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Is the Budget Vulnerable? Policy Responsiveness and Competitive Incentives

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Abstract

Inspired by the negative finding by Bevan and Jennings (2014) according to which public priorities do not have any influence on government budget (but see Hobolt and Klemmensen 2008), this paper develops an empirical framework of electoral competition for government responsiveness, building on the fruitful conceptual work on political competition as a multidimensional concept (Bartolini 1999, 2000; Strom 1992). Specifically, the paper focuses on three major competitive incentives: electoral vulnerability of governments, decidability of the political offer, and electoral proximity. A pooled time-series cross-section analysis in five advanced democracies for the period 1980-2009 suggests that, when it comes to budget, the beneficial effects expected from electoral competition seem to disappear. Though the author invokes the necessity of a larger N study in order to confirm these results, such findings have serious implications for responsiveness of governments to citizens' concerns and demands as well as for the application to policy responsiveness of theories driven by party competition.

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1. Introduction

While we know considerably about mandate responsiveness (Klingemann, Hofferbert, and Budge 1994; Stokes 2001; Roberts 2010), policy congruence (Huber and Powell 1994; Kang and Powell 2010; Powell 2013), party responsiveness to voters' preferences (Adams et al. 2004; Ezrow et al. 2010; Adams, Ezrow, and Somer-Topcu 2011; Schumacher, de Vries, and Vis 2013) and priorities (Spoon and Klüver 2014; Wagner and Meyer 2014; Klüver and Spoon N.d.), we still know much less on the determinants of policy responsiveness. Apart from few remarkable exceptions (Stimson, Mackuen, and Erikson 1995; Erikson, Mackuen, and Stimson 2002; Hobolt and Klemmensen 2008; Hakhverdian 2010; Green and Jennings 2012*a*), the literature on governmental policy responsiveness (Wlezien 1995; Soroka and Wlezien 2010) and dynamic agenda representation (John, Bevan, and Jennings 2011; Mortensen et al. 2011; Bevan and Jennings 2014) analysing the opinion-policy link in dynamic perspective seems to be missing a crucial aspect of the democratic process: party competition and, especially, the incentives competition produces to trigger responsiveness of governments to citizens' preferences and priorities.

In fact, previous research shows that different policy issues promote different levels of responsiveness and that the latter also depends on public issue salience (e.g. Miller and Stokes 1963; Page and Shapiro 1983; Hobolt and Klemmensen 2005; Soroka and Wlezien 2010), different institutional arrangements (Hobolt and Klemmensen 2008; Wlezien and Soroka 2012), electoral pressure (Hobolt and Klemmensen 2008), electoral proximity (Canes-Wrone 2004; Canes-Wrone and Shotts 2004) and the size and intensity of protest (Morales et al. 2014). Yet the relationship between party competition, and its incentives, and governmental policy responsiveness to public issue priorities is still unclear and underdeveloped for the following reasons.

This paper develops on the negative conclusion found by Bevan and Jennings (2014) that public issue priorities (in the United Kingdom and the United States) do not have any influence on government expenditures. What the authors conclude is that, unlike executive speeches and legislation, 'spending is not responsive to public concern about the "most important problem" in contrast to relative preferences' (Bevan and Jennings 2014: 52; but see Wlezien 2005). The reason why public priorities would not have an impact on spending is that, since budgets have directional implications, changes in the most important problem/issue question are not directional, that is, the public cannot signal whether it wants more or less spending on a given policy domain (Jennings and Wlezien 2012). Yet this is rather different from the conclusion that Hobolt and Klemmensen (2008) reached using public priorities in the same countries with the addition of Denmark. Indeed, they actually find that, in several domains, the more an issue becomes salient to the public, the more the government spends on that issue and this is also conditional to other factors such as electoral pressure and institutional

differences [1].

Moreover, the few studies linking dynamic representation/responsiveness and competitive incentives are based on a very small number of countries – essentially due to data availability issues, as reasonably long time-series for public opinion and policy as well as other mediating factors that might affect this relationship are not available for a large number of countries – and tend to address the research question on a case study level or comparing differences among a few number of countries (usually no more than three).

For these reasons, this paper is stimulated by the negative conclusion found by Bevan and Jennings (2014) and, in line with Hobolt and Klemmensen (2008), argues that perhaps the influence of public priorities on government spending is not (also) direct but conditional to other factors. However, unlike previous studies, the modeling strategy is slightly different since the aim is not primarily to explain country differences but to assess whether this mediating relationship between competitive incentives and governmental policy responsiveness holds across time and across countries.

Building on the theoretical insights from political competition as a multidimensional concept (Bartolini 1999, 2000) as well as from the spatial model of elections (Downs 1957; Adams 2001) and the saliency theory of party competition (Budge and Farlie 1983), this paper aims to contribute to the literature on dynamic representation and assess whether competitive incentives have an effect on governmental policy responsiveness in between elections. More precisely, the analysis focuses on three main competitive incentives that can be conceived as necessary conditions for responsiveness: government's electoral vulnerability, the political offer differentiation, and electoral proximity.

Using government expenditure by policy function as policy indicator of government activity, the author conducts a pooled time-series cross-section (TSCS) analysis with a reasonably long time span ranging from 1980 to 2009 in five countries (Canada, Germany, Spain, the UK and the US) in six policy domains: defence, education, health, housing, labour/unemployment and welfare. This analysis suggests that incentives from electoral competition seem not to matter much for governmental responsiveness to public priorities when it comes to budget. Specifically, when significant, the interaction between public opinion and government's electoral vulnerability suggests that the government spends more on the issue in response to an increase in public issue salience when the government is electorally safer rather than vulnerable. Secondly, no clear evidence if found for a beneficial effect of electoral decidability as condition facilitating responsiveness. Rather, disagreement (or high polarisation) seems to reduce responsiveness. Thirdly, when government spending is used, electoral proximity does not essentially make a difference.

The paper proceeds as follows. Section 2 reviews the few studies linking electoral competition and policy

[1] Though policy issue and policy category/domain do not mean the same thing, they are used interchangeably along the paper.

responsiveness in dynamic representation. Section 3 introduces the framework and develops the hypotheses. Section 4 is devoted to data, measurement and model specification. Section 5 presents the results while Section 6 concludes and discusses.

2. Electoral Competition and Policy Responsiveness

Responsiveness in politics is a relationship-wise concept, i.e. it implies a connection between citizens and politicians. This connection has been fundamentally studied under three perspectives: dyadic representation, collective representation, and dynamic representation. In this section I will concentrate only on the third approach and on the very few studies linking policy responsiveness and electoral competition and, broadly speaking, institutional components [2].

Stimson and colleagues' (1995) seminal work (but see also Erikson, Mackuen, and Stimson 2002) can be acknowledged as the first effort to introduce a dynamic feature in the study of representation and responsiveness. Public opinion moves meaningfully over time, government officials sense this movement, those officials alter their behaviour in response to the sensed movement (Stimson, Mackuen, and Erikson 1995). Here, policy responsiveness acts through two mechanisms: (1) elections change the government's political composition, which is then reflected in new policy (*electoral turnover*) and (2) policymakers calculate future (mainly electoral) implications of current public views and act accordingly (*rational anticipation*). The advantage is that there are two avenues, one acts through parties (partisanship of government) while the other is a dynamic direct component. Public opinion influences election outcomes and both have an impact on public policy.

When political institutions are added to dynamic representation the picture becomes increasingly complex. In their comparative study on Denmark, the UK and the US, Hobolt and Klemmensen (2008) classify responsiveness as *rhetorical*, when analysing executive speeches, and *effective*, when dealing with government expenditures. Citizens' priorities are captured using the so-called 'most important problem' (MIP) question. Assuming that issue salience is a key component of political competition, Hobolt and Klemmensen select two main institutional factors and conceptualise competition as contestability, defined as the uncertainty facing the executive in electoral contexts (for a different conceptualisation see Strom 1989, 1992; Bartolini 1999), and executive discretion, which refers to the constraints faced by the executive in the legislative process. Though the impact of institutional features (electoral system, separation of powers, conflict of interest between the executive and the legislature) is tested in their study, the most interesting hypothesis for this paper is the one

[2] Although legitimately part of the dynamic representation approach, the author deliberately leaves out from this list the fruitful research on party responsiveness/representation (Adams et al. 2004; Ezrow et al. 2010; Adams, Ezrow, and Somer-Topcu 2011; Schumacher, de Vries, and Vis 2013; Spoon and Klüver 2014; Wagner and Meyer 2014; Klüver and Spoon N.d.) because it refers to party manifestos rather than policy.

regarding electoral uncertainty: the greater the uncertainty about future electoral contests, the higher the responsiveness of the executive (Hobolt and Klemmensen 2008: 314), which is confirmed in some policy areas but not in others (see also Hakhverdian 2010).

Similarly, Soroka and Wlezien (2010: 137-140) test the marginality hypothesis in the US, the UK and Canada using their thermostatic model for social domains. According to this approach, a responsive public behaves much like a thermostat (Wlezien 1995), that is, the public adjusts its preferences for 'more' or 'less' policy in response to what policymakers do. When policy increases (decreases), the preference for more policy decreases (increases) (Franklin and Wlezien 1997; Soroka and Wlezien 2010). Here, 'the opinion-policy relationship suggests not just that policymakers respond to the public, but that the public adjusts its preferences over time in reaction to policy change' (Soroka and Wlezien 2004). The authors find that the interaction between marginality and preferences is negative and significant only for the US, meaning that when vote margins increase governmental responsiveness to public preferences decreases. They account for the negative findings for the UK and Canada suggesting that, perhaps, governments are more sensitive to vote intentions rather than vote shares and that marginality probably does not adequately captures the effects of disproportionality (Soroka and Wlezien 2010: 140).

Two more recent studies connect policy responsiveness as dynamic representation with institutions (though without focusing explicitly on electoral competition). Looking at the governmental agenda in the UK and the US through executive speeches, legislation and budget, Bevan and Jennings (2014) have improved our knowledge on dynamic agenda representation and institutions. They find that the responsiveness of policy agendas to public priorities is greater when institutions are subject to less friction and declines as friction against policy change increases. Wlezien and Soroka (2012) introduced the institutional component in the connection between their thermostatic model and three kinds of institutions: (1) the parliamentary/presidential dimension, (2) the central/federal dimension, and (3) the proportional/majoritarian dimension of the electoral system. Although they find a moderating effect of institutions, however, in line with Golder and Stramski (2010), they seem to agree that we do not actually know which is the best electoral system for representation/responsiveness and this constitutes a real challenge for future research.

However, beyond the dichotomous antagonism between plurality/proportional electoral systems and majoritarian/proportional vision of democracy (Lijphart 1999; Powell 2000), only a few studies focus on the relationship between electoral competition and government responsiveness and this is exactly the gap this study is interested in. In particular, this paper studies policy responsiveness to public priorities and is stimulated by the negative finding reported by Bevan and Jennings (2014) that, unlike executive speeches and legislation, the budget is not responsive to public priorities. This conclusion is not particularly striking on its own, as pre-

vious research has already found that responsiveness tends to decline when we move from more symbolic to more substantive activities (Cohen 1997: 26-28; but see also Hobolt and Klemmensen 2008), but pushes us to go further. In fact, this paper argues that the impact of public priorities on government spending may not be direct but it can be mediated by other factors. Developing an empirical framework of electoral competition for policy responsiveness, this paper is interested in assessing whether competitive incentives have an influence on policy responsiveness in-between elections and applies the framework to government spending.

3. A Framework for Responsiveness

The theoretical framework stylised in Figure 1 builds on the so-called Friedrich's (1963) 'mechanism of anticipated reactions' and argues that if governments aim to be reelected, they will be more likely to reach such a goal if they respond sympathetically to citizens' preferences and priorities (see Bartolini 1999). The argument is cynical in the very Downsian sense that governments pursue policies in order to be reelected rather than seeking reelection to implement policies [3] (for an opposite perspective see, for instance, Jacobs and Shapiro 2000). Only if politicians are worried about the reactions of voters will they be 'constantly piloted by the anticipation of those reactions' (Sartori 1977: 350). Yet this mechanism of democracy is an indirect mechanism since 'there is no sense in which the people's will is translated directly into law' therefore politicians are 'obliged to respond to the electorate's preferences *by anticipation*' (Miller 1983: 134, emphasis in original).

