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Incumbent Tenure Crowds Out Economic Voting

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Abstract: We know that the electoral support for political leaders is intimately related to the economic circumstances they provide. However, we do not know whether the importance of these economic circumstances change during the political leaders' time in office. If one asserts that politicians become more responsible for the economic situation as their time in office increase, then the literature on clarity of responsibility would suggest, that there might be a positive relationship between incumbent tenure and economic voting. Conversely, models of Bayesian learning would suggest that voters prior beliefs about the incumbent should crowd out the importance of economic conditions as time in office increases. Using two independent data sets of elections and election surveys, we empirically adjudicate between these different theoretical expectations, showing that as an executive party's tenure increases, its electoral support becomes more independent of the economic situation.

Introduction

Electoral support for political leaders is intimately related to the economic circumstances the leaders provide for their constituents (Healy and Malhotra, 2013; Lewis-Beck and Stegmaier, 2013). A recession, a spike in unemployment or price instability, will, all else equal, lead voters to unseat incumbent politicians and seat political opponents. However, all else is often not equal. As such, previous literature on the economic antecedents of electoral behavior have identified extensive variation in the relationship between the economic situation and electoral support for incumbents (Lewis-Beck, 1990; Paldam, 1991; Van der Brug, Van der Eijk and Franklin, 2007). But why is economic voting more prevalent in some elections than it is in others? Previous studies of why the economic vote varies, have typically explained this in terms of the political and economic institutions at work in the particular election (e.g. Powell and Whitten, 1993; Duch and Stevenson, 2008). These studies have

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found that institutions that determine the extent to which power over economic policy is in the hand of the incumbent government condition the extent to which the incumbent is held electorally responsible for the economic situation. For instance, this "clarity of responsibility" literature have found that economic openness (Hellwig, 2001; Hellwig and Samuels, 2007) and government composition (Nadeau, Niemi and Yoshinaka, 2002; Anderson, 2006) moderates the economic vote. Yet despite this comprehensive literature on the sources of variation in economic voting, a surprisingly understudied question is whether the duration of a governments time in office conditions the economic vote. As such, only two studies have dealt with the relationship between an incumbents' time in office and economic voting (Nadeau, Niemi and Yoshinaka, 2002; Singer and Carlin, 2013), and neither of these studies attempt to directly test the relationship between the effect of economic conditions on incumbent support and incumbent tenure. Consequently, we do not know whether voters are more or less likely to punish or reward incumbents for economic outcomes at different times of their tenure; this article seeks to find out.

The limited amount of scholarly attention paid to whether tenure affects the economic vote is particularly surprising in light of the fact that tenure, like the institutional context, is likely to shape incumbents' ability to affect the economic situation. Specifically, it seems reasonable to assert that incumbents' influence on economic outcomes increase with their time in office, and accordingly, one might expect economic voting to be *more* prevalent in elections which feature more experienced incumbents and *less* prevalent in elections which feature less experienced incumbents. That is, as time in office increases so does economic voting. However, this intuition is complicated by the fact, that time in office is automatically correlated with other factors than increased influence over the economy, factors like the extent of voters' knowledge about the incumbent. For a political party, or an individual candidate, holding office automatically leads to increased attention (Snyder and Strömberg, 2010), and therefore it seems likely, that voters will generally know more about parties, which have been in office for a longer period of time. This knowledge might crowd out economic voting, because voters whose beliefs about an object, i.e. an incumbent, are based on a lot of information, are generally less likely to be moved by a single new piece of evidence, i.e. the present economic situation, than voters who have little information about this object (Gerber and Green, 1999). So, even though a new incumbent might influence the economy less than an experienced incumbent, this difference in influence is potentially dwarfed by a much larger difference in the amount of prior evidence of incumbent quality, voters have at their disposal, when evaluating the new compared to the experienced incumbent.

