The Irrelevance of Political Party Differences for Public Finances – Evidence from Public Deficit and Debt in Portugal (1974–2012)

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This paper attempts to empirically test whether inter-party political differences impact public finances in Portugal differently. Focused on public debt and on government budget deficit, and using data since 1974 for several variables, this paper applies econometric modelling to show that inter-party differences have had, until now, no significant impacts on the public finances' performance in Portugal. In this context, this paper aims at dispelling some myths regarding the 'value' of a policy process based on political intrigue, enmity and a discourse of confrontation around differentiated political parties' merits in modern democracies.

1. Introduction

Since 1976, the policy process in Portugal has been dominated by a competition between socialists and social democrats, which are the groups that have been alternating in power for nearly equal proportions of time.¹ The Socialist Party (PS) ruled the country for a total of 18 years after the first elections in April of 1976. Within the same period, the Social Democratic Party (PSD) ruled the country for a total of 21 years.²

The current analysis will show that, for almost four decades, the political differences between the two main political parties had no impact on the public finances and economic performance of Portugal. That is, actual long-term policy outcomes are indifferent to the differences in the political ideologies and discourse of the socialists and the social democrats. Within this period, both parties have been equally associated with (i) cycles of growth, stagnation and recession (see Figure 1) and (ii) continuous budget deficits (see Figure 2).

This research adopts two of the most important public finance variables, budget deficit and public debt, as proxy variables for the country's performance to test the hypothesis that political parties' differences have no impact in fiscal outcomes. Testing whether political differences impact the country's performance is useful to shed light on the merits of a policy process that is based on competitive intrigue, enmity and confrontation between the two parties. Revenues are not considered to be



Figure 1. Growth, stagnation and recession and ruling parties (%GDP). Sources: GDP data (Ref. 3), Ruling Parties (Ref. 4).

Note: Years in the darker shade correspond to periods ruled by a Socialist government. Years in the lighter shade correspond to periods ruled by a Social Democrat government. The period 1970–1974 (until 25 April) corresponds to the last years of Salazar's dictatorship. The period 1974–1976 corresponds to the so-called 'Provisory Governments' which ruled the country prior to the 1976 new Constitution. The second half of 1978 was ruled by an independent government.



Figure 2. Public deficit and ruling parties (%GDP).

Source: Public Deficit (Ref. 3), Ruling Parties (Ref. 4).

Note: The authors chose to use the Primary Deficit indicator, which excludes interests paid to cover the cost of the debt, to focus the analysis on actual expenditure decisions. proxies for performance (i.e. a dependent variable) in this analysis because tax policies are a much more resilient variable over time.

While the problems of inter-parties' competition in the policy process have been highlighted, the merits of an alternative approach still need to be explained. Almond and Verba⁵ argue that civic political culture is what a country needs to advance its democratic society's political structure. More specifically, they consider political culture to be the element that connects individual attitudes with the overall political system structure. Of the ten key characteristics of a civic political culture identified by these authors, at least half of these refer directly to political parties' behaviour: (i) expectation of fair treatment from government authorities; (ii) emotional involvement in elections; (iii) tolerance toward opposition parties; (iv) valuing of active participation in local government activities, parties and in civic associations; (vi) civic cooperation and trust.

Since Almond and Verba,⁵ several other authors have emphasized the key role of cooperation to promote development and advance democratic organization, e.g. Coleman⁶ with the concept of social capital; Ostrom⁷ with the idea of collective action; Nordhaus⁸ with the political business cycles models; Putnam⁹ with the concept of networks of civic engagement; Wright¹⁰ with the non-zero sum logic of human destiny; and Hardin¹¹ with the role of trust and reciprocity in solving social dilemmas.

The next section explores the literature capable of explaining the relationship between deficits, debts and partisan politics. Special attention is paid to authors who focus on variables that are most relevant to the Portuguese case. Section 3 details the techniques, variables and datasets used to test our research hypothesis. This section also offers some preliminary results regarding the role of inter-party differences in a country's performance, while analysing the main results obtained from this research regarding a country's performance, Section 4 pays special attention to the distinction between external macroeconomic effects and domestic politics. Section 5 concludes with the implications of the paper's findings for the democratic process and suggestions for future research as well.

2. Deficits, Debts and Partisan Politics: An Overview of the Literature

There already exists a substantial literature on the differences in policies applied by different parties. Cusack¹² (1997) studied a set of 14 OECD countries for the period 1961–1991, but did not include Portugal because it was not a democracy during part of the period. Mourão¹³ found that the long-term determinants of the Portuguese public expenditure (1947–2002) are the number of unemployed, the number of public employees (i.e. the size of the public sector), the rate of openness of the economy, and the real current transfers per capita. However, Mourão left unanswered the following question: are there any partisan-biased differences in the expenditure policy in Portugal?¹³ Our research aims at answering this question.

Our review of the literature (detailed below) identified four main topics on the issue of the influence of partisanship on public finances: due to differentiated redistributive policies, due to voters' attraction, due to different reactions to exogenous forces such as globalization, and due to political business cycles.

2.1. Partisanship and Redistributive Policies

There are several theoretical models that try to explain partisan-biased differences in public finance, especially related to redistributive policies.

Usually, the number of unemployed suggests that an increase in expenditure is more associated with socialist-led governments. This may be the result of the commitment of leftist parties to the Keynesian paradigm of expanding government programmes and the welfare state, ^{14,15} which is pushed by a relatively more economically vulnerable electorate. ¹² Cowart¹⁶ and Carlsen¹⁷ argue that leftist governments are far more responsive to problems of unemployment than are right-wing governments that foreswear interfering with the self-adjusting 'invisible hand' of the market.¹⁸

Carlsen¹⁷ also argues that right-wing parties are more prone to pro-cyclical policies by which fiscal policy is tightened as demand slackens and unemployment rises. If real current transfers per capita are associated with economic redistribution processes, then, for the same reasons described above, this variable seems to be more associated with left-leaning governments.

According to Meltzer and Richard,¹⁹ the redistributive role of the government is determined by voters' demand for income redistribution. Voters with income below (above) the mean will favour higher (lower) taxes and more (less) redistribution. Thus, under universal suffrage and majority rule, a major determinant for explaining the fact that the real government debt per capita increases is income inequality.

Right-wing governments try to avoid (significant) budget deficits because they believe that structural deficits raise interest rates, impede investment, reduce national savings, slow down long-run economic growth, and thus undermine the social democratic supply-side economic policy.²⁰

2.2. Public Sector and Voters

The size of the public sector follows the Leviathan hypothesis²¹ according to which politicians are politically unconstrained agents who aim to maximize their power and the rents associated with holding office. In this context, power and rents are directly associated with the size of the public sector, and both socialists and democrats, who have been alternating in power in quasi-equal proportions since 1976, could equally be responsible for the increase in public expenditure (i.e. the Leviathan hypothesis emphasizes the parties' behaviour homogeneity). Other authors point to the principle-agent dilemma as the justification for an inbuilt bureaucratic preference against any reduction of acquired rights by public employees and as supporting ever larger sizes of public agencies in a large public sector such as that of Portugal.^{22,23}

2.3. Other Mediating Factors: Competition and Globalization

Several authors^{24,25} suggest that party competition improves economic outcomes but what they do not discuss is how outcomes could improve further with collaborative approaches to the policy process. In addition, the baselines of their analyses are situations of monopoly of power by one party, which obviously cannot be compared with the multiparty framework studied in this paper.

Given the competitive setting that has been driving the political confrontation between socialists and social democrats over the past 39 years, the Partisan model^{26,27} can also be relevant for this analysis. According to this theoretical framework, increased competition between political forces reduces deficits for left-leaning governments and increases them for right-leaning governments (i.e. the Partisan hypothesis emphasizes the heterogeneous parties' behaviour). This result contradicts previously analysed theoretical principles that point to higher public expenditure in socialist-led governments.

Similar to the Partisan model, which introduces political competition as a mediating factor between ideology and policy outcomes, the rate of openness introduces macroeconomic interdependence as a mediating factor. Carlsen¹⁷ argues that parties on the left will follow a counter-cyclical expansionary fiscal policy when demand slackens and a contracting one when demand surges.