Governments would then be more likely to be worried about voters' reactions if some competitive incentives occur. Figure 1 shows how governmental responsiveness to public opinion is mediated by three main incentives coming from party competition: (1) electoral vulnerability, which refers to the electoral uncertainty the government faces in between elections; (2) electoral decidability, that is, how clear and differentiated the political offer is within the party system; (3) electoral proximity, which simply refers to the pressure the government faces when elections are approaching.

Put it differently, this research combines two different perspectives on electoral competition: turnover propensity and ideological proximity. While turnover propensity can be defined as the '(perceived) probability of a change in office at the next election', ideological proximity looks at the 'degree to which candidates or parties vie for the support of the same voters' (Selb 2013). Both perspectives are related 'since the distribution and intensity of party loyalties determine the likelihood of sufficient vote shifts to change the winning party' (Elkins 1974). In this research, the ideological proximity perspective is approached not in terms of overlapping party potentials – measures for parties, party dyads and party systems based on sympathy scores or probability-

[3] Of course, reelection is not the unique goal of politicians, as Strom (1990), for instance, recalls. Nonetheless, politicians could not achieve other goals unless they are able to remain in office. This is particularly true for legislators (Mayhew 1974; Sulkin 2005), but the same logic can be easily applied to the incumbent government as well.

to-vote (PTV) items (Tillie 1995; van der Eijk et al. 2006) – but rather on the electoral offer side and how it is decidable by voters. The turnover propensity perspective is, instead, approached in terms of uncertainty about future election outcome *à la* Elkins, but focused on the incumbent vulnerability.

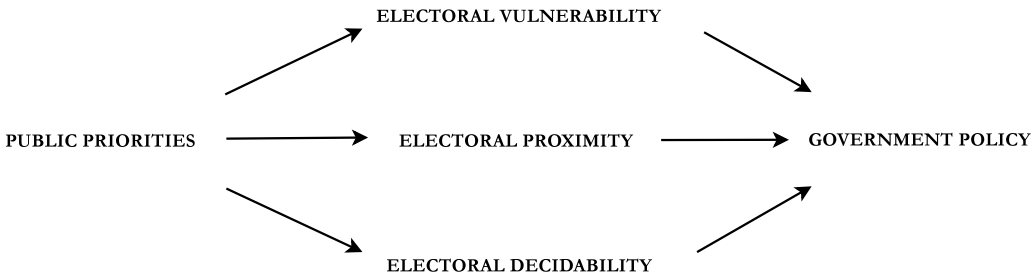

Figure 1: Empirical framework of electoral competition for policy responsiveness

Source: Author's own.

Incumbent vulnerability is at the core of the connection between responsiveness and competition. If the mechanism of democracy stems from the potential electoral sanctions or, in other words, on the will of being reelected, if the incumbent aims to achieve this goal he will need to anticipate sympathetically voters' preferences. This mechanism will perform better if the incumbent perceives himself vulnerable (Mayhew 1974; Fenno 1977). Strom (1989: 280-1) calls this mechanism performance sensitivity, Bartolini (2000) uses the term incumbent vulnerability, which is the one adopted here. What differentiates the notion of vulnerability from other variants of competitiveness used in the literature such as closeness, uncertainty, decisiveness of elections or changeability is that all these terms refer to the vulnerability of governments at the election time.

The main difference with the notion of vulnerability preferred in this paper lies on the fact that governments can be vulnerable also during the electoral cycle. In other words, the interest is not in the *actual* vulnerability of governments (Orlowski 2013; Immergut and Abou-Chadi 2014) but in their *potential* vulnerability as driver of responsiveness, simply because responsiveness occurs in-between elections. Though both dimensions of actual past record and present uncertainty should be incorporated into the idea of vulnerability (Bartolini 2000: 52-3), the potential vulnerability is much more relevant than the actual (Barry 1970: 153).

Often the literature on responsiveness, especially in the US (Cohen 1995; Canes-Wrone 2004; Canes-Wrone and Shotts 2004), talks about government popularity on behalf of government's potential vulnerability. This paper argues that government vulnerability and government popularity are not exactly the same thing. In fact, from a conceptual viewpoint, vulnerability implies that a party is vulnerable in relation to another party, while, if a party is unpopular, it does not necessarily mean that its main opponent is popular. Given this crucial distinction, empirical evidence on the impact of this competitive incentive on responsiveness is still

contradictory.

For instance, some studies report no particular impact of presidential popularity on responsiveness to public concern (Cohen 1995) and that 'unpopular presidents are not more likely than popular ones to support positions endorsed by majority opinion' (Canes-Wrone 2004: 487), while other studies show that more popular presidents do feel less pressure to promote policies in line with the public (for a review, see Manza and Cook 2002) or find support for a nonmonotonic relationship (Canes-Wrone and Shotts 2004). Outside the American context, the hypothesis that electoral pressure increases government responsiveness to citizens' preferences and priorities finds confirmation in both case studies and comparative research (Hakhverdian 2010; Hobolt and Klemmensen 2008), though the effect varies from policy area to policy area. Since this paper argues in favour of a beneficial effect of vulnerability on responsiveness, a hypothesis linking these two concepts will take the following shape:

H1a (The Electoral Vulnerability Hypothesis). The more vulnerable the government, the more likely it will be responsive to public priorities.

By applying the Electoral Vulnerability Hypothesis to government spending we should expect the government to spend more when the issue becomes more salient to the public and the government is vulnerable. However, a different argument would be that since issue salience is *per se* an incentive for responsiveness, as previous research has shown, the effect of electoral vulnerability would be minor or even irrelevant when the issue is already salient to the public. In other words, the two incentives might not necessarily go together. Given this caveat, we could also expect vulnerability to play a major role when the issue is less or not salient therefore a counter-hypothesis would be the following:

H1b (The Alternative Vulnerability Hypothesis). Government's electoral vulnerability is more likely to affect policy responsiveness when the issue is not very salient to the public.

In this sense, we would expect the government to spend more on an issue, when the issue is less salient to the public and the government is more vulnerable.

Decidability of the political offer (Bartolini 2000; but see also Dalton 1985: 294) is not a new topic in the literature and has important implications for voting decisions. In fact, the more a party's position on an issue is transparent for a voter or the more a voter is aware of partisan differences on an issue (Carsey and Layman 2006), the higher the chance she will take this into account in her voting decisions and the lower the chance to vote for a party that does not match her preference (Carmines and Stimson 1980; Alvarez and Nagler 2004;

Walgrave and Lefevere 2013: 6).

The relationship between party policy positions in relation to voter policy positions is well explored in studies of representation in dynamic perspective. Empirical work finds support, in both the American and European party systems, for the spatial model of elections' prediction that vote-seeking parties tailor their policy promises to voters' policy preferences (Erikson, Mackuen, and Stimson 2002; Adams et al. 2004; Ezrow 2007).

In their research on citizens and parties' left-right ideological shifts in Europe, Adams and colleagues find that 'parties systematically respond to shifts in public opinion only in situations where opinion shifts in a direction that is clearly disadvantageous to the party' and find no evidence that 'parties adjust their ideologies in response to past election results' (Adams et al. 2004: 590). Elsewhere they ask whether parties respond to the ideological shifts of their supporters or to those of the median voter in the electorate. As opposed to niche parties sensitivity to shifts of their mean supporter, mainstream parties tend to adjust their positions according to shifts in the mean voter position (Ezrow et al. 2010). Moreover, voters seem to adjust neither their perceptions of parties' positions in response to the policy statements in parties' election manifestos nor their own positions or their partisan loyalties in response to these policy statements (Adams, Ezrow, and Somer-Topcu 2011: 371). In contrast, Adams and colleagues find that European citizens adjust their positions and their partisan loyalties in response to the parties' policy images (Adams, Ezrow, and Somer-Topcu 2011: 371). Hence 'voters react to what they *perceive* the parties stand for, but these perceptions do not match up with the actual statements in the parties' policy manifestos' (Adams, Ezrow, and Somer-Topcu 2011: 371-2, emphasis in original), so the authors stress a disconnect between what the elites say and voters reactions.

Ironically, the studies on governmental policy responsiveness (as well as governmental agenda representation), reviewed in the previous section, completely neglect the role of electoral decidability as competitive incentive to explain the likelihood of policy responsiveness. When parties elaborate their political offer they take on different policy positions. They can do that in many ways. Parties can either compete in a crueler and direct confrontational way, as the Downsian theory predicts, or they can compete in a more dynamic and smooth way emphasising and de-emphasising certain issues, as the saliency theory suggests (Budge and Farlie 1983). Parties can even blur their positions on issues that would penalise them (e.g. Green and Hobolt 2008; Rovny 2012, 2013). However they do it, parties signal something to their voters. If what parties signal is clear and differentiated then the consequences for responsiveness may be different than if what parties signal is unclear and undifferentiated.

If the political offer is unclear and undifferentiated, i.e. undecidable, and parties can blur their policy positions then it will be harder for voters to choose the offer that is rationally closer to their preferences (Key

1966; Page 1978; Alvarez and Nagler 2004; though see, for instance, Lupia and McCubbins 1998). This is where other factors different than policy arguments can prevail for voters to decide on their political choice. Such elements can be related, for instance, to phenomena of party identification or issue competence (e.g. Campbell et al. 1960; Stokes 1966). In this case, the choice of voters will not essentially be the consequence of the political offer or, at least, not only of that and a retrospective evaluation will prevail (Key 1966). If party responsiveness to public opinion is understood in terms of policy and if the choice of voters is successfully deviated from their policy choice then for parties it is no longer strictly necessary to respond to the policy preferences/priorities of the public – because if the political offer is undecidable the choice of voters cannot be interpreted in response to the political offer itself (Bartolini 2000). This makes it really hard to say whether we can still talk about policy responsiveness. In fact, this makes it really hard to say whether we can talk about responsiveness at all: 'since government actions are concealed from the citizens, there is no need to do what the people want' (Page 1976: 750). If parties are able to collude and deviate the attention on other issues that are not related to policy then the choice of voters will be hardly interpretable as policy preference and this would create a clear incentive for parties not to respond to public policy preferences.

Since this paper looks at citizens' priorities and not at citizens' preferences, the theory behind decidability and responsiveness requires an adjustment. In fact, as empirical applications of the saliency theory of party competition show, it is reasonable that parties compete not only in a confrontational way but also taking positions by emphasising the importance of certain issues compared to others. This theoretical adaptation of party competition in terms of emphasis rather than directionality relates well with the idea that, before showing preferences, people have priorities and evaluate issues according to their perceived importance (see Wlezien 2005; Bevan and Jennings 2014: 39). More than that, the saliency theory of party competition allows to compare the priorities of the public and the positions emphasised by parties. A hypothesis concerning decidability would then be the following:

H2 (The Electoral Decidability Hypothesis). The more differentiated the position emphasised by parties on a given policy issue, the higher the likelihood of policy responsiveness to public priorities.

Though not addressed in this paper, it is worth noting that vulnerability and decidability are not simply additive dimensions and future work should account for the relationship and, especially, the trade-offs between the two. For instance, extreme values in both dimensions are not necessarily good as the maximisation of electoral vulnerability might lead to a 'permanent campaign' syndrome whereas maximising electoral decidability would lead to excessive polarisation. On the other side, no decidability would imply no differentiation of the offer and no vulnerability would essentially mean no anticipated reactions of incumbents (for a full discussion,

see Bartolini 2000: 57-58).

An additional competitive incentive for responsiveness is considered. This element is often called electoral connection (Mayhew 1974) or electoral proximity (Canes-Wrone and Shotts 2004). Though it is not their only goal, politicians are in general interested in reelection and concerned when elections are approaching thus elections are described as a very powerful potential driver of responsiveness (Stimson, Mackuen, and Erikson 1995; Manin, Przeworski, and Stokes 1999*a*). In fact, politicians will find it faster and less risky to respond to public opinion rather than to attempt to change it (see, e.g. Jacobs and Shapiro 2000). Moreover, because voters are unlikely to observe the outcome of a policy choice made shortly before an election, presidents are more likely to cater current opinion as the next election is coming (Canes-Wrone and Shotts 2004: 693). Results from the literature on electoral proximity and responsiveness are still ambiguous and further research is worth to exploring this relationship. For instance, the hypothesis finds confirmation in the American context where reelection-seeking presidents are more likely to endorse popular policies in the second half of the term (Canes-Wrone and Shotts 2004). Moreover, studying nuclear energy policy in 13 countries after the Fukushima disaster, Morales et al. (2014) find that proximity to elections was indeed a powerful incentive, in association with other factors, in all the three cases – Germany, Italy and Switzerland – that undertook substantial policy responsiveness. On the other side, evidence from Spain reveals that policymakers are more responsive to public priorities immediately after elections and when the executive governs without a majority (Chaqués Bonafont and Palau 2011) [4].