Accordingly, it seems plausible that there are countervailing forces pushing the economic vote both upwards and downwards as time in office increase. In order

to determine which of these forces dominate, this article sets out to conduct a thorough empirical examination of the relationship between economic voting and time in office. This is done using two different datasets. The first dataset consists of country-level election returns from 327 elections in 33 different countries. Here economic voting is measured as the correlation between economic conditions (i.e. economic growth) and support for the executive party. The second dataset is a pooled cross-section of 60 representative national surveys from 10 Western European countries. Here economic voting is measured as the correlation between voters perception of the national economy and voting for the executive party. The analyses of these two quite different datasets produce the same basic result: a negative relationship between economic voting and time in office. A result which is robust across a number of different statistical specifications.

On the face of it, a negative relationship between time in office and economic voting seem to have some potentially worrying implications for electoral accountability. As such, if politicians know, that as their time in office increase, they are less likely to be punished for adverse economic outcomes, this naturally reduces their disincentive to provide such adverse outcomes. Since this is an important implication of the negative relationship between incumbent tenure and economic voting, we try to investigate whether there is any evidence, that more experienced incumbents provides less favorable economic conditions. We find no evidence of this, suggesting that politicians wither do not know economic voting decrease with time in office, that they are uninterested in providing less than favorable economic conditions, or that some other process holds them in check.

Identifying a negative relationship between incumbent tenure and economic voting is somewhat surprising given the dominant position of the clarity of responsibility hypothesis in the literature. As such, while voters might perceive more experienced incumbents to be more responsible for economic conditions, as predicted by the clarity of responsibility hypothesis, some other force dominates this change, making voters ignore the state of the economy when deciding whether to reelect experienced incumbents. It is important to note, that this of course does *not* mean that clarity of responsibility is irrelevant for explaining variation in economic voting as a whole. The clarity of responsibility hypotheses have been shown, time and again, to be quite apt at predicting variation in economic voting. However, these results highlight the importance of considering other factors than just clarity of responsibility, when trying to understand how and why the economic vote varies. In particular, this article points to the fact that attributes of the incumbent-voter relationship, like tenure, might moderate economic voting, providing a line of inquiry, which might supplement the clarity of responsibility literature's study of institutional context, and more recent work by Kayser and Wlezien (2011),Vries and Giger (2014) and Tilley and Hobolt (2011), among others, highlighting voter-

characteristics like partisanship and political sophistication.

Apart from highlighting the importance of going beyond clarity of responsibility, the article also helps analysts and researchers interested in understanding why economic voting is more prevalent in some elections than in others, giving them an additional factor to take into account, when making predictions about how important the economy will be in a particular election; the tenure of the executive up for reelection. Finally, on a more general note, the results of this article suggest, that while economic voters might very well be myopic when it comes to evaluating the economy (Healy and Malhotra, 2009; Healy and Lenz, 2014), the history of the incumbent is still important to take into account when trying to understand the extent to which voters punish and reward incumbents (see Krause and Melusky 2014 for a similar point).

These article proceeds in five steps. First, we discuss why it is reasonable to expect that time in office should affect economic voting, outlining some theoretical predictions. Second and third we present the data, method and results from the two different datasets, starting with the country-level data and then moving on to the individual-level data. Fourth, we briefly examine what implications the findings have for electoral accountability, and finally, the central arguments of the article are summarized and some limitations and avenues for future research are discussed.

Why time in office should influence the economic vote

Research on how the economy shapes the electoral support for incumbents have generally been sensitive to the role timing of economic outcomes might play for both voters and politicians. For instance, several studies have investigated the extent to which voters are myopic, caring exclusively about present (and recent) economic conditions (Healy and Malhotra, 2009; Achen, 2012; Healy and Lenz, 2014; Hellwig and Marinova, 2014), and the degree to which incumbent politicians can use this myopia strategically by creating political business cycles and timing elections (Nordhaus, 1975; Smith, 2003; Kayser, 2005). Other studies have tried to discern whether voters focus on past or (their expectations of) the future economy (Lanoue, 1994; Singer and Carlin, 2013; Soroka, Stecula and Wlezien, 2015). Even so, extant research on economic voting have rarely examined the potential role politicians' time in office might have in moderating the economic vote.

