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THE PRESENT SOVEREIGN DEBT CRISIS OF THE EURO ZONE PERIPHERAL COUNTRIES: A CASE OF NON-MATURE DEMOCRACIES AND LESS DEVELOPED ECONOMIES

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Abstract

The eurozone faces a profound sovereign debt crisis threatening the very existence of the euro. As a result, the recovery of the world economy has become more uncertain. Therefore, the study of the foundations of this crisis is of the utmost importance. Three of the countries involved, Portugal, Greece and Spain, share some important attributes: they are all recent democracies and comparatively less developed economies in the set of the twelve initial member States of the eurozone. For these three countries this paper shows that the behavior of the political variables emphasized by the literature as determining the performance of fiscal variables, is indeed statistically different from the ones observed for the other countries in difficulties, Ireland and Italy, which are mature democracies and comparatively developed economies. These outcomes are in line with what the relevant literature expects from countries with those characteristics, such as election year budget cycles. Besides, post-election year budget effects were also detected implying no fiscal consolidation.

Keywords: fiscal policy; political budget cycles; new democracies
JEL Classification: H2, H5, H6

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1. Introduction

The eurozone is going through extremely difficult times threatening its very existence, at least in its present configuration. Greece, Ireland, and Portugal have already been intervened by the so-called troika: the European Commission (EC), the European Central Bank (ECB), and the International Monetary Fund (IMF). These institutions agreed to provide financial assistance to those three countries in exchange for substantial general government expenditure cuts and increased revenues, taxes and otherwise, in order to reduce budget deficits and public debt to sustainable levels in a short period of time, as well as profound structural reforms. In the meantime, from the very beginning of this crisis, financial markets have shown persistent doubts about the ability of Spain to fulfill its obligations towards its creditors without a similar intervention. As a result, the previous and the present Spanish governments were required to adopt significant austerity measures of the kind pursued by the peripheral countries. More recently, the same doubts began afflicting Italy, forcing a government change to a more technocratic-oriented one, as had been the case in Greece a short while ago.

With the exception of Ireland, whose crisis has its roots in the banking sector, those are all southern European countries. In addition, Greece, Portugal and Spain (GPS) have at least two other characteristics in common when compared to the remaining nine founding eurozone

member states: a) they are recent democracies and, b) within the eurozone, they are relatively less developed countries.

These three countries restored democracy almost at the same time. In Portugal and Greece, the dictatorships in power collapsed in 1974; in Spain, the death of Franco in 1975 opened way to democracy under the leadership of the newly installed king. GDP per capita is an indicator of economic development. The average GDP per capita in PPS for each country in the period 1995-2010 expressed in index numbers, where 100 is the base year value for the whole set of the 27 EU countries, is shown in Table 1. In the framework of the eurozone these numbers corroborate that the GPS set is a comparatively backward one. In fact, among the initial twelve member States of the eurozone the GPS countries are the only ones with GDP per capita bellow the EU 27 average.

To the economic literature, governments' actual management of public finances is the outcome of a political game played by politicians and voters by means of which both aim at improving their own welfare levels. However, the particular explanatory factors considered by that literature's abundant theoretical and empirical contributions fall under many and diverse categories. Just for illustrative purposes, one can mention the role played by pressure groups (Olson, 1965); the ideological orientation of the political parties in power (Hibbs, 1977); institutional variables like the form of government as set by constitutional rules (Persson and Tabellini, 2002, 2003); the political level of fragmentation; and, just to finish, the influence of political budget cycles (PBC). The political budget cycle approach emphasizes several variables among which the country's degree of economic development and the overall

quality of its democracy, the latter in connection to the transparency of the whole budgetary process. This latter factor includes the ability of voters to access and decode economic and political information which restricts the capability of policy makers to manipulate fiscal variables for electoral purposes.

Based on panel data estimation techniques, and bearing in mind the coincidences mentioned above, we test the hypothesis that the present fiscal problems of Greece, Portugal, and Spain are explained by significantly different behavioral patterns of relevant political and institutional variables in comparison to the other more developed and politically mature founding eurozone member states, including Ireland and Italy.

The paper is organized as follows: section 2 briefly reviews the underlying literature; section 3 describes the model to be tested and the data set used; section 4 presents and discusses the estimated results. Finally, section 5 draws some final conclusions.

2. The Budget as a Political Game

Following the tradition of the public choice literature on the median voter model and on pressure groups (Olson, 1965; Becker, 1983; Meltzer and Richard, 1981; Becker and Mulligan, 1999; Lott and Kenny, 1999), we take as explanatory variables the fraction of the elderly population, and labor union density. According to the arguments by

Meltzer and Richard (1981) regarding the statistical distribution of income,[1] we expect these population groups to favor income redistribution in their favor, vote on political parties that respond positively to their preferences and, in the process, lead to a deterioration of the fiscal budget unless higher enough taxes are levied on other population groups.

This matter is closely related to the so-called partisan approach model first introduced by Hibbs (1977). He stresses the ideological bias of political parties and governments. The central idea is that they serve the ideological and economic preferences of their constituencies. Accordingly, one has to distinguish political parties and the governments they support along a spectrum going from the extreme left to the extreme right. On a permanent and long lasting basis, left wing parties and the governments they support are supposed to favor income redistribution and low unemployment, whereas right wing governments are expected to put greater emphasis on economic efficiency and low inflation. That is, in the first case we would expect higher expenditures than in the later and, consequently, a bias towards fiscal deficits. However, the usefulness of this approach requires political parties whose programmes and practices follow the usual ideological tenets, instead of converging to the center of the political spectrum.

Political fragmentation is a variable much emphasized by a certain brand in the literature (Alesina and Perotti, 1996; Kontopoulos and Perotti, 1999; Hallerberg *et al*., 2007). Political fragmentation comes in

[1] It is positively skewed. Therefore, average income is higher than median income.

two interpretations: a) the legislative, meaning the number of parties forming the government and support in the legislative assembly and, b) the executive, meaning the number of spending ministers. In general, the economic literature assumes that the higher political fragmentation is, the weaker the government. The expected outcomes are higher expenditures, lower revenues, and higher fiscal deficits owing to the government's inability to resist competing groups pressing for budgetary benefits. Under this perspective, the budgetary process truly becomes a common good with asymmetrically distributed benefits and costs among the members of the community. Roubini and Sachs (1989a, b) provide empirical evidence in favor of this hypothesis; however, Edin and Ohlsson (1991) and Haan and Sturm (1994) dispute those finds on several grounds, be they the conceptual inappropriateness of the political cohesion variable used or measurement errors in its construction. In fact, there is abundant historical evidence showing that coalition governments, and even caretaker[2] or non-party governments, are often empowered to provide countries the political strength required to solve the utmost severe problems; therefore they are not necessarily synonymous with weak governments.

On the assumption of downward sloping Phillips curves, Nordhaus (1975) and Lindbeck (1976) were the first to reflect on the economic effects of elections, giving rise to the so-called opportunistic view. According to this view, incumbents try to stimulate economic growth and reduce unemployment in election years at the expense of more inflation, so to boost their probabilities of re-election, hence producing political

[2] Such is the case with the present Greek government led by Mr. Lucas Papademos.

business cycles (PBC). Given that this approach lacked empirical and theoretical support (Alesina and Roubini, 1992), it was later modified by the contributions of various authors among whom Rogoff and Sibert (1988), Rogoff (1990), Persson and Tabellini (1990, 2002), Lohmann (1998), and Shi and Svensson (2006) into what is currently known as political budget cycles. That is, with the same opportunistic goal in sight politicians manipulate the level of fiscal variables directly under their control, like expenditures, revenues and the budget balance, before and eventually after elections. Hence, countries would be face with expansionary fiscal pre-election cycles and contractionary post-election cycles with the later intended to correct for the distortions arising from the former. Manipulation of the composition of revenues and expenditures, rather than their total levels, is another possibility predicted by this literature (Rogoff, 1990). Following this hypothesis, incumbents would prefer to allocate extra funds to visible expenditures in detriment of less visible ones, for instance, more social transfers and other current expenditures, but less investment (Franzese, 2002; Drazen and Eslava, 2005, 2006; Alt and Lassen, 2006a, 2006b).

Lidbom (2003, p.1) aptly summarizes the implications of political budget cycles in the following points: a) spending is raised and taxes are cut in election years; b) in those years spending is higher for incumbents that are re-elected in comparison to those that fail re-election. However, the capability to pursue political fiscal cycles in levels might be constrained by institutional factors imposing some degree of discipline on public finances, like the value of the deficit and of debt as a proportion of GDP, such being the case in the eurozone. The empirical literature on this

hypothesis is rather inconclusive since while some authors find evidence in support of political budget cycles whatever the degree of economic development, others do not (Schneider, 2010, p.128).

