GOVERNMENT RESPONSIVENESS IN TIMES OF INTERNAL DEVALUATION.

HINTS AT A CRISIS OF REPRESENTATION IN EUROZONE?

Adrian Bodea*
José Manuel Sánchez-Santos
University of A Coruña (Spain)
* Author for correspondence: a.bodea@udc.es

ABSTRACT

The research objective of this paper is to find out the best predictor of internal devaluation measures imposed by governmental decision. There are two competing hypotheses. On the one hand, political instability may affect the implementation of internal devaluation due to opportunistic behavior and strategic thinking from the parties in power. On the other hand, governments also respond in real time to the signals from the financial markets with respect to the necessity of such measures. To accommodate for the contrasting hypotheses, we employ a panel dataset (2007-2017 Eurozone countries) with a fixed-effects model where the expected time in office of each cabinet (previously estimated using survival analysis) and the bond yields paid to issue public debt into financial markets, are explanatory variables. After controlling for other effects, the results show that expected time has no significant effect, while the yields do, something that might hint at a crisis of representation.

Keywords: Internal devaluation, opportunistic behavior, sovereignty and financial markets.

JEL Classification: D72, J38, N24.

CAPACIDAD DE RESPUESTA GUBERNAMENTAL EN TIEMPOS DE DEVALUACIÓN
INTERNA. ¿INDICIOS DE UNA CRISIS DE REPRESENTACIÓN EN LA EUROZONA?

RESUMEN

El objetivo de este artículo es encontrar el mejor predictor de las medidas de devaluación interna implementadas por los gobiernos de los países de la eurozona. Con esta finalidad se someten a contraste dos hipótesis explicativas alternativas. Por un lado, la inestabilidad política puede afectar la implementación de la devaluación interna debido al comportamiento oportunista y al pensamiento estratégico de los partidos en el poder. Por el otro lado, los gobiernos responden en tiempo real a las señales que emiten los mercados financieros sobre la necesidad de adoptar tales medidas. Para poder probar empíricamente ambas hipótesis, se emplea un conjunto de datos de panel (países de la Eurozona 2007-2017) y se estima un modelo de efectos fijos donde el tiempo esperado en el cargo de cada gobierno (previamente estimado mediante análisis de supervivencia) y los rendimientos de los bonos públicos en los mercados financieros son variables explicativas. Después de controlar por otros efectos, los resultados muestran que el tiempo que un gobierno espera mantenerse en el poder no tienen un efecto significativo, mientras que los rendimientos de la deuda pública sí lo tienen, lo que podría indicar una crisis de representación.

Palabras clave: devaluación interna, comportamiento oportunista, soberanía y mercados financieros.

Clasificación JEL: D72, J38, N24.

1. INTRODUCTION

The main research objective of this this paper is to find out what is the best predictor of internal devaluation measures imposed by governmental decision. We devise a test for two competing hypotheses. On one hand, political instability may affect the implementation of internal devaluation due to opportunistic behavior and strategic thinking from the political parties in power, idea consistent with the works concerned both with political business cycle and partisan theories. On the other hand, we can find evidence of the fact that

governments also respond in real time to the signals from the financial markets (in this case the bond yields) with respect to the necessity of such measures. We employ a panel dataset that spans from 2007 to 2017 for all the 19 Eurozone countries. The first hypothesis is tested by including as an explanatory variable in our fixed effects model the expected time in office of each cabinet (previously estimated using a survival analysis Weibull regression); for the second one we consider as an explanatory variable the bond yields that the same governments have to pay to issue public debt into the financial markets.

After controlling for the relevant macroeconomic and labor market specific variables, the preliminary results show that expected time in office has no significant effect on the movement of unit labor cost (ULC), the proxy for internal devaluation, while the bond yields do have one with the expected (negative) sign. These results (in line with some very recent similar insights on the matter), prove that cabinets in Eurozone, when faced with decisions over the implementation of such measures are more prone to pay attention to signals from the financial markets rather than their time left in power, something that might hint at a crisis of representation.

