

Procedural Fairness and Economic Voting

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Abstract

To explain the unstable relationship between the function relating economic conditions with the vote for the incumbent, several authors focus on the fact that incumbents control the economy to different extents. The prevalent view, broadly supported by evidence, is that lower control means lower responsibility for outcomes, which leads to blurred economic voting. We provide an alternative account about this instability. Based on a literature originating in social and organizational psychology, we propose that voting for the incumbent, as well as the strength of the relationship between economic outcomes and voting, are affected by the extent to which voters perceive decision-making as procedurally fair, i.e, it abides by rules of transparency and impartiality. Based on a sample of more than 20 OECD countries covering 20 years of elections, we conclude that the contingent nature of the relationship between the economy and political support derives from the fact that voters weigh economic performance differently depending on their perceptions of procedural fairness in governance. We conduct extensive robustness tests, including the use of post-election survey data.

1. Introduction

We know that the function relating economic conditions with the vote for the incumbent is unstable (Paldam 1991). What accounts for that instability? One direction of research has been to examine the heterogeneous responses of different types of voters, depending on their partisanship or level of sophistication, to economic performance.¹ Another direction has been to focus on those contextual aspects that moderate the relationship between economic performance and the vote for the incumbent.

In this paper, we take the latter perspective. The prevalent view in the literature is that the instability in economic voting is explained by the fact that incumbents control the economy to different extents. Lower control means lower responsibility for outcomes, which in turn makes it difficult for voters to blame or reward governments for past performance (Powell and Whitten 1993) or leads them to give more weight to exogenous factors when using past performance to select a new incumbent (Duch and Stevenson 2008). As a result, economic voting is blurred. The crucial variables in this regard are thought to be political and institutional aspects that increase opposition influence in national policymaking (Powell and Whitten 1993; Duch and Stevenson 2008: 277-286) or disperse power across multiple levels of government within a country (Anderson 2006), as well as levels of economic interdependence that diminish elected policy makers' control over the economy (Hellwig 2001; Hellwig and Samuels 2007). In spite of some pointing out fragilities and comparability problems in this literature (Duch and Stevenson 2008: 26; Anderson 2007: 283-285), the empirical evidence seems to be broadly supportive (Lewis-Beck and Stegmeier 2013: 372-373; Kayser 2014).

In this paper, we propose an alternative approach to the question of the contingency of the relationship between economic performance and incumbent vote. The driving force behind our approach is a vast literature originating in social and organizational psychology, showing that individuals' support for and satisfaction with authorities is dependent not only on the favorability of outcomes, but also on the procedural fairness of policy-making. More specifically, we argue that political support in general, and voting

¹ See, for example, Kayser (2014) and Anson and Hellwig (2016) for reviews.

for the incumbent in particular, is driven both by what incumbents deliver in terms of observable economic performance but also by the extent to which voters perceive that governmental decision-making is procedurally fair, i.e, the extent to which it abides by rules that guarantee transparency and impartiality. Furthermore, and most crucially, we argue that the contingent nature of the relationship between the economy and political support derives from the fact that voters weigh economic performance differently depending on their perceptions of procedural fairness in governance.

In the next section, we present a simple model that helps clarifying our theoretical expectations and examine its adherence to extant empirical findings. In section three, we perform an empirical analysis of our own, analyzing a time-series cross-section dataset comprising all national elections in the OECD countries from 1995 to 2015. We show that the strength of the relationship between economic performance (real GDP growth) and the vote for the incumbent parties is moderated by procedural fairness, captured here by a composite indicator of perceptions of corruption in the public sector. We perform a series of robustness tests, including the use of alternative measures of procedural fairness, alternative estimation strategies, adding other moderating variables to our models, and using pooled cross-national survey data. Section four concludes.

2. A simple model of voting, economic outcomes, and procedural fairness

Let V_t represent the percentage of votes that an incumbent is expected to obtain in an election that occurs in t and X_t an economic outcome that that voters care about and that is easily observed in the short run, like economic growth. We can express the relationship between them with a very simple vote function:

$$V_t = V_t(X_t), \tag{1}$$

with $\partial V_t / \partial X_t > 0$, meaning that the better the economic outcomes the higher the percentage of votes. This very simple idea is the cornerstone of the economic voting

approach: “good times keep parties in office, bad times cast them out” (Lewis-Beck and Stegmaier 2000: 183). More generally, beneficial outcomes, especially when operationalized as objective economic outcomes or perceptions, are also strongly predictive of positive attitudes vis-à-vis authorities and institutions (Armingeon and Gutthman 2014: 439). And even more generally, in all kinds of social exchanges with authorities in all kinds of institutional settings, be they located at a “meso” level — such as police precincts, courts, companies, universities — or at a macro political level — governments and regimes, people’s satisfaction with and support to authorities seems to increase when immediate outcomes are perceived as beneficial (Blau 1964; Homans 1961).

Let us now add two additional elements. X_T is an outcome that will only be observable in the long run (T). It may be interpreted as an intangible good (in the short run) that it will be materialized in a good economic outcome in the long run, like long term GDP per capita. This can be the result of a policy that only in the long run will have impact on economic outcomes, such as, for example, a policy aiming at decreasing structural unemployment or promoting education. A stands for procedural fairness, the extent to which authorities abide by rules that guarantee transparency, impartiality, and the right to be heard when making decisions and setting policies (Thibaut and Walker 1975; Folger and Greenberg 1984; Lind and Tyler 1988). Economists have coined the term “procedural utility” to capture a very similar construct: the notion that people have preferences over outcomes but also “preferences about how outcomes are generated” (Frey and Stutzer 2005: 92; see also Frey, Benz, and Stutzer 2004). For example, the lower the levels of perceived corruption in policy-making, the higher is A .

This, of course, implies a more complex utility function. A still manageable one is a simple Cobb-Douglas function. Assume that the share of votes of an incumbent takes the form

$$V_t = A(X_t)^{1-\beta}(X_T)^\beta, \quad 0 < \beta < 1. \quad (2)$$

Note that, in equation (2), the higher the procedural fairness, the higher is the utility derived by the elector, for any given set of parameters. This fits well with what we know from empirical studies, which suggest that people seem to derive utility not only from tangible economic outcomes but also from the extent to which decisions are reached according to fair procedures.² More specifically, voting behavior seems to be affected by such procedural aspects, with higher levels of corruption emerging as an important driver of incumbent electoral losses (Welch and Hibbing 1997; Krause and Mendez 2009; Klačnja, Tucker and Deegan-Krause 2014; Schwindt-Bayer and Tavits 2016).