This is surprising for at least two reasons. First, a large set of studies within the economic voting literature have identified substantial variation in the economic vote across time and space (see for instance Paldam 1991; Anderson 2006; Duch and Stevenson 2008), variation which could potentially be explained by differences in the tenure of the executive parties up for election. However, in charting the sources

of this variation, extant literature has primarily focused on the relationship between politicians and the economy, suggesting that the clarity of responsibility of the former for the latter can explain the lion's share of variation in the economic vote (Anderson, 2007; Duch and Stevenson, 2008). Further, to the extent that the literature on variation in the economic vote has gone beyond examining the relationship between politicians and the economy, it has primarily focused on how voters' predispositions might make them less or more prone to punish and reward the government for economic outcomes. For instance, showing that voters who identify with the governing party is less likely to punish it for poor economic performance (e.g. Kayser and Wlezien, 2011; Malhotra and Kuo, 2008; Tilley and Hobolt, 2011) or examining whether politically sophisticated voters are more or less likely to react to specific types of economic outcomes (e.g. Gomez and Wilson, 2001; Vries and Giger, 2014).

The second reason, is that we know that time in office influences electoral support. After incumbents are elected they often enjoy a so-called "honeymoon" period, where they are very popular. Further, studies of long-term trends in incumbent popularity have found that there is a depreciation-effect, a cost of ruling, which means that for each year an incumbent is in office, the incumbent will, on average, lose public support (Mueller, 1970; Nannestad and Paldam, 1994; Paldam and Skott, 1995). If there are such temporal trends in the incumbents popularity, it seems plausible that there are also temporal trends in the *sources* which underlie incumbents' (un)popularity. That is, the relative weight of different factors which shape electoral support might very well change during an incumbents' time in office.

Yet despite this, there are at present only two studies which examine time in office in conjunction with the economic vote. The first study, by Nadeau, Niemi and Yoshinaka (2002), include time in office in a larger index of institutional factors (e.g. ideological cohesion of government, number of parties in parliament) and then looks at whether this index correlates with the economic vote. However, they do not examine time in office separately from these other factors. The second study, by Singer and Carlin (2013), does examine the effect of only time in office. However, they are not directly interested in the overall effect of tenure on the economic vote. Instead, they are interested in how the relative importance of different types of economic perceptions change as time in office increases. Further, neither of these studies examine whether tenure conditions the effect of "objective" economic conditions, such as economic growth and unemployment, but relies solely on perceptions of the economy. In spite of these two interesting and innovative studies, we therefore know little about the overall relationship between time in office and the effect economic conditions have on support for incumbents.

Some theoretical expectations

The lack of interest in linking time in office with economic voting might be motivated by the fact that there is little or no reason to expect that such a link exists. However, if one examines the dominant explanation for why economic voting varies across elections, the clarity of responsibility hypothesis, it becomes quite clear that there is, in fact, good reason to expect that economic voting depends on the tenure of the incumbent up for election.

First developed by Powell and Whitten (1993), the clarity of responsibility hypothesis suggests that the extent of economic voting depends on the the extent to which governments are, or seem to be, responsible for economic outcomes. Often, the clarity of responsibility hypothesis is premised on a selection model of economic voting, in which voters use the economic situation to make inferences about the quality of the incumbent. In such a model, clarity of responsibility matters because it determines the noise-to-signal ratio in the economic situation. That is, voters' propensity to vote for the incumbent in low-clarity contexts is not swayed by the economic situation, because they know that the economy is a poor signal of the incumbent's quality (see Duch and Stevenson, 2008, chap. 5 for an example of such a model). In order to investigate this hypothesis, the literature on clarity of responsibility have typically examined whether the extent of economic voting line up with the extent to which political and economic institutions assign responsibility for the economy to governing politicians (cf. Hellwig, 2001; Fisher and Hobolt, 2010; Lobo and Lewis-Beck, 2012) However, clarity of responsibility might also map onto non institutional variables like the incumbent's time in office. More experienced incumbents will, all else equal, have had more time to enact policies which affect economic conditions. Accordingly, as time in office increase, the quality of the economic situation might become more closely related to the quality of the incumbent, which may lead voters to hold experienced incumbents more responsible for economic outcomes. Based on the clarity of responsibility hypothesis, it thus seems reasonable to expect that as an incumbent's time in office increases, so does the electorates penchant for punishing or rewarding this incumbent based on the quality of economic outcomes.