2. LITERATURE REVIEW.
TWO CONTRASTING HYPOTHESES

The impossibility of achieving correctional measures against commercial imbalances through external devaluation measures as in the pre-Economic and Monetary Union (EMU) era, obliged the Euro Area countries to look for alternative measures, especially in the case of peripheral countries like Greece, Spain, Cyprus or Ireland, which saw their labor costs sky-rocket after joining the common currency area (Villanueva *et al.*, 2020).

The alternative imposed by the context of European state of affairs and economic macroeconomic frame after 2008 indicated clearly in the direction of internal devaluation measures: Instead of devaluing their currencies in order to stimulate the exports (and disincentives the imports), the states were bound to devaluate the wages of their respective economies, through different channels (Villanueva *et al.*, 2020), in order to gain a better competitive position (Calmfors, 1998; European Commission, 2011).

2.1. Strategical thinking and opportunistic behavior

At the moment of considering the adoption of unpopular measures such as imposition of ceilings on wage increases, cuts in salaries or passing legislative packages for diluting the collective bargaining power of the workers, governments think to what the possibilities are of affecting their next elections results. This argument is in line with the literature regarding the opportunistic behavior and strategical thinking of political parties, presented in the works concerned both with political business cycle and partisan theories.

The partisan theory assumes the existence of a short-run Phillips curve; since the left-wing parties draw their electoral support from the working class they will decrease the unemployment at the cost of a higher level of inflation and the right-wing parties will act *vice versa* (Potrafke, 2012). Also, as it is mentioned in the seminal work of Cowart, leftist governments are considered more deficit biased (Cowart, 1978, p. 432), and Carlsen (1997), found that the same cabinets employ countercyclical fiscal policies, while the right-wing cabinets employ procyclical ones.

Fiscal irresponsibility is not exclusively the trademark of leftist governments, as proven by further research conducted in the framework of this theory (Torsten and Svensson, 1989), which showed that if a conservative government expects to be replaced by a left-wing one, it will be more fiscally irresponsible than knowing will remain in power or be replaced by a cabinet of the same ideology.

Still, the original idea of Cowart (1978), was in a certain way confirmed by the work of some others, like Alesina, Cohen, and Roubini (1993) which concluded that the left-wing governments have 0.5% higher real Gross Domestic Product (GDP) fiscal deficits per year in office, and the more recent work of Niklas Potrafke (2012), which argued that the leftist governments usually spend more in the first two years of a legislature.

Alesina, Cohen, and Roubini (1993), though, argued that due to confidence and reputational reasons, the politicians cannot go too far with such behavior. The margins for opportunistic and strategic behavior of the parties in power were severely affected during the decade of the 90s, when in the developed countries, measures were taken in order to assure the independence of the central banks, following the model of

New Zeeland, and fiscal responsibility was asked of the countries with prospects to euro adoption. This argument is proven by Cusack (1999).

On the other hand, the business political cycle theory assumes that irrespective of their political ideology, parties in power will implement expansionary economic policy right before elections in an attempt to boost their electoral score (Nordhaus, 1975; Rogoff and Sibert, 1988). Among some of the most cited contributions to this theory we can find those of Alesina, Roubini, and Cohen (1999), Faust and Irons (1999) or that of Heckelman (2006), which, nevertheless, reached different or contradicting conclusions.

Still, some more recent contributions can be found that prove the existence of such behavior from the parties in power. We remind here the only a few. Shi and Svensson (2006), which employing a model of electoral moral hazard, proved that the parties benefit from expansionary policies in the eve of elections, the more uninformed and naïve are the voters; Potrafke (2012) argued that political cycles are more prevalent in two-party systems because voters can more easily identify, punish, and reward political parties for governmental performance. Fortunato and Loftis (2018) checked for the nexus between cabinet durability and fiscal discipline; employing a revision of the standard political budget cycle model applied to 15 European democracies for a period of almost four decades, these authors came to the conclusion that when a party or a coalition of parties is expecting elections soon or expecting that their survival in power is not going to last more, they will try to improve their future electoral scores by spending as much as possible and that the cabinets that outlive their expected time in office will run higher deficits.

