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WHO HONOR THE RULES OF FEDERALISM?

PARTY SYSTEM NATIONALIZATION AND FISCAL PERFORMANCE

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Abstract

This paper explores the impact of decentralization on countries' fiscal outcomes paying attention to one aspect usually neglected in the literature: the relevance of self-interested local politics. Relevance that can be proxied by the nationalization of political party systems, namely the extent to which parties compete nationally oriented. Based on a sample of developed and developing countries over the period 1970-2011, our findings are twofold. First, fiscal decentralization has a positive effect on general governments' primary balance. Second, primary balance is negatively affected by the nationalization of party systems only when the latter is extremely weak.

Keywords: *Government primary balance, Fiscal decentralization, Regional authority, Party system nationalization*

JEL Classification: H62, H74, H77

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1. Introduction

Decentralization is one of the most relevant institutional reforms that have taken place during the last decades. 20th century has labeled as an “era of regionalization” (Hooghe et al, 2010: 52) and the spread of federalism around the world has been intense over the last 50 years (Stein, 1999; Rodden, 2006). This trend has justified the interest of scholars in different dimensions of decentralization such as the nature and the effects of intergovernmental competition, government accountability, political stability, public sector performance and multi-level fiscal management (see Faguet, 2014 for a summary).

Probably one of the most controversial issue is the impact of decentralization on a country’s fiscal stance. In general, the literature presents contradictory arguments and mixed empirical evidence at best. For instance, despite recent research has stressed that fiscal and political decentralization encourages a better economic management and higher fiscal discipline (Shah, 2006; Baskaran, 2010; Neyapti, 2010; Oto-Peralías et al. 2013; Presbitero et al., 2014), there are many scholars arguing exactly the opposite effect (De Mello, 2000; Rodden, 2002; Darby et al., 2005). In any case, both approaches tend to stress that the mechanism driving the relationship between decentralization and fiscal discipline are the political incentives created in a multi-level government structure.

This *leitmotiv* is especially relevant for those scholars outlining the negative impact of decentralization. In particular, they refer to the attrition of fiscal performance that takes place when local elites have no incentives to “honor the rules of federalism” (Weingast, 2009). When there are fissiparous forces that control regional governments, there are more incentives to freeriding and common pool problems are likely to appear (Riker, 1964). Moreover, those strong local leaders, who rule in a context of soft budget constraints, have tendency to overspending (Goodspeed, 2002) and give rise to inefficiencies with inter-jurisdictional coordination problems (De Mello, 1999). Thus, decentralization could erode country’s fiscal sustainability through the prevalence of self-interested local politics. However, previous research has no directly addressed ~~it~~ this issue. This paper tries to fill the gap.

In particular, we investigate the conditional role played by territorial politics, namely the nationalization of party systems, on this decentralization-discipline relation. The nationalization is a process of linkage through which “politicians seeking election to the national legislature from different districts (…) run under a common party label” (Cox, 1997: 186). In a perfectly nationalized party system, each local party system is a “clone” of the others and all of them are a mirror of the national-level party system. Conversely, in an extreme de-nationalized party system each constituency presents its own set of parties and they are transferred to the national level without merging in formations going beyond their constituencies.

According to the mechanisms presented by scholars skeptical with the effects of decentralization on fiscal stability (De Mello, 2000; Rodden, 2002; Darby et al., 2005), it should be expected that weakly nationalized party systems endangers fiscal performance. Where local and regional leaders dominate they cannot be forced to allow for institutional changes that comprise their powers and avoid common pool problems and free rider behaviors in terms of fiscal discipline. Thus, it can be expected that decentralization will entail poor fiscal performance when party systems are not well nationalized.

In order to empirically test this hypothesis we rely upon a wide sample of both developed and developing countries over the period 1970-2011, by using different measures of party systems nationalization and decentralization as well. The results are twofold. First, and in line with previous research, fiscal decentralization has a direct and positive effect on fiscal performance, improving the general government primary balance-to-GDP ratio (Shah, 2006; Neyapti, 2010; Presbitero et al., 2014). Second, we show that this impact is affected by nationalization of party systems just when it is extremely low. For those countries, primary balance tends to be lower.

The paper is organized as follows. In Section 2 we present the theoretical arguments on the role played by decentralization and party system nationalization on country's fiscal targets and we discuss some empirical evidence as well. In Section 3 we describe data and methodology, while in Section 4 we show and discuss the empirical results. Finally, in Section 5 we conclude and provide some policy recommendations.

2. Theoretical arguments and empirical evidence

Arguments dealing with the impact of decentralization on country's fiscal stance have tended to be disconnected from the literature on party systems. This paper makes an effort in reconciling both theories bridging them together. In our approach we want to stress that the political incentives underlying the relation between decentralization and fiscal performance can be uncovered by the extent to which a party system is nationalized.

2.1. Fiscal performance and decentralization

The effect of fiscal decentralization on a country's fiscal targets is one of the most prolific and controversial fields of research. One strand of the literature in fiscal federalism argues that decentralization worsens fiscal performance due to "soft budget constraints" issues, which incentivize the overspending and over-borrowing by sub-national governments (Goodspeed, 2002). The idea is that local authorities provide public goods and services to residents by borrowing or taxing their constituents, while the federal/central government needs to be sure that this process does not endanger its electoral prospects, which depends on the net-consumption by its constituency. One strategy to increase this consumption without taxing is by granting bailout transfers, which foster the probability of federal/central incumbent´s reelection, but it also leads to highly inefficient levels of sub-national borrowing (Baskaran, 2010).[1]

The second argument concerns how decentralization contributes to fiscal imbalances when vertical grants are at work driving to common pool problems (Pisauro, 2001). When sub-

[1] More precisely, he investigates the impact of fiscal decentralization on public debt for a panel of 17 OECD countries over the 1975–2001 period.

national governments´ financing depends on intergovernmental transfers allocated by the national government, local authorities will have incentives to be seen as lack of financing. Therefore, sub-national jurisdictions will run higher deficits to prove that they are under-funded and they require more financing from the central government (Weingast et al., 1981). Partially related, intergovernmental grants can be used to mobilize electoral strongholds or affect close electoral contests, but it can drive to an efficiency loss (Simón-Cosano et al., 2014). Thus, the combination of soft budget constraints with the dependence on intergovernmental transfers can encourage irresponsible fiscal behaviors and management (Weingast, 2009).

The third argument deals with how inter-jurisdictional competition can generate a "race to the bottom". Sub-national governments would have incentives to reduce taxes and de-regulate economic activities to attract business and mobile tax base, so eroding revenue sources each other and leading to overall fiscal imbalances (Oto-Perialías et al, 2013). Fourthly, it has been argued that multi-tier government structures are more likely to duplicate functions and waste resources. The inadequate size of regional governments can lead to an inefficient provision of public goods and services, especially when economies of scale are instead required but they cannot be properly exploited (Rodríguez-Pose and Ezcurra, 2011).