The above mentioned more sophisticated approaches are adverse selection and moral hazard-based models focusing on three main elements: a) the signaling of competence by politicians to voters; b) rational expectations formation by voters coupled with incomplete information; c) strategic behavior on the part of both politicians and voters. The assumption of incomplete information relates to voters' and politicians' ignorance of politicians' actual competence levels,[3] as well as to the hidden efforts they undertake. These efforts, leading to lower taxes, higher expenditures and deficits, or to the re-composition of expenditures, are observable by the public only with a delay, and serve to distort voters' perception of politicians' competence favoring their odds of re-election. Therefore, the transparency of the budgetary process is a central element to the theory. The ability of the public to access and understand information on the budget in due time is therefore crucial to reduce the occurrence of political budget cycles, and might be impaired in a variety of ways. The intrinsic opaqueness of the whole set of rules on how budgets are prepared, approved and executed is one such way. Another likely way are all sorts of barriers that the public has to overcome to access existing information; for example, no full access to the media owing to economic, legal or other types of constraints, or then information itself is intentionally distorted. The experience of the public with the workings of a democracy might as well be an important factor

[3] Rogoff (1990) assumes politicians do in fact know their own competence, whereas Shi and Svensson (2002) assume otherwise.

determining the transparency of the whole budgetary process in the sense that the more experienced they are, the more difficult it is for politicians to hide and distort relevant information on the eve of elections (Brender and Drazen, 2003, 2005, 2007). Transparency considerations have thus led the literature to reflect on the impact of recent versus mature democracies on the incidence of political budget cycles, and the hypothesis tested is that in non-mature democracies, like the GPS set, transparency is inherently lower and, therefore, those countries are more exposed to political budget cycles (Gonzalez, 2002). In particular, Brender and Drazen (2003, 2005) conclude that the political budget cycles found by the empirical literature among developed and less developed countries are due to samples that include both mature and non-mature democracies because that is a specific occurrence of new democracies. Akhmedov and Zhuravskaya (2004) also find strong evidence in support of sizable and short-lived[4] political budget cycles in the case of Russia, and confirm the hypothesis that their magnitudes decrease with democracy, transparency, media freedom and voter awareness.[5]

On the other hand Besley and Chase (1995) and Banks and Sundaram (1998) developed agency models that can be extended to

[4] This evidence supports third generation PBC models since sudden and short-lived expansions in the election year financed by government borrowing is more easily hidden from voters that it can be if undertaken in previous years and lasting for relatively long periods.

[5] For these authors the weak evidence on political budget cycles shown by other studies is explained by low frequency data (because pre and post-election cycles with different signs cancel-up in low frequency data). Sizable shifts in spending happen within a month or two of elections. They consider education and urbanization, besides indices of government transparency, media freedom and democracy (Akhmedov and Zhuravskaya, 2004, p.1305).

politicians' behavior and political budget cycles. The assumed politician goal is now the maximization of rent seeking, such that good politicians are less rent-seeking than bad ones. In fact, pre-announced election timetables held at regular time intervals serve to reduce rent-seeking incentives. In contrast to Rogoff (1990)' model, bad politicians induce higher public expenditures than good politicians do. The predictions following from these agency models are (Lidbom, 2003, p.7): a) in election years politicians that raise spending and taxes are not re-elected because voters perceive those actions as increased rent extraction; b) after the election, re-elected politicians look for less rent extraction than newly elected officials since, on average, they are better-off and, as a consequence, spending and taxation are lower in the event of a re-election; c) in case of a re-election, spending and taxation are higher after the election relative to pre-election levels. However, this and the previous approaches are related in the sense that the lower the degree of democracy the higher the level of rent extraction by politicians to generate public support and the lower the level of public goods provision, and vice-versa since then rents become politically more expensive (Hausken *et al*., 2004).

In spite of its intuition, the degree of social inequality is rarely taken into account by the empirical literature dealing with the behavior of fiscal variables. To the best of our knowledge, Woo (2003) and Berg and Sachs (1988) are the few examples available. The theoretical foundations on this functional relationship are not well established (Woo, 2003, p. 402), and yet Woo assumes that higher Gini coefficients lead to higher deficits on the assumption of underlying incentives to populist policies of

income redistribution. Indeed, the sign he expects *a priori* is debatable because high social polarization denotes low-income redistribution, therefore lower taxation and social transfers than would be required to achieve less social polarization. We include this variable in our model, as measured by the Gini coefficient, and expect a negative relationship with fiscal revenues and expenditures whereas the impact upon the budget balance is uncertain *a priori*.

The population's level of education is a variable whose inclusion in this model can be justified on several grounds. Firstly, it can be understood as a proxy for the transparency of the budgetary process; however, since electors from non-mature democracies are by definition less experienced, the inclusion of education with this purpose would be incongruous. In the case of the GPS we can assume that the higher the education of their voters the more they are aware of their lower standards of living in comparison to the older democracies and more developed countries they have become associated with. Accordingly, we expect them to show a strong tendency to emulate those consumption models by means of a fast catching-up process, which puts high pressure on politicians and on public finances. On more stable scenarios the influence played by education might follow quite a different direction. In general, we expect a positive association between people's income and education, the implications being at least two: a) lower tax rates needed for the Government to collect the planned fiscal revenues, thus explaining why some literature refers to developed countries' voters as fiscal conservatives and, for the very same reason, b) lower contributions to social security.

3. Model and Data Set

A panel data approach, controlling for countries' and time fixed effects,[6] is used to estimate the model and the underlying hypothesis. The model subject to testing is written as:

$$F_{i,t} = \alpha_0 + \alpha_i + \omega_t + \beta_1 UD_{i,t} + \beta_2 ELD_{i,t} + \beta_3 GOVP_{i,t} + \beta_4 GOVF_{i,t} + \\ + \beta_5 GINI_{i,t} + \beta_6 SECED_{i,t} + \beta_7 YELEC_{i,t} + \beta_8 PYELC_{i,t} + \gamma \mathbf{X}_{i,t} + \\ + \varepsilon_{i,t} \quad (1)$$

where $F_{i,t}$ is a fiscal dependent variable in country i in year t. The selected dependent variables are total expenditures, social security outlays, total tax revenues and the budget surplus all in proportion to GDP. All these four variables are general government's. Total tax revenues evaluated in this manner turn out to be the effective average tax rate. $UD_{i,t}$ stands for trade union density measured as net union membership as a fraction of wage and salary earners. $ELD_{i,t}$ is the proportion of the country's total population aged at least 65 years old. $GOVP_{i,t}$ captures the ideological composition of the cabinet, and assumes the values (1) for hegemony of right-wing parties, (2) for dominance of right-wing and centre parties, (3) for balance of power between right/centre and left parties, (4) for dominance of social democratic and

[6] Since the data set includes all the countries, it seems to be preferable to employ the fixed effects estimation. Besides, Hausman test (Hausman, 1978) indicates that fixed effects specification is preferable to a random effects model.

other left parties, (5) for hegemony of social democratic and other left wing parties. $GOVF_{i,t}$ stands for the level of legislative fragmentation; it takes (1) for single party majority governments, (2) for minimal winning coalitions, (3) for surplus coalitions, (4) for single party minority governments; (5) for multi party minority governments; (6) for caretaker and non-party governments; (7) other. $GINI_{i,t}$ is the analogous measure of income distribution and social cohesion, taking values in the closed interval [0,1]. $SECED_{i,t}$ is the level of secondary education which increases with the values taken by that variable, measured as the percentage of the population that finished secondary school. To capture the effect of elections on the selected fiscal variables we include an indicator for election year, $YELEC_{i,t}$, computed according to the formula proposed by Franzese (2000):

$$YELEC_{i,t} = \begin{cases} \frac{(M-1)+\frac{d}{D}}{12} & in\ an\ election\ year \\ 0 & in\ all\ other\ years \end{cases} \quad (2)$$

where *M* is the month of the election, *d* is the day of the election, and *D* is the number of days in that month. The value of $YELEC_{i,t}$ increases as the date of the election approaches the end of the year, taking into account the timing of an election. $PYELEC_{i,t} = YELEC_{i,t+1}$ stands for the year immediately following those where elections took place, its rationale being the detection of political budget counter-cycles intended to correct fiscal decisions taken in election years. $\mathbf{X}_{i,t}$ is a vector of control

variables: the unemployment rate $U_{i,t}$,[7] the degree of openness of the economy $OPENC_{i,t}$ and the one period lagged general government stock of debt in proportion of GDP $DEBT_{i,t-1}$. α_i is country i's fixed effect, ω_t is period t's fixed effect, and $\varepsilon_{i,t}$ is a white noise term.