Garret and Lange²⁸ argue that the ever-greater openness of national economies and the related interdependencies decrease the relevance of the governing parties' ideology; i.e. there has been a convergence of right and left with no notable distinctions between their fiscal policies. Because of interdependence,

> [G]overnments no longer possess the autonomy to pursue independent macroeconomic strategies effectively, even if they were to seek to do. In anything but the short run, the fiscal and monetary policies of governments of the left and the right should converge. (Ref. 28, p. 543)

Other authors agree that the economic demands generated by the global financial markets have weakened any linkage between partisanship and fiscal policy.^{29–33} This applies even more to a small, open economy such as the Portuguese.

Contradicting the rate of openness-driven convergence argument, Garrett^{34,35} shows that strong left party governments with the presence of strong labour unions run larger deficits under the conditions of great capital mobility and trade because those governments try to mitigate the market dislocations that are experienced by their populations in the integrated international economy.

2.4. Non-partisanship and Political Business Cycles

Albeit from a different perspective, Nordhaus,³⁶ Frey and Schneider³⁷ and Rogoff and Sibert³⁸ argue that public expenditure drivers are more associated with the structural components of democratic models than with the differences in party ideology. For these authors, the temporal proximity to electoral moments is what explains public expenditure's cyclical peaks. In fact, as illustrated by Figure 3, there seems to exist a temporal 'coincidence' in Portugal between election years and expenditure peaks.

Nordhaus^{8,36} explains these cyclical peaks with his political business cycles (PBC) theory. According to this author, these peaks result from the opportunistic behaviour of political incumbents who strategically change public expenditure in pre-electoral periods to signal competence (i.e. the ability to produce a given level of government services with less revenue) to voters and thus increase their chances of re-election.



Figure 3. Public expenditures, ruling parties and electoral cycles. Source: Government Expenditures (Ref. 3), Ruling Parties (Ref. 4), Electoral cycles (Ref. 39).

This opportunistic-cycles approach departs from the models of economic performance that are explained by political ideology and ideological cycles discussed earlier. For Nordhaus, partisan effects are of secondary importance to opportunistic behaviour.

Advocates of PBC argue that, in facing choices between present and future welfare, the behaviour of democratic political systems is biased against future generations.^{8,40} Elections are viewed as a source of political instability, and they affect growth through the shortening of governments' horizons and the disruption of long term economic policies that are conducive to a better economic performance.⁴¹

Veiga and Veiga⁴² find strong evidence for opportunistic cycles at the municipal expenditure level in Portugal and very little evidence of ideological cycles between left-wing oriented incumbents and right-wing ones. Coelho et al.⁴⁰ also find strong evidence of PBC in municipalities' employment in Portugal.

2.5. In Summary

The literature that has been explored does not clearly answer the question raised at the beginning of this section: do partisan politics matter for public finances in Portugal? All types of answers – yes, no and maybe – have been found for this question. Studies about Portugal, where evidence for PBC was found and/or no evidence for ideological/partisanship cycles was found, do not adopt the whole country as their level of analysis, do not cover the entire period of democracy in Portugal, and do not clarify whether there is any partisanship effect in the amplitude of the cycle.

Next, we will test whether differences between different parties in charge of the government make any difference for the Portuguese public deficit and public debt.

3. Methodology

To test our research hypothesis, we use descriptive statistics and bivariate analyses that will provide initial insights into the role of inter-party differences in fiscal outcomes and the country's performance. In this context, descriptive statistics and empirical evidence will also dispel some myths circulating in the public opinion regarding the role of parties in fiscal performance.

3.1. Variables: Datasets and Sources

Our first methodological step was to collect data for some of the most important variables that are associated with a country's performance. We collected yearly data since 1974⁴³ from official and available sources for the following socio-economic variables:

- Public expenditure (% GDP)
- Public revenue (% GDP)
- Number of public employees
- Public investment (% GDP)
- Real GDP
- Budget deficit (i.e. public expenditure minus public revenue as a % of GDP)⁴⁴
- Public debt (% GDP)
- Unemployment rate
- Number of unemployed people

Data for the following electoral and political variables were also collected for the same period:

- Electoral (legislative and municipal elections) year
- Number and share of seats belonging to left-wing parties in the Portuguese National Parliament
- Year of left-wing majority in the Portuguese National Parliament
- Tenure duration

Several sources of information were used to build the time series for these variables. For public expenditure, public revenue, public investment, real GDP, openness rate, unemployment rate, and the number of unemployed people, we used Pinheiro⁴⁵ for data until 1995 and the International Financial Statistics³ for data from 1995 to 2012. Neves⁴⁶ was the source for the number of public employees for data before 1994. For the period that followed, the information was collected from the Portuguese Institute for Employment and Professional Training (IEFP).⁴⁷ For the Portuguese public budget deficit and public debt, the data source was the IMF (2012).³ The data for electoral years that detail the nature – municipal or legislative – of the popular consultation, was provided by the official National Electoral Commission (CNE). The information about the ruling parties at the national government level for each year, the breakdown of the number of Parliamentary seats between the left- and right-wing parties, and the tenure duration of each government was collected from PORDATA.⁴⁸

3.2. Descriptive Statistics

To discuss our first descriptive statistics, we built two tables (see Tables 1 and Table 2). Each table shows the mean, standard deviation, maximum values, and

	Public expendituresPublic revenuesPublic employees(obs = 39)(obs = 39)(obs = 39)		employees s = 39)	Public ir (obs	nvestment = 39)	Real GDP (obs = 39)				
Mean	-0.849		-0.996		12	2.659	-3.	.359	15.	889
(Standard Deviation)	(0.188)		(0.203)		(0	.307)	(0.:	232)	(1.:	388)
[Maximum-Minimum]	[-0.577-(-1.465)]		[-0.707-(-1.509)]		[13.2	9–12.18]	[-2.933-	-(-4.029)]	[17.27	–12.91]
	Openn	ess rate	Budget defi	cit (% GDP)	Public de	bt (% GDP)	Unemplo	yment rate	Unemplo	yed people
	(obs	= 39)	(obs	= 39)	(ob	s = 39)	(obs	= 39)	(obs	= 39)
Mean	4.128		1.639		3.884		-2.671		5.791	
(Standard Deviation)	ion) (0.166)		(0.402)		(0.406)		(0.350)		(0.390)	
[Maximum-Minimum]	mum] [4.400–3.689]		[2.322–0.999]		[4.68–2.60]		[-1.85-(-3.85)]		[6.566–4.412]	
	Public expenditures		Public revenues		Public employees		Public investment		Real GDP	
	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	$\begin{array}{c} \text{Right-wing} \\ (\text{obs} = 18) \end{array}$
Mean	-0.835	0.867	-0.981	-1.016	12.686	12.627	-3.369	-3.341	15.946	15.821
(Standard Deviation)	(0.186)	(0.193)	(0.202)	(0.209)	(0.354)	(0.249)	(0.200)	(0.271)	(1.492)	(1.296)
[Maximum-Minimum]	[-0.571-(-1.299)]	[0.615-(-1.465)]	[-0.784-(-1.449)]	[-0.707-(-1.509)]	[13.29–12.22]	[13.179–12.180]	[-3.090-(-3.822)]	[-2.932-(-4.030)]	[17.266–13.060]	[17.256–12.913]
	Openn	less rate	Budget defi	cit (% GDP)	Public de	bt (% GDP)	Unemplo	yment rate	Unemplo	yed people
	Left-wing	Right-wing	Left-wing	Right-wing	Left-wing	Right-wing	Left-wing	Right-wing	Left-wing	Right-wing
	(obs=21)	(obs = 18)	(obs=21)	(obs = 18)	(obs=21)	(obs = 18)	(obs=21)	(obs = 18)	(obs=21)	(obs = 18)
Mean	4.128	4.127	1.668	1.604	3.911	3.852	-2.673	-2.669	5.793	5.790
(Standard Deviation)	(0.210)	(0.089)	(0.422)	(0.386)	(0.398)	(0.426)	(0.312)	(0.399)	(0.350)	(0.442)
[Maximum-Minimum]	[4.399–3.689]	[4.235–3.970]	[2.322–0.999]	[2.121–1.052]	[4.536–2.953]	[4.680–2.603]	[-2.226–(-3.221)]	[-1.851-(-3.847)]	[6.295–5.034]	[6.566–4.412]

Table 1. Descriptive statistics, log scale (Portuguese data, 1974–2012).

minimum values for each of the previously introduced socio-economic variables and for the entire study period (1974–2012, N = 39). In addition, these statistics have also been analysed within both those sub-periods in which left-wing parties held the majority of the seats in the National Parliament (N = 18) and those in which right-wing parties had the majority of the seats (N = 21).⁴⁹

Table 1 shows the descriptive statistics for the socio-economic variables expressed in logarithmic form, and Table 2 shows the same statistics for the raw variables.