But how does electoral proximity relate to the budget? Though between-country variation may exist due to institutional friction, budgetary policy is highly incremental and occasionally punctuated by large changes (Jones et al. 2009). Changing budgets (and observing the effects of this change) simply takes time (Tsebelis 1995; Garrett and Mitchell 2001). More than that, when setting budgets, policymakers are constrained by veto players (Tsebelis 1995) as well as social, economic and international realities that are largely beyond their control (Epp, Lovett, and Baumgartner 2014). This means that also governmental responsiveness to public opinion would be subject to the 'empirical law of public budgets' (Jones et al. 2009). Therefore, the expectation would be that governments would not be more responsive when elections are approaching, that is, they would not generally spend more when the public becomes more concerned on that issue the closer we get to the elections (also because budgets are decided one year ahead).

H3 (The Electoral Proximity Hypothesis). Given the 'empirical law of public budgets', governments are

[4] This might suggest that the relationship between responsiveness and the electoral cycle is not linear but curvilinear, with responsiveness higher in the first year after elections, probably in line with the so-called honeymoon effect, but decreasing during the legislative term and increasing again in the election year.

not likely to be more responsive when elections are approaching.

4. Data, Measurement, and Model Specification

4.1. Measuring the Independent Variables

4.1.1. Public Issue Priorities

Public issue priorities are measured using the most important problem/issue (MIP/MII) question, which gives citizens the opportunity to state their priorities. While some surveys ask respondents to spot the most important *problem* their country is facing, other surveys ask them to spot the most important *issue*. Though the MIP/MII question is widely used as indicator of public opinion, such a question has been criticised for several reasons, especially for the conceptual fuzziness between importance and salience, on the one hand, and between issues and problems, on the other hand (see Wlezien 2005; Jennings and Wlezien 2011). Nevertheless, when comparing MIP and MII, Jennings and Wlezien (2011) find that, though for some issues some variation does exist, they essentially mean the same for respondents [5].

4.1.2. Electoral Vulnerability

Government's electoral vulnerability is defined as the electoral uncertainty the government faces in between elections. Essentially, the literature distinguishes between measures of *actual* vulnerability – based on aggregate electoral data such as indices of electoral competitiveness, the closeness of electoral result, the frequency of turnover (among the others, see Blais and Lago 2009; Grofman and Selb 2009; André, Depauw, and Martin 2014) – and measures of *potential* vulnerability – based on survey or opinion poll data such as voting intentions and presidential approval (Hobolt and Klemmensen 2008) and voter's propensity to vote (Kroh, van der Brug, and van der Eijk 2007; van der Eijk and Oppenhuis 1991; Tillie 1995). Here, the idea of the existence of potential vote switchers becomes a function of government vulnerability.

Measures based on actual vulnerability and on voter's propensity to vote involve, however, relevant issues when we want to explain government responsiveness with electoral vulnerability, for two reasons. First, responsiveness occurs not at election time but in-between elections (Manin, Przeworski, and Stokes 1999*b*; Narud and Esaiasson 2013) therefore using measures of vulnerability based on election data would be difficult

[5] Since time-series of MIP/MII in the UK and Spain are available in more than one data point per year (depending in which months the question has been asked) and polling institutes in these countries provide the two and three most important problems/issues combined, respectively, responses are then averaged on a yearly basis and standardised to total 100 percent to make them comparable to the other series. Since data for the Gallup's MIP question in the UK are not available after 2001, Ipsos-MORI's MII data are also used; when overlapping, the two series are combined and averaged.

if not misleading. Using measures based on voter's propensity to vote would not be salvation since such data come from pre-election surveys and hence not available at least on a yearly basis. What matters most is whether governments feel vulnerable before the elections. This is about uncertainty (Elkins 1974). Sometimes, the margin of victory might be larger than what surveys were anticipating, and importantly, they can change over time between two elections. Therefore, it would be much better to measure vulnerability with survey estimates for each year, rather than using the single value of the posterior elections for all 3-5 years prior to the elections. For these reasons, a measure of government's electoral vulnerability based on vote intentions is proposed [6].

Government's electoral vulnerability is computed subtracting for each year the vote intentions for the government parties to the vote intentions for the relevant opposition parties (for the US, presidential approvals are used subtracting approval from disapproval). Indeed, when a voter assigns her preference for a party she is already reasonably aware of the strength of her preferred party and the other relevant parties in the party system [7]. Now, the main question becomes which parties to include. For the government the job is simple, as all parties in government should be considered (though see SI for the special case of grand coalitions). What is harder is to define what the relevant opposition is [8]. Relevant opposition includes those parties receiving vote intentions the government might be vulnerable from, considering those who are not direct rivals in the competition for government but that might still be able to change the electoral result to the detriment of the government. Therefore, it would not be logical to include all opposition parties, as well as it would be misleading to include only the two main competitors. In fact, if 'party A will almost always focus on party B, and vice versa' then 'each may fail to respond to shifts that threaten to condemn both to a marginal position' (Mair, Müller, and Plasser 2004: 271).

Hence, party selection must be done on a case-by-case basis since relevant parties change across countries. What matters for the stability of the measure is that relevant opposition parties must be included every time the parties they are able to frighten are in government. Indeed, the partial inclusion of some parties might seriously underestimate or overestimate vulnerability in a given country. Figure 2 shows the level of government electoral vulnerability by country for the reference period (see SI for how the measure is constructed).

[6] This means that the interest is not in the overall vulnerability of the party system and that the focus is on vulnerability only from an electoral perspective; indeed, governments can be vulnerable for many other reasons not directly connected to elections.

[7] Perhaps, bigger partners are more likely to seek reelection than smaller partners, who rather may prefer to implement some policies they have the ownership of or prefer to hold certain office. Sometimes government parties are not even stressed about votes simply because their success to stay in government might not even depend entirely on votes. Some parties are more driven by policy – no matter what this will result in at the next election – therefore they push through reforms which harm their election results. Given this complexity, no party goal is explicitly prioritised and the assumption is that all coalition members are interested in reelection to some extent.

[8] It is worth noting that, unlike measures of popularity (e.g. Canes-Wrone and Shotts 2004; Hobolt and Klemmensen 2008), the argument of vulnerability is that governments do care about the gap separating them from the relevant opposition parties and are worried about their competitors. Moreover, on the one hand, if government popularity goes down, it does not necessarily mean that opposition popularity is going up; on the other hand, even if vote intentions for the government go down, the government might still be safe: vulnerability occurs when the main competitors are also included in the picture.

A threshold of 5 percent above which governments can be said to be safe has been arbitrarily imposed. According to Figure 2, the level of vulnerability changes considerably across countries and time. For instance, the UK (1988-2009) experiences considerably vulnerable governments, also given the inclusion of LibDem in the measure, as well as Canada (1988-2004). Conversely, the US (1980-2004) is a case of pretty safe presidential governments, while Germany (1986-2004) and Spain (1986-2009) are in-between [9].

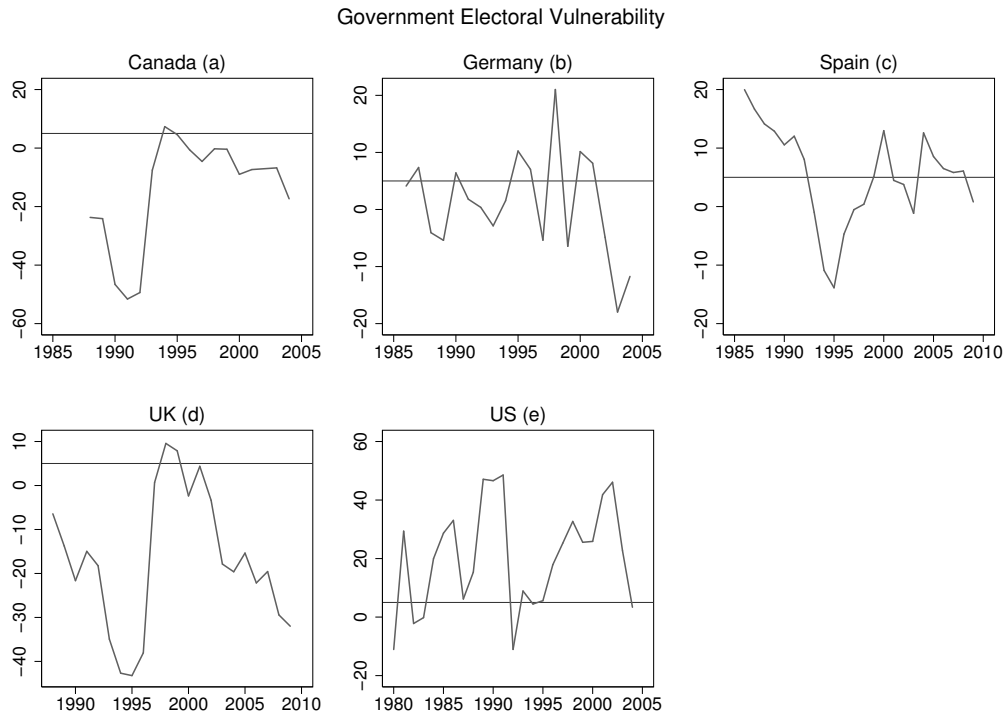

Figure 2: Electoral vulnerability of governments (percentage values)

Source: Author's own using data from Environics Focus (Canada), Politbarometer (Germany), Centro de Investigaciones Sociológicas (Spain), Wlezien et al. (2013); Green and Jennings (2012*b*) (UK), Gallup (US).

4.1.3. Electoral Decidability

Though the concept of electoral decidability is potentially broader and more than one indicator could be proposed to capture its sub-dimensions, the paper focuses on the key aspect of the concept, which refers to the dispersion of the political offer on a given issue in a given party system. For this reason, data from the Comparative Manifestos Project (CMP), which analyses party manifestos for 56 countries throughout the post-war period (Volkens et al. 2014), are used (for an extensive discussion of the goodness and drawbacks of the data,

[9] The German data stop voluntarily in 2004 given the difficulty in treating the 2005 grand coalition government; but see SI for a longer discussion of such special cases.

the author fully delegates to Laver 2001; Benoit and Laver 2006; Meyer 2013) [10].

The literature provides valuable measures which have been applied to other research questions. Since this paper uses CMP data, the author applies Ezrow's (2007) version of party system dispersion not to the left-right ideological position – as he does – but to specific policy categories. Ezrow's measure is a variation of Alvarez and Nagler's (2004) party system compactness and is in substance 'the standard deviation of all of the parties' policy positions that are reported by the Comparative Manifestos Project for a given election' (Ezrow 2007: 186) [11]. There are important arguments in favour of weighting as well as not weighting the measure by party size. The reason for weighting is that small parties *de facto* would have no political influence therefore their policy proposals would 'not enlarge the menu of policy choices available to voters in any meaningful sense' (Ezrow 2007: 186). The opposite perspective underlines that weighting would be arbitrary and that the policy influence of a party is not necessarily correlated with its votes or seats. Moreover, even small parties can fulfill the function of channel of voters' policy preferences, regardless of the parties' influence on government policy outputs.

What seems to be missing from this discussion is the more interesting possibility that electoral decidability might depend not as much on party size but rather on issue salience. Put it differently, what may matter for decidability is not how big is a party but how much it talks about the issue in the manifesto. For this reason, two measures are then proposed: an unweighted measure of party system dispersion (UPSD) and a measure of party system dispersion weighted by the salience of the issue in the party system (SWPSD) [12].

4.1.4. Electoral Proximity and Controls

To test whether governments are more responsive during the election year a dummy variable is created (1 for election year, zero otherwise). Following previous research, standard economic indicators for unemployment rate, inflation and GDP growth are included as controls given that responsiveness on certain issues can be a function of the state of the economy. Government ideology is also included as one can expect an issue ownership effect meaning that, for instance, left-wing governments spend more on left-wing issues and viceversa. Therefore, responsiveness may also depend on government ideology (as a dummy variable 1 for left-wing governments, zero otherwise), although a recent study (Epp, Lovett, and Baumgartner 2014) clearly shows that the latter has no significant impact whatsoever on spending. Following the intuition by Soroka and Wlezien

[10] Note that although also party positions can change in-between elections due, for instance, to external shocks (Morales 2014), it is not heresy to assume that in normal situations they are quite stable during legislative periods. Thus keeping the same value of the measure of decidability for the whole electoral cycle is theoretically reasonable.