In order to differentiate between mature and recent democracies, this being the cases of Greece, Portugal and Spain (GPS), with respect to testing electoral and post-electoral political budget cycles, the countries' sample was also divided by means of a multiplicative dummy taking the value of one for GPS, and zero for non-GPS. Then, to differentiate the effects in the five states presently in difficulties, we introduce a multiplicative dummy variable, $GPSII_{i,t}$, taking the value of one for Greece, Ireland, Italy, Portugal and Span, and zero for the remaining countries. Finally, we excluded the GPS from the sample and re-estimated the model for the remaining nine member states, with a multiplicative dummy variable, $II_{i,t}$, taking the value of one for Italy and Ireland, and zero for the other countries; our purpose being in this case to test the hypothesis that the performance of these developed and mature democracies did not differ significantly from the other seven member states with those same characteristics.

Except for the fiscal variables, data was collected from Comparative Political Data Set I (Armigeon *et al*., 2010), which is a

[7] The output gap is an alternative to the unemployment rate. However, the unemployment rate is more objective in its quantification, available to the public in general on a monthly basis, well understood by everybody and waited by the markets as a good indicator of the state of the economy. Besides, since it directly affects the well-being of the electors and their opinions on the government, politicians feel obliged to respond to it by means of appropriate discretionary fiscal policies (Fernandes and Mota, 2011).

collection of political, institutional, demographic, social and economic annual data for currently democratic countries covering the period from 1960 to 2008. Data for general government's total expenditures, fiscal revenues, social security transfers and the budget surplus are from OECD Economic Outlook Statistics and Projections.

The model was estimated for the period 1976-2008 (32 years of observations), and just taking into account the 11 founding eurozone member States[8] plus Greece that adopted the Euro in 2001. The choice of the initial year is explained by the fact that by then all those countries had become democracies. Also, the panel is unbalanced due to missing observations.

The summary descriptive statistics by variable and by country are in Table 2. The time evolution of the fiscal variables and its average values by country are displayed in Figures 2-5.

4. The Estimated Results

Tables 3 through 7 report the estimated results. We have first estimated the base line model consisting of the set of the 11 initial eurozone members plus Greece. Then we carried on with our estimates, firstly introducing dummies for the GPS countries, followed by the addition of Italy and Ireland. Finally, we excluded the GPS from the

[8] Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, The Netherlands, Portugal, and Spain.

sample and re-estimated the model for the remaining nine member states, with dummies for Italy and Ireland.

In all cases the model has high explanatory power as shown by the computed adjusted R^2, and provides strong and enlightening results.

Beginning with the results relative to general government expenditures (see Table 3), when we take the base line model we detect no election or post-election year budget cycles; education and the governments' ideology are not statistically significant either, but the coefficients on union density and elderly population are positive and significant, whereas legislative fragmentation and the $GINI$ coefficient are equally significant but negative instead. Except for legislative fragmentation, all signs are as expected. Indeed, legislative fragmentation exerts a tightening effect upon expenditures. In our opinion, the rationale for this latter result is to be found on the strong institutional external constraints subjecting these countries before and after the introduction of the euro arising from both the Maastricht Treaty and the Stability and Growth Pact. This conviction is supported by the mode of its distribution for the period being tested; it bears out that for the most part the preparation and actual management of the new currency regime was not the responsibility of single party majority governments. On the other hand, the estimated coefficients on the control variables unemployment rate and one period lagged debt uncovers anti-cyclical expenditure policies coupled with a slight effort on debt control.

Once we divide the sample between GPS and non-GPS we detect some striking differences of regime. For the GPS set governments' ideology and fragmentation, as well as education and election year budget

cycles all significantly differ from the same variables estimated coefficients for the other nine countries. While government ideology plays a restraining role among the latter, it is just the reverse among the GPS and the mode of the distribution shows that, except for Portugal, there prevailed social democratic and other left parties; in fact, these results confirm the role that the literature has come to expect from ideologies in the management of public expenditures. And now, even though legislative fragmentation continues to have a tightening impact upon the explained variable, it is much weaker than the one applying to non-GPS, just -0.09, that is, it sounds as if among the GPS the external institutional constraints associated with the adoption of the euro were less strictly applied. Compared to non-GPS countries, GPS exhibit a lower level of experience with coalition governments as shown by the mode of the distribution of the variable concerned. Education is not relevant when it comes to non-GPS countries, but it is, and positively so, when it comes to the GPS uncovering an emulation of tastes and preferences on the part of their citizens relative to their more advanced counterparts. Finally, and confirming the outcomes of previous literature on developing and non-mature democracies, there are strong election year budget cycles on the GPS. All considered, for the period, the GPS have experienced significantly tough pressures upon their public expenditures, furthermore revealing behavioral patterns typical of the literature, notwithstanding the particular international circumstances they were facing.

When we add Italy and Ireland to GPS and re-estimate the model, the results we get are unmistakably diverse from the previous ones, clearly distinguishing between these two structurally different sets of

countries. Now, ideology, fragmentation, education, election-year and post-election year budget cycles are not statistically different from those prevailing in the other seven countries. The only different effects are those on union density and the elderly population, both with a restraining impact upon the explained fiscal variable, and the GINI coefficient, which now points to a perceptible effort towards income redistribution. But, contrary to what we would expect from previous work, the estimated coefficients also reveal positive post-election year budget effects, but no cycles,[9] for all countries, including the developed and mature economies of the sample. This outcome is understandable if we bear in mind that political campaigns are also made of promises concerning increasing expenditures to be inscribed in future budgets. And the more elections take place towards the end of the year the more difficult it becomes for incumbents not to translate those promises in their proposed budgets for the following fiscal year. These results are qualitatively confirmed by the regression reported on Table 7 where we have excluded GPS and divided the remaining sample between Italy and Ireland, on one hand, and the other seven developed and democratically mature countries.

The outcomes on social security transfers on GPS exhibit striking differences of regime relative to the rest of the sample (see Table 4). With the exception of union density and fragmentation, all other variables have significantly different estimated coefficients. The impact of the elderly population upon the dependent variable is positive, but unsurprisingly

[9] We distinguish between post-election year budget cycles and effects. For cycles we mean what the literature has come to expect as corrections for cycles undertook in election years, therefore implying estimated negative coefficients for the post-election year variable. For effects, we mean the reinforcement in the future of those election year cycles, as uncovered by estimated positive coefficients.

lower than among non-GPS. Our explanation for this lies on comparatively lower pensions and survival rates for retired citizens prevailing among GPS countries. Government ideology is a positively contributing factor to this type of expenditures, that is, social transfers tend to increase as governments' ideology moves to the left, and vice-versa, precisely what the theory expects; however, it plays no role among non-GPS. Among the latter ideology inspired income redistribution behaves as if it had achieved a stable political equilibrium solution due to a consensus on the subject among the political parties involved.[10] In what concerns education it has a negative influence among non-GPS, but positive among GPS. We rationalize the first of the reported results on the grounds of the positive association between education and personal income. The positive impact of this explanatory variable among GPS might be explained on similar grounds: growth on GDP, which is a variable highly correlated with education, makes it more feasible to increase the level of income redistribution. Indeed, on the part of both Greece and Spain there were significant income redistribution efforts visible in the decrease of the respective GINI coefficients, which were also true for Italy and France but not for Portugal and all the other countries in the sample. Furthermore, we observe election year budget cycles and post-election year positive effects among the GPS, that is, increased social expenditures on election years are reinforced on the following year on account of promises made during the electoral

[10] It is as if in developed and mature democracies ideological polarization had vanished and its place taken by political polarization, that is, non-ideological competition among political parties due to a tendency to move towards the center of the political spectrum. Historical examples illustrate the point we make in the main text, such as, for example: the governments of Mitterrand in France, Blair's in the U.K., and even SPD's in Germany in coalition with the Greens.

campaign. At least for the Portuguese this is no surprise since they are used to the high priority attached by politicians to the vote of senior citizens. And, as Schuknecht (2000, p. 118) points out, some expenditure increases are difficult to reverse once installed. When we add Ireland and Italy, some of the estimated coefficients change significantly, most notably those related to political variables: now the role played by ideologies is no different from the observed among the seven other countries in the sample, and there are no election and post-election year budget effects. The analysis of this explained variable is completed when we look at Table 7 and see that, indeed, the performance of Italy and Ireland is again no different from that of the other seven developed and mature democracies except for union density and elderly population. Now, with respect to the estimated coefficients on the control variables, when we consider the sub-samples, the most important result to retain is the positive estimated coefficient on the one period lagged debt; indeed, it is as if policies undertook to control debt within its agreed limits produced socially negative impacts demanding an increase in social expenditures.

