and Growth in the Selected Eurozone Countries. J Stock Forex Trad 4: 152 doi:10.4172/2168-9458.1000152

Copyright: © 2015 Canale RR, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

¹More sophisticated empirical analyses on this topic are contained in Canale et al. [6,7]

²The OECD definition available at <http://stats.oecd.org/glossary/detail.asp?ID=3343>

budget is an objective to be achieved per se, a period of growth should be chosen for its implementation⁴.

The paper is organized as follows: the next section reviews the theoretical background of the debate over the efficacy of fiscal policy. The third section contains the empirical analysis and is divided into two subsections. Section 3.1 presents the cross-section results while section 3.2 presents the PDOLS empirical analysis and results. Finally section 4 concludes.

The Background

The theoretical framework before that financial crisis occurred claimed that fiscal contraction, especially in the form of structural balance adjustments, has no, or if any, positive, effects on growth; indeed, sustainable public finance was considered a precondition for higher investor confidence, for greater consumption and investment and, therefore, for long-run stable growth. Special attention was given to the need to reduce the amount of outstanding government debt [11]. The theoretical foundations of these results are based on the Ricardian-equivalence theory as presented in Barro [12], where the wealth effects of fiscal retrenchments compensate for the outcomes of fiscal policy. Further extensions of Barro [12] are contained in the so called Keynesian effects of non-Keynesian fiscal policies. The seminal paper on this subject was that by Giavazzi and Pagano [13] who provided a compelling econometric analysis in which they observed a consumption increase during periods of fiscal restriction. If consumers have rational expectations and are not liquidity-constrained, they tend to smooth consumption through time, following the expected flow of disposable income. The same kind of reasoning applies to entrepreneurs. The expected tax reductions and the increase of saving promote capital accumulation and boost investment. If, therefore, during periods of fiscal retrenchment, an increase in consumption and investment is observed, it is a proof that individuals and firms have revised their permanent income upward and that the cause of this revision is the consolidation of public finances. This paved the way to the broader conclusion or, as Giavazzi and Pagano call it, to the unconventional wisdom that retrenchments can be expansionary. The effects of fiscal consolidations are assured by a kind of “super-Barro effect”, according to which fiscal contraction has a more than proportional effect on permanent income⁵. More recently Alesina and Ardagna [14,15] have also supported the proposition that fiscal contractions are expansionary especially if conducted through spending cuts.

Some positive results of fiscal consolidations were found to operate through the general effects on reserve wages and competitiveness [16,17], but only if fiscal consolidations were conducted without raising taxes or cutting public investments [16-18]. The factors considered as important are the initial level of debt, the persistency of its reduction and the dynamics of interest rates [19,20]⁶. In sum, these contributions suggest that successful fiscal consolidation programs were not autonomous results, but rather their positive effects were due to the aid of monetary policy or exchange rate depreciation in sustaining output

⁴Greer [10] proposes the following conclusions from the “conditionality debate” or the debate about the structural adjustment programs implemented in the developing world in exchange for financial help: “The null hypotheses from the large literature on structural adjustment policies suggest that the EAPs will: be badly implemented; be neutral or bad for growth; be bad for equity and the poor; have unpredictable policy consequences; and will allow incumbent elites to preserve their positions. Preliminary evidence from the three peripheral countries confirms that the same problems are afflicting E(conomic) A(djustments) P(rograms)” [10].

⁵These are called “Keynesian effects of non- Keynesian fiscal policies” and are discussed in Canale et al. [21].

⁶A detailed review of the empirical literature can be found in Canale et al. [21].

when structural adjustments, spending cuts and tax increase were necessary to bring the public finance back to a sustainable level [21,22].

The recent crisis has reopened the debate. Furthermore, the existence of a “zero lower bound” on the interest rate set by the central bank cast doubt on the possibility of successful fiscal consolidations. In the absence of effective monetary policy measures, fiscal retrenchment is more apt to have negative effects on growth [23,24] and undermine even the process of the consolidation of public finances which is the objective of austerity in the first place.