[11] The application of Ezrow's measure is explained using the issue of education as an example. The CMP assigns two categories for education: 'education expansion' (per506) and 'education limitation' (per507). To get the actual party position on the issue, the negative category is subtracted from the positive category in absolute terms in order to avoid negative values: |per507-per506|. Then the computation follows Ezrow (2007: note 9, p. 186). See SI for the CMP categories included.

[12] Separate analyses have been run also using a measure of party system dispersion weighted by vote share, but see Note 20.

(2010: 140) that the disproportionality of electoral system might have an effect on responsiveness, a measure of disproportionality is included using Gallagher's (1991) Least squares index. Though the electoral system is certainly one of the most powerful barriers to entry competition (see e.g. Strom 1992), its effect on responsiveness might not be direct. In other words, electoral contestability is not a necessary condition for responsiveness but its effect is mediated by its impact on other dimensions of competition (Bartolini 1999); for instance, a high disproportional electoral system would prevent the access of third parties in parliament and this would make governments less vulnerable and, in turn, this would indirectly undermine responsiveness. Moreover, since an already reelected US president cannot be reelected for a third time, a dummy variable controlling for this is also included, as in their second terms presidents might care less about responsiveness (although this possibility might be moderated by the fact that their party can still win the presidency). Finally, some issue-specific controls are also included for some policy domains: a dummy variable accounting for the presence of major wars in the defence model and a variable accounting for elderly population in the health model, given that spending in these two policy domains can also be a function of these factors.

4.2. Dependent Variable and Model Specification

This paper tests the hypotheses concerning competitive incentives and policy responsiveness using TSCS data for five advanced democracies – Canada (1988-2004), Germany (1986-2004), Spain (1986-2009), the UK (1988-2009), and the US (1980-2004) – in six policy domains: defence, education, health, housing, labour / unemployment and welfare. Though the number of cases is not large due to clear data availability constraints (especially for data on public priorities and electoral vulnerability), the countries considered in the analysis register important institutional differences and vary considerably on the main independent variables.

The dependent variable is change in government expenditure by policy function as percentage of GDP [13]. The reason of using expenditure as percentage of GDP instead of spending in national currency is that some countries may spend more than others just because of their size, as also suggested by Garrett and Mitchell (2001).

Because data are TSCS data, issues derived from both time and space must be taken into account. There is a vital methodological debate among political scientists and political economists about the use of expenditure as dependent variable and its related modeling issues (see Plümper, Troeger, and Manow 2005). Given serious problems of autocorrelation in time-series data, some methodologists suggest to include the lag of the dependent variable in the model (Beck and Katz 1995). Lagging dependent variables lies on two reasons, one methodological and one theoretical. The methodological reason is to deal with autocorrelation, for observa-

[13] Although Wlezien and Soroka (2003: 273-4) note that expenditures are not policy *per se*, so using appropriations would be better than outlays, they also acknowledge the former are not easily available comparatively.

tion at time *t* can depend on observation at time *t-1*. In other words, there is no time independence and this is a common issue with all time-series data. This seems to be especially true for expenditure data considered as highly path dependent (Garrett and Mitchell 2001; Jones et al. 2009). The other reason is theoretical and is related to causality. Lagging a variable is important to establish the time order. Applying the same causality logic, since expenditures are quite sticky and it may take time to translate citizens' priorities into policy, it is common sense to use the lag variable for public opinion as the citizens side of the responsiveness relationship (Page and Shapiro 1983; Soroka and Wlezien 2005; Hobolt and Klemmensen 2008). However, as other methodologists acknowledge, using a lagged dependent variable would depress the explanatory power of the main independent variables and absorb part of the trend in the dependent variable (Achen 2000; Plümper, Troeger, and Manow 2005).

To check whether errors can display temporal dependence, that is, errors are not independent from one time period to the next, autocorrelation and partial autocorrelation functions are examined graphically. These tests reveal that first-order autocorrelation is present and first differencing the dependent variable considerably solves the issue [14]. Moreover, since there is a problem of non-stationarity in the data on expenditures, not accounting for this issue will lead to flawed hypothesis test and results can be spurious (see e.g. Fortin-Rittberger N.d.) [15]. Differencing the dependent variable is in fact a solution also followed in other studies in the field (see Wlezien and Soroka 2003; Hobolt and Klemmensen 2008). Finally, standard errors are clustered by country since observations from the same country in different years may be dependent on each other [16]. The basic issue-specific model that will be estimated is the following:

$$\begin{aligned} \Delta EXP_t = \alpha_0 + \beta_1 MIP_{t-1} + \beta_2 COMP_{t-1} \\ +\beta_3[MIP_{t-1} \times COMP_{t-1}] + \beta_4 LEFT_{t-1} \\ +\beta_5 LSQ_t + \beta_6 TERM_t + \beta_7 ECON_t + \epsilon_t \end{aligned} \tag{1}$$

where:

ΔEXP_t = the change in government expenditure on a given policy domain as percentage of GDP in year *t* compared with the expenditure on that policy domain in year *t-1*.

[14] Given that in few instances autocorrelation remains, in additional analyses the lagged dependent variable is also included in the models and this does not undermine the validity of the results.

[15] Data are said to be non-stationary when 'there is no tendency to return to the mean, and ... the error term exhibits a permanent influence on the time-series' (Fortin-Rittberger N.d.: 11). Significant unit-roots test (Fisher-type test based on ADF test) reveal the data are not stationary.

[16] In fact, since Breusch-Pagan and White tests for heteroskedasticity reject the null hypothesis that the variance of the error term is constant in some policy domains but not in others, using clustered standard errors would be a safer option.

MIP_{t-1} = the proportion of public issue priority on a given policy domain in the previous year.

$COMP_{t-1}$ = competitive incentives: electoral vulnerability at time *t-1*; electoral decidability and electoral proximity at time *t*.

$LEFT_{t-1}$ = government ideology in the previous year (1 for left-wing governments, zero otherwise).

LSQ_t = disproportionality of electoral system using Gallagher's Least squares index in the current year.

$TERM_t$ = second US presidential term in the current year (1 for second presidential term, zero otherwise).

$ECON_t$ = each economic indicator (unemployment, inflation, GDP growth) in the current year.

α_0 and ϵ_t represent the intercept and the error term. The effect of the competitive incentives on policy responsiveness is given by the interaction term between public issue priorities and the competitive incentive $[MIP_{t-1} \times COMP_{t-1}]$. If the Electoral Vulnerability Hypothesis is supported by the data, we should expect a negative and significant coefficient for the interaction term, meaning the more vulnerable the government (its observed maximum is -45), the more likely it would be responsive. If electoral decidability registers the expected effect the coefficient for the interaction term would be positive, that is, the more differentiated the emphasis on the issue in the party system, the more likely the government would be responsive, as the Electoral Decidability Hypothesis would predict. Finally, if the government is more responsive in the election year the coefficient for the interaction term should also be positive and significant.

Whereas it is accepted, for the arguments exposed above, that the lag variable of public opinion is required, it is less clear whether we should consider the current or the past value of government ideology as well as the competitive incentives. For example, Soroka and Wlezien (2010) use the lag of government ideology and vote margins while Hobolt and Klemmensen (2008) set both government ideology and electoral uncertainty at time *t*. There might be two competing arguments that it is worth considering here. On the one hand, we could expect that what matters for the government is its current potential vulnerability and not as much if the government was vulnerable before. In this case, the solution adopted by Hobolt and Klemmensen (2008) would be theoretically embraceable. On the other hand, however, there might be a causality issue with this solution, that is, are governments responsive because they are vulnerable or are they vulnerable because they are responsive? In other words, using the dependent variable as an example, is a change in spending mediated by government vulnerability or do governments become more vulnerable due to a change in spending? This concern is less relevant to the other competitive incentives, electoral decidability and electoral proximity. In fact, given that CMP data are used to capture the former, electoral decidability takes repeated values for the whole electoral cycle and there would be no reasonable causal expectation saying that the political offer on a

given issue becomes more decidable due to a change in spending. The same would apply to electoral proximity. For these reasons, the model for electoral vulnerability is tested with vulnerability at time *t* and at time *t-1* whereas the models for electoral decidability and electoral proximity are tested with both the former and the latter at time *t* [17].

5. Empirical Results

Results for the Electoral Vulnerability Hypothesis are reported in Table 1. Two main findings seem to be clear. Firstly, looking at the constitutive term for public opinion, when electoral vulnerability is zero (Brambor, Clark, and Golder 2006) the coefficient for public issue priorities is negative (and sometimes significant) in all policy domains considered but one. This would suggest that, when electoral vulnerability is zero, the more the issue becomes salient to the public the less the government spends on the issue, confirming the existence of a 'thermostatic effect' (Wlezien 1995).

Secondly, when it comes to spending and given the available sample size, government's electoral vulnerability seems not to have any beneficial effect whatsoever for governmental responsiveness to public priorities. More than that, the coefficient of the interaction is usually positive, meaning that the more the government is safe the more it is responsive. But this is only significant for defence and social welfare [18]. Interestingly, neither government ideology (Left) nor the disproportionality of electoral system (LSq) seem to matter.

To interpret these findings more intuitively predicted values are plotted (Figure 3). It is easier to see that when the government is extremely vulnerable (solid line) the effect of public priorities on government spending in both defence and social welfare significantly decreases; conversely, when the government is extremely safe (dashed line) the effect of public priorities on government spending in these issues significantly increases.

Table 2 shows the results for the Electoral Decidability Hypothesis. Since CMP data use two single categories for social domains (welfare state expansion and welfare state limitations), health, housing and social welfare have been aggregated into one policy category called Welfare [19]. Table 2 presents results for the two measures of electoral decidability, that is, unweighted party system dispersion (UPSD) and salience weighted party system dispersion (SWPSD) [20]. When the differentiation of the political offer is included as competitive incentive, the thermostat effect suggested in Table 1 seems to be vanishing. In fact, when UPSD and SWPSD are zero, the effect of public priorities on spending is positive in defence, negative in education and mixed in the

[17] Only the results for the models with vulnerability at time *t-1* are reported in the text as they are essentially identical to the ones with vulnerability at time *t*.

[18] Note that no observations are available for housing in the US and that observations decrease for education therefore results for these two policy domains should be considered more carefully.

[19] Given that CMP data do not have a specific category for unemployment, this policy issue has not been included in this analysis.

[20] The analysis has been run also using a measure of party system dispersion weighted by vote share (VWPSD) but none of the interactions was significant. What seems to matter more is not party size but how much parties talk about the issue.