With respect to fiscal revenues as a proportion to GDP (see Table 5), all variables are significantly different among GPS countries in comparison to non-GPS nations, except for post-election year budget cycles. A first result deserving to be emphasized is the non-existence of election year budget cycles among the developed and mature economies in the sample; moreover post-election year cycles, or effects, are absent in all cases. Union density and the Gini coefficient exert a stronger depressing effect upon GPS's fiscal revenues relative to the other

countries; even though elderly population calls for more fiscal revenues, it does so for a value that is roughly half the case in the non-GPS. Besides, among the latter education acts negatively upon the dependent fiscal variable, the opposite being true for the other sub-sample. Government´s ideology is not statistically significant among non-GPS but it is so among the GPS. Once more, ideology plays a significant and classical role in these other countries: here left-wing ideologies are more committed to redistribution through taxation unveiling a strong ideological polarization along traditional lines typical of countries with infant democratic regimes. Among the GPS fragmentation concurs in the same positive direction validating the results already observed with expenditures, that is: coalition governments are not necessarily synonymous with political weakness as claimed by Roubini and Sachs (1989a, 1989b). Lastly, GPS experience election year positive taxation cycles; combining this information with the one relative to total expenditures we observe that election year expenditure cycles are only partially financed through increased taxation, and fiscal illusion, an expression of lack of transparency, does indeed prevail among voters there. Even though cycles of this type run against conventional wisdom they might be explained by three factors: a) under normal circumstances, fiscal measures applying in a particular fiscal year are inscribed in budgets produced and approved in the previous fiscal year which, combined with low levels of transparency, acts to prevent voters to be fully aware of it happening; b) populist electoral campaigns directed at voters with lower than average incomes; c) the higher share of indirect taxation on fiscal revenues. Adding Ireland and Italy to the sub-sample brings out some significant qualitative changes, most notably the loss of statistical significance by elderly population, government fragmentation

and election year budget cycles. Once more, Table 7 unveils that Italy's and Ireland's performance is not statistically different from the other seven developed and mature democracies.

Let's now address the variable budget surplus. The results are reported in Table 6. Some of the tensions uncovered on GPS either on expenditures or on taxes do not show up in the budget surplus, such being the cases with ideology, union density, elderly and education whose estimated coefficients are not statistically different from non-GPS member states. Besides the specific negative impacts upon the budget balance arising from legislative fragmentation and the Gini coefficient, by far the most remarkable and influential results on the GPS are found on the negative and statistically significant estimated coefficients for election year cycles and post-election year effects, all of which are absent among non-GPS. Hence, not only election year budget cycles do prevail as they are reinforced in the following year in a very significant manner, instead of being reversed through post-election cycles. That is, there is no budget consolidation in the year following elections. This is not an outcome difficult to rationalize bearing in mind the promises made during electoral campaigns which winning parties feel compelled to implement for the sake of their own credibility, coupled with the difficulty to reverse expenditures when in the form of entitlements.[11] Therefore, budgetary problems in these countries show a strong and distinct tendency to worsen in a snowball effect. Once more, Table 7 completely differentiates between the cases of GPS, on one hand, and Italy's and Ireland's on the

[11] An example taken for the Portuguese case is the adoption of the so-called *rendimento mínimo de inserção* (minimum social income) introduced in 1996 (Lei n.º 19-A/96) by the new socialist government led by António Guterres.

other. Finally, on what accounts the control variables, countercyclical policies are unveiled in spite of the asymmetrical nature of fiscal policy, and a significant effort to control governments' debt.

5. Conclusions

The empirical tests just reported unveil strong and illuminating facts about GPS's management of critical fiscal variables. The behavior of the institutional, demographic and, most especially, political variables is indeed statistically different from the one exhibited by the other countries. Government ideology has the typical influence expected by the literature along the spectrum from right to left. On the other hand, the attainment of higher education levels by a population long repressed by previous dictatorships in their ability to copy other countries' consumption patterns has pressed for high government expenditures, in opposition to the conservative fiscal preferences exhibited by the more developed and mature countries. Besides, and contrary to the point of view expressed by Roubini and Sachs (1989 a, b), our results prove that legislative fragmentation is not necessarily synonymous with weak governments; indeed, circumstances classifiable as national emergencies may lead to the formation of coalitions, and even of caretaker governments in order to accomplish such vital national goals. Even though some of the tensions subjecting GPS expenditures are compensated on the revenue side, as it is the case with the influence

played by the governments' ideology, the same is not true with the role played by legislative fragmentation, the GINI coefficient and, most importantly, with electoral year budget cycles and post-election year effects. These latter effects are strong and cumulative, and quite distinct from non-GPS since they are non-existent there. Accordingly, these tests confirm some predictions from the economic literature, especially that budget cycles are specific to non-mature democracies and developing countries. An additional aspect deserving attention lies in the fact that election year budget cycles are stronger on the expenditure side than on taxation's.

In view of the information we are able to obtain by means of these tests, it is only reasonable to say that their present crisis was not an absolute surprise. Additionally, in spite of their present difficulties, Italy and Ireland are undoubtedly in the group of the developed and mature democracies, rather than in the GPS group thus lending empirical support to the idea that their problems have entirely different causes, thus requiring different solutions and time horizons for them to be fruitful.

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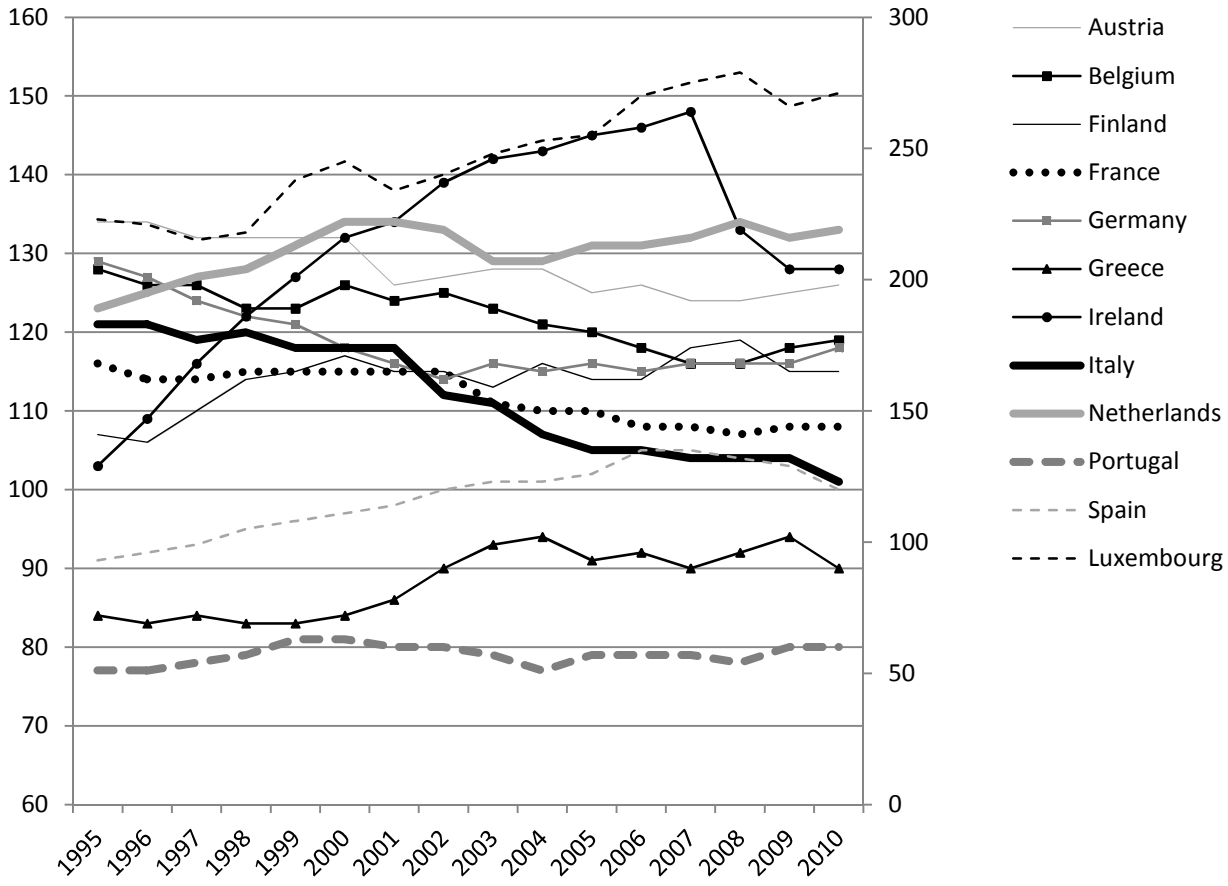
Figure 1: *GDP per capita in PPS*