We also have X_T . Because it is not easily observable in the short run, trust in the politicians is essential to assess it. Therefore, in equation (2), the weight the elector gives to X_t and X_T depends on the level of A . $(1 - \beta)$ represents the weight that the elector gives to observed outcome, while β represents the weight given to the intangible outcome X_T . The higher is A , the closer β will be to 1: $\beta'(A) > 0$. Thus, the utility derived by the elector increases with X_t , as in equation (1), but not at the same rate for any given set of parameters. In fact, as β increases — the higher is A — the smaller the impact X_t has on V_t , becoming zero when $\beta = 1$. The intuition behind this is that when the perceived level of procedural fairness increases, agents can be more confident that a sacrifice in the short run economic outcome will be compensated by an increase of the intangible one.

This simple model fits well with what we know from the social psychological research on outcome favorability and procedural fairness. Even though people might prefer to maximize their utility from outcomes both in the short- and the long-run, they seem to be willing to make trade-offs in this regard, and procedural fairness plays a central role in that trade-off. As Brockner and Wiesenfeld put it, when reviewing the literature, “procedures used to make resource allocation decisions usually are perceived to be relatively stable and enduring; consequently, people use information about procedures to make inferences about their longer term outcomes” (Brockner and Wiesenfeld 1996: 193). Procedural fairness increases individuals’ optimism about the predictability and

² See, among many, Rose, Mishler, and Haerpfer (1998), Seligson (2002) Anderson and Tverdova (2003), Stutzer and Frey (2006), Wagner, Schneider, and Halla (2009), Curini et al. (2012), Linde (2012), Linde & Erlingsson (2013), Dahlberg & Holmberg (2013) or Erlingsson, Linde, and Öhrvall (2014).

favorability of future outcomes, and by doing so it decreases the importance of short-term tangible ones: “people may be willing to accept (and hence not be especially adversely affected by) unfavorable outcomes in the short term, provided that they believe that their outcomes will be at least reasonably favorable over the longer haul” (Brockner 2011: 237-238). Empirically, “across a wide variety of studies, high procedural fairness has indeed been found to reduce the effect of outcome favorability on people’s support for decisions, decision-makers, and organizations, relative to when procedural fairness is low” (Brockner and Wiesenfeld 2005: 548; see also Brockner and Wiesenfeld 1996).

Very few studies on political support have sought support for this argument. However, Magalhães (2016) shows that the relationship between economic evaluations and satisfaction with democracy in Europe is stronger when individuals believe that democratic political system they live under does not conform to norms of procedural fairness (impartiality, voice, and trust). In another study, the relationship between objective indicators of economic performance on democratic satisfaction is significantly stronger in countries with low quality of governance on the basis of expert and stakeholder surveys (Magalhães forthcoming). And some studies of voting behavior are equally suggestive, by encountering an interaction between economic performance and corruption perceptions or experiences in the explanation of presidential approval (Zechmeister and Zizumbo-Colunga 2013; Rosas and Manzetti 2015) or incumbent vote (Choi and Woo 2010; Klašnja and Tucker 2013).³

Although this is not the central aspect of the paper, it is also useful to derive a few expectations from the model in terms of government action. Suppose that the government has two possible policies: g_{X_t} , which increases X_t , and g_{X_T} , which promotes X_T . For example, g_{X_t} can be a policy that reduces unemployment in the short run — such as government hiring employees — while g_{X_T} is a policy that will in the long run decrease structural unemployment, like investing in education. Several assumptions could be made

³ Because they are centered in the question of “corruption voting,” these studies have interpreted that interaction as showing that economic conditions modify the effect of levels of corruption on incumbent approval, with larger (negative) effects occurring under bad economic conditions. However, logically, the symmetry inherent to any interaction effect suggests that, in all these cases, corruption also modifies the effect of economic outcomes on incumbent support, making that effect larger.

regarding cross effects, but we will assume that there are no spillover effects, neither positive nor negative.⁴ That means that X_t is simply a function of g_{Xt} , $X_t(g_{Xt})$, and the same for X_T . The government has limited resources, say M , i.e. faces a budget constraint of the type: $g_{Xt} + g_{XT} \leq M$.⁵ This constraint forces the government to choose how much weight is given to the present and to the future. An incumbent who wishes to maximize his electoral success will choose g_{Xt} and g_{XT} in order to maximize V_t , which is the same as maximizing:

$$\begin{aligned} & \max_{g_{Xt}, g_{XT}} \ln(A) + (1 - \beta)\ln(X_t(g_{Xt})) + \beta\ln(X_T(g_{XT})) \\ & st \quad g_{Xt} + g_{XT} \leq M \end{aligned}$$

Under these conditions, this simple model predicts the higher the degree of corruption — which implies a lower value of A , which, in turn, implies a lower level of β — the higher will be the government investment in X_t . In other words, an incumbent seeking reelection under high corruption will focus on short run policies,⁶ while countries with lower corruption levels will pay more attention to long-term outcomes.

Taken together, these results suggest that we should expect a negative long run relation between corruption and economic growth, which, in the short run, it should not be obvious. In a country with higher levels of corruption, with a government focusing on short run outcomes — with policies not grounded in long term outcomes —, the result should be higher levels of economic growth volatility.

Although there are many possible causal mechanisms at play besides the one suggested by the model, it is interesting to note how the available evidence is consistent with these implications. For example, the negative relationship between corruption and *long-term* economic growth (Akai, Oriuchi, and Sakata 2005), genuine wealth per capita (Aidt

⁴ This is obviously a simplifying assumption, as one can easily imagine policies that simultaneously promote short and long term growth. Still, for our purposes one can assume that the government only has relevant decision to take when it faces some kind of trade off — simply assume that policies that involve no tradeoff are already exhausted.

⁵ To guarantee an interior solution, assume that $X'_t(g_{Xt}) > 0$ and $X''_t(g_{Xt}) < 0$.

⁶ This can easily be observed with a numerical example. Let $M = 1$; $X_t(g_{Xt}) = 1 - 1/g_{Xt}$; and $X_T(g_{XT}) = 1 - 1/g_{XT}$. For $\beta = 0.9$, we will find that the optimal policy mix will imply that $X_t = 1.05$ and $X_T = 2.49$. If we consider a lower β , the government will devote more resources to the short run at the expense of the long run: for $\beta = 0.5$, the optimal policy mix implies $X_t = 2$ and $X_T = 2$.

2009), and several other measures of sustainable economic development (Kaufmann, Kraay, and Zoido-Lobaton 1999; Gupta, Davoodi, and Tiongson 2000) is well established. Regarding the short term, not only the overall macroeconomic evidence has failed to establish that, on average, corruption is a significant impediment to short-term economic growth (Pellegrini and Gerlagh 2004; Svensson 2005), but also the annual economic growth volatility exhibits a positive correlation with a corruption index.⁷

The other basic expectation derived from the model, and the one on which we will be focusing, is the following: voter support for incumbents should be larger both when tangible economic outcomes are better and when governance institutions are more procedurally fair; however, procedural fairness should exert a moderating role in the effect of economic outcomes, with the relationship between tangible economic outcomes and incumbent support becoming smaller the higher the level of procedural fairness. This is what we will be testing in the next section.