Table 1: Electoral vulnerability and policy responsiveness (H1)

Dependent variable: Government expenditure as percentage of GDP (differenced)						
	Defence	Education	Health	Housing	Labour/Une	Social welfare
Public priorities (t-1)	-0.003	-0.014	-0.002	0.001	-0.007*	-0.034**
	(0.004)	(0.066)	(0.004)	(0.005)	(0.003)	(0.010)
Govt vulnerability (t-1)	0.000	-0.028	0.002	0.001	-0.005	-0.012**
	(0.001)	(0.025)	(0.002)	(0.002)	(0.002)	(0.004)
Public (t-1) × Vulnerability (t-1)	0.000**	0.004	0.000	-0.000	0.000	0.002**
	(0.000)	(0.004)	(0.000)	(0.000)	(0.000)	(0.001)
Left (t-1)	0.058	-0.489	-0.056	-0.020	-0.045	0.038
	(0.052)	(0.758)	(0.049)	(0.038)	(0.035)	(0.075)
LSq (t)	0.002	0.012	0.005	0.001	-0.020*	-0.002
	(0.002)	(0.045)	(0.005)	(0.002)	(0.008)	(0.004)
US 2nd term (t)	-0.011	0.051	-0.081		-0.066	-0.061
	(0.014)	(0.487)	(0.074)		(0.133)	(0.036)
Inflation (t)	0.017	-0.013	0.028	0.008	-0.028	0.014
	(0.015)	(0.108)	(0.024)	(0.010)	(0.023)	(0.015)
Unemployment (t)	0.003	-0.009	-0.023*	0.003	-0.002	0.003
	(0.004)	(0.031)	(0.010)	(0.004)	(0.006)	(0.004)
GDP growth (t)	-0.030*	-0.030	-0.060**	-0.014	-0.058**	-0.093***
	(0.012)	(0.032)	(0.019)	(0.011)	(0.016)	(0.011)
War (t)	-0.086*					
	(0.035)					
Elderly (t)			0.007			
			(0.016)			
Constant	-0.077	0.591	0.282	-0.006	0.590**	0.422***
	(0.070)	(0.896)	(0.241)	(0.010)	(0.200)	(0.079)
N	94	55	82	61	87	93
R^2	0.237	0.144	0.365	0.164	0.381	0.513

Note: OLS with clustered standard errors in parentheses (the Housing Model excludes the US due to data unavailability).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

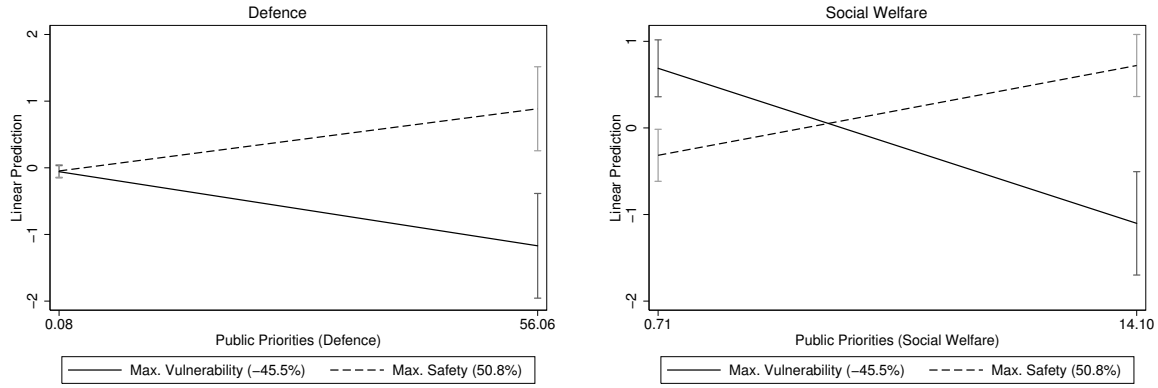

Figure 3: Predicted values of government's electoral vulnerability on responsiveness in defence and social welfare with 95 percent confidence intervals (based on Table 1).

welfare domains. The mediating effect of electoral decidability on responsiveness changes according to policy domain. For defence, the coefficient of the interaction between public priorities and party system dispersion is negative and significant using both the unweighted and the salience weighted measures. For education, only UPSD is significant and positive while for the welfare domains only SWPSD is significant and negative. The Electoral Decidability Hypothesis, which was suggesting a beneficial effect of political offer differentiation for responsiveness, seems therefore to be supported only for education (although note the lower number of observations) but not for defence and welfare. In these cases, in fact, the story seems to be different: higher policy differentiation reduces responsiveness.

How to explain this unexpected finding? Since governments have to deal with too many policies, given the large amount of requests from the citizens (Jones and Baumgartner 2005), it is plausible to argue that disagreement might reduce responsiveness. Hence, electoral decidability, conceived as position taking by emphasising the importance of certain issues compared to others, may be interpreted not only as a degree of polarisation of the political offer (i.e. the larger the standard deviation the more differentiated the offer), but also as the amount of difficulty governments are facing in making a policy change [21]. However, if it is true that 'when polarisation is high, the meaning of the vote choice can be reduced to nothing more than an expression of partisan loyalty' (Vegetti 2014: 240), then the expected beneficial effect of decidability in facilitating responsiveness might simply translate into party attachment when the issue is too polarised. In this sense, too much polarisation would not be good for responsiveness either. Again, as in Table 1, government ideology and the disproportionality of electoral system seem not to matter at all.

The interaction effect of SWPSD on responsiveness for defence and the welfare domains is plotted in Figure 4. When the political offer is highly differentiated – considering how much parties talk about these issues

[21] The author thanks Stuart Soroka for raising this point.

Table 2: Electoral decidability and policy responsiveness (H2)

Dependent variable: Government expenditure as percentage of GDP (differenced)						
	Defence (a)	Defence (b)	Education (a)	Education (b)	Welfare (a)	Welfare (b)
Public priorities (t-1)	0.010**	0.011*	-0.064	-0.045	-0.014	0.025*
	(0.003)	(0.005)	(0.035)	(0.075)	(0.022)	(0.009)
UPSD (t)	0.050**		-0.074		-0.041	
	(0.012)		(0.096)		(0.046)	
SWPSD (t)		0.110***		0.164		0.161**
		(0.011)		(0.124)		(0.040)
Public (t-1) × UPSD (t)	-0.003**		0.031*		0.004	
	(0.001)		(0.011)		(0.004)	
Public (t-1) × SWPSD (t)		-0.007***		0.024		-0.014***
		(0.001)		(0.037)		(0.003)
Left (t-1)	0.050	0.054*	-0.360	-0.401	-0.034	-0.039
	(0.024)	(0.023)	(0.617)	(0.631)	(0.125)	(0.120)
LSq (t)	0.003	0.002	0.011	0.017	0.008	0.005
	(0.002)	(0.002)	(0.028)	(0.032)	(0.007)	(0.008)
US 2nd term	0.075*	0.061*	0.352	0.638	-0.059	0.070
	(0.033)	(0.025)	(0.586)	(0.732)	(0.040)	(0.091)
Inflation	0.007	0.010	-0.009	-0.008	0.052	0.052
	(0.010)	(0.009)	(0.099)	(0.095)	(0.040)	(0.035)
Unemployment	0.001	-0.001	0.016	0.005	-0.007	-0.004
	(0.001)	(0.001)	(0.009)	(0.015)	(0.011)	(0.011)
GDP growth	-0.030	-0.030	-0.056	-0.058	-0.171***	-0.184***
	(0.014)	(0.014)	(0.031)	(0.029)	(0.032)	(0.037)
War	-0.053	-0.049				
	(0.036)	(0.030)				
Constant	-0.153***	-0.143***	0.235	0.075	0.678**	0.257
	(0.022)	(0.018)	(0.469)	(0.567)	(0.223)	(0.140)
N	95	95	55	55	94	94
R^2	0.201	0.228	0.056	0.059	0.437	0.458

Note: OLS with clustered standard errors in parentheses (the Welfare Models include health, housing and social welfare).

UPSD = Unweighted Party System Dispersion; SWPSD = Salience Weighted Party System Dispersion.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

in the manifestos – responsiveness decreases (dashed line), though the effect is slightly bigger for the welfare domains than for defence.

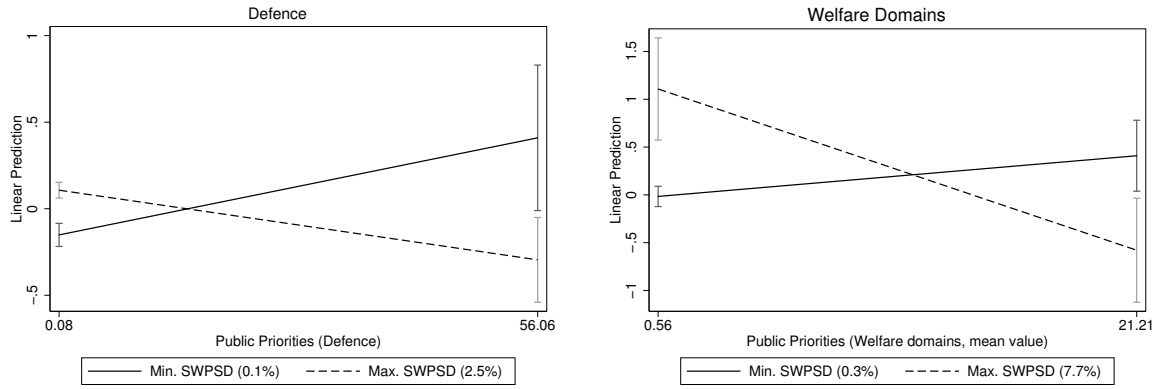

Figure 4: Predicted values of salience weighted party system dispersion on responsiveness in defence and welfare domains with 95 percent confidence intervals (based on Table 2).

The Electoral Proximity Hypothesis is tested interacting public priorities with a dummy variable that takes value 1 for election year and zero otherwise. Results are reported in Table 3. Given that government expenditures are quite sticky and do not change dramatically over time, the expectation was that the electoral proximity incentive would not be very strong in budgetary policy and that essentially not a higher likelihood of governmental responsiveness to public priorities would occur at the election year. This hypothesis is supported in all but one policy domains: only in social welfare, governments seem to spend slightly more at the election year than in other years when public issue salience increases. Note that given the importance of midterm elections in the US the midterm election year takes value 1. Not accounting for this aspect makes also the coefficient of the interaction for social welfare insignificant.

5.1. Sensitivity Analyses

The Alternative Vulnerability Hypothesis. Additional empirical tests have been done to assess the stability of the results shown in the previous section and all these analyses are available upon request. No support for the Electoral Vulnerability Hypothesis has been found and, in 5 out of 6 policy domains, the positive sign of the coefficient of the interaction between public opinion and vulnerability – though statistically significant in only 2 of them – seems to suggest the opposite expectation: the safer the government, the higher responsiveness. However, an alternative explanation (the Alternative Vulnerability Hypothesis) has also been proposed. Essentially, the argument was that since public issue salience is already an incentive for governments to respond, the mediating effect of electoral vulnerability might be more evident when the issue is not salient to the public. To test this argument the models in Table 1 have been reestimated setting public priorities at the

Table 3: Electoral proximity and policy responsiveness (H3)

Dependent variable: Government expenditure as percentage of GDP (differenced)						
	Defence	Education	Health	Housing	Labour/Unemployment	Social Welfare
Public priorities (t-1)	0.000	0.029	0.001	0.002	-0.006*	-0.034**
	(0.005)	(0.018)	(0.005)	(0.005)	(0.003)	(0.010)
Election year (t)	0.004	1.210	0.010	0.016	-0.170	-0.091
	(0.052)	(0.967)	(0.019)	(0.033)	(0.105)	(0.124)
Public (t-1) × Election year (t)	0.007	-0.142	-0.001	-0.005	0.004	0.041**
	(0.004)	(0.112)	(0.002)	(0.004)	(0.002)	(0.010)
Left (t-1)	0.061	-0.359	-0.033	-0.017	-0.019	-0.025
	(0.036)	(0.465)	(0.071)	(0.022)	(0.020)	(0.100)
LSq (t)	0.000	0.032	-0.001	0.001	-0.018	0.003
	(0.001)	(0.038)	(0.005)	(0.001)	(0.009)	(0.002)
US 2nd term (t)	0.038	0.703	-0.083		-0.090	-0.004
	(0.019)	(0.684)	(0.056)		(0.141)	(0.044)
Inflation (t)	0.015	-0.083	0.026	0.008	-0.0223	0.019
	(0.011)	(0.111)	(0.024)	(0.009)	(0.019)	(0.019)
Unemployment (t)	0.002	0.023**	-0.023*	0.003	-0.005	0.004
	(0.003)	(0.007)	(0.010)	(0.003)	(0.004)	(0.005)
GDP growth (t)	-0.030	-0.075*	-0.059**	-0.013	-0.056**	-0.107***
	(0.019)	(0.031)	(0.021)	(0.009)	(0.016)	(0.023)
War (t)	-0.077					
	(0.038)					
Elderly (t)			-0.001			
			(0.018)			
Constant	-0.064	-0.198	0.412	-0.011	0.575**	0.391**
	(0.033)	(0.122)	(0.312)	(0.009)	(0.203)	(0.090)
N	95	55	82	61	87	93
R^2	0.172	0.183	0.344	0.166	0.373	0.470

Note: OLS with clustered standard errors in parentheses (the Housing Model excludes the US due to data unavailability).

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

50th percentile, that is, when the issue is still not very salient. If the alternative argument was true we should expect a negative and significant coefficient for vulnerability. Results are reported in Table 4, showing only the coefficient for electoral vulnerability (dependent variable and controls are the same as in Table 1). The first series of models seems to be more accommodating towards the Alternative Vulnerability Hypothesis: when the issue is not very salient to the public, the coefficient for vulnerability is negative in 5 out of 6 policy domains, but only significant in two cases. However, when controlling for country fixed effects, the coefficients for Labour/Unemployment and Social Welfare are no longer significant and only one remains negative (while the coefficient for Housing turns to be significant) challenging the robustness of this argument. Nevertheless, it would still be worth retesting this hypothesis with more countries at the researcher's disposal.