This view is now accepted by the IMF, which, after revising its initial position, affirmed that the reduction of the public deficit has negative, and higher than expected, effects on growth [25,26]. The positive and large multipliers can be due to the existence of a financial constraint [27], wage and price rigidities [28], reduced openness to the global economy [29] or the existence of a fixed exchange rate regime as in the case of the Eurozone [30]⁷.

Despite these findings, the need to reduce the structural balance, i.e., the non-cyclical component related to the structure of the general economy, is never questioned because of the need to face the challenges of an aging population and increasing health and social expenditures in the advanced economies. These commitments, even in the presence of large fiscal multipliers, lead to the implementation of austerity programs because the alternative is seen as leading to unsustainable public finances [2,3]. However, the desirability of such policies is not supported by clear empirical results, but is rather taken as a rule to be introduced as an unquestionable necessity⁸. In this context, this contribution provides additional evidence of significant discretionary fiscal policy multipliers.

The Empirical Analysis

The empirical analysis makes use of the IMF World Economic Outlook database. The countries considered are: Austria (A), Belgium (B), Finland (FIN), France (F), Germany (G), Greece (GR), Ireland (IRLD), Italy (IT), Netherlands (NL), Portugal (P), and Spain (E). They share the same policy framework since they all were in the Eurozone almost from the beginning.

The time interval chosen is 2001-2013 divided into two sub-intervals: the first from 2001 to 2007, the pre-crisis period, and the second one from 2008 to 2013, the post-crisis period. The variables chosen are the real rate of growth of GDP and the structural balance as a percentage of potential output as calculated by the IMF⁹. As mentioned above, it is that part of the public balance not dependent on the cycle whose change can be interpreted as a measure of discretionary fiscal policy. The empirical investigation consists of 1) a cross-section analysis to provide a first picture of discretionary fiscal policy effects on cumulative growth and b) a Panel dynamic ordinary last square

⁷The large number of studies of the efficacy of fiscal policy follows, on the empirical side, different approaches that can be categorized into four main groups 1) single equation estimation techniques (OLS, GMM and TSLS estimations); 2) dynamic stochastic general equilibrium models (DSGE), which are large theory-guided models that impose theoretically motivated restrictions 3) vector auto regression (VAR) and 4) cross-section and panel data analysis in order to analyze the relationships between fiscal policy and output. These contributions estimate the reaction of consumption to interest rates, exchange rates and investment to fiscal policies. For a detailed review of the literature see Canale et al. [21] paragraph 3 and, for an update, Qazizada and Stockhammer (2014)

⁸De Grauwe and Yuemei [5] affirm that “austerity has left a legacy of unsustainable debt levels” and that austerity measures are going to undermine, not only the growth process, but also the sustainability of public accounts.

⁹Available at <http://www.imf.org/external/np/fad/strfiscbal/>

(PDOLS) estimate to provide a more rigorous investigation on the subject.

Cross section analysis

The cross section analysis is a type of one-dimensional dataset and provides the picture at the same point of time aiming at connecting the change in structural balance, or the structural adjustment, with the cumulative growth rate. The data, therefore, have not been used as they are, but they have been transformed.

The cumulative growth rate was calculated adding the yearly growth rate for the whole period:

$$CG_i = \sum_{t=1}^n G_{t,i} \quad (1)$$

Where is the cumulative growth rate from the beginning till the end of the period, is the single year growth rate, t is the time ranging from 2001 to 2013 and i = 1,2,...,25, represent each country considered.

As regards the cumulative structural balance, the difference between the final and initial year is calculated:

$$SA_i = SB_{t_n,i} - SB_{t_0,i} \quad (2)$$

Where is the structural adjustment that occurred between the final year tn and the initial t0 in the i-th country, is the structural balance as percentage of the output potential in the final year and at the beginning of the period; n is the number of observations per country. A positive value of means that the country has been conducting, over the whole time interval, a reduction in its structural deficit (or a decrease of the structural surplus if this is the case), i.e., a restrictive discretionary fiscal policy.