One thing should be noted though: The main assumptions of both these theories might not have the same applicability for the Eurozone, as efficient expansionary economic measures and the Philips curve tradeoff can only be attained by a combination of monetary and fiscal policies, where the former is in the hands of the European Central Bank (ECB). While it is true that this is very obvious in Europe, it should also be noted that the margin for regulatory power of the government in the labor market seems at least larger than in the fiscal and monetary areas, thus giving us an extra reason to consider the possibility of the existence of a relationship between high government turnover and internal devaluation measures.

In both cases, though, it has been long established, that the same pattern arises: Political parties in power, having strategic thinking and opportunistic behavior, manipulate the economy on short-term in order to satisfy their electoral needs. Thus, we expect the national governments to behave opportunistically and not impose such devaluation measures when the expected time in office is short.

2.2. Financial markets' signals and sovereigns

Contrary to the hypothesis developed in the previous paragraphs, one might suspect that the governments will have incentives to impose internal devaluation measures whenever the needs and interests of the financial markets will require them to do so. In our opinion, two crucial questions might arise when making this statement. In the first place, we would like to address the questions of "why would the governments want to satisfy such needs?"

The literature on financial markets admits the very close, almost intimate relationship between the sovereigns and the financial institutions (Fandl, 2018, p. 21). Such a relationship is almost exclusively that of interdependence materialized through at least four links/channels.

1. The first one is the crucial importance of the financial institutions for public debt monetization and dispersion into real economy. These institutions (especially the banks) are the ones that are legally able to participate both in the primary market and well as the secondary market of public debt securities, and consequently act as debt dealers for governments (Fandl, 2018, p. 21).
2. The second channel derives as a consequence of the first; since the financial institutions are debt dealers for governments, their exposure to the sovereign risk implies that their sanity and survival depend very much on the soundness of the government's balance sheets (Fandl, 2018, pp. 91-93).
3. The third channel through which the interdependence between sovereign and financial institutions is materialized is the implied liability of public sector towards the major actors within the markets, the so called "too-big-to-fail" actors. Even though lately steps towards solving the intrinsic moral hazard problem have been taken in the framework of

macroprudential policy (such as the imposition of capital surcharges for systemically important banks and systemic risk buffers), the market share of first tier banks recognized by the European banking authorities and directly supervised by the ECB stood at around 75% (European Central Bank, 2017), which implies that the issue still persists and most likely would not disappear soon.

4. Lastly, there is the political dimension of credit provision; the states heavily rely on banking and financial markets to provide credit to the real economy in order to guarantee a steadily and easily accessible flow of financial resource crucial for economic growth, for which, the latter are, in the end, electorally accountable (Fandl, 2018, p. 22). The credit provision and expansion buttressed by the state has been lately under close scrutiny by the scholars preoccupied with inequality as there are evidences to suggest that the use of this tool (i.e. credit expansion supported by the governments) was one of the driving factors of the 2008 financial crisis (Perugini, Hölscher and Collie, 2013). The incapacity or lack of volition from the governments to deal with rising levels of inequality, forced them to find cheap alternatives towards welfare for their low and medium-income citizens and credit provision seemed like a good solution; such a measure had the unwanted effect of high levels for debt accumulation, non-performant loans or loan-to-values ratios, which in the end, proved to be a dangerous combination for the financial system and real economy (Rajan, 2010; Stiglitz, 2013).

Secondly, we would like to address the issue of "what are the interests of financial markets and why are they in conflict with the interest of the workers, especially in the case of a recession?" The financial system will require a sound and well-functioning macroeconomic environment in order to shield itself from risks arising from various sources (default, inflation, exchange rate, etc.) when lending money to the government. In order to shield themselves from such sources of risk, the bondholders act as a principal in relationship to an agent. The agent (the government) is required to refrain from expansionary fiscal policies so that it won't generate inflation, higher public debt/GDP ratios or insolvency and illiquidity worries (de Grauwe, 2011).

In the case of a recession, such expansionary measures are crucial for boosting the economic activities but prohibited by the European Com-

mission within some limits (due to the fiscal deficit margins imposed by the Stability and Growth Pact (SGP) and regarded as dangerous by the financial institutions and government bondholders as they directly affect the fundamentals of the governments. The problem is more acute for the Eurozone countries as opposed to the rest non- EMU European Union (EU) countries because the ECB is totally prohibited to act as a lender of last resort for them, in a situation in which the financial markets are totally incapable differentiating between solvency and liquidity issues of the governments (de Grauwe, 2011 and 2018, p. 134), which will lead to self-fulfilling prophecies with respect to the fundamentals of the governments.