A preliminary inspection of Tables 1 and 2 allows us to state that the years in which left-wing parties ruled the country exhibit higher values for the following variables (if compared with the years ruled by right-wing parties):

- Public expenditure (% GDP)
- Public revenue (% GDP)
- Number of public employees
- Public investment (% GDP)
- Real GDP
- Openness rate
- Budget deficit (% GDP)
- Public debt (% GDP)

The exceptions to this statement were found for the unemployment rate and the number of unemployed people. For these variables, the years ruled by left-wing governments exhibited lower values than the years ruled by right-wing governments.

Table 3 shows the same descriptive statistics that were analysed above but for the yearly growth rates of the studied variables.

Table 3 suggests that the years in which there was a right-wing majority in the Portuguese Parliament are characterized by higher growth rates for the following variables (if compared with the years that are associated with left-wing governments):

- Public expenditure (% GDP)
- Public revenue (% GDP)
- Public employees
- Real GDP
- · Openness rate
- Unemployed

In contrast, the years that are associated with left-wing governments tend to have higher growth rates for the following variables (if compared with the years that are associated with right-wing governments):

- Public investment (% GDP)
- Budget deficit (% GDP)
- Public debt (% GDP)
- Unemployment rate

However, these preliminary results require further inspection. Many of the comparisons arguably are commonplaces in the Portuguese media. However, a more

	Public ex	Public expenditures		evenues	Public empl	oyees (10^3)	Public ir	evestment	Real GD	P (10^7)	
	(obs	(obs = 39)		= 39)	(obs	= 39)	(obs	= 39)	(obs=	= 39)	
Mean	0.435		0.376		330.428		0.036		1.46		
(Standard Deviation)	(0.073)		(0.070)		(113.103)		(0.007)		(1.15)		
[Maximum-Minimum]	[0.565–0.231]		[0.493–0.221]		[591.3–194.9]		[0.053–0.018]		[3.15–0.05]		
	Opennes (obs	ss rate (%) s=39)	Budget Defi (obs	cit (% GDP) = 39)	Public Det (obs	ot (% GDP) = 39)	Unemployn (obs	nent rate (%) = 39)	Unemployed (obs =	people (10^3) = 39)	
Mean	62.830		5.564		52.	52.206		31	349.871		
(Standard Deviation)	(9.612)		(2.198)		(18.	(18.491)		43)	(123.03)		
[Maximum-Minimum]	[81.410–40]		[10.2–2.716]		[107-8	[107–8–13.5]		-2.13]	[710.7–82.46]		
Public expenditures		penditures	Public revenues		Public empl	Public employees (10^3)		Public investment		Real GDP (10^7)	
	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs=18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	
Mean	0.441	0.427	0.382	0.369	344.335	314.204	0.035	0.036	1.61	1.29	
(Standard Deviation)	(0.075)	(0.072)	(0.069)	(0.072)	(131.904)	(87.225)	(0.016)	(0.009)	(1.21)	(1.07)	
[Maximum-Minimum]	[0.565–0.273]	[0.541–0.231]	[0.457–0.234]	[0.493–0.221]	[591.3–202.8]	[529.1–194.9]	[0.045–0.021]	[0.053–0.018]	[3.15–0.05]	[3.12–0.05]	
	Opennes	ss rate (%)	Budget Defi	cit (% GDP)	Public Deb	ot (% GDP)	Unemployn	Unemployment rate (%)		people (10^3)	
	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	
Mean	63.274	62.249	5.765	5.316	53.406	50.724	7.21	7.43	346.28	354.06	
(Standard Deviation)	(11.97)	(5.47)	(2.434)	(1.910)	(18.326)	(19.149)	(2.04)	(2.88)	(111.30)	(138.66)	
[Maximum-Minimum]	[81.41–40]	[69.05–53]	[10.2–2.716]	[8.34–2.86]	[93.32–19.17]	[107.8–13.5]	[10.8–3.99]	[15.7–2.1]	[541.80–153.55]	[710.7–82.46]	

Table 2. Descriptive statistics, absolute scale (Portuguese data, 1974–2012).

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	Public ex (obs	Public expenditures (obs = 38)		Public revenues (10^6) (obs = 38)		Public employees (obs = 38)		= 38)	Real GI (obs	DP (10^7) = 38)
Mean	0.025		0.022		0.026		-0.003		0.115	
(Standard Deviation)	(0.059)		(0.041)		(0.058)		(0.168)		(0.084)	
[Maximum-Minimum]	[0.166-(-0.073)]		[0.131-(-0.054)]		[0.041–0.001]		[0.446-(-0.463)]		[0.262-(-0.034)]	
	Opennes (obs	Openness rate (%) (obs = 38)		Budget deficit (% GDP) Public debt (% GDP) Unem (obs = 38) (obs = 38)		Unemployn (obs	nent rate (%) = 38)	Unemploy (obs	yed people = 38)	
Mean 0.013 (Standard Deviation) (0.089) [Maximum-Minimum] [0.186–(-0.294)]		013	0.025		0.055		0.061		0.066	
		089)	(0.060)		(0.096)		(0.176)		(0.187)	
		(-0.294)]	[0.166-(-0.073)]		[0.350-(-0.126)]		[0.625–0.293]		[0.360–(-0.074)]	
	Public expenditures		Public revenues		Public er	Public employees		Public investment		GDP
	Left-wing $(obs = 21)$	Right-wing (obs = 17)	Left-wing $(obs = 21)$	Right-wing (obs=17)	Left-wing $(obs = 21)$	Right-wing $(obs = 17)$	Left-wing (obs=21)	Right-wing (obs = 17)	Left-wing (obs=21)	Right-wing $(obs = 17)$
Mean	0.025	0.084	0.020	0.024	0.026	0.027	0.009	-0.018	0.110	0.121
(Standard Deviation)	(0.060)	(0.061)	(0.043)	(0.046)	(0.073)	(0.034)	(0.166)	(0.176)	(0.084)	(0.087)
[Maximum-Minimum]	[0.166–(–0.073)]	[0.148–(-0.042)]	[0.131–(-0.054)]	[0.099–(–0.036)]	[0.185–(-0.120)]	[0.038–(-0.010)]	[0.447–(–0.289)]	[0.235-(-0.464)]	[0.251–(-0.020)]	[0.262–(–0.034)]
	Opennes	s rate (%)	Budget Defi	icit (% GDP)	Public Deb	ot (% GDP)	Unemployment rate (%)		Unemploy	yed people
	Left-Wing	Right-Wing	Left-Wing	Right-Wing	Left-Wing	Right-Wing	Left-Wing	Right-Wing	Left-Wing	Right-Wing
	(obs=21)	(obs = 17)	(obs=21)	(obs = 17)	(obs=21)	(obs = 17)	(obs=21)	(obs = 17)	(obs=21)	(obs = 17)
Mean	-0.003	0.031	0.025	0.024	0.071	0.034	0.065	0.057	0.057	0.076
(Standard Deviation)	(0.096)	(0.078)	(0.060)	(0.061)	(0.099)	(0.088)	(0.191)	(0.163)	(0.191)	(0.187)
[Maximum-Minimum]	[0.113-(-0.294)]	[0.186-(-0.082)]	[0.166–(-0.073)]	[0.148-(-0.042)]	[0.350-(-0.077)]	[0.236–(-0.126)]	[0.625–0.293]	[0.401–0.192]	[0.622–(–0.268)]	[0.508–(–0.198)]

Table 3. Descriptive statistics, yearly growth rates (Portuguese data, 1975–2012).