The econometric approach, using OLS, tests the relationship between the cumulative growth and structural adjustment. This method has the advantage of being straightforward and simple. Our empirical strategy then exploits cross-country variation in cumulative growth (CG) to cumulate structural balance, or structural adjustment (SA), to assess the broader economic impact of the fiscal retrenchment policies. Similar to Krugman [4] and De Grauwe and Yuemei [5], the following model at the country level is estimated:

$$CG_i = \alpha + \beta * SA_i + \mu_i \quad (3)$$

where i indicates the country involved and are variables defined as in (1) and (2) respectively.

Table 1 shows the results from the cross section analysis over the time intervals considered. The coefficients β have negative values: -2.303 for the period 2000-2007 and -1.736 for the period 2008-2013. The Jarque-Bera test does not reject the null hypothesis of normality, and the Breusch-Pagan test does not reject the null hypothesis of homoscedasticity.

In both cases, the R2 is high, explaining a bit less than three-fourths of cumulative growth. This result could be explained by the nature of the economies considered, that relies on the so called "European Social Model".

Figure 1 describes what happened in individual countries during the period 2000-2007. Nine out of the eleven countries did not make restrictive discretionary policy adjustments and all of them experienced positive growth rates proportional to the dimension of the expansion. Ireland and Greece used markedly expansive discretionary fiscal policies and had high cumulative growth rates. Just two countries, Germany and Austria, adjusted their structural balance in the sense of

Dependent Variable Cumulative Growth of real GDP (CG)	Period 2000-2007	Period 2008-2013
Independent Variable Structural adjustment (SA)	-2.307* (0.435)	-1.763* (0.368)
Constant	17.04* (1.951)	0.756 (1.803)
Observations	11	11
R ²	0.758	0.712
Jarque- Bera (Normality test)	1.331	1.174
Test for Heteroschedasticity	[0.513]	[0.555]
Breusch-Pagan	0.6804	0.5024

Standard errors in parentheses; p-value in square brackets; *p<0.01

Table 1: Cumulative growth rate and structural adjustment in selected Eurozone countries: Cross-section analysis.

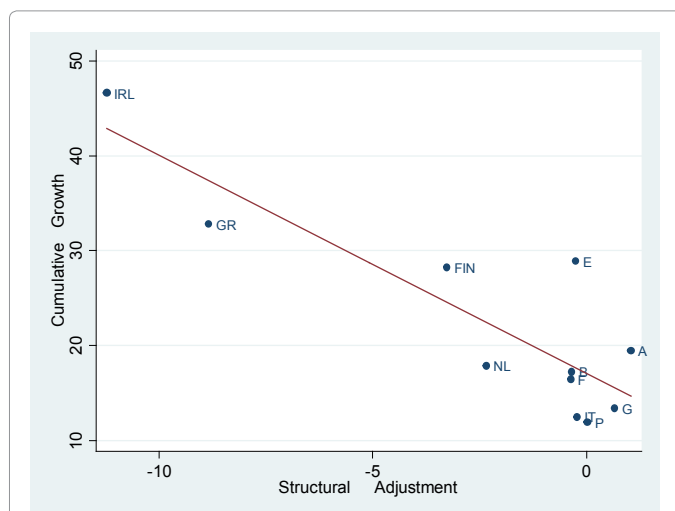


Figure 1: Cumulative growth rate and structural adjustment in selected Eurozone countries (2000-2007).

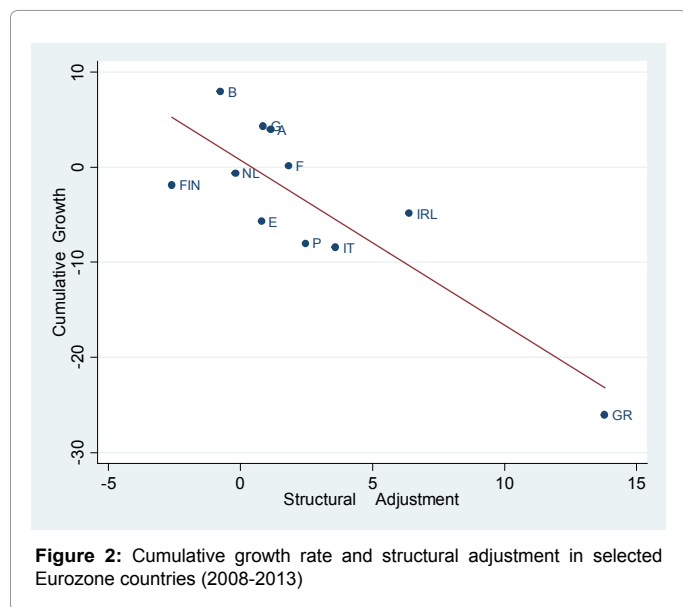
a reduction and, although not experiencing the lowest rate of growth, they are the right lower side of the diagram.