3. Economic voting and procedural fairness in the OECD countries, 1995-2005

We examine a dataset covering elections in 24 developed OECD economies from 1995 to 2015.⁸ We use 1995 as the starting point because our central measure of procedural fairness is only available since then: it is Transparency International's *Corruption Perceptions Index* (CPI), which captures perceptions of corruption in the public sector. Published yearly, CPI is based on data from a variety of institutional sources that monitor perceptions of the extent to which "any kind of abuse of entrusted power for private gain that takes place within the government or government bodies" takes place. Countries'

⁷ For example, if we estimate the correlation between economic growth volatility (measured by the standard deviation of annual economic growth in the last 20 years) and the Corruption Perception Index for 2015, we find a negative correlation (note that higher values of CPI imply lower corruption, as we explain in the next section), which is statistically significant at 1%.

⁸ Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States.

governments receive a score every year from 0 to 10, from most to least corrupt.⁹ In our sample, values range from 3.6 (Greece 2012) to 10 (Denmark 1998), with a mean of 7.8 and a standard deviation of 1.4.

Our measure of short term economic performance is the growth rate of real GDP compared to the same quarter of the previous year, seasonally adjusted (*GYSA*), measured in the quarter preceding the one when the election took place. Data come from OECD statistics.¹⁰ In our sample, *GYSA* ranges from -8.4% (Greece in 2012) to 13% (Iceland in 1999), with a mean of 2.3% and a standard deviation of 3.1%. To determine election date, the % share of the vote of the parties in each election that were in government at the time of that election (*Incumbent vote share*), the % share of the vote of those same parties in the preceding election (*Previous vote share*), and all variables about cabinet composition, we use Döring and Manow's ParGov database.¹¹

We include all elections that directly (presidential in the United States) or indirectly (legislative elections in parliamentary systems) contributed to the formation of the executive in these countries. However, excluded a few cases. First, we excluded elections that took place after non-partisan caretaker cabinets had been in office for more than one year.¹² Second, we also excluded elections where parties that belonged to the government coalition did not run as such for the election and either their successors or the parties they might have merged into could not be unambiguously identified.¹³ In models where *Previous vote share* is employed as an independent variable, elections where any of the incumbent parties did not run for the preceding election and their predecessors could not

⁹ For more info see <http://www.transparency.org/research/cpi/overview>. Starting in 2012, the published scores were rescaled from 0 to 100. In our data, we preserve the 0 to 10 scale.

¹⁰ <https://stats.oecd.org/index.aspx?queryid=350>

¹¹ <http://www.parlgov.org>

¹² This leads to the exclusion of the 1996 and 2013 elections in Italy, following the Dini and Monti governments.

¹³ For this reason, we excluded the 2003 elections in Belgium (PRL); the 2002 elections in France (RCV); the 2011 elections in Ireland (PD); the 2001 (PpP), 2006 (NPSI and PRI), and 2008 (RI, PdCI, FdV, and PoUD) elections in Italy; and the 1996 (Yiud), 2003 (MiHa), and 2013 (Haatz) elections in Israel. As a result of this and the previous exclusion, Italy ends up not being included in our dataset.

be unambiguously identified were excluded as well.¹⁴ Finally, we had no value for CPI for Iceland in 1995, leading to the exclusion of the 1995 election in that country in models where that variable is employed.

We are using time-series, cross-section data. Following Dassonneville and Lewis-Beck (2014: 382), our preferred estimation approach is a linear cross-sectional time-series model, including the *Previous vote share* (PVS) to address autocorrelation problems — note that using the *Previous vote share* is akin to the typical lagged dependent variable — , fixed effects through unit (country) dummies accounting for non-observed heterogeneity and omitted variable bias, and panel corrected standard errors. However, we also present other results in Table 1: the Beck and Katz (1995, 1996) approach to the analysis to TSCS data — OLS, PVS, and PCSE but without fixed effects, given risk of rejecting effects of slow moving variables; a random-effects model using the GLS estimator, estimating country cluster-robust standard errors, which allow for both heteroscedasticity and autocorrelation; and a fixed effects model using the within regression estimator, also estimating country cluster-robust standard errors. For reasons that will be apparent later, as a last robustness check, we also include the estimation by FGLS, allowing for heteroskedastic errors. This latter method was rejected by Beck and Katz, for rejecting the null too easily.

Table 1 shows the results of the estimation of models looking at the effects of GYSA, CPI, and their interaction on the vote share of incumbent parties. As we can see, in all estimations, both GYSA and CPI have a positive effect on incumbent vote share, and their interaction is negative and statistically significant at, at least, $p < .01$. These results do not hinge on model specification or estimation strategy. Static or dynamic models and with or without fixed effects, our central expectation is confirmed: real GDP growth has a positive effect of the electoral performance of incumbent parties, but such effect is conditioned by the level of perceived corruption.

¹⁴ This led to the exclusion of the 2011 elections in Switzerland (BDP) and 2006 (Kadima) elections in Israel.

Table 1. GDP growth, corruption perceptions (CPI, Transparency International) and the electoral performance of incumbent parties

| Variables | FE PCSE PVS | PCSE PVS | RE | FE | FGLS PVS |
|------------------------|--------------------|--------------------|----------------------|----------------------|---------------------|
| GYSA | 2.32*** (.64) | 2.94*** (.75) | 2.41*** (.52) | 2.32*** (.53) | 2.74*** (.63) |
| CPI | 4.25*** (1.44) | 1.78*** (.45) | 4.76*** (1.06) | 6.28*** (1.71) | 1.57*** (.40) |
| CPI*GYSA | -.26*** (.08) | -.33*** (.09) | -.29*** (.07) | -.28*** (.07) | -.31*** (.09) |
| Previous vote share | .51*** (.12) | .45*** (.13) | - | - | .73*** (.07) |
| Constant | -3.57 (13.99) | 7.88 (6.94) | 6.23 (7.59) | -5.82 (13.28) | 4.77 (4.08) |
| Fixed effects | YES | NO | NO | YES | NO |
| Random effects | NO | NO | YES | NO | NO |
| Standard errors | Panel corrected | Panel corrected | Cluster corrected | Cluster corrected | Heteros kedastic |
| N elections | 123 | 123 | 126 | 126 | 123 |
| N countries | 23 | 23 | 23 | 23 | 23 |
| R2 | .78 | .35 | .08 | .08 | |

*p<.10; **p<.05; ***p<.01 (two-tailed tests)

Figure 1 shows the estimated marginal of GDP growth on the vote for the incumbent across the real range of values of CPI in the sample, based on the FE, PVS, PCSE estimation. As the value of CPI increases — i.e., as the perception of corruption *decreases* — the marginal effect of growth on the electoral performance of incumbent parties also decreases, to the point of becoming not significantly different from zero once CPI becomes larger than 7.