Note: The yearly growth rate for two consecutive values of the variable $X(X_t, X_{t+1})$ is given by the formula $(X_{t+1} - X_t)/(X_t)$

accurate assessment of these commonplaces requires data variability and that the different number of observations collected for each political wing are factored in using more complex approaches. A commonly used technique to address these limitations is the non-parametric Mann-Whitney U-test, which is similar to the Two-sample *t* test with unequal variances. This type of test allows the equality of two means to be tested (in our case: the mean observed for the years that were ruled by left-wing parties and the mean observed for the years that were ruled by right-wing parties). The rejection of the null hypothesis (of equal means) can be interpreted as the existence of significant differences between the financial performances that are assumed by the different Portuguese political wings.

Tables 4, 5 and 6 exhibit the asymptotic significance (2-tailed) p-values for the variables of this study.⁵⁰ Because p-values lower than 0.100 were not found, it cannot be concluded that there are significant differences in our variables vis-à-vis the party wing in power.

In conflict with popular beliefs and other misconceptions of the role of political parties in modern democracies, our results find no evidence for a differentiated impact of the Portuguese parties on the country's macroeconomic and fiscal performances. This is the case for all variable transformations performed: absolute values, log and yearly growth rates.

4. Empirical Models and Bivariate Analysis: The Irrelevance of Inter-party Difference

The next step is to build two models to test and discuss the hypothetical influence of political wings on the two macroeconomic variables that are most commonly used to describe country performance: the budget deficit and the public debt (each of which are measured both as a percentage of GDP and as yearly changes). The results obtained from the Mann-Whitney U-tests suggest that there are no differences among the ruling parties when considering each variable in isolation. However, we also need to evaluate this relationship by considering multivariate regressions. Therefore, the following two equations will be estimated (equation (1) for public budget deficit and equation (2) for public debt):

$$budget_t = const + A * X_t + B * Elect_t + C * Polit_t + e_t$$
(1)

$$debt_t = const + A * X_t + B * Elect_t + C * Polit_t + e_t$$
(2)

On their right-hand side, both of these equations use a column-vector of socioeconomic determinants that is suggested by the literature (X_t , with the estimated coefficients represented by the line-vector A), a column-vector of electoral determinants (*Elect_t*, with the estimated coefficients represented by the line-vector B), and a column-vector of political-wing variables (*Polit_t*, with the estimated coefficients represented by the line-vector C). The errors are assumed to follow white-noise processes. These variables follow authors who have studied the budget deficit and the public debt in Portugal¹³ and authors who have analysed the influence of partisan politics on national public finances.^{12,16,17} Table A1 exhibits the results from the ADF tests on the stationarity of these series. https://doi.org/10.1017/S1062798717000291 Published online by Cambridge University Press

Public ex	penditures	Public	revenues	Public e	mployees	Public i	nvestment	Real	GDP
Left-wing (obs=21)	Right-wing $(obs = 17)$	Left-wing $(obs = 21)$	Right-wing $(obs = 18)$	Left-wing (obs=21)	Right-wing $(obs = 18)$	Left-wing (obs = 21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)
H0: Mean (Le (Right) Pr(T > t) = 0	ean (Left) = Mean H0: Mean (Left) = Mean H0: Mean (Left) = Mean H0: Mean ht) (Right) (Right) (Right) > $ t $ > 0.977 Pr ($ T > t $) = 0.731 Pr ($ T > t $) = 0.968 Pr ($ T > t $		H0: Mean (L $(Right)$) Pr $(T > t) = 0$	H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.628$		eft) = Mean 0.695			
Opennes	ss rate (%)	Budget Def	icit (% GDP)	Public De	bt (% GDP)	Unemploy	ment rate (%)	Unemplo	yed people
Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)
H0: Mean (Le (Right) Pr(T > t) = 0	eft) = Mean 0.291	H0: Mean (Le (Right) Pr(T > t) = 0	eft) = Mean 0.213	H0: Mean (Le (Right) Pr(T > t) = 0	eft) = Mean 0.240	H0: Mean (L) (Right) Pr $(T > t) = 0$	eft) = Mean 0.895	H0: Mean (Le (Right) Pr(T > t) = 0	eft) = Mean 0.760

Table 4. Two-sample t test with unequal variances (Yearly growth rates for Portuguese data, 1975–2012).

Note: The yearly growth rate for two consecutive values of the variable $X(X_t, X_{t+1})$ is given by the formula $(X_{t+1} - X_t)/(X_t)$

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Public expenditures		Public revenues		Public e	Public employees		nvestment	Real	GDP
Left-wing $(obs = 21)$	Right-wing $(obs = 18)$	Left-wing $(obs = 21)$	Right-wing $(obs = 18)$	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)
H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.575$		H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.606$		H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.551$		H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.769$		H0: Mean (Left) = Mean (Right) Pr (T > t) = 0.784	
Opennes	ss rate (%)	Budget defi	cit (% GDP)	Public det	ot (% GDP)	Unemployment rate (%)		Unemplo	yed people
Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)						
H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.993$		H0: Mean (Le (Right) Pr(T > t) = 0	ft) = Mean 0.634	H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.664$		H0: Mean (Left) = Mean (Right) Pr(T > t) = 0.975		H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.760$	

Table 5. Two-sample t test with unequal variances (log values for Portuguese data, 1974–2012).

Public ex	spenditures	Public	revenues	Public employees		Public investment		Real	GDP
Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing $(obs = 18)$
H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.537$		H0: Mean (Left) = Mean (Right) Pr $(T > t) = 0.592$		H0: Mean (Lo (Right) Pr(T > t) = 0	H0: Mean (Left) = Mean (Right) Pr(T > t) = 0.414		H0: Mean (Left) = Mean (Right) Pr (<i>T</i> > <i>t</i>) = 0.605		eft) = Mean 0.392
Openne	ss rate (%)	Budget def	icit (% GDP)	Public del	ot (% GDP)	Unemployment rate (%)		Unemployed people	
Left-wing $(obs = 21)$	Right-wing (obs=18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing $(obs = 21)$	Right-wing (obs = 18)	Left-wing (obs=21)	Right-wing $(obs = 18)$
H0: Mean (L (Right) Pr $(T > t) = 1$	eft) = Mean 0.753	H0: Mean (Le (Right) Pr(T > t) = 0	eft) = Mean 0.538	H0: Mean (Le (Right) Pr(T > t) = 0	eft) = Mean).663	H0: Mean (Le (Right) Pr $(T > t) = 0$	eft) = Mean).785	H0: Mean (Le (Right) Pr(T > t) = 0	eft) = Mean 0.360

Table 6. Two-sampl	le t test with unequa	l variances (absolu	te values for Portugues	se data, 1974–2012).
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Tables 7 and 8 show the coefficients that were estimated by the Static Ordinary Least Squares for the various specifications of our models by considering the two transformations of the Portuguese public deficit – logs and yearly growth rates – and their stochastic explicative variables. Table 9 shows the coefficients that were estimated for the log variables but now using different estimators – the Dynamic Ordinary Least Squares (DOLS),⁵¹ a Vector of Error Correction Models (VECM), and a model derived from autoregressive distributed lags (ARDL).⁵² These estimators lead to a better understanding of the nature of the non-stationarity of the variables, and their estimates provide a clearer idea of the direction and significance of the influence of our explicative variables on public debt and the public deficit.

		Budg	get deficit (% C	GDP)	
	1	2	3	4	5
Openness rate (%)	-1.432**	-1.422**	-1.351**	-1.362**	-1.443**
	(0.607)	(0.620)	(0.613)	(0.588)	(0.584)
Public employees	0.506	0.488	0.461	0.658*	0.693*
1	(0.352)	(0.365)	(0.355)	(0.364)	(0.362)
Unemployed people	0.661**	0.611**	0.619**	0.550**	0.590**
	(0.248)	(0.250)	(0.248)	(0.244)	(0.246)
Real GDP	-0.148*	-0.143*	-0.143*	-0.163*	-0.167**
	(0.081)	(0.083)	(0.082)	(0.080)	(0.080)
Electoral year	0.135				0.117
-	(0.123)				(0.119)
Electoral year (lag)	. ,	0.007			
		(0.105)			
Parliament's election			0.110	0.096	
			(0.186)	(0.179)	
Municipalities' election			0.120	0.120	
-			(0.117)	(0.113)	
Parliamentary majority	-0.014	-0.027	-0.023		
of left-wing parties	(0.109)	(0.110)	(0.109)		
Share of seats for	. ,	. ,	. ,	-0.934	-0.881
left-wing parties				(0.676)	(0.678)
at Portuguese Parliament					
Tenure duration	0.010	-0.027	0.017	-0.001	-0.007
	(0.062)	(0.053)	(0.089)	(0.086)	(0.061)
R^2	0.554	0.535	0.564	0.592	0.579
ADF (1)	-5.575	-7.913	-12.744	-4.637	-4.743

Table 7. SOLS results for Portuguese budget deficit (1974–2012).