Table 4: Alternative vulnerability hypothesis (Public priorities<=50th percentile)

	Defence	Education	Health	Housing	Labour/Unemployment	Social Welfare
Vulnerability	-0.002	-0.042	0.003	-0.001	-0.001***	-0.009*
	(0.001)	(0.033)	(0.002)	(0.001)	(0.000)	(0.004)
Vulnerability (FE)	-0.001	-0.054	0.000	-0.001*	0.000	-0.008
	(0.001)	(0.038)	(0.002)	(0.000)	(0.002)	(0.005)
N	48	29	42	30	43	46
rho	0.282	0.271	0.483	0.639	0.359	0.727
R^2 / R^2 FE	0.309 / 0.378	0.174 / 0.191	0.295 / 0.369	0.163 / 0.182	0.248 / 0.318	0.666 / 0.686

Note: OLS with clustered standard errors in parentheses (the Housing Model excludes the US due to data unavailability).
Dependent variable and controls are the same as in Table 1. FE = Country fixed-effects
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Country fixed-effects. There might be the possibility that country-specific variables that were omitted from the basic specification influenced changes in government expenditures and that these omissions could potentially bias the parameter estimates for the variable of interests. To account for this possibility, all models in Tables 1-3 have been reestimated using country fixed-effects. Except for the coefficient of the interaction between public opinion and party system dispersion for the Education (a) Model in Table 2 – which turns to be not significant – all the other interaction terms remain stable. Interestingly, by controlling for country fixed-effects, when statistically significant, the decidability interaction it only is in the opposite direction than expected in the Electoral Decidability Hypothesis.

Different model specifications. Given that the dependent variable is change in government expenditure on a given issue as percentage of GDP and GDP growth is one of the standard economic controls included in the analyses, this might bias the results. All models in Tables 1-3 have been reestimated omitting this variable and whereas results in Table 1 and 3 are identical, the coefficients of the interaction for Education (a) and Welfare (b) in Table 2 become insignificant. Anyway, this does not produce evidence in support of the Electoral De-

cidabiity Hypothesis. An additional test adopted was the inclusion of the lagged dependent variable (LDV) in the model. Although first differencing the dependent variable should already account for autocorrelation problems and the inclusion of the LDV is said to absorb the effect of other relevant explanatory variables (Achen 2000; Plümper, Troeger, and Manow 2005), the models have been reestimated including the LDV as an additional robustness check. Results are not altered.

Alternative measures of electoral vulnerability. Explaining the rationale behind the vulnerability measure adopted in this paper, the assumption was that governmental parties do actually care about what the relevant opposition parties are doing. The opposite assumption would be that governmental parties only care about their own popularity. For this reasons, models in Table 1 have been reestimated using a measure of government popularity (vote intentions and presidential approval for the government). Results do not change much. Although the interaction between public opinion and government popularity becomes insignificant (but still positive), the direction remains essentially the same supporting the findings in Table 1.

Alternative data. The framework of competitive incentives for policy responsiveness has been tested also with alternative data using Soroka and Wlezien's (2010) dataset on government spending and public preferences (consolidated spending and interpolated preferences) in Canada, the UK, and the US (see SI for details). To test the Electoral Vulnerability Hypothesis the variable 'approval' has been used and in all instances (defence, education, health and welfare) the coefficient of the interaction with public preferences was positive but not significant. Adding UPSD and SWPSD to the Soroka-Wlezien dataset to test the Electoral Decidability Hypothesis, their interaction with public preferences is positive and significant only for Defence. Finally, to test the Electoral Proximity Hypothesis the election year dummy is included in the Soroka-Wlezien dataset its interaction with public preferences is as well not significant.

6. Conclusion and Discussion

This paper started with certain expectations that incentives coming from electoral competition (Sartori 1977; Stimson, Mackuen, and Erikson 1995; Bartolini 1999, 2000; Manin, Przeworski, and Stokes 1999*a*) might have beneficial effects for policy responsiveness of governments to citizens' priorities. Empirical analysis from five advanced democracies (Canada, Germany, Spain, the UK, and the US) for the period 1980-2009 suggests that, when it comes to budgetary policy, all these expectations should be rethought.

As often happens, even this paper's attention has been captured by a puzzling result from the literature: on the one hand, Hobolt and Klemmensen (2008) show strong findings in support of governmental responsiveness to public priorities and the importance of electoral pressure as a clear incentive for government to respond; on the other hand, Bevan and Jennings (2014) find no responsiveness whatsoever of governments to public pri-

orities. In fact, what the authors conclude is that, unlike executive speeches and legislation, 'spending is not responsive to public concern about the "most important problem" in contrast to relative preferences' (Bevan and Jennings 2014: 52; but see Wlezien 2005). The reason why public priorities would not have an impact on spending is that, since budgets have directional implications, changes in the most important problem/issue question are not directional, that is, the public cannot signal whether it wants more or less spending on a given policy domain (Jennings and Wlezien 2012).

So this paper was motivated by the fact that maybe Bevan and Jennings' negative finding was perhaps due to the fact that, unlike policy responsiveness to citizens' preferences (Soroka and Wlezien 2010), in budgetary policy governmental responsiveness to public priorities is simply not direct but is mediated by other factors. Moreover, another source of motivation was that the few studies linking dynamic representation/responsiveness and competitive incentives reviewed in Section 2 are based on a very small number of countries – essentially due to data availability issues – and tend to address the research question on a case study level or comparing differences among a few number of countries (usually no more than three).

Given these premises, the author developed an empirical framework of competitive incentives for responsiveness, inspired by the prolific conceptual and theoretical literature on party competition (e.g. Downs 1957; Budge and Farlie 1983; Strom 1992; Bartolini 1999), and applied it to government spending as indicator of policy responsiveness. Three major competitive incentives have been selected: electoral vulnerability of governments, decidability of the political offer, and electoral proximity.

The analysis produces three major findings, in relation to each of these incentives, and an incidental one. First, the Electoral Vulnerability Hypothesis expected a beneficial effect of government vulnerability on responsiveness. Results, instead, suggest that governments are more responsive (i.e. they spend more on the issue when the public becomes more concerned about it) when they are safer rather than vulnerable and that this effect is statistically significant in defence and social welfare. Since issue salience would *per se* be an incentive to respond (e.g. Page and Shapiro 1983; Hobolt and Klemmensen 2005; Soroka and Wlezien 2010), further analysis tried to assess whether the electoral vulnerability incentive reappears when the issue is not very salient to the public. These additional results show that there is still room for vulnerability to play a role in those cases in which the public is not very concerned about the issue, but these results are not strong enough to argue in clear support of the Alternative Vulnerability Hypothesis and further research is certainly welcome.

Second, the Electoral Decidability Hypothesis expected a beneficial conditioning effect of the political offer differentiation on responsiveness. The analysis finds, instead, that budgetary policy responsiveness to public priorities is higher in some policy domains (defence and welfare domains) when the positions emphasised by parties in their manifestos are less differentiated. A possible explanation for this opposite finding would

be that since governments are overloaded by citizens' requests and demands (Jones and Baumgartner 2005), it is plausible to argue that disagreement on the issue might reduce responsiveness rather than enhance it. In fact, electoral decidability, conceived as position taking by emphasising the importance of certain issues compared to others, may be interpreted not only as a degree of polarisation of the political offer, but also as the amount of difficulty governments are facing in making a policy change. However, also another explanation can be proposed. if it is true that 'when polarisation is high, the meaning of the vote choice can be reduced to nothing more than an expression of partisan loyalty' (Vegetti 2014: 240), then the expected beneficial effect of decidability in facilitating responsiveness might simply translate into party attachment when the issue is too polarised. In this sense, too much polarisation would not be good for responsiveness either hence these results for decidability should not be seen so strongly in opposition of the Electoral Decidability Hypothesis.

Third, given the 'empirical law of public budgets' (Jones et al. 2009), according to which budgetary policy is highly incremental and occasionally punctuated by large changes, the paper was not expecting governments to be more responsive when elections are approaching. Indeed, there is essentially no evidence supporting that governments would spend more on the issue when the public becomes more concerned about the issue in the election year also because budgets are decided one year ahead.

Interestingly, this finding is strictly connected to another incidental finding of this paper, that is, government ideology seems not to matter with budget. This result is in line with the recent comparative finding of Epp, Lovett, and Baumgartner (2014), according to which no evidence is found that governments spend more in line with their ideology, and, as the authors say, is relevant since it challenges the usefulness of issue ownership theories in explaining budgetary policy.

In the light of the results of this paper, there is no desire whatsoever of generalising such findings nor to dismiss the electoral competition dress too soon: despite the difficulty of collecting TSCS data to answer these questions, a large N study is definitely needed – as well as the inclusion of more consensual democracies – and this is the author's intention for future research. In fact, though comparative data are available (but only from the 1990s) for both government expenditure and public priorities as well as for other dimensions of competition, it is especially harder to find data on vote intentions across time and space. More than that, competitive incentives might still play a major role when responsiveness is studied with other indicators than budgetary policy (see e.g. Hobolt and Klemmensen 2008; Hakhverdian 2010; Bernardi 2014).

Beyond the very results of this paper, two broader considerations have serious implications for policy responsiveness. In other words, how can we meaningfully give a sense of the conclusion that competitive incentives seem not to spring when it comes to budget? The first consideration is driven by the well-known debate around public ignorance. Given that people have an incentive not to invest in information (Lupia and Mc-

Cubbins 1998) and that their preferences can be uninformed (Delli Carpini and Keeter 1996) as well as unstable and inconsistent (Bartels 2003), we might think that perhaps governments do not expect to be punished in a so technical subject such as budgetary policy. Put it differently, maybe governments think that in spite of the power of aggregation (Page and Shapiro 1992; Erikson, Mackuen, and Stimson 2002) and notwithstanding the fact that *change in* may be more meaningful than *levels of* preferences, as Soroka and Wlezien might argue, the average citizen is essentially uninformed about how much governments spend therefore governments might weigh out other factors more than electoral pressure.

The second consideration is related to the 'empirical law of public budgets' (Jones et al. 2009) and to the recent finding by Epp, Lovett, and Baumgartner (2014), which implies that, beyond the debate on public ignorance, we might also want to look for other explanations not strictly involving incentives coming from electoral competition. In other words, policy responsiveness and, more specifically, budgetary policy might be better explained by looking at the decision-making and policy implementation stages of the democratic chain or by drawing more attention on factors that are largely beyond government's control not just as control variables as has been done here. Moreover and to conclude, as a general point, it would be important to unpack public opinion considering that the 'median' voter (as expressed by opinion polls) can differ from the 'vocal' voter (who engages in collective action) (Morales et al. 2014: 8-10).

A. Supplementary Information

A.1. Data Sources

A.1.1. Most Important Problem/Issue

Canada: Environics Focus

Germany: Politbarometer

Spain: CIS Barometer

United Kingdom: Gallup, Ipsos-MORI (UK Policy Agendas Project)

United States: Gallup (Roper Center)

A.1.2. Vote Intentions/Presidential Approval

Canada: Environics Focus

Germany: Politbarometer

Spain: CIS Barometer

United Kingdom: WJFFP dataset (see Wlezien et al. 2013; Green and Jennings 2012*b*)

United States: Gallup (Policy Agendas Project)

A.1.3. Party System Dispersion

Comparative Manifestos Project (Volkens et al. 2014)

A.1.4. Government Expenditures

Defence: SIPRI Military Expenditure Database

Education: World Bank Development Indicators, Eurostat

Health, Housing, Labour/Unemployment, Social Welfare: OECD Social Expenditure Database

A.2. Government's Electoral Vulnerability Measurement

Table 5: Government's electoral vulnerability (vote intentions)

Country	Year	Government	Relevant Opposition
Canada	1988	PCP	LP + NDP
	1989	PCP	LP + NDP + RPC
	1990/1992	PCP	LP + NDP + RPC + BQ
	1993/1999	LP	PCP + NDP + RPC + BQ
	2000/2003	LP	PCP + NDP + CA + BQ
	2004	LP	CPC + NDP + BQ
Germany	1986/1997	CDU-CSU + FDP	SPD
	1998/2004	SPD + GREENS	CDU-CSU + FDP
Spain	1986/1988	PSOE	AP + IU
	1989/1995	PSOE	PP + IU
	1996/2003	PP	PSOE
	2004/2009	PSOE	PP + IU
UK	1988	CON	LAB + SDP/LIB Alliance
	1989/1996	CON	LAB + LD
	1997/2009	LAB	CON + LD

Note: Liberal Party (LP), Progressive Conservative/Conservative Party (PCP/CPC), Bloc Québécois (BQ), New Democratic Party (NDP), and Reform Party/Canadian Alliance (RPC/CA); Social Democratic Party (SPD), Christian Democratic Party (CDU-CSU), Liberal Party (FDP), and Greens; Union of the Democratic Centre (UCD), People's Alliance/People's Party (AP/PP), Communist Party of Spain (PCE), United Left (UI), and Socialist Party (PSOE); Conservative Party (CON), Labour Party (LAB), Liberal Party/Social Democratic and Liberal Alliance/Liberal Democratic Party (LIB/SDP/LIB Alliance/LD).