It is also quite clear that whenever the panic grips the financial markets with respect to government fundamentals (especially related to GDP/debt ratio), it pushes the spreads upwards and will eventually determine austerity measures from the governments (Habbard, 2012; de Grauwe and Ji, 2013). Furthermore, a relatively recent empirical study by De Santis and Stein (2015), found evidence that peripheral countries in the Eurozone are more prone to suffer from higher key-price interest rates (such as the lending rates to households and corporations) if their respective sovereign bond markets are in crisis, an extra reason for their respective governments to take into account the financial markets' signals. Due to the fact that sovereign bond yields are used as a benchmark for domestic key interest rates, the real economy of a country can be negatively affected; the threshold for crisis environment in bond markets for Spain and Italy, for instance, is estimated at around 90 basis points spread between their 5-year bond yields over the Overnight Indexed Swap (De Santis and Stein, 2015).

The signals from the financial markets might be exacerbated whenever there is an increase in public deficit and/or inflation by the so-called "bond vigilantes" —bond investors who protest structural government debt by selling bonds, increasing real yields, although criticism is not directed solely against them, but also against the government and regulatory agencies who failed to take decisive and preventive actions (Habbard, 2012).

Lastly, the informal signal channels from the financial markets are doubled by lobbying. Such efforts should not be dismissed; at the level of EU (only in Brussels), the financial industry spent over 120 million

euros yearly and employed some 1700 lobbyist from 700 organizations. Overall, the financial lobby outspent the rest of public interests in EU by a factor of 30 (Wolf, Haar, and Hoedeman, 2014). It's not just the sheer massive expanses and numbers of the lobbying efforts, but also the intrinsic power of such practices: By providing the agenda-setter with a pool of policy options in a costly information environment, the lobbyist actually exerts a lot of influence on the outcome (Austen-Smith, 1993).

3. RESEARCH DESIGN AND METHODOLOGY

In order to be able to check which is the better predictor for the imposition of internal devaluation measures in Eurozone, we propose a panel data model in which the real unit labor cost is considered as the dependent variables and where the expected time in office (as postulated by the parties in power opportunistic and strategic thinking hypothesis) and bond yields on long-term government debt (as postulated by the financial markets signals hypothesis) are the main independent ones. Besides the three already mentioned variables, we also include several relevant control variables; more details in this respect are provided in Table 1, where the rationales for choosing them, their sources and their expected relationships are specified.

It is quite difficult for the cabinets to know *ex ante* their survival time in power when facing the imposition of unpopular measures. Still, one can intuitively and correctly assume that their duration will depend on some political factors such as holding majority in legislative, the degree of fragmentation of the parliament or the ideological/programmatic distance between the members of the coalition, just to name a few. Based on this idea, there is a whole body of literature which developed since the 80s in political science (Lupia and Strøm, 1995; Warwick, 1995; Merlo, 1997; Diermeier and Stevenson, 1999; Laver, 2003; Chiba, Martin and Stevenson, 2015) which tried to find the best predictors of cabinet durability using a methodology borrowed from health sciences: Survival analysis. In order to produce these estimated times in office for each government, we employed a survival analysis model with a Weibull parametric regression (as opposed to a competing semiparametric Cox regression). Furthermore, it is also wrong for the purposes of our work to make a distinction between governments that end in dissolution and