Constant estimated but omitted in the table. Standard errors between parentheses. Significance levels: 1%, ***. 5%, **. 10%, *. ADF (1): Augmented Dickey-Fuller test for unit root on the residual series.

		Yearly change	of budget de	ficit (% GDP)
	1	2	3	4	5
Openness rate (%)	-0.845	-0.769	-0.650	-0.678	-0.878
•	(0.768)	(0.789)	(0.735)	(0.729)	(0.763)
Public Employees	0.637	0.489	0.523	0.529	0.631
	(0.446)	(0.464)	(0.426)	(0.452)	(0.473)
Unemployed people	-0.002	-0.068	-0.062	-0.063	0.002
	(0.315)	(0.318)	(0.298)	(0.303)	(0.321)
Real GDP	-0.034	-0.020	-0.026	-0.023	-0.030
	(0.103)	(0.105)	(0.098)	(0.099)	(0.105)
Electoral year	0.274*				0.273*
	(0.155)				(0.156)
Electoral year (lag)		-0.169			
		(0.133)			
Parliament's election			0.377	0.374	
			(0.222)	(0.222)	
Municipalities' election			0.230	0.231	
			(0.140)	(0.140)	
Parliamentary majority	0.052	0.027	0.042		
of left-wing parties	(0.138)	(0.142)	(0.131)		
Share of seats				0.148	0.236
for left-wing parties at Portuguese Parliament				(0.838)	(0.885)
Tenure duration	0.081	0.012	0.155	0.154	0.081
	(0.078)	(0.068)	(0.106)	(0.107)	(0.079)
R^2	0.184	0.143	0.286	0.284	0.182
ADF (1)	-3.217	-11.499	-2.873	-6.216	-6.412

Table 8. SOLS results for Portuguese budget deficit (1974–2012).

Constant estimated but omitted in the table. Standard errors between parentheses. Significance levels: 1%, ***. 5%, **. 10%, *. ADF (1): Augmented Dickey-Fuller test for unit root on the residual series.

To measure the influence of political wings, three alternative variables have been introduced in the model:^{23,53,54}

- A binary variable that signals each year in which there was a majority of left-wing parties in the national parliament.
- The share of seats for left-wing parties in the Portuguese parliament.
- Length of tenure.

We recall that the descriptive statistics of these variables are shown in Table 1 (log scale) and in Table 3 (yearly growth rates).

Finally, we want to analyse the statistical significance of the political wings on the Portuguese budget deficit and on the Portuguese public debt. To do this, we are going to use the traditional binary variable that identifies those years that were ruled by a

		Budget deficit	(% GDP)
	DOLS	VECM	ARDL
Openness rate (%)	-1.709*	-2.389***	-2.211***
	(0.845)	(0.542)	(0.697)
Public employees	1.003**	1.084***	2.375***
	(0.465)	(0.276)	(0.353)
Unemployed people	0.486*	0.470***	-1.202***
	(0.256)	(0.167)	(0.215)
Real GDP	-0.094	0.213*	0.018
	(0.177)	(0.109)	(0.153)
Parliament's election	0.042	0.002	0.006
	(0.193)	(0.185)	(0.418)
Municipalities' election	0.132	0.011	0.327
1	(0.137)	(0.140)	(0.267)
Share of seats for left-wing	-0.808	-0.189	-0.789***
parties at Portuguese Parliament	(0.738)	(0.432)	(0.555)
Tenure duration	-0.029	-0.056	0.007
	(0.086)	(0.141)	(0.163)
Main statistics	$R^2 = 0.653$	Alfa:	$R^2 = 0.413$
		-1.193***	Wald (p-value) $= 0.021$
		(0.242)	
		Trace Test:	
		Rank (p-value)	
		0.0%	
		1: 5%	
		2: >10%	
		3. > 10%	
		4 > 10%	
ADF (1)	-6.186	1. / 10/0	

Table 9. DOLS, VECM and ARDL results for Portuguese budget deficit (1974-2012).

Constant estimated but omitted in the table. Standard errors between parentheses. Significance levels: 1%, ***. 5%, **. 10%, *. ADF (1): Augmented Dickey-Fuller test for unit root on the residual series.

left-wing coalition of parties as '1' and those years that were ruled by a right-wing coalition of parties as '0'. Additionally, we are going to use the share of seats that belong to left-wing parties in the national parliament. Therefore, the null hypothesis of the statistical non-significance of the estimated coefficients for these political variables shall be interpreted, if accepted, as the confirmation of the irrelevance of the parties' differences for public finance management in Portugal. We control these political variables using the tenure length, which is measured as the number of years that the incumbent party holds the office. This is a common procedure for two main reasons. First, the procedure recognizes that the tenure length can be used to control for the awareness effect that is more visible in governments that have been in power

		Publi	c Debt (% (GDP)	
	1	2	3	4	5
Openness rate (%)	0.386*	0.393*	0.398*	0.372*	0.361*
	(0.197)	(0.198)	(0.200)	(0.197)	(0.195)
Public Employees	-0.113	-0.126	-0.118	-0.044	-0.043
	(0.115)	(0.117)	(0.116)	(0.122)	(0.121)
Unemployed people	0.458***	0.452***	0.444***	0.420***	0.432***
	(0.081)	(0.080)	(0.081)	(0.082)	(0.082)
Real GDP	0.157***	0.159***	0.159***	0.153***	0.153***
	(0.026)	(0.027)	(0.027)	(0.027)	(0.027)
Electoral year	0.024				0.016
	(0.039)				(0.040)
Electoral year (lag)		-0.014			
		(0.033)			
Parliament's election			-0.010	-0.018	
			(0.061)	(0.060)	
Municipalities' election			0.034	0.035	
			(0.038)	(0.038)	
Parliamentary majority of left-wing	0.027	0.025	0.024	. ,	
parties	(0.035)	(0.035)	(0.036)		
Share of seats for left-wing parties				-0.216	-0.201
at Portuguese Parliament				(0.227)	(0.226)
Tenure duration	0.008	0.001	-0.003	-0.010	0.001
	(0.020)	(0.017)	(0.029)	(0.029)	(0.020)
R^2	0.930	0.929	0.931	0.932	0.930
ADF (1)	-2.442	-2.588	-2.678	-2.246	-2.275

Table 10. SOLS results for Portuguese Public Debt (1974–2012).

Constant estimated but omitted in the table. Standard errors between parentheses. Significance levels: 1%, ***. 5%, **. 10%, *. ADF (1): Augmented Dickey-Fuller test for unit root on the residual series using one lag of the residual series.

for more years,⁵⁵ i.e. more mature governments tend to have more knowledge of national public finances. Second, the procedure identifies that more mature governments have a greater propensity to run consolidation programmes on national public finances than do governments with less experience.^{56,57}

Tables 10–12 show the results for Portuguese public debt as the dependent variable. Table 10 shows the results for the SOLS estimation on the logs of our stochastic variables and our set of binary independent variables. Table 11 shows the results for the SOLS estimation using the yearly growth rates of the stochastic variables and our set of binary independent variables. Table 12 shows the DOLS, the VECM and the ARDL results as done for the budget deficit in Table 9 but now using public debt as the dependent variable.