The fifth argument is related to the presence of veto players that make coordination more difficult because decentralization leads to more technical and organizational difficulties. If there are several independent governments that may spend and tax at their own discretion, a concerted and shared fiscal policy could be impossible to maintain, so leading to more public deficits at all tiers of government (De Mello, 1999). Finally, it has been argued that the potential lower skills of sub-national politicians make them more prone to be captured by local interest groups in relevant matters such as taxation and expose them to malfeasance (Prud´homme, 1995).

Despite all those arguments, there are also a growing number of studies arguing that fiscal decentralization might induce sub-national and central/federal politicians to reduce the level of indebtedness and ride lower deficits.

First, Oates (1972, 1999) argued that in a decentralized context public goods provision, whose effects spillover into adjoining constituencies, would be inefficient. However, when regional authorities have enough fiscal powers, the resulting diversity in taxation and spending policies matches with local needs and preferences and could enhance governments' efficiency and responsiveness. As a matter of fact, sub-national authorities are closer to their citizens, who can be more informed and better control governments' activities. Thus, decentralization can enhance efficiency if the advantages from policy diversity overcome (or at least are equal to) the drawbacks of non-internalization externalities as Baskaran claims: "Increases in the efficiency of public sector might then lead to lower deficits if they imply, for example, that a given amount of public goods can be provided with fewer resources" (2012: 691)

The second argument is the reverse idea of the "race to the bottom" competition according to which the existence of many sub-national jurisdictions can foster beneficial fiscal competition among them in order to satisfy voters' preferences. Indeed, citizens and households will residence themselves on those jurisdictions that match with their preferred tax-spending mix

(Tiebout, 1956).[2] Fiscal decentralization is then believed to force governments to refrain from excessive taxation because citizens can leave jurisdictions where the government behaves as revenue-maximized (Brennan and Buchanan, 1980) and the implication is having more fiscal stance.

The third idea is that fiscal decentralization increases accountability and transparency of public goods delivery because citizens can better supervise their local leaders (Manor, 1999; Gurgur and Shah, 2002; Crook, 2003; Huther and Shah, 1998). Thus, the misuse of public resources is less probable, enhancing efficiency. In this line Oto-Peralías et al. (2013) found that fiscal decentralization contributes to mitigating the adverse effect of corruption on public deficits, underlying the idea "that bringing the government to the people through fiscal decentralization in relatively corrupt countries leads to more responsible fiscal management" (Oto-Peralías et al, 2013: 205). Finally, taxpayers are more willing to cooperate with accountable local governments (Wasylenco, 1987), so decentralization can also enhance fiscal revenues.

These two different strands of the literature point in different causal directions. Unfortunately, the empirical evidence is as mixed as the theoretical arguments. On the one hand, there are studies showing that decentralization drives a poor fiscal performance. In a sample of 30 developed and developing countries during the period 1970-1995, de Mello (2000) found that sub-national tax autonomy involved larger overall deficits because of the coordination failures occurring in intergovernmental fiscal relations, especially in the sub-sample of developing countries. Likewise, Rodden (2002) shows that the degree of both revenue and expenditure decentralization tends to increase total government deficits. Moreover, considering fiscal consolidation processes, Darby et al. (2005) find that they are less likely to be successful if the relative brunt of the consolidations was skewed towards sub-national governments.

On the other hand, recent evidence shows the reverse causal relation. Shah (2006) found that decentralization tends to be linked with better fiscal performance and, as a consequence, it should facilitate improved macroeconomic performance compared to a centralized system. Baskaran (2010) explored this subject in 17 OECD countries over the 1975-2000 and his findings suggest that expenditure decentralization significantly reduces public indebtedness, whereas tax decentralization and vertical fiscal imbalances are insignificant. Finally, Neyapti (2010) showed that decentralization, both in terms of expenditure and revenue, reduces overall budget deficits. Moreover, in interaction models she points out that the potential improvement due to decentralization is dependent on the quality of governance (Oto-Perialias et al., 2013).

Overall, there are mixed theoretical arguments and empirical evidence as that relates decentralization and fiscal performance. However, causal mechanisms emphasize that "the electoral incentives embedded in a competitive democracy are responsible" (Faguet, 2014: 11). How decentralization changes the incentives of federal/central and sub-national politics is the key component behind the potential improvement or decrease in government fiscal stance – increasing common pool problems, making coordination more difficult and so on. What stills

[2] However, there are some critics to this idea: moving from region to region tends to be costly (Manor, 1999; Bardhan, 2002), but the argument developed by Tiebout (1956) is that citizens can, to some extent, "vote with their feet".

striking is that literature on decentralization has not made explicit the importance of subnational politics.[3] This component, the territorial dimension of politics, is what has been labeled as the nationalization of party systems.

2.2. Fiscal performance and party systems nationalization

The nationalization of party systems is defined as a second stage process after local coordination through which a national party system is created. This process entails that members of different local party system merge together in a statewide party system (Cox, 1997, 1999; Chhibber and Kollman, 1998) and it is usually conceptualized as a continuum depending on the degree to which parties are uniformly successful in winning votes across districts (Moenius and Kasuya, 2004). This leads to different levels of connection among local party systems in the national party system formation. In a perfect nationalized party system there is exactly the same electoral supply everywhere in the country. However, in extreme de-nationalized system each constituency has their own set of local and regional parties. This different spatial fragmentation of party system can have important effects on public governance.

First, instead of relying on the role played by institutions, this literature considered that as electoral support becomes more/less regionalized (so less/more nationalized), parties´ spending strategies change because incumbents have to consider their expected electoral benefits and how efficiently policy target voters (Hicken et al., 2010; Castañeda-Angarita, 2013, Jurado, 2014). When parties are able to get electoral support in all districts, they have strong incentives to provide policies that deliver benefits throughout the whole country; policies will be more capable of attracting votes by spreading benefits without any geographic discrimination. Conversely, where support is based on particular constituencies, parties will have incentives to formulate distributive policies that are exclusively aimed at the areas where voters are located (Jurado, 2014). Moreover, the emergence of local dynamics affects the national vote choice and will involve higher probability of territorial divergent majorities (Cutler, 2007). Thus, the party system becomes the main channel for the representation of territorial interests within the national parliament.[4]

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[3] Other institutional settings has also considered altogether. The presence of a parliamentary or presidential regime (Rodden, 2002) or the role of the electoral system in explaining the composition of public spending (Persson and Tabellini, 2000, 2003; Lizzeri and Persico, 2001; Milesi-Ferretti et al. 2002; Chang, 2008) have been also driven into the question. The idea in the first case is that fragmentation in governance can lead to more inefficient governments and, as consequence, to high deficits. In the second case, the argument is that under proportional systems politicians will have incentives to provide broad social policies to attract a large proportion of the electorate, whereas majoritarian systems will induce governments to target public spending in the most competitive districts.