The global crisis has changed the picture. Many countries were forced both by their European institutional commitments and by the sovereign debt crisis to revise their fiscal stance. Increasing unemployment and the need to counteract the negative shocks to aggregate demand compelled these countries to move from structural to cyclical balance in order to reach the target of a sound public balance.

Figure 2 shows the individual country situation during the period 2008-2013. Just three countries did not reduce their structural fiscal stance: Finland, Belgium and, to some extent, the Netherlands. Portugal, Italy and Greece, whose public sectors are very large, had negative cumulative growth rates associated with marked structural adjustments. The same applies to Ireland, which used public funds to recapitalize banks. Among the PIIGS countries an exception to some extent is Spain, whose level of outstanding public debt was at the beginning of crisis lower than that of Germany. This country made a slight structural adjustment, though experiencing a negative growth rate.

Panel dynamic ordinary last squares analysis

The above model estimated the simple static relationship between growth and structural balance, which does not follow a country's policy changes over time. However, the possibility of the persistence of growth should be considered. That is, years with positive growth are likely to be



followed by further increases in income and vice versa; or we may see discretionary fiscal policy changing from time to time due to changes in the political cycle. We take into account the above concerns, and we re-consider Eq. 3, by applying the Panel Dynamic Ordinary Least Squares (PDOLS) estimator.

In the PDOLS framework, the long-run regression is augmented by lead and lagged differences of the explanatory variables to control for endogenous feedbacks. Moreover, lead and lagged differences of the dependent variable can be included to account for serial correlation. Hence, with the PDOLS estimator we are able to correct standard OLS for bias induced by endogeneity and serial correlation. Therefore, DOLS generate unbiased estimates for cointegrated variables, even in the presence of endogenous regressors. According to Wagner and Hlouskova [31], the PDOLS estimator outperforms all other studied single-equation estimators and system estimators even for large samples. Moreover, Harris and Sollis suggest that non-parametric approaches such as FMOLS (Full modified Ordinalry last squares) show problems in cases where the residuals have large negative moving average components and are less robust if the data have significant outliers. It has to be noted that both situations are quite common in macro time series data.

The PDOLS estimators are constructed in the following form:

$$y_{it} = \alpha_i + \beta_i x_{it} + \sum_{k=-p_i}^{p_i} \gamma_{ik} \Delta y_{it-k} + \sum_{k=-p_i}^{p_i} \delta_{ik} \Delta x_{it-k} + \varepsilon_{it} \quad (4)$$

Where x_{it} is the dependent variable at time t in the i -th country and x_{it} is the independent variable with the same features. Δy_{it-k} and Δx_{it-k} are the variables considered in their change and P are lagged and lead values. Finally β_i is the DOLS parameter obtained from i -th unit in panel to be estimated to assess the magnitude of the relationship. The PDOLS technique can be implemented through the so-called Error Correction Model (ECM) in which the long-run analysis is completed through the investigation about the dynamic of adjustment in the short run¹⁰. However, the ECM provides additional information but its presence is not necessary to validate the PDOLS technique.

¹⁰For the application of this technique to change in structural balance and unemployment see Canale and Liotti [6,7].

The first step of the empirical analysis investigates the properties of our panel data. In doing so, we apply first-generation tests of panel unit root following Im, Pesaran and Shin, (IPS), Levin, Lin and Chu, (LLC) Maddala and Wu, Pearson (PP) and Hadri, (HAD). The PP test is as adopted as it is the most heterogeneous unit root test, while the LLC test is employed given its high power in small samples. Test results are reported in Table 2.