Briefly analysing Tables 10–12, we observe again that electoral moments or political wings do not influence Portuguese public debt. However, we find again that

Yea	rly change	of Public	Debt (% C	DP)
1	2	3	4	5
-0.193	-0.184	-0.177	-0.187	-0.205
(0.160)	(0.160)	(0.161)	(0.158)	(0.157)
0.244**	0.226**	0.237**	0.213**	0.219**
(0.093)	(0.094)	(0.093)	(0.098)	(0.097)
-0.013	-0.017	-0.023	-0.014	-0.003
(0.066)	(0.064)	(0.065)	(0.066)	(0.066)
-0.052**	-0.051**	-0.051**	-0.047**	-0.048**
(0.021)	(0.021)	(0.021)	(0.022)	(0.022)
0.023		· · · · ·	· /	0.025
(0.032)				(0.032)
	-0.023			
	(0.027)			
		0.008	0.009	
		(0.049)	(0.048)	
		0.034	0.034	
		(0.031)	(0.030)	
0.022	0.020	0.020	(
(0.029)	(0.028)	(0.029)		
. ,	· /	. ,	0.189	0.203
			(0.182)	(0.182)
-0.003	-0.009	-0.006	-0.004	-0.001
(0.016)	(0.014)	(0.023)	(0.023)	(0.016)
0.457	0.461	0.474	0.485	0.468
-4.998	-3.253	-4.105	-4.838	-4.981
	Yea 1 -0.193 (0.160) 0.244** (0.093) -0.013 (0.066) -0.052** (0.021) 0.023 (0.032) 0.022 (0.029) -0.003 (0.016) 0.457 -4.998	Yearly change 1 2 -0.193 -0.184 (0.160) (0.160) 0.244** 0.226** (0.093) (0.094) -0.013 -0.017 (0.066) (0.064) -0.052** -0.051** (0.021) (0.021) 0.023 (0.027) 0.022 0.020 (0.029) (0.028) -0.003 -0.009 (0.016) (0.014) 0.457 0.461 -4.998 -3.253	$\begin{tabular}{ c c c c c } \hline Yearly change of Public 1 \\ \hline 1 & 2 & 3 \\ \hline \hline 1 & 2 & 3 \\ \hline -0.193 & -0.184 & -0.177 \\ (0.160) & (0.160) & (0.161) \\ 0.244** & 0.226** & 0.237** \\ (0.093) & (0.094) & (0.093) \\ -0.013 & -0.017 & -0.023 \\ (0.066) & (0.064) & (0.065) \\ -0.052** & -0.051** & -0.051** \\ (0.021) & (0.021) & (0.021) \\ 0.023 \\ (0.027) & & & & & \\ (0.027) & & & & & & \\ 0.008 \\ (0.049) \\ 0.034 \\ (0.031) \\ 0.022 \\ (0.029) & (0.028) & (0.029) \\ \hline -0.003 & -0.009 & -0.006 \\ (0.016) & (0.014) & (0.023) \\ 0.457 & 0.461 & 0.474 \\ -4.998 & -3.253 & -4.105 \\ \hline \end{tabular}$	$\begin{tabular}{ c c c c c c } \hline Yearly change of Public Debt (% G G f f l l l l l l l l l l l l l l l l$

Table 11. SOLS results for Portuguese Public Debt (1974–2012).

Constant estimated but omitted in the table. Standard errors between parentheses. Significance levels: 1%, ***. 5%, **. 10%, *. ADF (1): Augmented Dickey-Fuller test for unit root on the residual series.

Portuguese public debt (as a share of the national income) tends to react to the number of unemployed people (which confirms the dependence of the structure of the Portuguese Welfare State) and to the real GDP per capita (i.e. to the economic cycle of the country).

Again, these results are supported by Meltzer and Richard,¹⁹ Garret and Lange,²⁸ Peters³⁰ and Scharpf³¹ who have identified that the national public finances of highly globalized and small economies are driven mostly by socio-economic dimensions and not by inter-parties differences.

To test the causality of the determinants that were found to be statistically significant, we ran Granger Causality tests and Instantaneous Causality tests using JMulti. Table 13 reports the results for the budget deficit and for public debt.

As reported in Table 13, we confirm that there is a statistically significant causal effect of the Portuguese trade openness, the number of unemployed people, and the real

Public Debt (% GDP)			
	DOLS	VECM	3
Openness rate (%)	0.020	0.727***	-0.454**
	(0.214)	(0.117)	(0.229)
Public Employees	0.203*	-0.040	-0.655 * * *
	(0.118)	(0.056)	(0.107)
Unemployed people	0.377***	0.551***	1.102***
	(0.069)	(0.034)	(0.064)
Real GDP	0.217***	0.457***	0.405***
	(0.041)	(0.027)	(0.055)
Parliament's election	-0.045	-0.028	-0.282**
	(0.047)	(0.032)	(0.114)
Municipalities' election	0.046	0.049	-0.275***
-	(0.029)	(0.031)	(0.051)
Share of seats for left-wing parties at	-0.110	-0.091	0.420**
Portuguese Parliament	(0.180)	(0.087)	(0.168)
Tenure duration	-0.026	0.025	0.252***
	(0.023)	(0.024)	(0.042)
Main statistics	$R^2 = 0.965$	Alfa:	$R^2 = 0.770$
		0.247***	Wald $(p$ -value) = 0.041
		(0.021)	
		Trace Test:	
		Rank (p-value)	
		0: 0%	
		1: 5%	
		2:>10%	
		3:>10%	
		4: >10%	
ADF (1)	-3.647		

Table 12. DOLS, VECM and ARDL results for Portuguese Public Debt (1974-2012).

Constant estimated but omitted in the table. Standard errors between parentheses. Significance levels: 1%, ***. 5%, **. 10%, *. ADF (1): Augmented Dickey-Fuller test for unit root on the residual series.

GDP per capita on the public budget deficit. This again shows that the past changes in the Portuguese level of globalization, its labour market and its economic growth induce future changes in the Portuguese public budget deficit. Although it is significant in the cointegration equation, the number of Portuguese public employees is not shown to anticipate the budget deficit. To interpret these results, we view this as a case of short-term causation that tends to lose statistical significance in the long-term. Table 14 also confirms that the past changes in the Portuguese number of unemployed people and GDP lead to subsequent changes in the Portuguese level of public indebtedness.

We recognize that these results have pioneering implications for the study of the relationship between structural economic and social realities, electoral moments,

	H0: Openness rate does not cause budget deficit	H0: value of Unemployed does not cause budget deficit	H0: value of public employees does not cause budget deficit	H0: real GDP per capita does not cause budget deficit
Granger causality	Test statistic l = 6.138 pval-F(<i>l</i> ; 2, 38) = 0.0049	Test statistic l = 8.194 pval-F(<i>l</i> ; 2, 38) = 0.0011	Test statistic l = 0.572 pval-F(<i>l</i> ; 2, 38) = 0.5690	Test statistic l = 3.934 pval-F(l ; 2, 38) = 0.028
Instantaneous causality	Test statistic: c = 4.435 pval-Chi(c; 1) = 0.0352	Test statistic: c = 2.910 pval-Chi(c; 1) = 0.088	Test statistic: c = 0.421 pval-Chi(c; 1) = 0.516	Test statistic: c = 10.827 pval-Chi(c; 1) = 0.000

Table 13. Causality tests on budget deficit.

Table 14. Causality tests on public debt.

	H0: Openness rate does not cause public debt	H0: value of Unemployed does not cause public debt	H0: value of public employees does not cause public debt	H0: real GDP per capita does not cause public debt
Granger causality	Test statistic l = 0.890 pval-F(l ; 2, 38) = 0.419	Test statistic l = 3.808 pval-F(<i>l</i> ; 2, 38) = 0.0311	Test statistic l = 0.370 pval-F(<i>l</i> ; 2, 38) = 0.693	Test statistic l = 5.497 pval-F(<i>l</i> ; 2, 38) = 0.008
Instantaneous causality	Test statistic: c = 0.225 pval-Chi(c; 1) = 0.635	Test statistic: c = 4.305 pval-Chi(c; 1) = 0.038	Test statistic: c = 1.524 pval-Chi(c; 1) = 0.217	Test statistic: c = 6.535 pval-Chi(c; 1) = 0.010

political wings and public finances in Portugal. They clarify which factors truly influence the Portuguese public budget deficit and the Portuguese level of public debt.

5. Conclusions and Further Research

There is no empirical evidence to support the hypothesis that differences between political parties matter for the public finances or for the overall financial and economic performance of Portugal. It is simply not true that one party is better for the country than the other, at least not in the last 39 years, which is the entire period of democracy in the country. Parker⁵⁸ finds similar results for the US when comparing the performances of the Republican Party and the Democratic Party during the period 1949–2005.