[4] Lago-Peñas and Lago-Peñas (2009) found no significant result of nationalization on the kind of transfers. However, as they recognize: "we have followed the same criteria as Milessi-Ferreti et al., but this distinction is relatively crude as the following examples illustrate. Firstly, direct expenditure on national public goods is enjoyed by citizens all over the country. Secondly, transfers to the unemployed may actually be targeted to lagged regions or regions in crisis. Thirdly, transfers to households made by sub-central governments in federal countries only benefit their residents (so they also have a geographical target)." (2009: 96)

This can have clear implications on country's fiscal stance. A weakly nationalized party system enhances powerful local vested interests and increases social fragmentation, especially in decentralized systems (see Fleinkman and Pleakanov, 2005). As consequence, sub-national governments may be captured by local elites without citizens' control and political patronage is a pathology that may be aggravated at the local level, with negative consequences for spending and revenue decisions (Oto-Perialías et al., 2013). Moreover, coordination problems and fiscal imbalances may be exacerbated because incentives for internalize cooperation across jurisdictions are reduced. When nationalization is low, politicians' electoral gains depend exclusively on their local electorates. Thus, it will be more difficult reaching agreements concerning fiscal policies and free-riding problems can be more common. On the contrary, the participation of national parties in regional governments can increase cooperation across subnational jurisdictions. Local politicians, when they owe their political fortunes to national parties, will need to follow the national party line if they aspire to higher office in the future and do not endanger the national party label[5].

Second, it has been considered that governments' margin of maneuverability to design and implement fiscal policies can be affected by the degree of nationalization of party systems (Lago-Peñas and Lago-Peñas, 2009). Some scholars have considered that the budget process is a set of both formal and informal rules aimed at solving conflicts involving citizens, interest groups, politicians, bureaucrats and ministers (Von Hagen and Harden, 1994). In terms of institutional robustness, the number of veto players (i.e. the number of actors that are required for changing the *status quo*) and their ideological distances (Tsebelis and Chang, 2004: 449) is likely to favor budget stability. However, as Lago-Peñas and Lago-Peñas point out (2009), politicians in weakly nationalized party system should experience a higher rigidity or a lower margin of maneuverability in changing the composition of public spending because sub-national parties are a new veto player. Thus, in presence of an economic shock, governments may also more difficulties to lower deficits since any change in expenditure composition entails increasing transaction costs.

This idea has not explored in the case of fiscal discipline. As Lago-Peñas and Lago-Peñas (2009: 97) put it "It would be interesting to check the potential relevance of this factor in explaining the success in fiscal consolidation processes. Do countries with a more nationalized party system enjoy a higher capacity to cut expenditure, allowing more fiscal discipline?" And if it is the case, what is the mechanism behind the relation?

Low levels of nationalization in party systems are connected with more political and territorial fragmentation in the legislatures. Central governments are usually in a better position to decide to no-bailout requests when there are a unified legislature or if the prime minister in a parliamentary system does not need to keep together heterogeneous coalitions (Rodden, 2002). However, in a weak and fragmented political system, it may be difficult to change those sub-national political institutions lead to bad incentives and fiscal indiscipline. Where local elites have dominance, the party system tends to force national elites to accept sub-national abuse of

[5] When national party leaders are too strong, there is a risk that regional variation to be suppressed (Yilmaz 1999), but the need to win subnational local elections should serve as corrective (Hankla, 2009).

common pool resources (Weingast, 2009). As Lago-Peñas and Lago-Peñas (2009) underlined, veto players increase as nationalization reduces since sub-national parties play a major role in national politics. Therefore, the implementation of macroeconomic adjustment will be more difficult and it will bias policies in favor of higher deficits.

Finally, drawbacks of local politics or veto players are not only dependent on the territorial structure of competition but also on the extent to which the country is decentralized. As Jurado (2014: 302) puts it: "One possible path would be to explore if there are interactive effects between party system regionalization and the institutional setting. It could be that party system regionalization becomes more relevant under institutions that prime regional policy demands". Thus, the expectation is that fiscal decentralization may have conditional effects on public expenditure and revenue collection depending on how nationalized party system is. As Weingast (2009) argued where national elites dominate parties, local leaders can be forced to acquiesce to institutional changes that comprise their powers. Consequently, to foster good fiscal performance in decentralized multilevel countries a nationalized party system is a necessary condition.

The nationalization of party systems involves that statewide parties participate at the regional level, so subnational politics can tend to be more integrated. The principle of democratic advancement also increases subnational politicians´ efforts to win popular support, which also strengthen their party competitively in national elections. But this transmission path works in both directions so national party sponsorship of local challengers can raise competition in local elections and so improve the quality of local policy-making (Faguet, 2014). Thus, a strongly nationalized party system has been implicitly pointed out as necessary condition. Otherwise decentralization, far from enhancing accountability, may simply serve as a vehicle for strengthening the power of regional elites (Bardhan and Mookherjee, 2001; von Braun and Grote, 2002; Smoke, 2006). If the nationalization is low, local individuals may use powerful regional governments to enhance their own positions and it explains why scholars recommended the replication of central party system at the regional level to enhance decentralization potentialities (Weaver, 2002; Filippov et al., 2004).

2.3. The testable hypotheses

According to the preceding discussion we can derive four hypotheses concerning the potential effect of decentralization and party nationalization on fiscal outcomes.

H_1: According to previous evidence (de Mello, 2000; Rodden, 2002; Shah, 2006; Neyapti, 2010; Baskaran, 2012) we cannot expect an *a priori* defined effect of fiscal decentralization on general government fiscal balance.

H_2: Low nationalized party systems raise the number of veto players and make more difficult the implementation of fiscal global aims; especially the control of deficit. Hence, we may expect that general government primary balance was positively related to high nationalization of political parties.

H_3: The effect of nationalization may be strengthened by fiscal decentralization insofar as the number of policy makers increases and the control of a central authority on general budget decreases.

H_4: We expect a non-linear effect of nationalization of party systems on the fiscal stance; thus weakly nationalized party systems are likely to increase sluggishness in governments' primary balance over time.

3. Variables, specifications and econometric methodology

3.1 Variables and data

Fiscal performance

Consistently with previous studies (Afonso and Hauptmeier, 2009; Baskaran, 2012; Presbitero et al., 2014), the degree of fiscal performance is proxied by government primary balance over GDP taking advantage from the dataset by Mauro et al. (2013), which ensures a long and complete time series for each country in our sample. The primary balance is the difference between government total revenue and primary expenditure.

The choice of primary rather than overall balance is due to the fact that the former allows to better capture the government's intervention. Primary expenditures are more easily under the control of governments being interest payments on public debt excluded from this aggregate. Moreover, inter-temporal government budget constraint usually relates to the primary surplus. Finally, due to possible measurement issues on the cyclically-adjusted balance, we prefer to do not use cyclically-adjusted variables but we include the output gap on the right-hand side of each equation to take into account the direct effects of the cycle (see also Eyraud and Lusinyan, 2013).