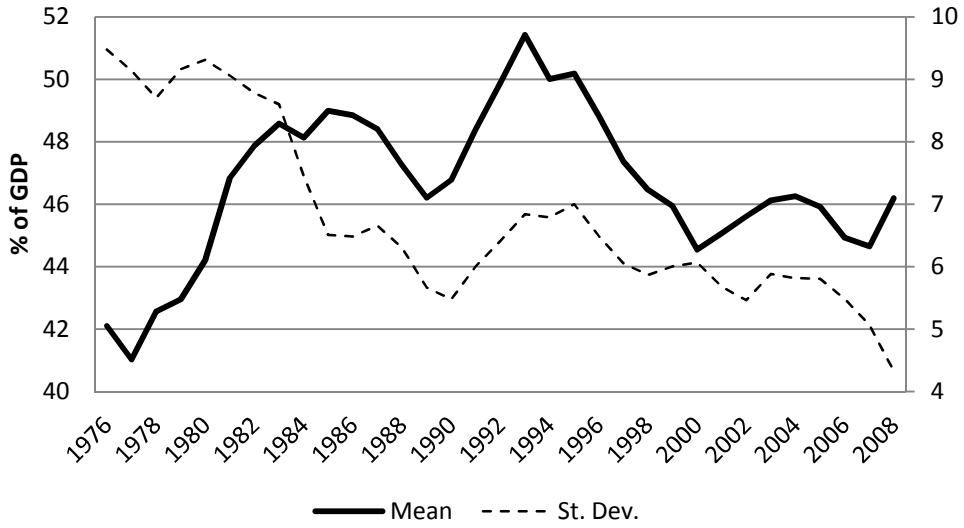


Left axis: Remaining eleven countries
Right axis: Luxembourg

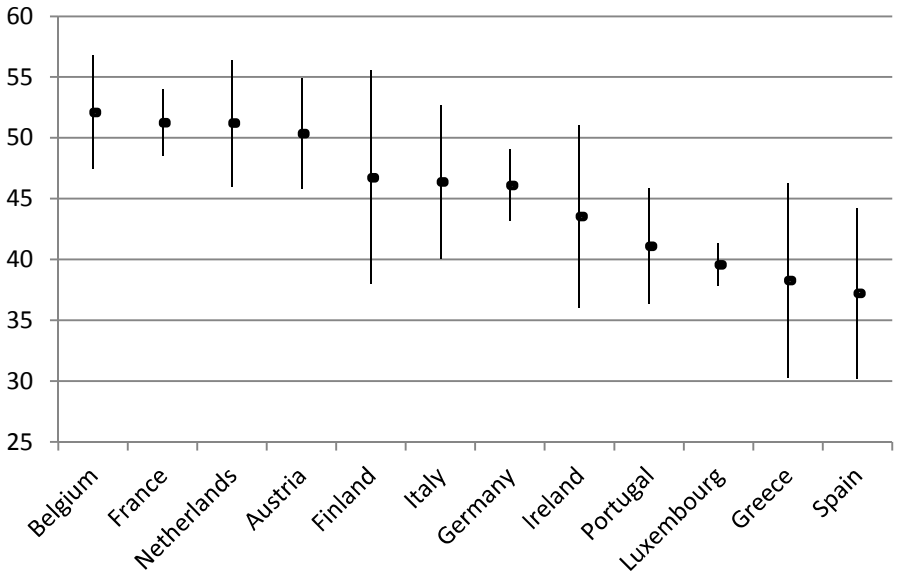
Source: Eurostat:
http://epp.eurostat.ec.europa.eu/tgm/printTable.do?tab=table&plugin=1&language=en&pcode=tec00114&printPreview=true

Figure 2: *General Government Expenditures*

a)



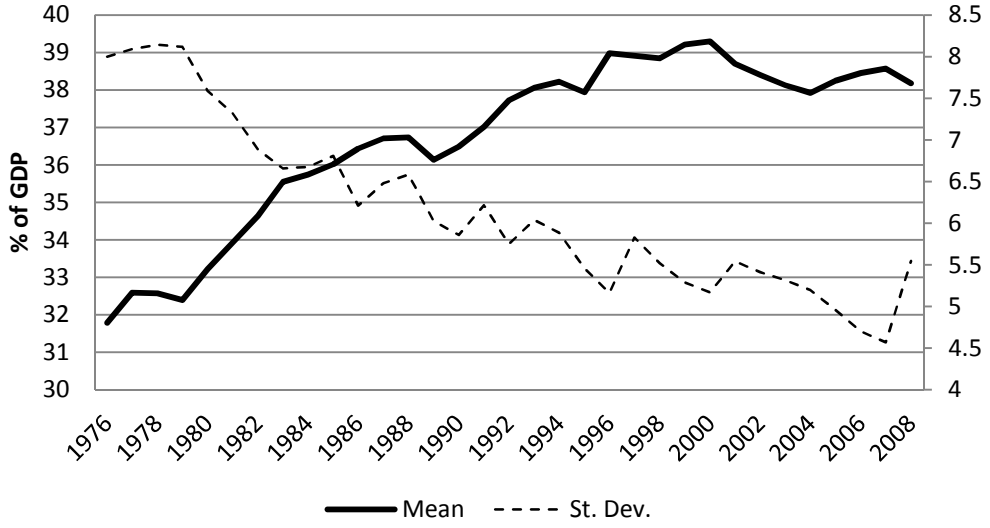
b)



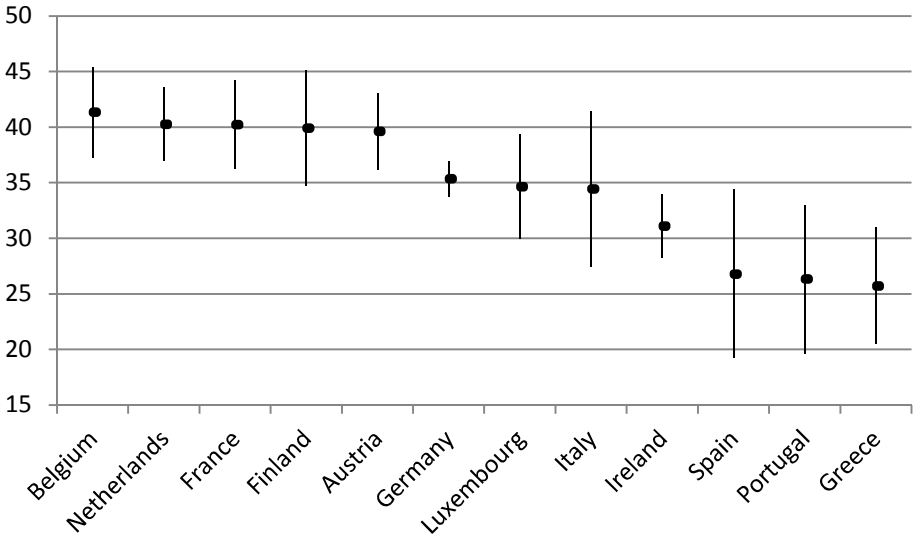
The dots represent the average general government expenditures in the period 1976-2008, and the bars the standard deviation.

Figure 3: *General Government Tax Revenues*

a)



b)



The dots represent the average general government tax revenues in the period 1976-2008, and the bars the standard deviation.