Table 1. Variables considered in the panel data model with fixed-effects

Variable and source	Comments
Real unit labor cost (AMECO database)	Ratio of compensation per employee to nominal GDP per person employed, base year: 2010
Real GDP growth (Eurostat)	As an indicator of the phase of the economic cycle assuming that labor costs and productivity will depend on the time of the cycle in which the economy finds itself.
Trade openness (World Bank)	The aggregate of imports and exports as percentage of GDP under the assumption that a very open economy will have more flexible salaries and will drop its costs when confronted with lower productivity.
Debt/GDP (Eurostat)	If the debt to GDP ratio is very high, the government have a pressure to diminish it and in order to do this will bow to the pressures of creditors to cut the costs and public spending.
Budget balance (Eurostat)	Budget balance measured as percentage of GDP (a positive value indicates budget surplus, whereas a negative one, budget deficit); in the presence of deficits it is expected that the government will make cuts, which can affect the value of real unit labor cost.
Trade balance deficit (Eurostat)	Dummy variable for trade balance deficit; in the presence of deficits it is expected that the government will want to make the domestic production more competitive, which can negatively affect the value of real unit labor cost. It is also a signal for knowing which countries require devaluation measures.
Bond yields (Eurostat)	Harmonized long-term interest rates are available for the EU Member States.
Unemployment (Eurostat)	Measured as a percentage of active population, introduced under the assumption that higher levels of unemployment will put negative pressures on the equilibrium salary and will drop the ULC. Although, in principle, one might suspect endogeneity with respect to the inclusion of this variable, we note that in literature (Rebitzer, 1988) it is proven that the influence of unemployment is mediated by the power of the syndicates. However, as is the result of our correlation matrix, the link between the unemployment rate and the power of trade unions is weak.

Table 1. Variables considered in the panel data model with fixed-effects (continued…)

Variable and source	Comments
Relative power in EU (own computation with data from Eurostat)	The assumption is that the more powerful a country is within the Eurozone, the more it can influence the legislation in its interest and the more it could suffer from moral hazard when it comes to taking painful actions when affected by economic downturns (thus, we are expecting a negative sign for this coefficient). Measured as: $$relative\ power = 0.5 \frac{own\ GDP}{Eurozone\ GDP} + 0.5 \frac{own\ population}{Eurozone\ population}$$
Bailout (own computation)	Dummy for Troika bailout program (0 in the absence of the program, 1 in the presence of it per years). Assumption: A Troika bailout comes with harsh conditions, debilitating the domestic powers of the governments.
Union density (ILOSTAT and Organisation for Economic Co-operation and Development, OECD)	The power of labor unions, measured as trade union density. The more powerful the unions, the harder for the cabinets to impose internal devaluation. In this case two sources have been used due to the complementarity of the datasets and due to the fact that the data does not differ (ILOSTAT and OECD have the same data collection sources —the national statistics agencies).
Programmatic position (Volkens *et al.*, 2018)	Cabinet's programmatic position with respect to fiscal behavior; it is assumed that the parties on the left side of political spectrum are less prone to impose devaluation measures. As suggested by Bräuninger (2005), we employ the more representative programmatic position as opposed to the ideological one (scores are computed by *The Manifesto Project* as a combination party's standings, taken out from their own programmatic papers, on a multitude of political economic and social issues).
Time left (own computation)	Computed as the durability of the government, which is estimated in a subsequent survival analysis model. Details below.

dismissal (as suggested by Diermeier and Stevenson, 1999), because there is no credible way in which a cabinet will know *a priori* how it will end. The regression output will be represented by hazard rates which have the following mathematical expression:

$$h(t) = \lim_{\Delta t \to 0} \frac{P(t \leq T < t + \Delta t | T > t)}{\Delta t} \qquad [1]$$

where $h(t)$ represents the hazard rates at any given time, P is the probability of the event happening, t is the timeline and T is the moment (specific point in time) under consideration. The intuitive interpretation of this expression is that the hazard rates represent the instantaneous potentiality of the event to happen in a certain moment, given that it didn't occur by then (Kleinbaum and Klein, 2012). The regression results will be used for estimating the duration of each observation in our sample.

The variables considered, replicating the models of many political science papers concerned with cabinet durability, are:

1. Days in office of each cabinet —dependent variable (source: Bértoa, 2019). Note: In case there were two or more cabinets in the same year, the cabinet with the higher number of days in office was selected.
2. The numerical status, if in minority, 0, if in majority, 1 (sources: Bértoa, 2019; Mustillo, Meijers, and Clark, 2020).
3. Ruling number of parties (sources: Bértoa, 2019; Mustillo, Meijers, and Clark, 2020).
4. The range between the most distant positions among the parties forming the government. We took into account, besides the classical left-right dimension, also the pro *vs.* contra European integration perspective of the parties. Using these two dimensions, we computed a matrix of Euclidean distances between all the parties in the countries of the Eurozone, following the formula:

$$dist_{ab} = \sqrt{distleftright_{ab}^2 + distproconEU_{ab}^2} \qquad [2]$$

Of course, the assumption here was that the more distant the governing coalition, the sooner it will break (source: Own computations using data from Volkens *et al.*, 2018).