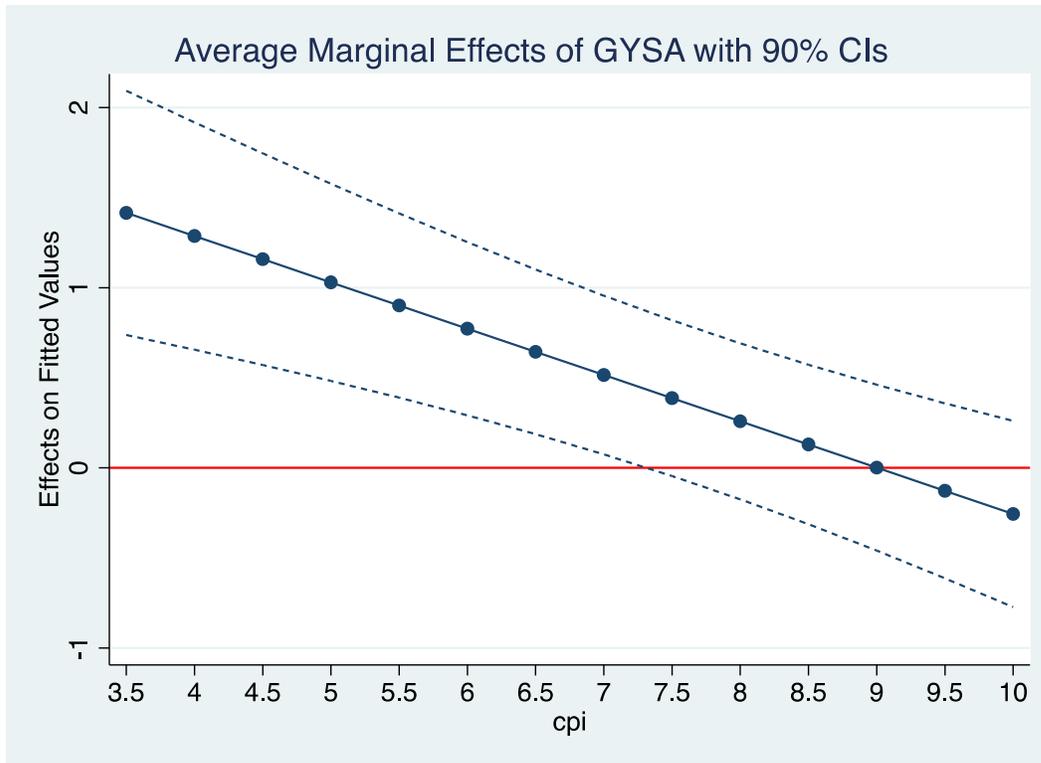


Figure 1. The estimated marginal effect of GDP growth on the share of votes for incumbent parties across the range of values of the corruption perceptions index (based on the PCSE, PVS, FE results in Table 1).

3.1 Alternative measures of procedural fairness

We also employ alternative measures of perceived procedural fairness in governance. *Control of Corruption (CoC)*, from the Worldwide Governance Indicators (WGI) of the World Bank,¹⁵ is an index combining up to 22 different assessments and surveys, capturing perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests. It is reported in standard normal units, ranging from approximately -2.5 to 2.5, with higher values meaning lower corruption perceptions. It is available for most countries in the world from 1996 to 2014. We coded each election in each country with the value of CoC. Between 1996 and 2002, the data is biannual. Thus, for elections in 1997, 1999, and 2001, we use the mean of the preceding and successive

¹⁵ Available at: <http://info.worldbank.org/governance/wgi/index.aspx#home>.

year.¹⁶ Elections in 1995 and 2015 are excluded, given lack of CoC data at the time of this writing. Table 2 shows the results of the models estimated as in Table 1, with CPI replaced with CoC:

Table 2. GDP growth, control of corruption perceptions (Control of Corruption, World Governance Indicators) and the the electoral performance of incumbent parties

| Variables | FE PCSE PVS | PCSE PVS | RE | FE | FGLS PVS |
|---------------------|--------------------|--------------------|----------------------|----------------------|---------------------|
| GYSA | 1.34*** (.50) | 1.71*** (.42) | 1.27*** (.32) | 1.20*** (.42) | 1.60*** (.31) |
| CoC | 8.10 (5.41) | 3.81*** (1.20) | 8.46** (3.39) | 10.18 (6.51) | 3.42*** (.98) |
| CoC*GYSA | -.59** (.24) | -.77*** (.23) | -.65*** (.20) | -.63** (.23) | -.76*** (.20) |
| Previous vote share | .60*** (.17) | .40*** (.12) | - | - | .69*** (.07) |
| Constant | 7.59 (14.15) | 17.80*** (6.12) | 29.12*** (5.02) | 25.66** (11.46) | 3.81 (3.69) |
| Fixed effects | YES | NO | NO | YES | NO |
| Random effects | NO | NO | YES | NO | NO |
| Standard errors | Panel corrected | Panel corrected | Cluster corrected | Cluster corrected | Heteros kedastic |
| N elections | 110 | 110 | 113 | 113 | 110 |
| N countries | 23 | 23 | 23 | 23 | 23 |
| R2 | .75 | .32 | .09 | .09 | |

*p<.10; **p<.05; ***p<.01 (two-tailed tests)

The results are very similar to those obtained for Table 1: the effect of GDP growth is positive, and is conditioned by the value of CoC, with the impact of GYSA significantly decreasing as CoC increases (as control of corruption increases).

Finally, *Impartial Public Administration (Impartiality)* is an index measuring to what extent government officials do not take into consideration anything about the citizen/case that is not beforehand stipulated in the policy of the law (Rothstein and Teorell 2008, 170). It is built on the basis of five items of a survey conducted among country experts between 2008 and 2011 and it is available for all countries in our sample except Luxembourg. Unlike CPI and CoC, *Impartiality* is measured with a single value per country throughout the period, ranging in our sample from -.401 (Greece) to 1.51 (New

¹⁶ In our sample, CoC ranges from -.25 (Greece 2012) to 2.53 (Denmaek 2007), with a mean of 1.78 and a standard deviation of .56.

Zealand), from lower to higher impartiality. Therefore, fixed effects models cannot be employed. Table 3 shows the results of the Beck and Katz (1995,1996) approach as well as of a random effects model with cluster-robust standard errors and FGLS. Again, in every case, the interaction term between *Impartiality* and GYSA is negative and statistically significant.