From these tests it can be concluded that there is clear evidence for non-stationarity of cumulative growth and structural adjustment in their levels. The majority of tests show evidence of non-stationarity of both cumulative growth and structural adjustment. For cumulative growth the non-stationarity is confirmed by 5 out of 6 tests. The structural adjustment is non-stationary according to LLC, IPS, ADF and HAD tests. When considering the first differences both CG and SA appear to be stationary for 5 out of 6 tests.

Therefore, we conclude that our variables are non-stationary and I(1).

In order to verify the presence of a long-run relation between cumulative growth rate and structural adjustment, as the dynamic panel data analysis procedure suggests, the cointegration tests are performed. The results of four tests are reported in Table 3.

As the first step the results from standard Pedroni and Kao cointegration tests are we report. The eleven cointegration tests proposed by Pedroni extend the Engle and Granger two-step procedure to panel data, and are divided into three categories of test statistics. The first category consists of four panel statistics: a non-parametric variance ratio statistic (panel v); a non-parametric Phillips and Perron type ρ -statistic (panel ρ); a non-parametric Phillips and Perron type t -statistic (panel PP); and a Dickey-Fuller type t -statistic (panel ADF). The second category contains the same panel statistics weighted by long-run variances. The third category includes three group statistics: a Phillips and Perron type ρ -statistic (group ρ); a Phillips and Perron

	LLC	Breitung	IPS	ADF	PP	HAD
CumG	-3.276***	-0.696*	-1.191*	29.521*	21.958*	5.944***
SA	-0.662*	-3.576***	-1.545	28.116*	82.329***	2.387***
First differences						
CumG	-10.279***	-0.696*	-6.533***	-6.533***	70.658***	1.811**
SA	-1.003*	-2.348***	-2.418***	38.145**	158.630***	2.612***

Notes: The tests are: Hadri, 2000 (HAD); Levin, Lin and Chu, 2002 (LLC); Im, Pesaran and Shin, 2003 (IPS); ADF Fisher χ^2 (ADF); PP Fisher χ^2 (PP) due to Maddala and Wu, 1999. In Hadri the null is that the variable is stationary. ***, **, and * reject the null at 1%, 5% and 10% respectively.

Table 2: Panel unit root test

		Pedroni
		Deterministic Intercept and Trend
Panel v-Statistic		-1.939
Panel rho-Statistic		1.845
Panel PP-Statistic		-1.493
Panel ADF-Statistic		-4.634
Group rho-Statistic		3.036
Group PP-Statistic		-1.650
Group ADF-Statistic		-4.209
		KAO
ADF		-1.892
Trace test		
Johansen Fisher Panel Cointegration Test (Linear Determinist Trend)		
$r \leq 0$		82.69
$r \leq 1$		21.98

Table 3: Panel Cointegration Tests

type t-statistic (group PP); and an ADF type t-statistic (group ADF). In contrast with the Kao test, where coefficients do not differ across individuals, Pedroni tests allow for these heterogeneous coefficients. The Pedroni statistics reject the null of no cointegration with different levels of significance. This conclusion is also supported by the Kao ADF test.

The trace tests (Johansen- Fisher panel cointegration test) confirm the presence of cointegration in the variables. Furthermore, they also show that there is one cointegrating vector in the data.

After having highlighted the presence of cointegration, we can proceed with the estimation of the panel model.