Figure 4: *General Government Social Transfers*

a)

b)

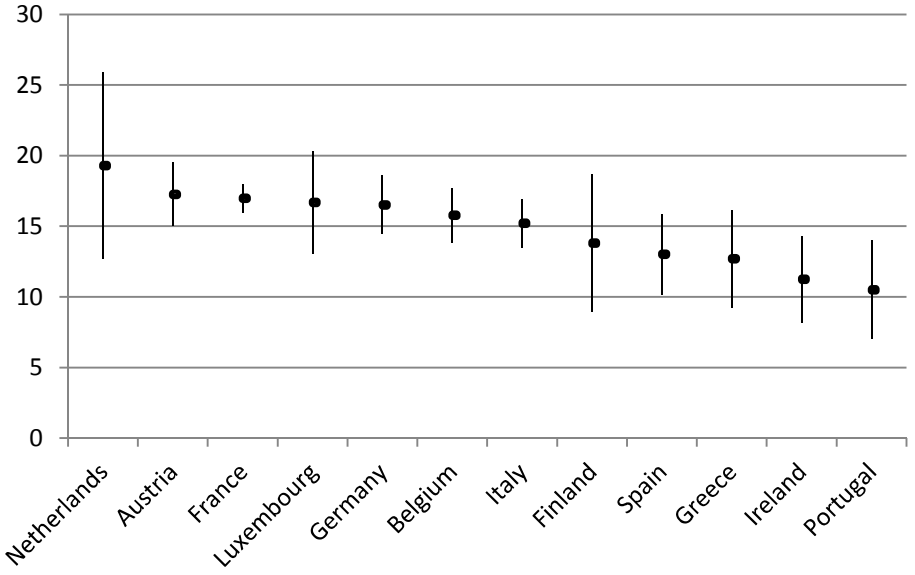
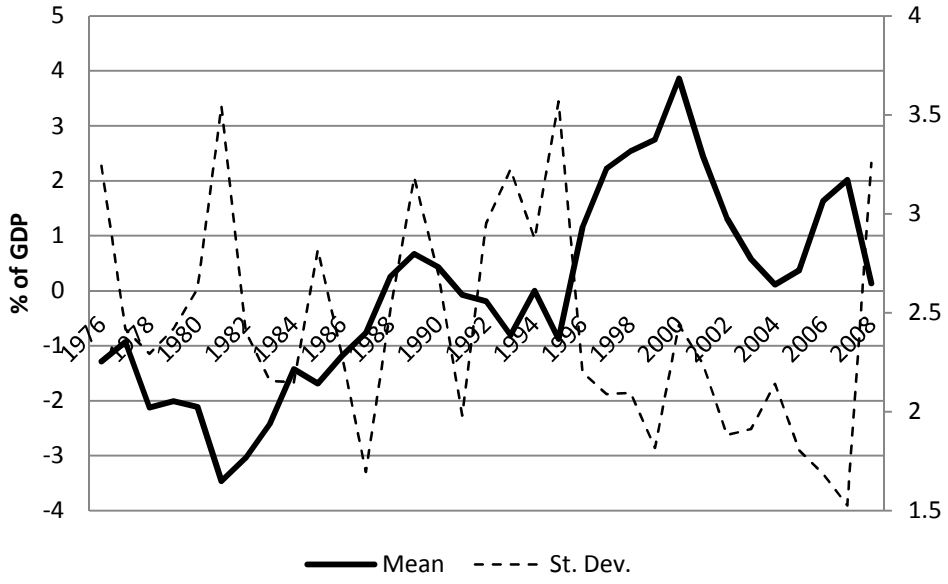


Figure 5: *General Government Surplus*

a)



b)

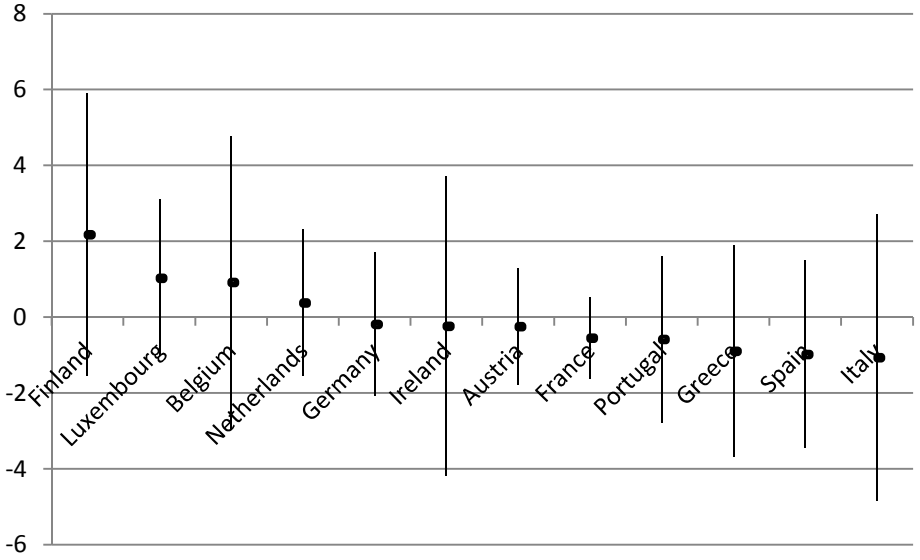


Table 1: *GDP per capita in PPS*

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average 1995-2010	Variation 1995-2010
Austria	134	134	132	132	132	132	126	127	128	128	125	126	124	124	125	126	128.4	-6.0%
Belgium	128	126	126	123	123	126	124	125	123	121	120	118	116	116	118	119	122.0	-7.0%
Finland	107	106	110	114	115	117	115	115	113	116	114	114	118	119	115	115	113.9	7.5%
France	116	114	114	115	115	115	115	115	111	110	110	108	108	107	108	108	111.8	-6.9%
Germany	129	127	124	122	121	118	116	114	116	115	116	115	116	116	116	118	118.7	-8.5%
Greece	84	83	84	83	83	84	86	90	93	94	91	92	90	92	94	90	88.3	7.1%
Ireland	103	109	116	122	127	132	134	139	142	143	145	146	148	133	128	128	130.9	24.3%
Italy	121	121	119	120	118	118	118	112	111	107	105	105	104	104	104	101	111.8	-16.5%
Luxembourg	223	221	215	218	238	245	234	240	248	253	255	270	275	279	266	271	246.9	21.5%
Netherlands	123	125	127	128	131	134	134	133	129	129	131	131	132	134	132	133	130.4	8.1%
Portugal	77	77	78	79	81	81	80	80	79	77	79	79	79	78	80	80	79.0	3.9%
Spain	91	92	93	95	96	97	98	100	101	101	102	105	105	104	103	100	98.9	9.9%
EU (27 countries)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	

Source: Eurostat: http://epp.eurostat.ec.europa.eu/tgm/printTable.do?tab=table&plugin=1&language=en&pcode=tec00114&printPreview=true