Our data on primary balance are reported at the general government level that is the most comprehensive sector of government. However, as Mauro et al. (2013) document, some switches from central to general government occur in the 1970s, given that for most countries the share of spending by sub-national governments has risen significantly only since then. Breaks in series are recorded in the database through dummy variables and we also include and control for such dummy for primary balance in all estimations. [6]

Decentralization

As a number of scholars have recently started to investigate the different implications of tax revenue and expenditure decentralization in relation to economic variables (e.g., GDP growth in Gemmell et al., 2013) and fiscal discipline (e.g., Afonso and Hauptmeier, 2009; Escolano et

[6] For countries with large and active sub-national governments, such as most advanced countries, this change in sector coverage resulted in breaks in the revenue and primary expenditure series; the breaks in the debt and fiscal balance series were smaller.

al., 2012), we measure decentralization using alternative indices and we use them one at a time in the estimations.

First, we consider the share of sub-national spending over general government expenditure (*ED*). In this indicator all sub-national units are aggregate into a single group and they are included in the numerator. Therefore, the number of participating sub-central governments and their different competencies are not properly taken into account but the original data do not allow any distinction in this sense and a further horizontal disaggregation would actually pose cross-country comparability issues.

Second, we consider tax decentralization (*TD*) operationalized as sub-national own local tax revenue minus divided by general government revenue. Local non-tax revenues and local capital revenues are excluded from this definition as they are recorded irregularly. Intergovernmental grants received from upper level are not included in the definition as they contribute to increase local revenues but they are not generated by sub-national governments. However, *TD* also contains taxes over which sub-national governments do not exert fully control and autonomy (e.g., piggybacked and shared taxes). This limitation is well-known and common among the fiscal decentralization dataset (e.g., IMF, World Bank, OECD). Hence, we should keep in mind the potential overestimation of the real autonomy of sub-central governments over their tax decisions and spending tasks as well.

Both *ED* and *TD* come from the OECD fiscal decentralization database that provides comparative information on spending and revenue indicators analyzed by level of government sector (federal or central, including social security, state/regions and local for OECD member countries. In this perspective, when OECD measures are considered to proxy decentralization the sample is restricted to developed countries only.

More generally, the approach of measuring decentralization with sub-national expenditures and revenues only, i.e. with the fiscal dimension, has the limit of not taking account for other dimensions of regional political power, which are not necessarily related to sub-national budgets but they can clearly affect it. Moreover, when scholars have focused on this political dimension of decentralization they had tended to simplify it as a dichotomous variable (Brancati, 2008; Harbers, 2009). Thus, details concerning variation in self-government across countries and over time are missing.

To address these shortcomings, we also measure decentralization following the framework presented by Hooghe et al. (2010), which centers on regional authority, and provides the most comprehensive approach to political and administrative decentralization up to date. The authors focused on the measurement of the level of authority displayed by a regional government, understanding the latter as “a coherent territorial entity situated between local and national levels with a capacity for authoritative decision making” (Hooghe et al., 2010: 4). They identified two different dimensions: *shared rule* and the *self-rule* of regional governments. Political decentralization is related to the autonomous power of the sub-national governments and, therefore, the *self-rule* dimension encompasses it the best.

Self-rule of a regional government has been measured by taking into account: a) The extent to which regional government is autonomous rather than deconcentrated,[7] b) the range of policies for which a regional government is responsible, c) the extent to which a regional government can independently tax its population and d) the extent to which regional government is endowed with an independent legislature and executive (Hooghe et al., 2010). Therefore, it considers political and fiscal decentralization simultaneously. Accordingly, as *self-rule* increases, the power of the sub-national units also raises.

Nationalization of party systems

In the literature, there are four families of nationalization indices: of frequency, of variance, of distribution and inflation measures. Each index presents different shortcomings but as Bochsler puts it (2010: 160) "What counts more than a purely mechanical count of the shortcomings of these indicators is the question of which of the shortcomings might easily be fixed, or which of the indicators has the best potential to be developed". Accordingly, we consider such distributional measures and, in particular, *Party Nationalization Score* is the best suited since it is better known than the other indices and it is based on a powerful measure of heterogeneity in distributions.

Party System Nationalization Score (PSNS) is based on the transformation of a Gini coefficient into a measure of the territorial vote distribution of a political party (Jones and Mainwaring, 2003; Harbers, 2009). In the case of a homogeneous distribution (high party nationalization), every territorial unit will cast a number of votes for this political party which is approximately proportional to the unit's size, or the party will win a similar vote share in every territorial unit. In the case of heterogeneous vote distributions, however, most of the votes are concentrated in a few territorial units.

It is operationalized as follows:

$$PSNS_s = \sum_{1}^{n} PNS_i \cdot p_i$$

Where p_i is the party´s share of the national vote.

We have complemented this information with the more updated nationalization index available to date, the Standardized and Weighted Party System Nationalization Score ($PSNS_{sw}$). This index is the one suggested by Bochsler´s (2010). With respect to the former, it also accounts for differently sized units within the same country and considers the number of territorial units that were used to calculate party nationalization – which can potentially affect the measurement.

[7] Deconcentration refers to a regional administration that is subordinated to the central government. A deconcentrated regional administration has the appearance of self-governance but is a central government outpost.

$$PSNS_{sw} = \sum_{1}^{n} PNS_{Sw,i} \cdot p_i$$

Both indices are highly correlated.[8] According to the theory, if nationalized party systems perform better, we should expect a positive relation of *PSNS* and $PSNS_{sw}$ with the primary balance.

Control Variables

We control for other variables normally considered as important determinants of fiscal outcomes (de Mello, 2000; Neyapti, 2010; Baskaran, 2012), such as the size of the public sector measured by government expenditure over GDP (*exp*). Other public finance variables potentially affecting the dependent variable are the share of public debt over GDP (*debt*) and the relative interest payments paid on it in percentage of GDP (*interest payments*). Higher interest payments could be associated with stronger fiscal surpluses if governments try to offset the increase in the debt burden through fiscal adjustment. Likewise, governments can increase the primary balance surplus as a result of increases in the outstanding stock of government debt. On the other hand, a positive association between high debts and fiscal balance can emerge due to a fiscal profligacy behavior. Both *debt* and *interest payments* are expressed at period *t-1* as the primary balance of year *t* is likely to be dependent on, at least, such previous years' budgetary items that are normally referred to the medium-term and that are not built up overnight.

As for the economic variables, we include the real GDP growth rate (*rgc*) to capture possible influence of business cycle fluctuations on the fiscal stance. Likewise, the output gap is added. It is defined as the ratio between actual GDP and the trend component computed using the Hodrick-Prescott filter $\left(\frac{ACTUAL\ GDP}{TREND} - 1\right)$. The Ravn-Uhlig rule is used to set the smoothing parameter λ (Ravn and Uhlig, 2002). As in the case of *rgc,* a negative sign is expected insofar as economic crisis usually involves a worsening of the fiscal position. Finally, an additional control variable is the effect of being Eurozone member (*eurozone*) that can lead to a convergence in primary balance due to Maastricht criteria.

Detailed information on definitions and sources of all the variables used in the analysis are reported in the Appendix (Table A1), together with summary statistics.