5. Returnability, measured as the proportion of parties from current government that were part of the previous government (source: Bértoa, 2019). Assumption: The higher the proportion, the lower the costs of the governing parties to break to current coalition, because they know it's a high probability of their return in power. Note: The independent portfolio holders in each cabinet were not considered, as theoretically they do not act as a political party *per se* and they are not represented as a group in the next government.
6. The complexity of the bargaining system measured as the effective number of political parties (source: Gallagher, 2019), under the assumption that a complex bargaining system will create cabinets more prone to the shocks, thus lowering their survivability.
7. Years elapsed since last election —the governments that form early in the inter-electoral period have higher chances of staying in office because of the longer possible tenure; the year of election is considered as year 0 if the election takes part in the first half of the year, if not, year 0 is considered the next year.

Survival analysis requires a special treatment of data and cannot be substituted by regular linear regression mainly due to two reasons: 1) because the dependent variable is always a time unit, its estimated value cannot be negative (in a linear regression case it can be), 2) data from the survey can be censored and this is a special case of missing data, that offers important information on the observations (Kleinbaum and Klein, 2012). In our case, as the sample we extracted finishes in 2017, the cabinets still in office on January 1st 2018, were considered censored observations.

After performing a preliminary correlation matrix, we discovered pairs of variables with very high correlation coefficients, and some variables (not presented here), were subsequently eliminated. As such, the panel-specific econometric expression of our main model looks as follows:

$$realunitlaborcost_{it} = \beta_0 + \beta_1 Control_{it} + \beta_2 Timeleft_{it} + \beta_3 Yields_{it} + \alpha_i + U_{it} \quad [3]$$

where $Control_{it}$ are the control variables indicated above, in Table 1, $Timeleft_{it}$ is the expected time left in office for the cabinets and $Yields_{it}$ are the long-term interest rates for governments debt; in the case of governments that survived for different years, we discounted the days spent

in office from the beginning of each year in the sample. The α_i indicates the unobserved heterogeneity and U_{it} is the idiosyncratic error. We also performed a Hausman test, which indicated the appropriateness of fixed rather than random effects or pooled ordinary least squares (OLS). Our post-estimation robustness check includes a Variance Inflation Factor (VIF) test (we tested the remaining variables for multicollinearity problems and eliminated those that had a VIF higher than 10). Under the assumption that the government have real-time indications and forecasts on some variables (so it based its strategy on current information) and due to a higher level of determination, we decided to employ a concurrent model as opposed to a lagged model.

4. RESULTS AND DISCUSSIONS

We start this section by presenting the results of our cabinet durability estimations in Table 2. Postestimation tests for model fitness (Akaike's information criterion and Bayesian information criterion, not reported here) ran after a Weibull parametric and Cox proportional hazards regression models suggested the use of the former.

The results of the estimation have a high degree of significance (with the exception of time since last elections), and are in line with theoretical expectations and with the findings of many other empirical studies from the same vein of research. Specifically, the results suggest that having majority in parliament decreases the chances of government termination by close to 65%, the complexity of the system by 20%, while with each extra party in government coalition, the chances increase by 30% and returnability and programmatic distance both have little (although significant) hastening effects on termination.