Table 3. GDP growth, impartiality and the electoral performance of incumbent parties

| | PCSE PVS | RE | FGLS PVS |
|---------------------|--------------------|--------------------|-------------------|
| GYSA | 1.31*** (.36) | 1.16*** (.25) | 1.11*** (.26) |
| Impartiality | 4.22*** (1.41) | 6.00 (3.39) | 3.86*** (1.22) |
| Impartiality*GYSA | -1.02*** (.33) | -.93*** (.26) | -.84*** (.31) |
| Previous vote share | .45*** (.13) | - | .72*** (.07) |
| Constant | 18.04*** (6.69) | 37.62*** (2.31) | 4.17 (3.55) |
| Fixed effects | NO | NO | NO |
| Random effects | NO | YES | NO |
| Standard errors | Panel corrected | Cluster corrected | Heteroskedastic |
| N elections | 120 | 123 | 126 |
| N countries | 22 | 22 | 23 |
| R2 | .33 | .06 | |

*p<.10; **p<.05; ***p<.01 (two-tailed tests)

In sum, regardless of the measure of procedural fairness employed, the positive effect of economic growth on the electoral performance of incumbent parties appears as conditioned by the level of procedural fairness: when procedural fairness increases, that effect becomes smaller.

3.2 Introducing “clarity of responsibility”

The prevalent explanation of instability in economic voting in the literature has focused in political and institutional conditions that make responsibility for economic outcomes more or less diffuse. The evidence that the strength of economic voting declines as the “clarity of responsibility” decreases has been described as compelling (Lewis-Beck and Stegmeier 2013: 372-373). We integrate this process in our models by adding measures of “clarity of responsibility” and testing for their interaction with GDP growth.

Our measure stays as close as possible to Powell and Whitten's (1993) original formulation. They employed an index coding countries and contexts with the value 1 in cases of lack of voting cohesion of the major governing party or parties, when a participatory and inclusive committee system exists in the legislature, when there is a bicameral opposition in a second chamber with significant policymaking powers, during minority governments, and during coalition governments. The index ranged from 0 to 5 and was then dichotomized in their analysis, into high clarity (0-2) and low clarity (3-5) contexts.

In our case, however, we were unable to collect unambiguous evidence about voting cohesion, the committee system, and bicameral opposition for all countries and throughout the entire 1995-2015 period. Thus, we employ here an index ranging from 0 to 2, assigning 1 point to each of the institutional features on which we have unambiguous data: minority governments and coalition governments. 0 represents a single party majority cabinet, 1 a minority single party or a majority coalition cabinet, and 2 a minority coalition cabinet. The larger the value, the lower the clarity of responsibility. In Table 4, we show estimations of models where GDP growth is interacted with CPI and with *Clarity*. The first columns show the results just for the *Clarity*GYSA* interactions, using different estimation strategies. The last five add the *CPI*GYSA* interactions.

Table 4. GDP growth, clarity of responsibility, corruption perceptions (CPI, Transparency International) and the electoral performance of incumbent parties

| Variables | Clarity of responsibility as moderator | | | | | Clarity of responsibility and corruption perceptions as moderators | | | | |
|---------------------|--|--------------------|----------------------|----------------------|---------------------|--|--------------------|----------------------|----------------------|---------------------|
| | FE PCSE PVS | PCSE PVS | RE | FE | FGLS PVS | FE PCSE PVS | PCSE PVS | RE | FE | FGLS PVS |
| GYSA | 1.18*** (.39) | 1.53*** (.54) | 1.14*** (.43) | 1.12** (.43) | 1.18*** (.41) | 2.31*** (.82) | 3.34*** (.96) | 2.58*** (.77) | 2.47*** (.82) | 2.62*** (.75) |
| Clarity | 1.89 (1.58) | .02 (1.41) | .95 (2.00) | .76 (1.91) | 1.65 (1.27) | -.34 (2.33) | -4.98* (2.82) | -2.37 (2.37) | -1.82 (2.29) | -1.87 (1.76) |
| Clarity*GYSA | -.78** (.32) | -1.02** (.44) | -.86** (.43) | -.83* (.43) | -.75** (.34) | -.02 (.54) | .22 (.71) | .15 (.54) | .13 (.59) | -.03 (.45) |
| CPI | - | - | - | - | - | 4.25*** (1.41) | 2.68*** (.84) | 5.03*** (1.02) | 6.33*** (1.64) | 1.88*** (.57) |
| CPI*GYSA | - | - | - | - | - | -.25* (.15) | -.40** (.20) | -.33** (.15) | -.31* (.16) | -.29** (.14) |
| Previous vote share | .60*** (.12) | .49*** (.13) | - | - | .76*** (.07) | .51*** (.12) | .48*** (.12) | - | - | .73*** (.06) |
| Constant | 21.09** (9.10) | 19.49*** (6.16) | 42.41*** (3.09) | 42.31*** (1.76) | 3.95 (3.60) | -3.00 (13.74) | 4.29 (6.03) | 6.46 (7.30) | -4.52 (12.77) | -5.54 (3.96) |
| Fixed effects | YES | NO | NO | YES | NO | YES | NO | NO | YES | NO |
| Random effects | NO | NO | YES | NO | NO | NO | NO | YES | NO | NO |
| Standard errors | Panel corrected | Panel corrected | Cluster corrected | Cluster corrected | Heteros kedastic | Panel corrected | Panel corrected | Cluster corrected | Cluster corrected | Heteros kedastic |
| N elections | 124 | 124 | 113 | 127 | 124 | 123 | 123 | 126 | 126 | 123 |
| N countries | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| R2 | .76 | .34 | .03 | .03 | | .78 | .39 | .09 | .08 | |

*p<.10; **p<.05; ***p<.01 (two-tailed tests)

The model where only the direct and moderating effects of clarity of responsibility are estimated produces the results expected from the literature, regardless of estimation strategy. Recall that, for *Clarity*, the lowest level (0) represents the maximum clarity of responsibility, allowed by a single-party majority cabinet. At this point, based on PCSE model using previous vote share and fixed effects, the estimated marginal effect of real GDP growth is maximized: +1.2 — 90%CI [.5,1.8], becoming smaller and not significant at higher values of *Clarity* (i.e, when clarity decreases).

However, when we add procedural fairness (corruption perceptions) and its interaction with real GDP growth, the coefficients for the interaction terms between GDP growth and our clarity of responsibility measure become not significant. These results still holds even in the last model estimated in Table 2. Note that Beck and Katz advise against estimating this model because it is overly optimistic, in the sense of underestimating the standard errors and, hence, rejecting the null of no significance too often. Therefore, we can interpret this estimated model as the one that gives “clarity” the best chance of showing up as statistically significant. Despite that, as we can see, “clarity “ does not seem to play any relevant role. It is true that, for this coefficient, the estimated standard errors are smaller than the ones provided by the other models, but it is still completely non-significant.

As can be seen in Figure 2, which shows the estimated marginal effect of GYSA as conditioned by *Clarity*, based on the PCSE model using previous vote share and fixed effects, *Clarity* is not a relevant moderator of the effects of economic performance on the vote. In contrast, the coefficients of interaction term between GYSA and CPI remain significant and preserve the approximate size as in Table 1.