Special case excluded: grand coalitions. How to deal with government electoral vulnerability when the two major parties are coalition partners in the same government? One strategy would be to consider both of them as incumbents at the same time. However, a more fascinating strategy would be to look at the strength relationships between the two. An alternative theoretical argument would then be that both parties dislike grand coalitions for two reasons. First, one of them will most likely lose electoral support, for one is still perceived as the smaller and weaker part of the coalition. Second, even if one is the stronger part in the coalition, such a situation will force it to compromise more than in a minimal willing coalition. There- fore, even the stronger part looks towards a different coalition government after the next election. According to this argument, coalition partners still perceive each other as the strongest contenders and, for this reason, computing the difference of vote intentions between the two might still be a reasonable choice.

A.3. CMP Categories for the Measures of Party System Dispersion

Table 6: CMP Categories for Party System Dispersion

Policy Domain	CMP Category
Defence	Military Positive (104) - Military Negative (105)
Education	Education Expansion (506) - Education Limitation (507)
Welfare	Welfare State Expansion (504) - Welfare State Limitation (505)

A.4. Soroka and Wlezien (2010) Dataset for Sensitivity Analyses

Canada

Spending: $sp1\_def$, $sp5\_educ$, $sp5\_heal$, $sp5\_welf$

Public: int_all_def, int_all_educ, int_all_heal, int_all_wel

UK

Spending: sp_def, sp_educ, sp_heal, sp_pen

Public: int_all_def, int_all_educ, int_all_heal, int_all_pen

US

Spending: $sp1\_def$, $sp1\_educ$, $sp1\_heal$, $sp1\_welf$

Public: int_all_def, int_all_educ, int_all_heal, int_all_wel

A.5. Descriptive Statistics

Table 7: Descriptive statistics

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Expenditure defence	107	2.6	1.4	1.1	6.6
Expenditure education	85	5.2	1.3	3.2	9.1
Expenditure health	107	6.1	1.1	3.8	8.2
Expenditure housing	82	0.6	0.5	0	1.8
Expenditure labour/unemployment	107	1.8	1.1	0.4	5.2
Expenditure social welfare	107	1.1	2.4	7.8	16.4
Expenditure welfare domains	107	1.8	3.3	12.4	24.9
Public priorities defence	100	8.8	10.1	1.1	56.1
Public priorities education	81	4.3	3.9	0.0	14.7
Public priorities health	87	7.9	7.8	0.1	34.7
Public priorities housing	67	2.6	2.8	0.0	13.3
Public priorities labour/une	92	21.8	19.0	0.4	81.2
Public priorities social welfare	98	4.3	2.7	0.7	14.1
Public priorities welfare domains	99	5.5	4.0	0.6	21.2
Electoral vulnerability	106	4.4	19.6	-45.5	50.8
UPSD defence	107	1.9	1.6	0.5	6.1
SWPSD defence	107	0.8	0.7	0.1	2.5
UPSD education	107	2.3	1.1	0.1	5.4
SWPSD education	107	0.9	0.5	0.0	1.7
UPSD welfare	107	3.2	1.8	1.0	9.6
SWPSD welfare	107	2.0	1.5	0.3	7.7
Election year	107	0.3	0.5	0	1
Left	107	0.5	0.5	0	1
LSq	107	9.1	5.3	1.9	17.8
US 2nd term	107	0.1	0.3	0	1
Inflation	107	3.2	2.1	-.3	13.5
Unemployment	107	9.3	4.8	4.0	24.2
GDP growth	107	2.7	2.0	-5.2	7.3
War	107	0.3	0.5	0	1
Elderly	107	14.4	2.1	10.9	19.3

References

Achen, Christopher H. 2000. Why Lagged Dependent Variables Can Suppress the Explanatory Power of Other Independent Variables. In *Paper prepared for the Annual Meeting of the Political Methodology Section of the American Political Science Association, UCLA, July 20-22.*

Adams, James. 2001. "A Theory of Spatial Competition with Biased Voters: Party Policies Viewed Temporally and Comparatively." *British Journal of Political Science* 31 (1): 121–158.

Adams, James, Lawrence Ezrow, and Zeynep Somer-Topcu. 2011. "Is Anybody Listening? Evidence That Voters Do Not Respond to European Parties' Policy Statements During Elections." *American Journal of Political Science* 55 (2): 370–382.

Adams, James, Michael Clark, Lawrence Ezrow, and Garrett Glasgow. 2004. "Understanding Change and Stability in Party Ideologies: Do Parties Respond to Public Opinion or to Past Election Results?" *British Journal of Political Science* 34 (4): 589–610.

Alvarez, R. Michael, and Jonathan Nagler. 2004. "Party System Compactness: Measurement and Consequences." *Political Analysis* 12 (1): 46–62.

André, Audrey, Sam Depauw, and Shane Martin. 2014. "Electoral Systems and Legislators' Constituency Effort: The Mediating Effect of Electoral Vulnerability." *Comparative Political Studies* (August): 1–33.

Barry, Brian M. 1970. *Sociologists, Economists and Democracy*. Chicago, Illinois: University of Chicago Press.

Bartels, Larry M. 2003. "Democracy with Attitudes." In *Electoral Democracy*, ed. Michael B. Mackuen, and George Rabinowitz. Number 1964 Ann Arbor: University of Michigan Press pp. 48–82.

Bartolini, Stefano. 1999. "Collusion, Competition and Democracy: Part I." *Journal of Theoretical Politics* 11 (4): 435–470.

Bartolini, Stefano. 2000. "Collusion, Competition and Democracy: Part II." *Journal of Theoretical Politics* 12 (1): 33–65.

Beck, Nathaniel, and Jonathan N. Katz. 1995. "What to do (and not to do) with Time-Series Cross-Section Data." *The American Political Science Review* 89 (3): 634–647.

Beck, Nathaniel, and Jonathan N. Katz. 1996. "Nuisance vs. Substance: Specifying and Estimating Time-Series-Cross-Section Models." *Political Analysis* 6 (1): 1–36.

Benoit, Kenneth, and Michael Laver. 2006. *Party Policy in Modern Democracies*. London: Routledge.

Bernardi, Luca. 2014. Speech is silver, silence is golden? Policy agenda, responsiveness, and competitive incentives. In *Paper prepared for presentation at the ECPR General Conference, Glasgow, 3-6 September*.

Bevan, Shaun, and Will Jennings. 2014. "Representation, agendas and institutions." *European Journal of Political Research* 53 (1): 37–56.

Blais, André, and Ignacio Lago. 2009. "A general measure of district competitiveness." *Electoral Studies* 28 (1): 94–100.

Brambor, Thomas, William Roberts Clark, and Matt Golder. 2006. "Understanding Interaction Models: Improving Empirical Analyses." *Political Analysis* 14 (1): 63–82.

Budge, Ian, and Dennis J. Farlie. 1983. *Explaining and Predicting Elections: Issue Effects and Party Strategies in Twenty-three Democracies*. London: Allen & Unwin.

Campbell, Angus, Philip E. Converse, Warren E. Miller, and Donald E. Stokes. 1960. *The American Voter*. New York: Wiley.

Canes-Wrone, Brandice. 2004. "The Public Presidency, Personal Approval Ratings, and Policy Making." *Presidential Studies Quarterly* 34 (3): 477–492.

Canes-Wrone, Brandice, and Kenneth W. Shotts. 2004. "The Conditional Nature of Presidential Responsiveness to Public Opinion." *American Journal of Political Science* 48 (4): 690–706.

Carmines, Edward G., and James A. Stimson. 1980. "The Two Faces of Issue Voting." *The American Political Science Review* 74 (1): 78–91.

Carsey, Thomas M., and Geoffrey C. Layman. 2006. "Changing Sides or ChangingMinds? Party Identification and Policy Preferences in the American Electorate." *American Journal of Political Science* 50 (2): 464–477.

Chaqués Bonafont, Laura, and Anna M. Palau. 2011. "Assessing the Responsiveness of Spanish Policymakers to the Priorities of their Citizens." *West European Politics* 34 (4): 706–730.

Cohen, Jeffrey E. 1995. "Presidential Rhetoric and the Public Agenda." *American Journal of Political Science* 39 (1): 87–107.

Cohen, Jeffrey E. 1997. *Presidential Responsiveness and Public Policy-making. The Public and the Policies That Presidents Choose*. Ann Arbor: The University of Michigan Press.

Dalton, Russell J. 1985. "Political Parties and Political Representation. Party Supporters and Party Elites in Nine Nations." *Comparative Political Studies* 18 (3): 267–299.

Delli Carpini, Michael X., and Scott Keeter. 1996. *What Americans Know about Politics and Why It Matters*. New Haven, CT: Yale University Press.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper and Row.

Elkins, David J. 1974. "The Measurement of Party Competition." *The American Political Science Review* 68 (2): 682–700.

Epp, Derek A, John Lovett, and Frank R. Baumgartner. 2014. "Partisan Priorities and Public Budgeting." *Political Research Quarterly* 67: 864–878.

Erikson, Robert S., Michael B. Mackuen, and James A. Stimson. 2002. *The Macro Polity*. Cambridge: Cambridge University Press.

Ezrow, Lawrence. 2007. "The Variance Matters: How Party Systems Represent the Preferences of Voters." *The Journal of Politics* 69 (1): 182–192.

Ezrow, Lawrence, Catherine de Vries, Marco Steenbergen, and Erica Edwards. 2010. "Mean voter representation and partisan constituency representation: Do parties respond to the mean voter position or to their supporters?" *Party Politics* 17 (3): 275–301.

Fenno, Richard F. Jr. 1977. "U.S. House Members in Their Constituencies: An Exploration." *The American Political Science Review* 71 (3): 883–917.

Fortin-Rittberger, Jessica. N.d. "Time-Series Cross-Section." In *Regression Models and Causal Inference*, ed. Henning Best, and Christof Wolf. Sage pp. 1–35.

Franklin, Mark N., and Christopher Wlezien. 1997. "The Responsive Public: Issue Salience , Policy Change, and Preferences for European Unification." *Journal of Theoretical Politics* 9 (3): 247–263.

Friedrich, Carl J. 1963. *Man and his Government*. New York: McGraw Hill.

Gallagher, Michael. 1991. "Proportionality, Disproportionality and Electoral Systems." *Electoral Studies* 10 (1): 33–51.

Garrett, Geoffrey, and Deborah Mitchell. 2001. "Globalization, government spending and taxation in the OECD." *European Journal of Political Research* 39 (2): 145–177.

Golder, Matt, and Jacek Stramski. 2010. "Ideological Congruence and Electoral Institutions." *American Journal of Political Science* 54 (1): 90–106.

Green, Jane, and Sara B. Hobolt. 2008. "Owning the issue agenda: Party strategies and vote choices in British elections." *Electoral Studies* 27: 460–476.

Green, Jane, and Will Jennings. 2012*a*. Valence and Government Priorities: How issue ownership and issue salience shape U.S. and U.K. policy agendas. In *Paper prepared for presentation at the Elections, Public Opinion and Parties (EPOP) Conference, Oxford, United Kingdom, 7-9 September*.

Green, Jane, and Will Jennings. 2012*b*. "Valence as Macro-Competence: An Analysis of Mood in Party Competence Evaluations in Great Britain." *British Journal of Political Science* 42 (2): 311–343.

Grofman, Bernard, and Peter Selb. 2009. "A fully general index of political competition." *Electoral Studies* 28 (2): 291–296.

Hakhverdian, Armèn. 2010. "Political Representation and its Mechanisms: A Dynamic Left-Right Approach for the United Kingdom, 1976-2006." *British Journal of Political Science* 40: 835–856.

Hobolt, Sara B., and Robert Klemmensen. 2005. "Responsive Government? Public Opinion and Government Policy Preferences in Britain and Denmark." *Political Studies* 53 (2): 379–402.