3.2 Specifications

The basic specification estimated is the following:

[8] The pairwise correlation is 0.85 and it is statistically significant at a 1% level.

$$pb_{it} = \alpha_i + \lambda_t + \rho \cdot pb_{it-1} + \sum_{j=1}^{n} \beta_j \cdot cv_{jit} + \delta \cdot decentralization_{it} + \gamma \cdot nationalization_{it} + \\ + \phi \cdot decentralization_{it} \cdot nationalization_{it} + \varphi \cdot pb_{it-1} \cdot nationalization_{it} \varepsilon_{it} \quad [1]$$

The control variable set is labeled as *cv, decentralization* encloses the alternative measures of decentralization (*ED, TD, sefl-rule*), and *nationalization* does the same with the two alternatives nationalization measures used (*PSNS* and $PSNS_{SW}$). As discussed above, the expected sign of parameter γ is positive, and it is undefined in the case of δ. Interactions between decentralization and nationalization measures and between the latter and the lagged endogenous dependent variable make possible to test both hypotheses H_3 and H_4, respectively. We should expect ϕ<0 and φ>0.

Country and time fixed-effects are included to take into account important determinants of a country's fiscal stance that are persistent over time like institutional features (e.g., being federal or unitary country; having presidential or parliamentary system) and to consider the effect of common shocks (e.g., global crisis on fiscal policy).

In order to check the non-linear effect of nationalization of party systems on the fiscal stance, an alternative specification has been used:

$$pb_{it} = \alpha_i + \lambda_t + \rho \cdot pb_{it-1} + \gamma \cdot extremenationalization_{it} + \varphi \cdot pb_{it-1} \cdot extremenationalization_{it} + \varepsilon_{it} \quad [2]$$

In this case, instead of estimating a continuous effect of nationalization, countries are separated into two groups according to their level of nationalization. To this purpose, a hierarchical agglomerative linkage clustering for the countries of our sample was performed. Both the mean and the median of *PSNS* for each country reported in Table 1 are used as criteria for clustering.[9] The similarity or dissimilarity measure used is the Euclidean distance. The corresponding dendrogram is represented in Figure 1. The closest two groups are determined by the average (dis)similarity between the observations of the two groups. Results are straightforward. A group of seven countries is clearly defined: Belgium, Switzerland, Philippines, India, Pakistan, Thailand and Colombia.[10] Both means and median of *PSNS* are well below 0.5 in all cases showing a very poor nationalization. Then, a dummy variable *extremenationalization* is created and coded 1 for the observations belongs to those seven countries and 0 otherwise.

[Table 1 near here]

[Figure 1 near here]

[9] Results using means and medians for *PSNS_WS* were analogous.

[10] Those countries with very low nationalization are from three different continents and with very different economic and institutional elements that potentially could drive their effect on *pb* such as GDP, presidential/ parliamentary regime, electoral systems or democracy age.

3.3 Econometric methodology

Specifications [1] and [2] are estimated by using an unbalanced panel of annual data for OECD and non-OECD countries observed from 1970 to 2011 year-by-year. Two econometric issues have to be dealt with. First, given the persistence of the dependent variable, the error term is likely to be serially correlated. Second, as many panel datasets encountered in macroeconomics and regional science, our dataset is likely to be characterized by unit-specific serial correlation. Insofar as individual effects are statistically significant, the Least Square Dummy Variable (LSDV) estimator is used.[11]

As Nickell (1981) showed, the LSDV estimator is biased when the lagged endogenous is included as regressor, as in our case. However, the bias is of order 1⁄T and we are working with T up to 40. Hence the size of the potential bias is not so troublesome. Moreover, according to the Monte Carlo results presented by Beck and Katz (2011), with T=20 or more, LSDV performs relatively well and it is flexible enough to allow other estimation problem to control by, as in our case. In particular, LSDV standard errors are replaced by Prais-Winsten panel-corrected standard errors (PCSE) proposed by Beck and Katz (1995) to take into account heteroskedasticity, cross-sectional correlation and a panel-specific AR(1) autocorrelation process.[12]

In order to estimate the effect of time-invariant variables with fixed effects in specification [2], we use a three stage panel fixed effects vector decomposition model (Plumper and Troeger, 2007) that allows for the inclusion of time-invariant variables and efficiently estimates almost time-invariant explanatory variables within a panel fixed effects framework.

Finally, multiple correlations among the regressors in both models showed that multicollinearity is not a serious concern.

4. Empirical results

Table 2 presents the results of the estimates for specification [1] where different measures of fiscal decentralization and party nationalization are used one at a time. Interactions are set aside

[11] The random-effects model was discarded according to the results provided by a Hausman specification test.
[12] The null hypothesis of no panel level heteroskedasticity (by using the LR test) and that of no cross-sectional correlation are both rejected (results from the tests are not reported in the paper). Likewise, the Wooldridge test for autocorrelation in panel data sets reveals the rejection of the null hypothesis at 1% significance level. As we include lags of the dependent variable as covariates, we also checked for the robustness of the results also using the Arellano–Bond linear dynamic panel-data estimator (Arellano and Bond 1991), treating pb_{t-1} as endogenous.

to focus on level effects. In column (1) the coefficient on expenditure decentralization is positive and statistically significant. Thus, results support the idea that expenditure decentralization matters for aggregate fiscal behaviour. More precisely, general government primary balance over GDP improves when the share of state plus local, regional, municipal (and other lower tiers of government) over total government expenditure increases. This goes in line with the theories and studies proving a disciplining effect of decentralization according to which in a more decentralized country, where most of the government spending is likely to occur at the sub-national level,[13] it may be less difficult to maintain a stable and healthy fiscal position as each governmental sector should be more responsible for the final spending actions (e.g., Neyapti, 2010; Escolano et al., 2012).[14] Recently, Eyraud and Lusinyan (2013) also show that spending decentralization, financed by own-revenue, improves the general government fiscal balance.

Results using tax decentralization index in column (2) also support the disciplinary effect of decentralization. The coefficient on *TD* is, indeed, positive and statistically significant at 5% level, with a lower magnitude with respect to *ED*. This measure allows us to capture a narrower definition of revenue decentralization as it considers only own local tax revenues at the numerator. Similar results are found by Presbitero et al. (2014) where a positive correlation between the degree of tax decentralization and the ratio of government primary balance over GDP emerges for a sample of OECD countries over the period 1973-2011.

The third index of decentralization is *self-rule*, capturing the degree of authority exerted by a regional government over its territory, and its coefficient is also positive and statistically significant – column (3) – even at a higher significance level.[15] Hence, the higher the independence of the sub-national authorities from the influence of central governments, the better is aggregate fiscal outcome. As the *self-rule* variable also takes into account the degree of accountability of local officers, its beneficial impact on government primary balance is consistent with the idea that strengthening accountability and transparency of local politicians may mitigate the soft budget constraint problems, potentially arising in presence of fiscal decentralization (see Seabright, 1996), by establishing a stronger link between decentralization and local governments' responsibility and authority (Oates, 2005; Rodden, 2006). This can imply a better use of public resources at each institutional level, a higher efficiency in spending provision, and an increased tax compliance by citizens (Wasylenco, 1987), so translating in a sounder fiscal position.