The policy processes and political rhetoric based on competitive intrigue, enmity and confrontation between parties keep promising differentiated economic and social outcomes depending on who is in power: PS or PSD (either alone or in coalition). While commonplace in popular belief and partisanship, this research found no statistical significance to support this differentiated effect. Using various techniques and procedures such as graphic analysis, descriptive statistics, and Mann-Whitney tests, it cannot be claimed that the years that were ruled by one of the Portuguese political wings produced significantly different outcomes than the years that were ruled by the opposite political wing. Future research could focus on whether these undifferentiated results between parties also apply to the composition of expenditures.

This conclusion applies not only for the main public finance variables studied – budget deficit and public debt – but also for the GDP growth rates, unemployment rates, size of the public sector and public investment. These indicators have performed indifferently to the political party differences.

Three main strong implications for Portuguese democracy and the policy process can be derived from these results. First, the party differences do not matter but the parties matter. In a democracy, political parties try to build unique identities and support bases to be elected for office. While these differences should be emphasized during the official electoral campaign periods, outside these periods, political leaders should behave according to a certain ethical code that would allow them to embrace legislation from a national priority standpoint and not from a competing democracy paradigm. For example, it was always possible during the three times that the IMF intervened in the country since 1974, and during the Euro process, to have a broad inter-party political pact regarding institutional development and international commitment. Future research could try to understand why these domestic pacts are rare in Portugal without international intervention. Why do specific configurations of situations and conditions increase or decrease political cooperation?

Second, Portugal, and modern democracies in general, need new institutional designs that aim at creating a better incentives structure to foster collaboration between political parties. The central theme here is the gains from association that are achieved when politicians are able to develop trust and reciprocity, and coordinate action. If politicians are the legitimate representatives of the people, the question is how to sustain agreements that counteract individual temptations to select short-term self-interested actions when all parties would be better off if each party selected actions that lead to higher collective and individual returns. Short-term competing approaches to the policy process, as illustrated by the intensity of political quarrels that every day are brought to us in several formats (e.g. the press, social media, political discourse), consume too much of the energy, attention and political vision that a long-term strategic debate for the country would require from all group and individual actors.

Third, collaboration and coordinated action require the development of trust and reciprocity between political parties. As empirically shown, the current schemes of adversarial democracy have failed in Portugal and, apparently, in other southern European countries such as Spain, Italy and Greece. Trust building is an evolutionary process of multiple iterations through which parties generate cognitive systems and decision rules that lead to outcomes that are greater than those of alternative designs over time. Party differences, ideology and identity matter for the diversity of political ideas, the engagement of civic participation in the lives of communities and the advancement of societies. What the results of this research show is that, because neither of the two major parties has been better for the country than the other, differences should be reconciled for policy enhancement and should not undermine the collective good. Ideas should still compete in the political arena, but collaboration that is driven by an ethics of trust and reciprocity and/or the need for a broader social and political support base should be the norm in policy design and implementation. Moving forward, the focus should be on leveraging the overlaps between the parties' agendas and negotiation skills.

Two last suggestions are given for further research that can be derived from this study. The first is the role that the regulation of the activities of political parties could play in fostering collaborative work between political leaders. Indeed, the failure to cooperate for mutual benefit does not always signal ignorance or irrationality. Game theorists explain in various ways how contextual conditions such as history, rules and norms within which games are played, influence players' behaviour and outcomes. North^{59,60} and Ostrom^{7,61} argue that if rules change, so will outcomes. The second suggestion is the use of multivariate econometric models, which will clarify the significance of domestic inter-party differences for the performance of public finances within the broader context of economic globalization. For this step, several economic, institutional, political and social variables should also be considered.

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References

- 1. For a detailed description of each party's ideological inclinations, consult www. ps.pt and www.psd.pt
- The authors classify the eight-month long government of Carlos Mota Pinto (22 November 1978 – 2 August 1979) as Social Democrat and the five-month long government of Maria de Lourdes Pintasilgo (2 August 1979 – 3 January 1980) as Socialist.
- International Monetary Fund. IMF (Several years). IMF Data Mapper. Available at http://www.imf.org/external/datamapper/index.php (accessed 28 May 2013).
- 4. Portugal Gov. (2013). Government of Portugal. Available at http://www.portugal. gov.pt/pt/o-governo/arquivo-historico/chefes-de-estado/chefes-de-estado.aspx (accessed 21 August 2013).
- 5. G. Almond and S. Verba (1963) *The Civic Culture: Political Attitudes and Democracy in Five Nations* (Princeton, NJ: Princeton University Press).
- 6. J. Coleman (1988) Social capital in the creation of human capital. *American Journal of Sociology*, Supplement **94**, pp. S95–S120.

- 7. E. Ostrom (1990) Governing the Commons: The Evolution of Institutions for Collective Action (New York: Cambridge University Press)
- 8. W. Nordhaus (1990) Alternative approaches to the political business cycle. Cowles Foundation Paper No 748.
- 9. R. Putnam (1992) *Making Democracy Work: Civic Tradition in Modern Italy* (Princeton, NJ: Princeton University Press).
- 10. R. Wright (2001) Nonzero: the Logic of Human Destiny (New York: Vintage Books).
- R. Hardin (2005) Gaming trust. In: E. Ostrom and J. Walker (Eds.), *Trust and Reciprocity: Interdisciplinary Lessons from Experimental Research* (pp. 80–101) (New York: Russel Sage Foundation).
- 12. T. Cusack (1997) Partisan politics and public finance: Changes in public spending in the industrialized democracies, 1955–1989. *Public Choice*, **91**, pp. 375–395.
- 13. P. Mourão (2007) Long-Term Determinants of Portuguese Public Expenditures. International Research Journal of Finance and Economics, 7, pp. 153–167.
- 14. A. Alesina, G. Cohen and N. Roubini (1993) Electoral business cycles in industrial democracies. *European Journal of Political Economy*, **9**, pp. 1–23.
- S. Hahm, M. Kamlet and D. Mowery (1995) Influences on deficit spending in industrialized democracies. *Journal of Public Policy*, 15(2), pp. 183–197.
- A. Cowart (1978) The economic policies of European governments, Part II: Fiscal policy. *British Journal of Political Science*, 9, 425–440.
- 17. F. Carlsen (1997) Counter fiscal policies and partian politics: Evidence from industrialized countries. *Applied Economics*, **29**, pp. 145–151.
- 18. T. Cusack (2001) Partisanship in the setting and coordination of fiscal and monetary policies. *European Journal of Political Research*, **40**, pp. 93–115.
- A. Meltzer and S. Richard (1981) A rational theory of the size of government. *Journal of Political Economy*, 89(51), pp. 914–927.
- C. Boix (1998) Political Parties, Growth and Equality: Conservative and Social Democratic Economic Strategies in the World Economy (Cambridge, UK: Cambridge University Press).
- 21. G. Brennan and J. Buchanan (1980) *The Power to Tax: Analytical Foundations of a Tax Constitution* (Cambridge, UK: Cambridge University Press).
- 22. B. Frey and W. Pommerehne (1984) The hidden economy: State and prospects for measurement. *Review of Income and Wealth*, **30**(1), pp. 1–23.
- 23. F. Castles (Ed.) (1982) *The Impact of Parties: Politics and Policies in Democratic Capitalist State* (Beverly Hills: Sage).
- T. Besley, T. Persson and D. Sturm (2005) Political competition and economic performance: Theory and evidence from the United States. NBER Working Paper No. 11484.
- 25. F. Padovano and R. Ricciuti (2008) *Italian Institutional Reforms: A Public Choice Perspective* (New York: Springer).
- 26. G. Boyne (1994) Party competition and local spending decisions. *British Journal* of *Political Science*, **35**, pp. 210–222.
- A. Solé-Ollé (2006) The effects of party competition on budget outcomes: Empirical evidence from local governments in Spain. *Public Choice*, **126**(1/2), pp. 145–176.
- G. Garrett and P. Lange (1991) Political responses to interdependence: What's 'left' for the left? *International Organization*, 45, pp. 539–564.
- 29. M.J. Artis (1987) Deficit spending. In: J. Eatwell, M. Milgate and P. Newman, (Eds), *The New Palgrave: A Dictionary of Economics* (London: Macmillan).
- 30. B. Peters (1991) *The Politics of Taxation: A Comparative Perspective* (Oxford: Blackwell).