Table 2: *Summary Statistics of the Fiscal Dependent Variables*

		A	B	Fi	Fr	G	Gr	Ir	It	L	N	P	S
General Government Expenditures	Mean	50.4	52.1	46.7	51.3	46.1	38.3	43.6	46.4	39.6	51.2	41.1	37.2
	Std Dev	4.5	4.7	8.8	2.7	2.9	8.0	7.5	6.3	1.7	5.2	4.7	7.0
	Variation 1976-2008	4.1%	-0.7%	23%	18.9	-9.6	75.6%	-13.0%	27.3%	-0.1%	-11.4%	54.1%	50.5%
General Government Tax Revenues	Mean	39.6	41.3	39.9	40.2	25.3	25.7	31.1	34.4	34.7	40.3	26.3	25.8
	Std Dev	3.4	4.1	5.2	4.0	1.6	5.2	2.8	7.0	4.7	3.3	6.7	7.6
	Variation 1976-2008	17.5%	11.6%	6.8%	15.8%	3.3%	48.3%	-11.4%	64.1%	16.2%	-7.6%	70.3%	79.1%
General Government Social Transfers	Mean	17.3	12.8	13.8	17.0	16.5	12.7	11.3	15.2	16.7	19.3	10.5	13.0
	Std Dev	2.3	1.9	4.9	1.0	20.1	3.4	3.1	1.7	3.6	6.6	3.5	2.9
	Variation 1976-2008	14.9%	0.6%	32.4%	1.2%	-2.9%	59.5%	-3.3%	11.8%	-51.0%	-124%	25.7%	10.5
General Government Surplus	Mean	-0.2	0.9	2.2	-0.5	-0.2	-0.9	-0.2	-1.1	1.0	0.4	-0.6	-1.0
	Std Dev	1.5	3.9	3.7	1.1	1.9	2.8	4.0	3.9	2.1	1.9	2.2	2.5
	Variation 1976-2008	151.4%	169.7%	-45.4%	-142%	-207%	711.9%	-109.9	142.1%	161.1%	404.2%	114.3%	-195.1
$UDENSITY_{i,t}$	Mean	49.9	50.9	67.4	14.3	30.7	32.9	53.8	39.1	45.8	29.5	34.0	16.1
	Std Dev	10.6	4.6	11.4	5.6	4.8	6.0	9.0	6.8	3.2	6.4	16.9	8.3
	Variation 1976-2008	-45.9%	-0.6%	6.9%	-62.6%	-42.9%	-35.8%	-44.5%	-33.3%	-15.3%	43.0%	70.2%	67.6%
$ELDERLY_{i,t}$	Mean	15.0	14.9	12.6	14.3	15.6	13.9	11.1	14.7	13.4	12.2	13.7	13.0
	Std Dev	0.8	1.5	2.5	1.4	2.1	2.6	0.2	3.1	0.7	1.5	2.9	2.8
	Variation 1976-2008	14.7%	22.9%	52.3%	22.8%	39.5%	49.2%	0.9%	69.2%	6.1%	36.7%	52.6%	53.7%
$GOVP_{i,t}$	Mode	3	3	3	1	1	5	1	3	3	1	1	5
$GOVF_{i,t}$	Mode	2	2	3	3	2	1	2	3	2	2	1	4
$GINI_{i,t}$	Mean	42.9	35.7	42.9	42.7	46.5	44.9	44.4	45.5	36.5	41.1	53.0	39.8
	Std Dev	4.2	6.9	5.7	4.5	4.6	3.6	3.0	3.7	4.4	2.3	4.3	4.3
	Variation 1976-2008	13.7%	13.2%	23.2%	-4.9%	21.9%	-9.9%	16.3%	-7.0%	12.3%	7.3%	24.1%	-19.5%
$SECED_{i,t}$	Mean	31.1	23.9	17.1	19.4	21.9	25.1	25.3	18.8	22.7	28.8	7.7	13.3
	Std Dev	7.7	7.8	5.7	12.1	15.1	3.0	40.5	8.5	5.7	10.4	3.8	5.9
	Variation 1976-2008	64.2%	87.0%	5.3%	376.9%	506.7%	87.5%	48.0%	195.0%	80.4%	65.6%	218.4%	178.5%
$DEBT_{i,t}$	Mean	50.8	100.0	34.5	48.3	43.5	60.9	69.2	92.9	8.8	70.5	68.3	57.6
	Std Dev	19.4	28.1	20.1	17.1	17.3	40.3	25.9	28.0	2.7	13.7	4.2	11.0
	Variation 1976-2008	152.4&	64.0&	411.3%	158.5%	176.4%	448.9%	-23.7%	39.3%	203.7%	27.5%	9.2%	-3.5%
$U_{i,t}$	Mean	4.2	7.7	6.9	9.0	8.3	8.7	10.5	9.1	3.0	5.4	6.4	13.2
	Std Dev	0.5	2.3	4.0	1.7	1.5	1.7	5.1	1.5	1.0	2.0	1.6	3.2
	Variation 1976-2008	-5.0%	-2.8%	42.2%	59.2%	73.8%	10.0%	-54.7%	-9.5%	44.1%	69.6%	-6.1%	90.0%
$OPENC_{i,t}$	Mean	71.7	128.3	57.9	42.6	51.0	44.4	114.0	41.7	201.9	107.3	58.2	37.7
	Std Dev	15.5	25.0	10.4	8.5	13.7	10.0	33.0	8.0	43.6	16.0	9.39	13.3
	Variation 1976-2008	73.6%	59.2%	67.2%	40.1%	111.7%	40.7%	62.7%	36.8%	83.1%	47.4%	82.1%	96.8%

A-Austria; B-Belgium; Fi-Finland; Fr-France; G-Germany; Gr-Greece; Ir-Ireland; It-Italy; L-Luxembourg; N-Netherlands; P-Portugal; S-Spain

Table 3: *Estimation Results – Fiscal Dependent Variable: General Government Expenditures*

	(I) Baseline		(II) GPS Countries		(V) GPS plus Ireland and Italy		
Variables	Coefficient	t-Statistic	Coefficient	t-Statistic	Variables	Coefficient	t-Statistic
α_0	41.64***	5.30	41.05***	4.66	α_0	28.84***	3.96
U	1.30***	11.31	1.34***	13.35	U	1.18***	11.16
$DEBT_{t-1}$	-0.04*	-1.82	-0.04*	-1.81	$DEBT_{t-1}$	-0.03	-1.37
$OPENC$	-0.07**	-2.48	-0.06**	-2.12	$OPENC$	-0.07**	-2.30
UD	0.14**	2.41	0.10	1.27	UD	0.32***	5.74
ELD	0.69**	2.09	0.90***	2.65	ELD	1.52***	3.17
$GOVP$	-0.23	-1.52	-0.36**	-2.39	$GOVP$	-0.40**	-2.50
$GOVF$	-0.87***	-3.50	-1.31***	-3.79	$GOVF$	-1.22***	-3.71
$GINI$	-0.22***	-7.00	-0.22***	-6.95	$GINI$	-0.24***	-5.88
$SECED$	-0.02	-0.46	-0.04	-0.78	$SECED$	0.05	1.44
$YELEC$	-0.08	-0.21	-0.16	-0.39	$YELEC$	0.18	0.52
$PYELC$	0.42	1.03	0.37	0.78	$PYELC$	0.70**	1.97
$UD * GPS$			-0.25	-1.09	$UD * GPSII$	-0.36***	-4.85
$ELD * GPS$			-0.13	-0.28	$ELD * GPSII$	-1.50***	-4.45
$GOVP * GPS$			0.66***	3.31	$GOVP * GPSII$	0.46	1.50
$GOVF * GPS$			1.22***	2.84	$GOVF * GPSII$	0.47	1.28
$GINI * GPS$			-0.17	-1.15	$GINI * GPSII$	0.28*	1.68
$SECED * GPS$			0.61**	2.09	$SECED * GPSII$	0.14	1.24
$YELEC * GPS$			3.17***	3.29	$YELEC * GPSII$	-0.70	-0.82
$PYELC * GPS$			1.03	1.04	$PYELC * GPSII$	-0.63	-0.50
OBS/Countries	230 / 12		230 / 12		230 / 12		
Time/country Fixed Effects	Yes / Yes		Yes/Yes		Yes/Yes		
Adjusted R Squared	0.87		0.87		0.91		
DW	0.55		0.62		0.60		
F Statistic	29.42		26.38		28.44		

***, **, and * indicate significance at 1, 5 and 10 percent respectively.
[+]t-statistics based on White cross-section consistent standard errors

Table 4: *Estimation Results – Fiscal Dependent Variable: General Government Social Transfers*

	(I) Baseline		(II) GPS Countries		(III) GPS plus Ireland and Italy		
Variables	Coefficient	t-Statistic	Coefficient	t-Statistic	Variables	Coefficient	t-Statistic
α_0	6.38	0.89	7.59	1.01	α_0	-8.14	-1.65
U	0.71***	9.02	0.71***	12.35	U	0.76***	11.09
$DEBT_{t-1}$	0.02	1.59	0.03**	2.46	$DEBT_{t-1}$	0.05***	3.79
$OPENC$	0.01	0.60	0.02	0.76	$OPENC$	-0.02	-1.11
UD	-0.14***	-2.96	-0.21***	-3.05	UD	0.24**	2.30
ELD	1.23***	3.63	1.62***	3.76	ELD	1.80***	3.45
$GOVP$	-0.02	-0.27	-0.14	-1.45	$GOVP$	-0.07	-0.47
$GOVF$	-0.57***	-2.96	-0.72***	-2.62	$GOVF$	-0.27	-0.86
$GINI$	-0.13***	-5.01	-0.14***	-5.02	$GINI$	0.02	0.44
$SECED$	-0.13***	-4.12	-0.20***	-5.08	$SECED$	0.02	0.45
$YELEC$	-0.07	-0.15	-0.18	-0.34	$YELEC$	0.10	0.26
$PYELC$	-0.01	-0.03	-0.14	-0.30	$PYELC$	0.08	0.23
$UD * GPS$			-0.18	-1.02	$UD * GPSII$	-0.71***	-8.21
$ELD * GPS$			-1.10**	-2.50	$ELD * GPSII$	-1.85***	-4.36
$GOVP * GPS$			0.55***	3.65	$GOVP * GPSII$	0.31	1.27
$GOVF * GPS$			0.49	1.41	$GOVF * GPSII$	-0.02	-0.05
$GINI * GPS$			-0.19**	-2.03	$GINI * GPSII$	-0.30***	-2.67
$SECED * GPS$			0.63**	2.31	$SECED * GPSII$	0.50***	4.81
$YELEC * GPS$			2.01*	1.67	$YELEC * GPSII$	0.14	0.21
$PYELC * GPS$			2.15**	2.17	$PYELC * GPSII$	0.45	0.59
OBS/Countries	230 – 12		230 - 12		230 – 12		
Time/country Fixed Effects	Yes / Yes		Yes / Yes		Yes / Yes		
Adjusted R Squared	0.64		0.65		0.77		
DW	0.25		0.30		0.40		
F Statistic	8.81		8.05		13.89		

***, **, and * indicate significance at 1, 5 and 10 percent respectively.
[+]t-statistics based on White cross-section consistent standard errors.