A different picture emerges considering the nationalization of party systems measured by, respectively, the standardized and weighted party system nationalization score (*PSNS* and $PSNS_{SW}$). Indeed, their coefficients are never statistically significant (columns (4) and (5)) in

[13] Nevertheless, one should be aware that even if data are available regarding the structure of spending within the general government sub-sectors, the mandate to spend may still be allocated at the central level, but such information is then rather difficult to assess empirically.
[14] Even adopting a different approach (i.e. focusing on public indebtedness), Baskaran (2010) also finds that expenditure decentralization significantly improves fiscal sustainability.
[15] Important for our argument is that the "structure of government affects political participation, accountability, ethnic and territorial conflict, policy innovation, corruption, government spending […]" (Hooghe et al., 2008: 1).

Table 2. Thus, territorial fractionalization of party systems does not seem to be systematically relevant to explain fiscal discipline. Different scholars have argued that to make decentralization effective is necessary to encourage the replication of the central party system at the regional level (Weaver, 2002; Filippov et al., 2004). Thus, they are implicitly saying that party system nationalization is a goal to promote because politicians must have incentives to cooperate across political levels and jurisdictions in order to win elections and, once in office, they must have incentives to abide restrictions (Hankla, 2009). Our findings do not support this idea. Having a perfect nationalized party system, i.e. with the same electoral supply within the country, does not affect general government public finances, highlighting a neutral role of regional politics with respect to fiscal sustainability targets. Considering H_2, party nationalization does not systematically reduce primary balances.[16]

[Table 2 near here]

As for the control variables, expected signs are got in the case of the lagged dependent variable denoting a certain degree of persistency of government primary balance and in the case of government size (*exp*) often argued to cause inefficiency and thus higher deficits (see also Neyapti, 2010). On the other hand, the public debt-to-GDP ratio (*debt*) and interest payments (*interest payments*) are associated with subsequent stronger fiscal surpluses across specifications, suggesting that governments try to offset the increase in the debt burden through fiscal adjustment and fiscal prudence behaviour. When statistically significant, the dummy *eurozone* is positive meaning that EU membership can improve a country's fiscal positions by increasing the effort pursued by the EU countries to comply with the existing EU fiscal framework (see also Afonso and Hauptmeier, 2009).

Interactions are analysed in Table 3. Regardless of the party nationalization index used, we find a robust result across different specifications proving the lack of any statistically significance of the interaction term between each decentralization variable and nationalization variables. More precisely, decentralization does not improve fiscal outcome when combined with party nationalization, then discarding that the effect of fiscal decentralization is conditional on the territorialisation of party systems (Neyapti, 2010). This finding is relevant because entails that arguments suggesting that decentralization endanger fiscal stability through the prevalence of local politics should be treated with caution. Accordingly, H_3 does not hold, as the joint impact of fiscal decentralization and party nationalization on general government primary balance is not statistically significant. So, it seems not to be the case that party system regionalization becomes more relevant under institutions that prime regional policy demands (Jurado, 2014), at least in terms of fiscal stance.

[16] When the lagged dependent variable is treated as endogenous and the Arellano-Bond estimator is used, the main results hold for *ED*, *PSNS* and *PSNS_sw*. Results are robust even using different lags of other independent variables (basically, *debt* and *interest payments*).

[Table 3 near here]

Finally, econometric estimates of specification [2] are reported in Table 4. Results are interesting. Variable *extremenationalization* in levels is statistically significant and negative.[17] On the contrary it is not significant in interaction with the lagged endogenous pb_{-1}. Those results confirm that government primary balance is worsened by extreme low values of nationalization, confirming H_2. On the contrary, it does not induce more rigidity in the dynamics of this variable. Hence, H_4 should be rejected.

[Table 4 near here]

5. Conclusions and policy recommendations

Much of the decentralization literature is focused on how it affects budgetary performance and country's fiscal discipline. However, despite the growing importance of this question, arguments and empirical evidence are far from reaching a widespread consensus. Some scholars have considered that decentralization contributes to improve fiscal stance (Shah, 2006; Baskaran, 2010; Neyapti, 2010; Presbitero et al., 2014), but there are many others arguing the opposite effect (de Mello, 2000; Rodden, 2002; Darby et al., 2005). Therefore, this issue remains open to debate and it deserves more attention, especially in a context where decentralization is seen as an institutional reform capable to improve fiscal governance.

Arguments connecting decentralization and fiscal performance have stressed the importance of sub-national politics. On the one hand, scholars sustain that decentralization would induce governments' misbehavior and irresponsibility related with common pool problems and incentive to overspending (de Mello, 1999; Pisauro, 2001; Goodspeed, 2002). Conversely, researchers defending the virtues of decentralization stress the fact that it can encourage more accountable governments, a closer match with citizens' preferences in goods and services provision, can improve general efficiency and avoid excessive taxation (Oates, 2005; Baskaran, 2012; Oto-Perialías et al., 2013). In both cases, the political incentives at the local level have not been directly addressed.

We have examined the extent to which sub-national politics is a fundamental or a mediating variable in the relationship between decentralization and countries' fiscal sustainability. It could be that having strong national parties at the regional level is a necessary condition to enhance decentralization potentialities (Weaver, 2002; Filippov et al., 2004), and it can also discipline

[17] As a basic alternative to the three stage panel fixed effects vector decomposition model, we estimated [2] excluding the dummy *extremenationalization*. Then we computed the linear correlation of the estimated individual fixed effects with *extremenationalization*. It was also negative and highly significant.

the potential indiscipline of fissiparous local leaders by improving fiscal governance (Weingast, 2009). In order to capture this dimension, we have considered the impact of the nationalization of party systems, which measures the degree to which parties are uniformly successful in winning votes across districts (Moenius and Kasuya, 2004).

Our findings, based on a on a sample of developed and developing countries over the period 1970-2011, prove that decentralization has a positive effect on governments' fiscal stance. This goes in line with previous research (Shah, 2006; Neyapti, 2010; Baskaran, 2012; Presbitero et al., 2014) and confirms the disciplining effect of decentralization. Moreover, we show that local politics does not play a role in eroding or increasing the advantages of decentralization in improving fiscal outcomes, except in the case of countries with extremely weak nationalization. For them, primary balance tends to be lower.

This non-significant effect for a wide range of values of party system nationalization supports the idea according to which decentralization can be a way to improve country's fiscal stance, provided that the influence of local politics on national targets is not too strong. However, two considerations have to be made. On the one hand, despite decentralization is translated into a sounder fiscal position, countries that want to advance in the process of decentralization should make sure that their internal arrangements are not inconsistent with the objective of imposing hard budget constraints on lower level jurisdictions (Stein, 1999). Fiscal responsibility to "honor the rules" of federalism will depend on the effective federal design, so case studies about specific devolution processes can be especially valuable.