The exposition of these results is merely indicative and it is meant to provide us with a certain guarantee that the survival analysis estimation is done correctly, because, for the purposes of this study, it must be used later for the main model. Concretely, we employ the estimates of the survival analysis model, subtract from them the Cox-Snell residuals (as suggested in Zhao *et al.*, 2011) and interpret them as if they were the expected time in office for each cabinet in our sample. For the main model variables, we employed a correlation matrix, presented in Table 3. As noted, none of the independent variables' pairs have correlation coefficients above ±0.8,

Table 2. Survival analysis results (Weibull regression)

Time left	Coefficient	Standard error	t-value	
Government numerical status	0.357	0.065	−5.62	
Ruling number of parties	1.313	0.096	3.72	
Complexity of the system	0.803	0.058	−3.03	
Returnability	1.004	0.002	1.68	
Programmatic distance	1.015	0.007	2.24	
Last elections	0.957	0.061	−0.69	
Constant	0.000	0.000	−15.20	
Mean dependent variable		994.798		
Number of observations		198		
Probability > chi2		0.000		

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 3. Correlation matrix

Variables	(1)	(2)	(3)	(4)	(5)	
(1) Real unit labor cost	1.000					
(2) Real GDP growth	−0.497	1.000				
(3) Trade openness	−0.154	0.285	1.000			
(4) Debt/GDP	−0.206	−0.176	−0.404	1.000		
(5) Budget balance	−0.104	0.359	0.184	−0.362	1.000	
(6) Trade deficit	0.120	−0.085	−0.405	−0.040	−0.167	
(7) Bond yields	0.046	−0.408	−0.227	0.288	−0.505	
(8) Unemployment	−0.142	−0.217	−0.196	0.330	−0.511	
(9) Relative power	0.070	−0.059	−0.482	0.337	0.059	
(10) Bailout	−0.143	−0.270	−0.083	0.418	−0.469	
(11) Union density	−0.053	−0.064	0.011	0.206	0.073	
(12) Programmatic position	0.081	−0.013	−0.008	−0.043	0.087	
(13) Time left	−0.050	−0.027	0.082	0.012	0.008	

p-value	[95% Confidence	Interval]	Significance
0.000	0.250	0.512	***
0.000	1.138	1.516	***
0.002	0.697	0.926	***
0.093	0.999	1.008	*
0.025	1.002	1.028	**
0.493	0.846	1.084	
0.000	0.000	0.000	***
Standard deviation dependent variable	466.369		
Chi-square	62.524		
Akaike Information Criterion (AIC)	264.568		

	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	1.000							
	0.367	1.000						
	0.163	0.420	1.000					
	−0.000	−0.138	−0.047	1.000				
	0.085	0.599	0.583	−0.147	1.000			
	−0.094	0.029	−0.220	−0.185	−0.007	1.000		
	−0.057	0.026	−0.118	0.108	−0.019	0.039	1.000	
	−0.102	0.059	0.078	0.069	0.127	−0.012	0.024	1.000

which implies that there are no multicollinearity issues in our model. At first, only checking the relations from Table 3, it seems that there is a positive association between unit labor costs and the bond yields and a negative one with cabinet durability, thing that could validate the strategic thinking and opportunistic behavior hypothesis, although the coefficients are very weak in both cases, and as a consequence we cannot infer on this association. The positive, albeit low correlation coefficient between time left and debt/GDP, could at first sight indicate that longer mandates are correlated with increased debt levels; however, we refute this hypothesis on two counts: 1) the relationship is very weak, and 2) it might just be a spurious one, driven by the increases in debt levels all over Europe in the period under consideration and because there might be the case that

Table 4. Fixed effects model results

Real unit labor cost	Coefficient	Standard error	t-value	
Real GDP growth	−0.534	0.081	−6.60	
Trade openness	−0.081	0.028	−2.88	
Debt/GDP	0.061	0.029	2.10	
Budget balance	−0.349	0.093	−3.77	
Trade deficit	0.187	0.909	0.21	
Bond yields	−0.507	0.195	−2.60	
Unemployment	−0.586	0.140	−4.20	
Relative power	−1.813	2.070	−0.88	
Bailout	0.704	1.472	0.48	
Union density	0.725	0.207	3.50	
Programmatic position	−0.004	0.021	−0.21	
Time left	0.000	0.001	−0.15	
Constant	102.579	14.762	6.95	
Mean dependent variable		98.606		
R-squared		0.586		
F-test		15.691		

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

longer coalition (and more polarized) governments (very common in Europe) have a more deficit biased behavior as indicated by empirical findings (Alesina and Tabellini, 1990).