Table 5: *Estimation Results – Fiscal Dependent Variable: General Government Tax Revenues*

	(I) Baseline		(II) GPS Countries		(III) GPS plus Ireland and Italy		
Variables	Coefficient	t-Statistic	Coefficient	t-Statistic	Variables	Coefficient	t-Statistic
α_0	35.21***	9.85	35.12***	10.20	α_0	33.64***	9.47
U	0.29***	3.60	0.36***	5.01	U	0.36***	4.88
$DEBT_{t-1}$	0.03**	2.37	0.03**	2.30	$DEBT_{t-1}$	0.03**	2.49
$OPENC$	-0.03**	-2.16	-0.03*	-1.82	$OPENC$	-0.04**	-2.31
UD	-0.03	-0.77	-0.10**	-2.26	UD	0.14*	1.94
ELD	1.01***	4.17	1.23***	4.78	ELD	0.20	0.61
$GOVP$	-0.02	-0.16	-0.12	-1.44	$GOVP$	-0.05	-0.65
$GOVF$	-0.16	-1.30	-0.26*	-1.62	$GOVF$	-0.04	-0.17
$GINI$	-0.10***	-4.01	-0.08***	-3.22	$GINI$	0.002	0.08
$SECED$	-0.16***	-5.88	-0.19***	-6.48	$SECED$	-0.07*	-1.76
$YELEC$	-0.41	-1.51	-0.42	-1.49	$YELEC$	-0.24	-0.87
$PYELC$	-0.01	-0.04	-0.02	-0.04	$PYELC$	0.01	0.04
$UD * GPS$			-0.33***	-2.75	$UD * GPSII$	-0.15*	-1.94
$ELD * GPS$			-0.54*	-1.73	$ELD * GPSII$	0.36	1.44
$GOVP * GPS$			0.55***	4.60	$GOVP * GPSII$	0.38**	2.30
$GOVF * GPS$			0.49*	1.91	$GOVF * GPSII$	-0.10	-0.37
$GINI * GPS$			-0.43***	-5.09	$GINI * GPSII$	-0.18**	-2.14
$SECED * GPS$			0.98***	5.36	$SECED * GPSII$	0.28***	3.32
$YELEC * GPS$			1.99***	2.79	$YELEC * GPSII$	-0.27	-0.50
$PYELC * GPS$			0.58	0.80	$PYELC * GPSII$	-0.07	-0.12
OBS/Countries	230 – 12		230 – 12		230 / 12		
Time/country Fixed Effects	Yes / Yes		Yes / Yes		Yes / Yes		
Adjusted R Squared	0.89		0.90		0.91		
DW	0.49		0.60		0.59		
F Statistic	36.34		35.42		38.38		

***, **, and * indicate significance at 1, 5 and 10 percent respectively.
[+]t-statistics based on White cross-section consistent standard errors.

Table 6: *Estimation Results – Fiscal Dependent Variable: General Government Surplus*

	(I) Baseline		(II) GPS Countries		(III) GPS plus Ireland and Italy		
Variables	Coefficient	t-Statistic	Coefficient	t-Statistic	Variables	Coefficient	t-Statistic
α_0	6.29	1.18	7.91	1.33	α_0	12.52**	2.19
U	-0.76***	-9.68	-0.76***	-8.29	U	-0.73***	-7.84
$DEBT_{t-1}$	0.12***	6.96	0.12***	6.70	$DEBT_{t-1}$	0.12***	6.38
$OPENC$	0.02	1.21	0.02	0.97	$OPENC$	0.03*	1.68
UD	-0.10*	-1.71	-0.14**	-2.00	UD	-0.21***	-2.65
ELD	-0.5	-1.27	-0.27	-0.87	ELD	-0.96***	-3.63
$GOVP$	0.30***	2.63	0.28***	2.77	$GOVP$	0.24**	2.07
$GOVF$	0.56***	3.29	0.85***	3.57	$GOVF$	1.06***	3.07
$GINI$	0.15***	4.63	0.18***	6.30	$GINI$	0.17***	5.18
$SECED$	-0.05	-1.19	-0.08	-1.54	$SECED$	-0.10**	-1.89
$YELEC$	-0.09	-0.34	-0.01	-0.05	$YELEC$	-0.16	-0.62
$PYELC$	-0.29	-0.89	-0.14	-0.43	$PYELC$	-0.40	-1.49
$UD * GPS$			0.15	0.77	$UD * GPSII$	0.27**	2.43
$ELD * GPS$			-0.69	-1.09	$ELD * GPSII$	0.65*	1.86
$GOVP * GPS$			-0.09	-0.39	$GOVP * GPSII$	0.23	0.76
$GOVF * GPS$			-0.55**	-2.02	$GOVF * GPSII$	-0.67*	-1.67
$GINI * GPS$			-0.28**	-1.98	$GINI * GPSII$	-0.14	-0.98
$SECED * GPS$			0.14	0.50	$SECED * GPSII$	0.19	1.11
$YELEC * GPS$			-1.74***	-2.64	$YELEC * GPSII$	0.15	0.16
$PYELC * GPS$			-2.15***	-3.34	$PYELC * GPSII$	0.09	0.11
OBS/Countries	230 – 12		230 - 12		230 - 12		
Time/country Fixed Effects	Yes / Yes		Yes / Yes		Yes / Yes		
Adjusted R Squared	0.64		0.65		0.67		
DW	0.83		0.92		0.91		
F Statistic	8.52		8.02		8.46		

***, **, and * indicate significance at 1, 5 and 10 percent respectively.
[+]t-statistics based on White cross-section consistent standard errors.

Table 7: *Estimates for Ireland and Italy in the Context of the Nine Developed and Mature Democracies Eurozone Founding Countries*

	(I) Expenditures		(II) Tax Revenues		(III) Social Transfers		(IV) Surplus	
Variables	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
α_0	22.36***	2.68	28.80***	6.74	-12.97*	-1.94	10.73*	1.70
U	1.32***	12.63	0.41***	4.95	0.86***	11.88	-0.82***	-8.30
$DEBT_{t-1}$	-0.04	-1.53	0.03**	2.03	0.04***	3.37	0.12***	6.44
$OPENC$	-0.04	-1.16	-0.02	-0.85	-0.01	-0.53	0.03	1.39
UD	0.19***	3.05	0.07	0.86	0.18	1.55	-0.14*	-1.67
ELD	2.21***	4.13	0.68*	1.84	2.09***	3.21	-1.07***	-3.28
$GOVP$	-0.49***	-2.98	-0.12	-1.48	-0.11	-0.78	0.25**	2.07
$GOVF$	-1.15***	-3.56	0.02	0.06	-0.25	-0.80	0.99***	2.91
$GINI$	-0.28***	-6.47	-0.03	-1.10	0.01	0.21	0.18***	4.79
$SECED$	-0.01	-0.15	-0.10**	-2.14	0.00	0.01	-0.07	-1.26
$YELEC$	0.20	0.53	-0.22	-0.76	0.09	0.24	-0.13	-0.49
$PYELC$	0.68**	1.98	0.04	0.11	0.07	0.22	-0.37	-1.38
$UD * II$	-0.34**	-2.35	-0.12	-0.92	-0.73***	-6.78	0.12	0.62
$ELD * II$	-4.00**	-2.32	-1.33	-1.21	-2.57*	-1.85	1.50	1.03
$GOVP * II$	0.43	0.57	0.44	1.31	0.33	0.68	0.14	0.30
$GOVF * II$	-0.06	-0.13	-0.31	-1.17	-0.28	-0.76	-0.39	-0.88
$GINI * II$	0.72***	3.01	0.15	1.02	-0.23	-1.14	0.12	0.67
$SECED * II$	0.85	1.20	0.77	1.62	0.68	1.37	-0.24	-0.37
$YELEC * II$	-0.68	-0.69	0.01	0.02	-0.10	-0.12	0.88	0.90
$PYELC * II$	-0.39	-0.29	0.19	0.35	0.44	0.54	0.73	0.70
OBS/Countries	204 - 9		204 - 9		204 - 99		204 -9	
Time/country Fixed Effects	Yes / Yes		Yes / Yes		Yes / Yes		Yes / Yes	
Adjusted R Squared	0.88		0.89		0.77		0.69	
DW	0.74		0.70		0.40		1.03	
F Statistic	27.55		29.65		12.71		8.88	

***, **, and * indicate significance at 1, 5 and 10 percent respectively.
[+]t-statistics based on White cross-section consistent standard errors.

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