On the other hand, it can be argued that party system nationalization only captures one of the potential dimensions of local politics, the electoral one. This idea is sustained by party-centered scholars. They consider that organizational elements such as the existence of a multi-level organization or a decentralized recruitment process can have an independent effect, enhancing local particularities, which are not necessarily related with party system nationalization (Hopkin, 2009; Hopkin and van Houten, 2009). Therefore, future research can take advantage from this idea by exploring the potential impact of the internal organization of parties on local politics and, thus, on the relation between decentralization and fiscal stance.

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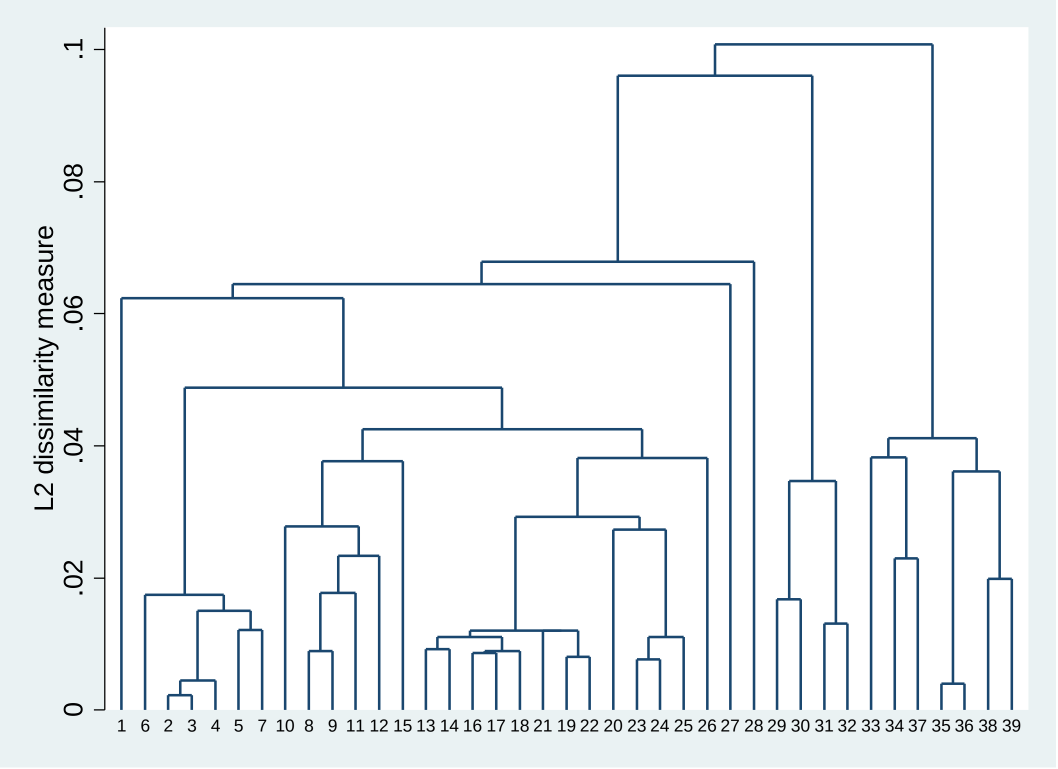
Tables and figures

Table 1: Country mean and median of *PSNS*

Code	Country	Mean	Median
1	Honduras	0.869	0.877
2	Greece	0.831	0.824
3	Austria	0.830	0.826
4	Sweden	0.828	0.830
5	Dominican Republic	0.813	0.829
6	Iceland	0.809	0.812
7	Costa Rica	0.808	0.840
8	Portugal	0.773	0.779
9	Norway	0.769	0.771
10	Ireland	0.759	0.803
11	Denmark	0.757	0.758
12	South Africa	0.741	0.741
13	Turkey	0.722	0.703
14	Finland	0.720	0.694
15	Netherlands	0.712	0.765
16	Australia	0.711	0.704
17	United States	0.706	0.711
18	United Kingdom	0.703	0.700
19	Germany	0.691	0.701
20	Spain	0.687	0.672
21	Poland	0.684	0.714
22	Mexico	0.683	0.702
23	Japan	0.660	0.668
24	Bolivia	0.657	0.661
25	Bulgaria	0.656	0.650
26	Italy	0.633	0.695
27	Argentina	0.630	0.591
28	Hungary	0.584	0.648
29	Brazil	0.560	0.515
30	Romania	0.555	0.531
31	France	0.526	0.508
32	Indonesia	0.515	0.515
33	Switzerland	0.450	0.438
34	Belgium	0.437	0.402
35	Philippines	0.418	0.339
36	India	0.418	0.335
37	Thailand	0.414	0.402
38	Colombia	0.394	0.366
39	Pakistan	0.379	0.379

Source: Authors' elaboration.

Figure 1: Dendrogram for clustering of countries according to mean and median values of *PSNS*



Notes: Country codes are reported in Table 1

Table 2: Baseline estimations

VARIABLES	(1) pb	(2) pb	(3) pb	(4) pb	(5) pb
pb_{t-1}	0.299***	0.587***	0.589***	0.509***	0.504***
	(0.0400)	(0.0287)	(0.0283)	(0.0281)	(0.0282)
rgc	-0.0627	0.0245	0.0398	0.0308	0.0298
	(0.0433)	(0.0301)	(0.0259)	(0.0193)	(0.0194)
outputgap	9.743***	5.316**	3.204*	1.591	1.221
	(3.093)	(2.234)	(1.789)	(1.691)	(1.707)
exp	-0.579***	-0.182***	-0.121***	-0.144***	-0.147***
	(0.0329)	(0.0154)	(0.0131)	(0.0134)	(0.0136)
$debt_{t-1}$	0.0955***	0.0234***	0.00924*	0.0230***	0.0238***
	(0.0122)	(0.00558)	(0.00526)	(0.00373)	(0.00375)
interests $payments_{t-1}$	0.322**	0.297***	0.243***	0.264***	0.265***
	(0.126)	(0.0458)	(0.0438)	(0.0394)	(0.0395)
eurozone	6.656***	0.991	2.362***	0.593	-0.241
	(0.836)	(0.993)	(0.607)	(0.378)	(0.443)
ED	0.0555**				
	(0.0277)				
TD		0.0294**			
		(0.0147)			
self-rule			0.105***		
			(0.0311)		
PSNS				0.673	
				(0.795)	
$PSNS_{SW}$					1.236
					(1.199)
Observations	425	845	792	968	963
R-squared	0.904	0.831	0.816	0.781	0.781
Number of countries	20	24	25	39	39

Notes: The table reports regression coefficients and (in brackets) the associated PCSE standard errors robust to heteroskedasticity, cross-sectional correlation and a panel-specific AR(1) autocorrelation process. The dependent variable is the value of the government primary balance in percent of GDP of country *i* in year *t* (pb_{it}). The constant, a set of time-dummies, country-dummies and dummies capturing switches in the government sector coverage (from central to general government) for the dependent variable, as discussed in Mauro et al. (2013), are included but not reported in the table.
* Significant at 10%.
** Significant at 5%.
*** Significant at 1%.