The results of the panel data model with fixed-effects is presented in Table 4. The coefficients for four control variables, namely Bailout, Relative power, Programmatic position, and Trade deficit are not statistically significant. This is a thing that deserves our attention; the fact that trade deficit, which is considered to be one of the main reasons for the need of internal devaluation measures, is not relevant (at least statistically), but the budget deficit is, suggests us that the imposition of such measures is mostly determined by the fundamentals of government financial soundness (as predicted by the financial signals hypothesis).

	p-value	[95% Confidence	Interval]	Significance
	0.000	−0.694	−0.374	***
	0.005	−0.137	−0.025	***
	0.038	0.004	0.119	**
	0.000	−0.532	−0.166	***
	0.837	−1.611	1.985	
	0.010	−0.892	−0.121	**
	0.000	−0.862	−0.310	***
	0.383	−5.907	2.281	
	0.633	−2.207	3.616	
	0.001	0.315	1.135	***
	0.832	−0.046	0.037	
	0.884	−0.002	0.001	
	0.000	73.380	131.777	***
Standard deviation dependent variable		5.288		
Number of observations		163.000		
Probability > F		0.000		

The rest of the control variables seem to indicate expected coefficients in relationship with the unit labor costs, as backed by the theoretical macroeconomics framework. The GDP growth rates indicate the wage stickiness in a growing economy, the trade openness demonstrates the competiveness of wages in labor markets which have this characteristic, high or increased unemployment rates negatively affects the unit labor costs due to excess labor supply, while powerful unions account for higher wages.

The validity of the financial signals hypothesis and the refutability of the strategic and opportunistic thinking hypothesis are finally established by the coefficients of our interest variables. Specifically, the expected time in power of the cabinets seem to be irrelevant (p-value > 0.8), but not the signals from the financial markets. Concretely, we find evidence that, with each 1% increase in the bond yields for their long-term debt, the real unit labor costs drop by approximately 0.5%, *ceteris paribus*.

The model has a high degree of determination (close to 60% of the variability in real unit labor costs is explained by our model) and the post-estimation robustness check done with the help of VIF (see Table A2) suggests that there are no multicollinearity issues (VIFs are below the suggested threshold, 10).

5. CONCLUSIONS

The results presented and detailed above come with mixed implications; on the one side, one can argue that such finding are encouraging and inherently good for the purposes of maintaining fiscal discipline. The governments are less prone on taking measures that have profound economic implications solely on electoral grounds, and more inclined towards listening to the relevant opinions (debatable) on the matter, like the ones coming from financial markets. On the other side though, there might be an even greater issue; the fact that democratically elected governments do not seem to care about their time in power might give hints at a crisis of representation, the crucial question here being: Why should the governments be more responsive to financial markets signals than to the ones coming from their own voters? The implications of the later are even more far-reaching and problematic if we take into account the fact that, as presented before, the financial markets are not completely rational.

Our findings are, although still up for debate, in line with those of some other recent paper concerned with the more encompassing government preferences on EMU reforms; Târlea *et al* (2019), focusing on the drivers for the reforms between 2010-2015 in Euro Area, gave proof that the degree of exposure of domestic financial sectors have sufficient explanatory power, while the political factors had no systematic impact. Going even further, these authors argue that actually the domestic financial sectors positions rather that political and ideological views pitted creditor countries against debtor ones in the period taken into consideration. Our study concludes with the same concerning affirmation, that should also be taken as a warning: Financial markets rather than voters seem to have taken the central stage in European politics and policy-making arenas. ◀

6. APENDIX

Table A1. Hausman specification test

	Coefficient
Chi-square test value	40.276
p-value	0

Table A2. Variance inflation factor for fixed effects model

	VIF	1/VIF
Debt/GDP	8.96	0.111648
Unemployment	7.90	0.126508
Bond yields	6.41	0.155925
Trade openness	4.79	0.208793
Time left	4.21	0.237256
Union density	4.12	0.242970
Budget balance	3.03	0.329546
Relative power	2.54	0.393462
Trade deficit	2.32	0.430853
Bailout	2.29	0.435833
Real GDP growth	1.45	0.688436
Programmatic position	1.08	0.922203
Mean VIF	4.09	-

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