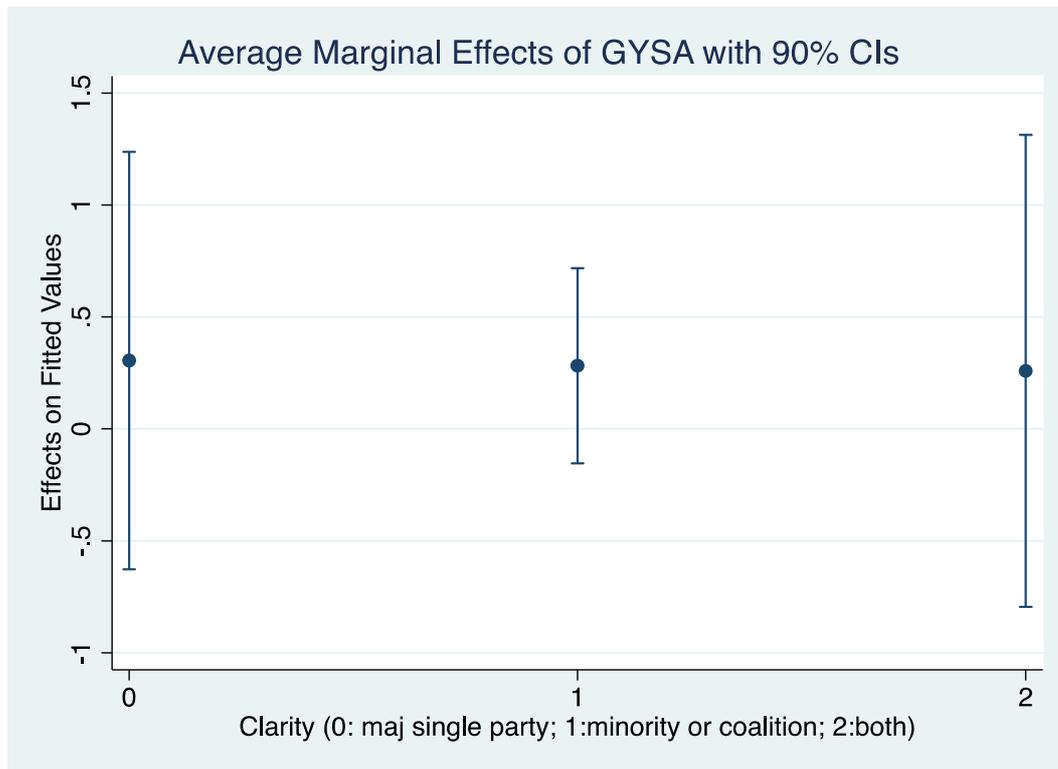


Figure 2. The estimated marginal effect of GDP growth on the share of votes for incumbent parties under different conditions of clarity of responsibility (based on the PCSE, PVS, FE results in Table 4).

To ascertain the robustness of these results, we employed two additional measures of clarity of responsibility. *Clarity II* is taken from Schwindt-Bayer and Tavits (2016): given that “the most widely accepted measure of the concept of clarity of responsibility is single-party majority control of government” Schwindt-Bayer and Tavits (2016: 18), their indicator ranges from 30 to 100: “minority government, coded 30, indicates low clarity; coalition government, coded 60, corresponds to medium clarity; and single-party majority government, coded 100, indicates high clarity.” *Clarity III* is derived from Tavits (2007), and is constructed on the basis of the effective number of parties, the minority status of the government, and the length of incumbent time. More specifically, we follow Hicks et al. (2015):

$$Clarity\ III_{i,t} = \frac{[1 - Std(ENPP_{i,t})] + [1 - Minority_{i,t}] + Std(Tenure_{i,t})}{3}$$

ENPP denotes the effective number of parliamentary parties,¹⁷ *Minority* a dummy

¹⁷ Taken from Gallagher (2016).

variable for whether the incumbent government is a minority cabinet, and *Tenure* the number of days before the elections during which the same party held the prime minister's office. The *Std* function is a linear rescaling of each variable between 0 and 1, with 0 corresponding to the sample minimum and 1 to the maximum. Higher values mean higher clarity of responsibility. Sample values range from .10 (Netherlands 2012) to .82 (United Kingdom 1997). Switzerland was excluded, since the rotative nature of the Federal President's office renders the *Tenure* measure invalid.

Table A1 in the appendix shows the results. This time, for the sake of brevity, we focus on the results showing the two interaction effects and using the linear cross-sectional time-series regression models with PVS, fixed effects and panel corrected standard errors (the results of the other estimation strategies are, as before, similar). They basically reproduce what we had already found in Table 4: when we take into account the way procedural fairness moderates the effect of economic growth on the incumbent vote, clarity of responsibility does not appear as a relevant moderator, regardless of how we measure it.

3.3 Introducing other moderation processes

The argument about how economic voting is blurred in contexts where governments have lower control over policy-making has also been examined empirically by looking at the extent to which power is shared between central and lower levels of government or at the level of economic interdependence. For example, Anderson (2006) shows that economic voting is weaker in contexts where state and local governments enjoy larger fiscal autonomy, while Hellwig and Samuels (2007) show that that the effect of economic performance in incumbent vote share is smaller in countries and contexts that are more exposed to international trade and with more open capital markets. An additional but different argument about the varying strength of the relationship between economic performance and political support has been advanced by Rohrschneider and Loveless (2010), who argue that, in poorer countries, the economy is likely to be a more salient issue for voters than in more affluent societies (see also Lühiste 2014).

Table 5 looks at what happens to our main result — the interaction between

procedural fairness and economic performance — when those other potential moderators of the effects of the economy on the vote are taken into account. *Tax Decentralization* is simply the percentage of local and state tax revenues as a percentage of the total general government tax revenue, taken from the OECD Fiscal Decentralization dataset.¹⁸ Data are available from 1965 to 2014 (no data for Japan in 2014), and thus 2015 elections were dropped from the analysis in this case. Values range from 0.8% (Greece 1996) to 49.2% (Canada 2011), with a mean of 17.8% and a standard deviation of 13.3% in our sample. *Trade Openness* is the sum of exports and imports of goods and services measured as a share of GDP, and was taken from the World Bank's World Development Indicators.¹⁹ Data is available for all countries and years in our dataset, and values range from 19% (Japan 1996) to 357% (Luxembourg 2004). Finally, we employ GDP per capita (at thousands of US dollars and constant prices, 2010 PPP), from OCDE.Stat.²⁰

Table 5. GDP growth, corruption perceptions (CPI, Transparency International), and other variables as predictors of the electoral performance of incumbent parties (PCSE, country fixed effects)

| | | | |
|---------------------------|-------------------|-------------------|-------------------|
| GYSA | 2.23*** (.74) | 2.42*** (.60) | 2.61*** (.64) |
| Tax Decentralization | -.46 (.30) | - | - |
| Tax Decentralization*GYSA | .01 (.02) | - | - |
| Trade Openness | - | -.07** (.03) | - |
| Trade Openness*GYSA | - | -.003 (.002) | - |
| GDP per capita | - | - | .04 (.14) |
| GDP per capita*GYSA | - | - | -.02** (.01) |
| CPI | 3.98*** (1.45) | 4.14*** (1.32) | 3.91*** (1.41) |
| CPI*GYSA | -.27*** (.10) | -.23*** (.07) | -.19** (.08) |
| Previous vote share | .56*** (.16) | .50*** (.12) | .51*** (.12) |
| Constant | -1.57 (15.14) | 4.23 (13.57) | -2.22 (14.71) |
| N elections | 113 | 123 | 123 |
| N countries | 23 | 23 | 23 |
| R2 | .76 | .78 | .78 |

¹⁸ Available at: https://www.oecd.org/ctp/federalism/oecdiscaldecentralisationdatabase.htm#A_1.