Table 3: Interaction estimations

VARIABLES	(1) pb	(2) pb	(3) pb	(4) pb	(5) pb	(6) pb	(7) pb	(8) pb
pb_{t-1}	0.171***	0.554***	0.550***	0.591***	0.168***	0.555***	0.548***	0.646***
	(0.0506)	(0.0318)	(0.0317)	(0.0989)	(0.0510)	(0.0315)	(0.0318)	(0.134)
rgc	-0.187***	0.00509	-0.00525	0.0313	-0.187***	0.00258	-0.00154	0.0301
	(0.0488)	(0.0292)	(0.0277)	(0.0193)	(0.0489)	(0.0293)	(0.0276)	(0.0194)
outputgap	13.17***	5.504***	5.867***	1.530	13.36***	5.596***	5.660***	1.192
	(3.285)	(1.977)	(2.031)	(1.696)	(3.313)	(1.980)	(2.029)	(1.706)
exp	-0.529***	-0.159***	-0.136***	-0.144***	-0.525***	-0.158***	-0.134***	-0.146***
	(0.0360)	(0.0161)	(0.0150)	(0.0135)	(0.0355)	(0.0161)	(0.0151)	(0.0137)
$debt_{t-1}$	0.133***	0.0386***	0.0274***	0.0229***	0.132***	0.0389***	0.0260***	0.0237***
	(0.0152)	(0.00728)	(0.00683)	(0.00376)	(0.0156)	(0.00722)	(0.00692)	(0.00378)
interests payments $_{t-1}$	0.235	0.266***	0.265***	0.263***	0.255*	0.260***	0.270***	0.267***
	(0.144)	(0.0545)	(0.0471)	(0.0393)	(0.146)	(0.0548)	(0.0478)	(0.0394)
eurozone	17.00***	5.277***	2.040***	0.618	0.109	-0.0264	1.749**	-0.305
	(3.125)	(0.839)	(0.784)	(0.378)	(1.162)	(0.788)	(0.786)	(0.447)
PSNS	-1.102	0.252	-1.144	0.815				
	(3.867)	(1.137)	(1.714)	(0.823)				
ED	0.000462				-0.0132			
	(0.0629)				(0.0948)			
*ED*PSNS*	-0.0246							
	(0.105)							
TD		0.0164				-0.0312		
		(0.102)				(0.0738)		
*TD*PSNS*		0.0114						
		(0.121)						
self-rule			0.0447				0.168	
			(0.0820)				(0.136)	
*self-rule*PSNS*			0.0629					
			(0.124)					
$PSNS*pb_{t-1}$				-0.119				
				(0.137)				
$PSNS_{SW}$					-4.883	-0.849	0.561	1.328
					(4.962)	(1.710)	(2.642)	(1.202)
$ED*PSNS_{SW}$					0.00480			
					(0.140)			
$TD*PSNS_{SW}$						0.0708		
						(0.0865)		
*self-rule**$PSNS_{SW}$							-0.108	
							(0.175)	
$PSNS_{SW}*pb_{t-1}$								-0.182
								(0.166)
Observations	303	663	674	968	303	663	674	963
R-squared	0.914	0.834	0.824	0.782	0.910	0.835	0.823	0.782
Number of countries	20	24	25	39	20	24	25	39

Notes: The table reports regression coefficients and (in brackets) the associated PCSE standard errors robust to heteroskedasticity, cross-sectional correlation and a panel-specific AR(1) autocorrelation process. The dependent variable is the value of the government primary balance in percent of GDP of country *i* in year *t* (pb_{it}). The constant, a set of time-dummies, country-dummies and dummies capturing switches in the government sector coverage (from central to general government) for the dependent variable, as discussed in Mauro et al. (2013), are included but not reported in the table.

* Significant at 10%.

** Significant at 5%.

*** Significant at 1%.

Table 4: The non-linearity effect of nationalization of party systems

VARIABLES	(1) pb	(2) pb
pb $_{t-1}$	0.655***	0.656***
	(0.0319)	(0.0322)
rgc	0.0581**	0.0579**
	(0.0230)	(0.0231)
outputgap	0.305	0.302
	(1.743)	(1.744)
exp	-0.111***	-0.111***
	(0.0190)	(0.0192)
debt $_{t-1}$	0.00507	0.00514
	(0.00504)	(0.00506)
interests payments $_{t-1}$	0.235***	0.235***
	(0.0585)	(0.0584)
eurozone	1.241**	1.249**
	(0.523)	(0.528)
extreme nationalization	-1.107**	-1.110**
	(0.523)	(0.524)
pb $_{t-1}$ **extreme nationalization*		-0.0141
		(0.0643)
Observations	1,472	1,472
R-squared	0.799	0.799

Notes: The panel fixed effects vector decomposition model in three stages proposed by Plümper and Troeger (2007) is used. The dependent variable is the value of the government primary balance in percent of GDP of country *i* in year *t* (pb_{it}). The constant, a set of time-dummies and dummies capturing switches in the government sector coverage (from central to general government) for the dependent variable, as discussed in Mauro et al. (2013), are included but not reported in the table.
* Significant at 10%.
** Significant at 5%.
*** Significant at 1%.

Appendix

Table A1: Variables, definitions, sources and summary statistics

Variables	Definition	Source	Mean	Std. Dev.	Min	Max
pb	Government primary balance, percent of GDP (*)	*Mauro et al. (2013)*	0.474	3.741	-28.175	20.570
rgc	Real GDP growth rate, percent	*Mauro et al. (2013)*	3.279	3.661	-13.230	19.181
outputgap	Ratio between actual GDP and the trend component computed using the Hodrick-Prescott filter	*Authors' elaborations on Mauro et al. (2013)*	0.003	0.056	-0.250	0.404
exp	Government expenditure, percent of GDP	*Mauro et al. (2013)*	33.438	14.082	6.800	71.720
debt	Gross public debt, percent of GDP	*Mauro et al. (2013)*	50.969	31.125	1.027	289.554
interests payments	Interest paid on public debt, percent of GDP	*Mauro et al. (2013)*	3.304	2.611	-2.130	23.459
eurozone	Dummy equal to 1 if country belongs to the Eurozone; 0 otherwise	*Authors' elaborations on official data*	0.282	0.450	0	1
ED	Sub-national spending on general government expenditure, percent	*OECD (Fiscal decentralization database)*	35.739	11.130	10.257	64.132
TD	Sub-national own tax revenues on general government tax revenues, percent	*OECD (Fiscal decentralization database)*	16.042	12.201	0.000	47.351
self-rule	Regional government's authority over those who live in the region	*Hooghe et al. (2010)*	9.790	5.925	0.000	21.100
PSNS	Party System Nationalization Score	Constituency-Level Elections Archive	0.675	0.152	0.260	0.903
$PSNS_{SW}$	Standardized and Weighted Party System Nationalization Score	Constituency-Level Elections Archive	0.781	0.111	0.387	0.960

Notes: (*) The IMF's public finance dataset by Mauro et al. (2013) are referred to the most comprehensive sector of government for which they were available. Accordingly, primary balance series are reported at the general government level where these are available.