Hobolt, Sara B., and Robert Klemmensen. 2008. "Government Responsiveness and Political Competition in Comparative Perspective." *Comparative Political Studies* 41 (3): 309–337.

Huber, John D., and G. Bingham Powell. 1994. "Congruence Between Citizens and Policymakers in Two Visions of Liberal Democracy." *World Politics* 46 (3): 291–326.

Immergut, Ellen M., and Tarik Abou-Chadi. 2014. "How electoral vulnerability affects pension politics: Introducing a concept, measure and empirical application." *European Journal of Political Research* 53 (2): 269–287.

Jacobs, Lawrence R., and Robert Y. Shapiro. 2000. *Politicians Don't Pander. Political Manipulation and the Loss of Democratic Responsiveness*. Chicago and London: The University of Chicago Press.

Jennings, Will, and Christopher Wlezien. 2011. "Distinguishing Between Most Important Problems and Issues?" *Public Opinion Quarterly* 75 (3): 545–555.

Jennings, Will, and Christopher Wlezien. 2012. Measuring Public Preferences for Policy: On the Limits of 'Most Important Problem'. In *Paper presented at the Elections, Public Opinion and Parties annual conference, University of Oxford, September*.

John, Peter, Shaun Bevan, and Will Jennings. 2011. "The policy-opinion link and institutional change: the legislative agenda of the UK and Scottish Parliaments." *Journal of European Public Policy* 18 (7): 1052–1068.

Jones, Bryan D., and Frank R. Baumgartner. 2005. *The politics of attention: How government prioritizes problems*. Chicago: University of Chicago Press.

Jones, Bryan D., Frank R. Baumgartner, Christian Breunig, Christopher Wlezien, Stuart N. Soroka, Martial Foucault, Abel François, Christoffer Green-Pedersen, Chris Koski, Peter John, Peter B. Mortensen, Frédéric Varone, and Stefaan Walgrave. 2009. "A General Empirical Law of Public Budgets: A Comparative Analysis." *American Journal of Political Science* 53 (4): 855–873.

Kang, Shin-Goo, and G. Bingham Powell. 2010. "Representation and Policy Responsiveness: The Median Voter, Election Rules, and Redistributive Welfare Spending." *The Journal of Politics* 72 (4): 1014–1028.

Key, Vladimir O. 1966. *The Responsible Electorate. Rationality in Presidential Voting 1936-1960*. New York: Vintage.

Klingemann, Hans-Dieter, Richard I. Hofferbert, and Ian Budge. 1994. *Parties, Policies and Democracy*. Boulder, CO: Westview.

Klüver, Heike, and Jae-Jae Spoon. N.d. "Who Responds? Voters, Parties, and Issue Attention." *British Journal of Political Science*. Forthcoming.

Kroh, Martin, Wouter van der Brug, and Cees van der Eijk. 2007. "Prospects for electoral change." In *European Elections and Domestic Politics. Lessons from the Past and Scenarios for the Future*, ed. Wouter van der Brug, and Cees van der Eijk. Notre Dame, Indiana: University of Notre Dame Press pp. 209–225.

Laver, Michael, ed. 2001. *Estimating the Policy Position of Political Actors*. London and New York: Routledge.

Lijphart, Arend. 1999. *Patterns of Democracy*. New Haven, CT: Yale University Press.

Lupia, Arthur, and Matthew McCubbins. 1998. *The Democratic Dilemma: Can Citizens Learn What they Need to Know?* Cambridge: Cambridge University Press.

Mair, Peter, Wolfgang C. Müller, and Fritz Plasser. 2004. "Conclusion: Political Parties in Changing Electoral Markets." In *Political Parties and Electoral Change*, ed. Peter Mair, Wolfgang C. Müller, and Fritz Plasser. London: Sage pp. 264–274.

Manin, Bernard, Adam Przeworski, and Susan C. Stokes. 1999*a*. "Elections and Representation." In *Democracy, Accountability, and Representation*, ed. Adam Przeworski, Susan C. Stokes, and Bernard Manin. Cambridge: Cambridge University Press pp. 29–48.

Manin, Bernard, Adam Przeworski, and Susan C. Stokes. 1999*b*. "Elections and Representation." In *Democracy, Accountability, and Representation*, ed. Adam Przeworski, Susan C. Stokes, and Bernard Manin. Cambridge: Cambridge University Press pp. 29–54.

Manza, Jeff, and Fay Lomax Cook. 2002. "A Democratic Polity?: Three Views of Policy Responsiveness to Public Opinion in the United States." *American Politics Research* 30 (6): 630–667.

Mayhew, David R. 1974. *Congress: The Electoral Connection*. New Haven, CT: Yale University Press.

Meyer, Thomas M. 2013. *Constraints on party policy change*. Colchester: ECPR Press.

Miller, David. 1983. "The competitive model of democracy." In *Democratic theory and practice*, ed. Graeme Duncan. Cambridge: Cambridge University Press pp. 133–155.

Miller, Warren E., and Donald E. Stokes. 1963. "Constituency Influence in Congress." *The American Political Science Review* 57 (1): 45–56.

Morales, Laura. 2014. A conceptual and theoretical approach to governmental policy responsiveness between elections. In *Paper prepared for presentation at the ECPR General Conference, Glasgow, 4-6 September*.

Morales, Laura, Daniel Bischof, Maarja Lühiste, and Luca Bernardi. 2014. External shocks and governmental responsiveness to public opinion. A case study of nuclear energy policy after the Fukushima disaster. In *Paper prepared for presentation at the Workshop 'Voters, Protest and Policies: Bridging Public Opinion, Social Movement Outcomes and Policy Responsiveness Research', University of Leicester, 16-17 June*.

Mortensen, Peter Bjerre, Christoffer Green-Pedersen, Gerard Breeman, Laura Chaques-Bonafont, Will Jennings, Peter John, Anna M. Palau, and Arco Timmermans. 2011. "Comparing Government Agendas: Executive Speeches in the Netherlands, United Kingdom, and Denmark." *Comparative Political Studies* 44 (8): 973–1000.

Narud, Hanne Marthe, and Peter Esaiasson, eds. 2013. *Between-Election Democracy. The Representative Relationship After Election Day*. Colchester: ECPR Press.

Orlowski, Matthias. 2013. Seeking votes for office. Conceptualizing political competition as the electoral vulnerability of incumbents. In *Paper prepared for the 41st ECPR Workshop on "Electoral Competitiveness in Cross-National Research", Mainz, 11-16 March*.

Page, Benjamin I. 1976. "The Theory of Political Ambiguity." *The American Political Science Review* 70 (3): 742–752.

Page, Benjamin I. 1978. *Choices and Echoes in Presidential Elections: Rational Man and Electoral Democracy*. Chicago: University of Chicago Press.

Page, Benjamin I., and Robert Y. Shapiro. 1983. "Effects of Public Opinion on Policy." *The American Political Science Review* 77 (1): 175–190.

Page, Benjamin I., and Robert Y. Shapiro. 1992. *The Rational Public: Fifty Years of Trends in American Policy Preferences*. Chicago: University of Chicago Press.

Plümper, Thomas, Vera E. Troeger, and Philip Manow. 2005. "Panel data analysis in comparative politic : Linking method to theory." *European Journal of Political Research* 44: 327–354.

Powell, G. Bingham. 2000. *Elections as Instruments of Democracy. Majoritarian and Proportional Visions*. New Haven, CT: Yale University Press.

Powell, G. Bingham. 2013. "Representation in Context: Election Laws and Ideological Congruence Between Citizens and Governments." *Perspectives on Politics* 11 (01): 9–21.

Roberts, Andrew. 2010. *The Quality of Democracy in Eastern Europe. Public Preferences and Policy Reforms*. New York: Cambridge University Press.

Rovny, Jan. 2012. "Who emphasizes and who blurs? Party strategies in multidimensional competition." *European Union Politics* 13 (2): 269–292.

Rovny, Jan. 2013. "The Other 'Other': Party Responses to Immigration in Eastern Europe.".

Sartori, Giovanni. 1977. "Democrazia competitiva ed eÌĄlites politiche." *Rivista Italiana di Scienza Politica* 7: 327–355.

Schumacher, Gijs, Catherine E. de Vries, and Barbara Vis. 2013. "Why Do Parties Change Position? Party Organization and Environmental Incentives." *Journal of Politics* 75 (2): 464–477.

Selb, Peter. 2013. Electoral competitiveness: concept and measurement. In *ECPR General Conference, Bordeaux, 4-7 September*.

Soroka, Stuart N., and Christopher Wlezien. 2004. "Degrees of Democracy. Public Preferences and Policy in Comparative Perspective.".

Soroka, Stuart N., and Christopher Wlezien. 2005. "Opinion-Policy Dynamics: Public Preferences and Public Expenditure in the United Kingdom." *British Journal of Political Science* 35: 665–689.

Soroka, Stuart N., and Christopher Wlezien. 2010. *Degrees of Democracy: Politics, Public Opinion, and Policy*. New York: Cambridge University Press.

Spoon, Jae-Jae, and Heike Klüver. 2014. "Do parties respond? How electoral context influences party responsiveness." *Electoral Studies* 35: 48–60.

Stimson, James A., Michael B. Mackuen, and Robert S. Erikson. 1995. "Dynamic Representation." *The American Political Science Review* 89 (3): 543–565.

Stokes, Donald E. 1966. "Some Dynamic Elements of Contests for the Presidency." *The American Political Science Review* 60 (1): 19–28.

Stokes, Susan C. 2001. *Mandates and Democracy. Neoliberalism by Surprise in America Latina*. Cambridge: Cambridge University Press.

Strom, Kaare. 1989. "Inter-Party Competition in Advanced Democracies." *Journal of Theoretical Politics* 1 (3): 277–300.

Strom, Kaare. 1990. "A Behavioral Theory of Competitive Political Parties." *American Journal of Political Science* 34 (2): 565–598.

Strom, Kaare. 1992. "Democracy as Political Competition." *American Behavioral Scientist* 35 (4/5): 375–396.

Sulkin, Tracy. 2005. *Issue Politics in Congress*. New York: Cambridge University Press.

Tillie, Jean. 1995. *Party Utility and Voting Behavior*. Amsterdam: Het Spinhuis.

Tsebelis, George. 1995. "Decision Making in Political Systems: Veto Players in Presidentialism, Parliamentarism, Multicameralism and Multipartyism." *British Journal of Political Science* 25: 289–325.

van der Eijk, Cees, and Erik V. Oppenhuis. 1991. "European parties' performance in electoral competition." *European Journal of Political Research* 19 (1): 55–80.

van der Eijk, Cees, Wouter van der Brug, Martin Kroh, and Mark Franklin. 2006. "Rethinking the dependent variable in voting behavior: On the measurement and analysis of electoral utilities." *Electoral Studies* 25 (3): 424–447.

Vegetti, Federico. 2014. "From political conflict to partisan evaluations: How citizens assess party ideology and competence in polarized elections." *Electoral Studies* 35: 230–241.

Volkens, Andrea, Pola Lehmann, Nicolas Merz, Sven Regel, Annika Werner, Onawa Promise Lacewell, and Henrike Schultze. 2014. "The Manifesto Data Collection. Manifesto Project (MRG/CMP/MARPOR). Version 2014a.".

Wagner, Markus, and Thomas M. Meyer. 2014. "Which Issues do Parties Emphasise? Salience Strategies and Party Organisation in Multiparty Systems." *West European Politics* (June): 1–27.

Walgrave, Stefaan, and Jonas Lefevere. 2013. "Ideology, Salience, and Complexity: Determinants of Policy Issue Incongruence between Voters and Parties." *Journal of Elections, Public Opinion & Parties* pp. 1–28.

Wlezien, Christopher. 1995. "The Public as Thermostat: Dynamics of Preferences for Spending." *American Journal of Political Science* 39 (4): 981–1000.

Wlezien, Christopher. 2005. "On the salience of political issues: The problem with 'most important problem'." *Electoral Studies* 24: 555–579.

Wlezien, Christopher, and Stuart N. Soroka. 2003. "Measures and Models of Budgetary Policy." *The Policy Studies Journal* 31 (2): 273–286.

Wlezien, Christopher, and Stuart N. Soroka. 2012. "Political Institutions and the Opinion-Policy Link." *West European Politics* 35 (6): 1407–1432.

Wlezien, Christopher, Will Jennings, Stephen Fisher, Robert Ford, and Mark Pickup. 2013. "Polls and the Vote in Britain." *Political Studies* 61: 66–91.