¹⁹ Available at: <http://data.worldbank.org/indicator/NE.TRD.GNFS.ZS>.

²⁰ Available at: https://stats.oecd.org/Index.aspx?DataSetCode=PDB_LV

The coefficients for the interactions between *Tax Decentralization* and *GDP growth* and between *Trade Openness* and *GDP growth* are not statistically significant, although in the latter the sign is according to expectations (negative). In contrast, the interaction between GDP per capita and GDP growth is negative, as anticipated — the effect of economic growth on the share of the vote for incumbents declines as GDP per capita increases — and significant at $p < .05$. But in all cases, our main result always stands: higher procedural fairness decreases the effect of GDP growth on incumbent vote share.

3.4 Employing survey data

The time-series cross-section data employed so far raise a number of important questions in terms of analysis. Our “panel” includes a different number of elections occurring at different points in time in different countries. Inclusion of previous vote share, akin to a lagged dependent variable, and the use of fixed effects models in this kind of data remain debated options, and no easy fixes for the problems thus raised seem to be available (Wilson and Butler 2007). We have not used the terminology of “lagged dependent variable,” because the fact is that we are not following the same incumbents over time — only in less than 40% of the cases the previous vote share would coincide with the lagged dependent variable —, which prevents us from estimating proper dynamic panel models (which, by themselves, also pose several estimation challenges). We did employ different estimation strategies to assure ourselves of the robustness of the results. But somewhat more can be done in that regard.

One possibility is to resort to microlevel data — i.e., particularly data from post-election surveys where the question of vote recall (for the incumbent instead of an opposition party) has been posed — to test the same hypotheses. In this particular case, we use data from Module 1 of the Comparative Study of Electoral Systems project.²¹ Of the 24 OCDE countries on which information for the TSCS dataset was collected, 17 have participated in CSES Module 1, in a total of 19 surveys.²² The elections and the post-election surveys all took place between 1996 and 2000. In each

²¹ Available at: <http://www.cses.org/datacenter/module1/module1.htm>.

²² Belgium was divided into two surveys, in Flanders and Walonia, which in practice display two different party systems, while two surveys were conducted after two different Spanish elections.

survey, we recoded the response to the vote recall question into a dummy variable coded 1 if the respondent reported having voted for any of the incumbent parties and 0 otherwise. We are therefore interested in determining if voters in elections whose economies had experienced greater GDP growth in the previous year are more likely to vote for the incumbent parties and, crucially, whether that effect is significantly smaller in contexts where procedural fairness is higher.

Since data about these voters is clustered by election/survey and the dependent variable is binary, we employ a mixed effects logistic regression. The main independent variables are, as before, GYSA and CPI. Since we have a very limited number of macro-level units, we are forced to be quite parsimonious regarding controls at that level. However, we include *GDP per capita*, to take into account differential levels of socio-economic development and, in one of the estimations, we also include, as in Table 4, *Clarity* and its interaction with GDP growth. In this case, unlike what happened in the previous analysis, we are able to fully replicate Powell and Whitten's measurement: the variable *Clarity* here is dichotomous, distinguishing countries with "high" (0) and "low" (1) clarity of responsibility, based on the initial 0-5 scores.²³ Furthermore, we include several individual-level controls: a dummy variable for *Female* respondents; *Education* (an eight-point ordinal scale from 1 — None — to 8 — University undergraduate degree completed); *Age*; *Income* (from the lowest — 1 — to the highest — 5 — income quintile); and, most importantly, two dummy variables were created capturing voters' partisan predispositions, in particular, whether respondents feel close to any of the incumbent — *Close to incumbent* — or any of the opposition — *Close to opposition* — parties, with the reference category being not being close to any party. Table 6 shows the results.

²³ Anderson (2006) is the relevant source.

Table 6. Mixed effects logistic regression of vote for the incumbent (CSES, module 1)

| <i>Country/election characteristics</i> | | |
|---|----------|----------|
| GYSA | 1.10* | 1.42** |
| | (.59) | (.58) |
| CPI | .22 | .29 |
| | (.19) | (.20) |
| GYSA*CPI | -.11* | -.14** |
| | (.07) | (.07) |
| Clarity | - | .84 |
| | | (.96) |
| GYSA*Clarity | - | -.11 |
| | | (.28) |
| GDP per capita | .04* | .03 |
| | (.02) | (.02) |
| <i>Respondent characteristics</i> | | |
| Closeness to incumbent party | 2.72*** | 2.72*** |
| | (.05) | (.05) |
| Closeness to opposition party | -2.20*** | -2.20*** |
| | (.06) | (.06) |
| Female | .03 | .03 |
| | (.03) | (.03) |
| Age | .002** | .002** |
| | (.001) | (.001) |
| Education | -.05*** | -.05*** |
| | (.01) | (.01) |
| Income | .08*** | .08*** |
| | (.01) | (.01) |
| Constant | -4.11** | -5.07*** |
| | (1.82) | (1.79) |
| Country/election level variance | .29 | .25 |
| N elections | 19 | 19 |
| N respondents | 24,680 | 24,680 |

*p<.10; **p<.05; ***p<.01

The greater the economic growth before an election, the more likely are respondents in that country to report having voted for one of the incumbent parties rather than for one of the opposition parties, controlling for partisanship and other individual-level features. Furthermore, the strength of that relationship between economic performance and the propensity to vote for incumbents depends on the corruption perceptions score in that election year. From the model presented in the first column, and at the minimum level of *CPI* (4.3) in this sample of countries, once all other variables are kept constant at their mean values, one additional point in GDP growth is estimated to increase the probability of voting for one of the incumbent parties instead of an opposition party by about 8.5 percentage points. However, that effect diminishes as *CPI* increases and becomes not significantly different from zero at levels of *CPI* close to 9. The results when we include *Clarity* and *Clarity*GYSA* in the model remain very similar, and can be seen in Figure 3.