For the PDOLS analysis, the data transformation has been adapted to the features of the econometric techniques. Therefore, the time interval over which CG and SA are calculated has been reduced. The cumulative growth has been calculated by adding the value of the real growth rate at time t plus its value at time t-1.

$$CG_{t,i} = G_{t,i} + G_{t-1,i} \quad t = 1, 2, \dots, n \quad (1')$$

In the same way, the structural adjustment for each year is given by difference between the value at time t and the value at time t-1 of the structural balance.

$$SA_{t,i} = SB_{t,i} - SB_{t-1,i} \quad (2')$$

a positive value of $SA_{t,i}$, in equation (2'), shows a restrictive structural policy adjustment during the two years considered, and a negative value represents a discretionary structural policy expansion. Following the theoretical model presented in equation (4), this model was used to test the hypothesis:

$$CG_{t,i} = \alpha_1 + \beta_1 * SA_{t,i} + \sum_{k=1}^1 \gamma_{1ik} \Delta CG_{t-k} + \sum_{k=1}^1 \delta_{1ik} \Delta SA_{t-k} + \varepsilon_{t,i} \quad (3')$$

Where $CG_{t,i}$ and $SA_{t,i}$ are the cumulative growth and the structural adjustment respectively as in equations (1') and (2'), in the i-th country at time t. Δ represents the lead and lagged differences of the variables.

The results from the estimates are presented in Table 4.

The panel decomposition provides additional information about the effects of discretionary fiscal policy. The results show that the negative relation between structural adjustment and growth is confirmed for the whole period for the Eurozone countries sample. Despite countries' heterogeneity in regard to the amount and nature of public sector expenditures, the coefficient value is negative, greater than one and highly significant ($\beta_1 = -1.594$). Decomposing the analysis for the two sub-periods results show a lower negative value for 2001-2007 ($\beta_1 = -0.467$) and a very similar result to the one of the whole period of 2008-2013 ($\beta_1 = -1.551$). It is worth noting that the reduction, in absolute value, of the coefficient, for the second period in the cross section analysis disappears in the PDOLS empirical results.

Structural public balance adjustment in Eurozone countries, taking as given the other factors influencing macroeconomic conditions; generate results on cumulative growth consistent with a positive value of discretionary fiscal policy multipliers. Moreover, our results support the conclusion that the multipliers are not dependent on the special situation created by the crisis.

Conclusions

During the 1980s, the growing budget deficit and very high public debt triggered a profound revision of the direct relation between public expenditure and growth. Previously, the public deficit was considered strictly as a tool for the stabilization of aggregate demand

Independent Variables	Period 2001-2013	Period 2001-2007	Period 2008-2013
SA	-1.594* (0.562)	-0.467* (0.140)	-1.551* (0.416)
Observations	110	77	55
Number of countries	11	11	11
R ²	0.54	0.68	0.89

Standard errors in parentheses, * p<0.1

Table 4: Cumulative growth rate and structural adjustment in 11 European countries: PDOLS.

and income. Subsequently, such an instrumental role was increasingly criticized. Academics agreed that there was the need to consolidate public finances due to the instability effects of real, monetary and financial markets. In Europe, the institutional claims coming from the existing monetary union assigned further importance to this stream of studies. The final outcome of this theoretical reconsideration was a new conventional wisdom that connects counter-intuitive effects to public deficit spending.

The aim of this paper was to support the position that increases (decreases) in growth cannot result from pure fiscal retrenchments (expansions). In other words, our results refute the existence of a "super-Barro" effect and underline the crucial role of "external" factors, such as export growth or monetary policy accompanying fiscal policy.

Following the cross-section, it is possible to conclude that restrictive (expansive) discretionary fiscal policy actions have negative (positive) effects on growth, whatever the broad macroeconomic context in which they are implemented.

The results suggest, therefore, that if the reduction of structural balance has to be considered as an objective to be achieved *per se* in order to face increasing health and pension expenditures, this goal should not be pursued in times of negative demand shocks or ineffective monetary policy. The result would be lower growth and a further worsening of public accounts.