- 31. F. Scharpf (1991) *Crisis and Choice in European Social Democracy* (New York: Cornell University Press).
- 32. P. Kurzer (1993) Business and Banking (Ithaca: Cornell University Press).
- 33. E. Helleiner (1994) *States and the Reemergence of Global Finance: From Bretton Woods to the 1990s* (Ithaca: Cornell University Press).
- G. Garrett (1996) Capital mobility, trade, and the domestic politics of economic policy. In: R.O. Keohane and H.V. Milner (Eds.), *Internationalization and Domestic Politics* (pp. 79–107) (Cambridge, UK: Cambridge University Press).
- 35. G. Garrett (1998) *Partisan Politics in the Global Economy* (Cambridge, UK: Cambridge University Press).
- 36. W. Nordhaus (1975) The political business cycle. *The Review of Economic Studies*, **42**(2), pp. 169–190.
- 37. B. Frey and F. Schneider (1981) A politico-economic model of the U.K.: New estimates and predictions; *The Economic Journal*, **91**(363), pp. 737–740.
- K. Rogoff and A. Sibert (1988) Elections and macroeconomic policy cycles. *Review of Economic Studies*, 55, pp. 1–16.
- 39. Comissão Nacional de Eleições, CNE (2013) Resultados Eleitorais. Available at http://eleicoes.cne.pt/sel_eleicoes.cfm?m=raster (accessed 13 May 2013).
- C. Coelho, F. Veiga and L. Veiga (2006) Political business cycles in local employment: Evidence from Portugal. *Economic Letters*, 93, pp. 82–87.
- 41. A. Aisen and F. Veiga (2011) How does political instability affect economic growth? IMF Working Paper, International Monetary Fund.
- L. Veiga and F. Veiga (2007) Political business cycles at the municipal level. Public Choice, 131(1/2), pp. 45–64.
- 43. This year (1974) is the year of the Carnation Revolution. Our data also include the years when Portugal had to fulfil the Maastricht criteria related to the Stability and Growth Pact (since 1997) and the periods of financial and economic crisis when Portuguese fiscal autonomy has been highly influenced by the International Monetary Fund (1978–1979 and 1983–1985), the European Central Bank and, the European Commission (since 2011). Therefore, we have to recognize that, since 1974, a considerable number of years can be characterized by these external influences, which put special pressures on the parties' strategies.
- 44. We also used the cyclical adjusted deficit (as a percentage of GDP) by using, as a source, Eurostat (2013) Cyclical adjust balance (Portugal, several years). Available at http://eurostat.eu/ (accessed 4 October 2013). The results that we obtained are similar to those here discussed. Full details are available upon request.
- M. Pinheiro (Coord.). (1997) Séries Longas para a Economia Portuguesa, Vol. I (Lisboa: Séries Estatísticas do Banco de Portugal).
- 46. J. Neves (1994) *The Portuguese Economy: A Picture in Figures* (Lisboa: Universidade Católica Editora).
- 47. Instituto do Emprego e Formação Profissional, IEFP (Several years) (Lisboa: Relatórios anuais do Mercado do Emprego).
- 48. PORDATA (2013) Base de dados do Portugal Contemporâneo. Available at http://www.pordata.pt/en/Home (accessed 20 August 2013).
- 49. We considered the following parties and movements/coalitions to be Portuguese left-wing parties: PS (Partido Socialista, the main Portuguese Socialist Party), PCP (Partido Comunista Português, the main Portuguese Communist Party), MDP (Movimento Democrático Português), UDP (União Democrática Portuguesa), APU (Aliança do Povo Unido), FRS (Frente Republicana e Socialista), CDU/ PCP-PEV (a coalition of PCP with the environmentalist party *Os Verdes*), and

BE (Bloco de Esquerda, a coalition of heterogeneous leftist movements). Source: http://eleicoes.cne.pt/raster/index.cfm?dia=16&mes=12&ano=1979&eleicao=am

- 50. For a more complete description, please contact the authors.
- 51. Using the case of the public budget (also replicated for public debt), the respective DOLS is given by $budget_t = const + A^*X_t + B^*Elect_t + C^*Polit_t + D^*L_t + e_t$ where L_t represents a set of leads and lags of the first differences of the explicative variables. J. Stock and M. Watson (1993) A simple estimator of cointegrating vectors in higher order integrated systems. *Econometrica*, **61**(4), pp. 783–820.
- M. Pesaran, Y. Shin and R. Smith (2001) Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), pp. 289–326.
- 53. D. Cameron (1978) The expansion of the public economy: A comparative analysis. *American Political Science Review*, **72**, pp. 1243–1261.
- 54. D. Elkins (1974) The measurement of party competition. *American Political Science Review*, **68**, pp. 682–700.
- F. Ferris and M. Moia (2009) What determines the length of a typical Canadian parliamentary government? *Canadian Journal of Political Science*, 42(4), pp. 881–910.
- A. Merlo (1998) Economic dynamics and government stability in postwar Italy. *The Review of Economics and Statistics*, 80(4), pp. 629–637.
- 57. O. Désiré (2007) Oil rents and the tenure of the leaders in Africa. *Economics Bulletin*, **3**(42), pp. 1–12.
- E. Parker (2006) Does the party in power matter for economic performance? UNR Economics Working Paper Series. Working Paper No. 06-008.
- 59. D. North (1990) *Institutions, Institutional Change and Economic Performance* (New York: Cambridge University Press).
- 60. D. North (2005) Understanding the Process of Institutional Change (Princeton, NJ: Princeton University Press).
- 61. E. Ostrom (2005) *Understanding Institutional Diversity* (Princeton, NJ: Princeton University Press).

		ADF		
y_t (log series)	$\Delta^d y_t$	No interception; No trend	With interception; No trend	With interception; With trend
Public expenditures	$\begin{array}{c} d = 0 \\ d = 1 \end{array}$	-3.188 (0)***	-4.447 (0)***	-4.449 (1)***
(% GDP)		-2.390 (0)**	-4.390 (0) ***	-4.049 (2)**
Public revenues	$\begin{array}{c} d = 0 \\ d = 1 \end{array}$	-3.919 (2)***	-3.529 (1)**	-2.917 (2)
(% GDP)		-2.466 (1)**	-3.849 (1) ***	-5.024 (1) ***
Number of public employees	d = 0 $d = 1$	1.226 (1) -3.033 (1)***	1.226 (2) -3.400 (1)***	-2.615 (2) -3.348 (1)***
Public investment	$\begin{array}{c} d = 0 \\ d = 1 \end{array}$	-0.198 (2)	-2.461 (2)	-1.905 (1)
(% GDP)		-3.932 (1)***	-3.850 (1)***	-4.706 (2)***

Table A1. Augmented Dickey-Fuller Statistics, 1974–2012.

		ADF		
y_t (log series)	$\Delta^d y_t$	No interception; No trend	With interception; No trend	With interception; With trend
Real GDP	d = 0 $d = 1$	-0.066 (1) -1.146 (1)	-0.270 (1) -3.268 (1) **	-0.219 (1) -3.178 (1)
Openness rate	d = 0 $d = 1$	0.672 (1) -5.353 (1)***	-1.236 (1) -5.407 (1)***	-2.458 (1) -5.294 (1)***
Budget deficit	d = 0 $d = 1$	-0.533 (1) -8.224 (1)***	-3.773 (1)*** -5.322 (1)***	-5.047 (1)*** -5.239 (1)***
Public debt	d = 0 $d = 1$	1.855 (1) -2.251 (1)**	-3.090 (2)** -3.440 (1)**	-3.836 (2)** -3.627(1)**
Unemployment rate	d = 0 $d = 1$	-1.198 (1) -3.476 (1)***	-2.819 (1)* -3.591 (1)**	-3.008 (1) -3.543 (2)**
Number of unemployed people	d = 0 $d = 1$	0.652 (1) -3.836 (1)***	-3.163 (1)** -3.998 (1)***	-3.858 (1)** -3.857 (2)**

Table A1. (Continued)

Note: Significance level: 10%, *; 5%, **; 1%, ***. Between parentheses, optimum number of lags using Schwarz Criteria. *d* identifies the level of differentiation of y_t .

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