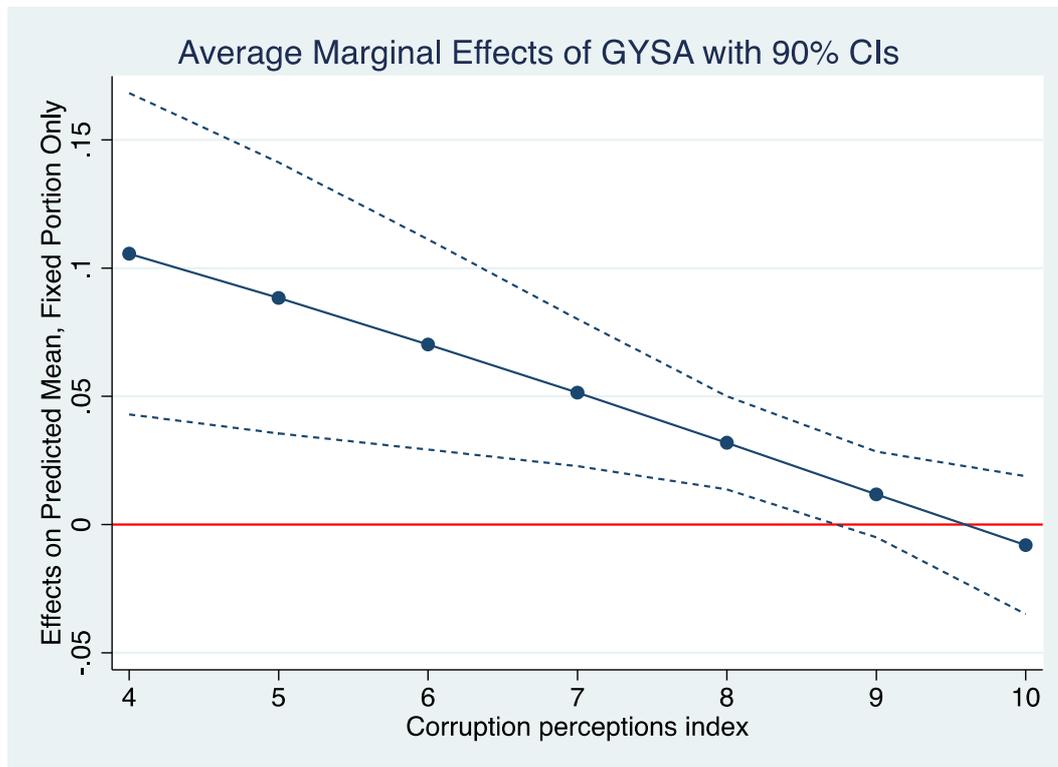


Figure 3. The estimated marginal effect of GDP growth on the probability of voting for incumbent parties across the range of values of the corruption perceptions index

In contrast, although the *Clarity*GYSA* has the expected sign (negative), the coefficient is not significant. As can be seen in Figure 4, the effect of GDP growth on the probability of voting for the incumbent is not significantly smaller under conditions of high clarity in comparison with in conditions of low clarity, once procedural fairness and the way it moderates the effects of economic growth are taken into account.



Figure 4. The estimated marginal effect of GDP growth on the probability of voting for incumbent parties under conditions of high and low clarity of responsibility.

4. Conclusion

Social psychologists have long described and established the existence of an interactive relationship between outcome favorability and process fairness in determining our reactions to events and decisions in workplaces, courts, and many other organizational contexts. It's not only that people care both about what they get and how they get it. It's also that "people's tendencies to respond better when their outcomes are more favorable is reduced when process fairness is high rather than low" (Brockner 2010: xvii). However, although the experimental and observational evidence supporting this moderation effect of procedural fairness in micro and meso contexts is nothing short of overwhelming, it has very seldom been extended to macro contexts, particularly those of people's relationships with political authorities. In this paper, we suggest this extension is warranted and supported by evidence. Most importantly, it provides an answer to a lingering question in the study of political support: the fact that the relationship between economic outcomes and the vote for incumbent parties is unstable across elections and countries. The source of that

instability, we argue, is the fact that economic voting is affected by the extent to which voters perceive decision-making as procedurally fair, i.e, it abides by rules of transparency and impartiality. If electors perceive political decisions as transparent and fair, short-term economic outcomes should play a smaller role.

To illustrate the mechanism, we wrote down a very simple mathematical model. In this model, voters care about procedural fairness, short run economic performance and an intangible good, which can be interpreted as promoting long run economic development. The higher the procedural fairness, the higher the trust that the government is devoting its resources to the intangible good. As a result, if transparency increases, voters will prefer a lower short run economic performance in exchange for the harder to observe investment in the tangible good.

We used a dataset covering elections in 24 developed OECD economies from 1995 to 2015. Our central measure of procedural fairness is based on Transparency International's *Corruption Perceptions Index* (CPI), which captures perceptions of corruption in the public sector. Our results — see Table 1 — are in line with our predictions: GDP growth is important to explain the electoral success of the incumbent parties, however it is less important in countries with higher levels of procedural fairness. Moreover, see Figure 1, in countries with very high levels transparency, GDP growth ceases to be relevant to explain incumbents' success. Previous literature has explored the possibility that lower levels “clarity of responsibility” is associated with less important economic vote. In our sample, we were able to essentially replicate such results. However, once we include both variables — CPI and “Clarity of responsibility” — this latter result disappears, while the former is very robust. This suggests that the prevalent explanation of instability in economic voting in the literature, which has focused in political and institutional conditions that make responsibility for economic outcomes more or less diffuse, may suffer from omitted variable bias.

We checked the robustness of our results in several directions. First, we followed several different estimation strategies. Second, we considered several different formulations for our variable of interest (procedural fairness). Third, we also considered several measures of “clarity of responsibility”. Fourth, we added to our

model other potential moderators of the effects of the economy on the vote. Finally, we also considered micro level data, namely we used post-election survey data. Again the results are essentially the same. Economic growth is an important variable to explain the electoral outcomes of the incumbent parties, however its importance decreases in countries with higher levels of procedural fairness. Again this result is robust to the inclusion of “clarity of responsibility” as an explanatory variable, which is not statistically significant.

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Appendix

Table A1. GDP growth, alternative measures of clarity of responsibility, corruption perceptions (CPI, Transparency International) and the electoral performance of

| incumbent parties (PCSE, country fixed effects, PVS) | | |
|--|-------------------|-------------------|
| GYSA | 2.99 (1.99) | 3.15** (1.36) |
| Clarity II | -.002 (.05) | - |
| Clarity II*GYSA | -.005 (.01) | - |
| Clarity III | - | -1.13 (5.99) |
| Clarity III*GYSA | - | -1.01 (1.42) |
| CPI | 4.35*** (1.42) | 4.14*** (1.44) |
| CPI*GYSA | -.30* (.15) | -.29*** (.10) |
| Previous vote share | .52*** (.12) | .53*** (.12) |
| Constant | -4.93 (15.07) | -3.50 (14.77) |
| N elections | 123 | 119 |
| N countries | 23 | 22 |
| R2 | .78 | .68 |