References

- Canale RR, Marani U (2014) Current account and Fiscal imbalances in the Eurzone: Siamese twins in an asymmetrical currency union. International Economics and Economic Policy.
- European Central Bank (2012) The Role of Fiscal Multipliers in the Current Consolidation Debate. Monthly Report 6: 82-85.
- Berti K, de Castro F, Salto M (2013) Effects of fiscal consolidation envisaged in the 2013 Stability and Convergence Programmes on public debt dynamics in EU Member States. European Economy. Economic Papers 504.
- Krugman P (2013) How the Case for Austerity Has Crumbled. The New York Times.
- De Grauwe P, Yuemei J (2013) The Legacy of Austerity in the Euro-zone. CEPS.
- Canale RR, Liotti G (2014) Structural Adjustment and Unemployment in Selected Eurozone Countries. The Australian Economic Review.
- Canale RR, Liotti G, Napolitano O (2014) Structural Public Balance adjustment effects on growth in 25 OECD countries and Eurozone. Comparative Economic Studies.
- Gross D (2011) Greece and Portugal: Similar Fundamentals but Different Outcomes? CEPS Commentaries. Centre for European Policy Studies 17: 02.
- Belke A, Dreger C (2013) Current account imbalances in the Euro area: Does catching up explain the development? Review of International Economics 21: 6-17
- Greer SL (2013) Structural Adjustment Comes to Europe: Lessons for the Eurozone from the Conditionality Debates.

11. Reinhart CM, Rogoff KS (2010) Growth in time of Debt. *American Economic Review: Papers & Proceedings* 100: 573-578.
12. Barro RJ (1974) Are government bonds net wealth? *Journal of Political Economy* 82: 1095-1117.
13. Giavazzi F, Pagano M (1990) Can severe fiscal contractions be expansionary? Tales of two small European countries. NBER Working Paper series: 3372.
14. Alesina A, Ardagna S (2010) Large Changes in Fiscal Policy: Taxes versus Spending. *Tax Policy and the Economy* 24: 35-68. National Bureau of Economic Research, Inc.
15. Alesina A, Ardagna S (2012) The design of fiscal adjustments. NBER Working Papers 18423, National Bureau of Economic Research, Inc.
16. Alesina A, Perotti R (1995) Fiscal Expansions and Adjustments in OECD Countries. *Economic Policy* 21: 205-248.
17. Alesina A, Perotti R (1997) Fiscal Adjustments in OECD Countries: Composition and Macroeconomic Effects. *International Monetary Fund Staff Papers* 44: 210-48.
18. Alesina A, Ardagna S (1998) Tales of Fiscal Contractions. *Economic Policy* 27: 487-545.
19. Blanchard O, Perotti R (1999) An empirical characterization of the dynamic effects of changes in government spending and taxes on output. NBER Working Paper: 7269.
20. Ardagna S (2004) Financial Markets Behavior around Episodes of Large Changes in the Fiscal Stance, Harvard University, mimeo.
21. Canale RR, Foresti P, Marani U, Napolitano O (2008) On Keynesian effects of (apparent) Non-keynesian fiscal policies. *Politica economica*: 5-46.
22. Perotti R (2011) The Austerity Myth. Gain without Pain? NBER Working Paper 17571.
23. Christiano L, Eichenbaum M, Rebelo S (2011) When is the Government Spending Multiplier Large? *Journal of Political Economy* 119: 78-121.
24. DeLong JB, Summers LH (2012) Fiscal Policy in a Depressed Economy. *Brookings Papers on Economic Activity, Economic Studies Program*. The Brookings Institution 44: 233-297.
25. Daniel L (2010) Will It hurt? Macroeconomic effects of fiscal consolidations. *International Monetary Fund, The World Economic Outlook*.
26. Blanchard O, Leigh D (2013) Growth Forecast Errors and Fiscal Multipliers. IMF Working Paper.
27. Galí J, López-Salido D, Vallés J (2007) Understanding the effects of government spending on consumption. *Journal of the European Economic Association* 5: 227-270.
28. Woodford M (2011) Simple analytics of the government spending multiplier. *American Economic Journal: Macroeconomics* 3: 1-35.
29. Corsetti G, Meier A, Müller G (2012) What determines government spending multipliers? *Economic Policy* 27: 521-565
30. Ilizetzi E, Mendoza EG, Végh CA (2013) How big (small?) are fiscal multipliers? *Journal of Monetary Economics* 60: 239-254.
31. Zemanek H, Belke A, Schnabl G (2010) Current account balances and structural adjustment in the euro area. *International Economics and Economic Policy* 7: 83-127.