However, this expectation is potentially challenged if one recasts the selection model underlying the clarity of responsibility hypothesis as a Bayesian learning model (e.g. Gerber and Green, 1999; Granato et al., 2015). Bayesian learning asserts that when people make inferences, these are based upon a set of prior beliefs, which are then updated when people encounter some new piece of evidence. In the present context, this would mean that voters have some prior belief about the incumbent's quality, which they then update when presented with a piece of evidence which speaks to this quality. A piece of evidence like the economic sit-

uation. How much they rely on their prior beliefs, and how much they rely on new evidence when making inferences, depends on how strong their prior beliefs are, that is how likely they think it is that the incumbent is either good or bad before being presented with the economic situation, and how strong the evidence is, that is how likely it is that a high (or low) quality incumbent will produce an economic situation of a given quality.[2] In determining what role tenure plays in such a Bayesian learning model, the important part of this equation is the strength of the prior beliefs about incumbent quality. It seems reasonable to assert that as time in office increase, voters' prior beliefs, that is voters' beliefs prior to taking the present economic situation into account, will become stronger. This, as voters prior beliefs about an experienced incumbent's quality are not really "prior" in the sense of being non-evidence based. As such, even though the prior beliefs are the beliefs held before taking the *present* economic situation into account, the beliefs are a product of plenty of *past* evidence, which also inform voters about the incumbent's quality. One example of such past evidence is the economic situation at earlier elections in which the now experienced incumbent was in power. For incumbents with sufficient experience, these strong prior beliefs should crowd out the importance of new evidence, such as the present economic situation, in the belief formation process, creating a negative relationship between tenure and the economic vote. Put differently, as time in office increases, the amount of evidence about incumbent quality which voters have at their disposal increase, making any new piece of evidence, such as present economic conditions, less decisive (in appendix A we present a formalization of this argument).

As this brief theoretical discussion of the economic voting process reveals, different forces might simultaneously work on economic voting as time in office increases. On the one hand, increasing clarity of responsibility might make economic voting more prevalent, on the other hand increasingly strong prior beliefs about the incumbent might make economic voting less prevalent. In sum, it is not possible to provide any unambiguous theoretical expectations for how incumbent tenure and economic voting is related. Even so, the possible existence of these countervailing forces motivates a thorough investigation of the empirical relationship between incumbent tenure and economic voting.

Country-level empirics

Is there in fact an empirical relationship between tenure and economic voting? To begin answering this question, we examine a country-level dataset of national elec-

[2]Notice that this model is in line with the clarity of responsibility literature in the sense that high-clarity implicates that the economic situation is strong evidence of incumbents quality. As such, if the incumbent is clearly responsible for the economic situation, it is not very likely that a high quality incumbent will oversee a poor economic situation.

tions. This type of data has been used to study variation in the economic vote in numerous other studies (cf. Powell and Whitten, 1993; Whitten and Palmer, 1999; Hellwig and Samuels, 2007; Kayser and Peress, 2012). The underlying assumption in these studies, is that one can measure the level of economic voting by looking at the correlation between economic indicators and the support for incumbents, and, in turn, use variation in this correlation to infer whether specific factors, such as tenure, change the degree to which voters hold politicians accountable for economic outcomes.

The chief advantage of this approach is that it sidesteps problems of endogeneity related to using voters *perception* of the economy, using objective economic indicators instead (Kramer 1983, Van der Brug, Van der Eijk and Franklin 2007, 26). The chief disadvantage is that the economic indicators used are country-level aggregates, which makes them quite noisy estimates of the economy as experienced by the individual voter (Duch and Stevenson, 2008, 26). To overcome this problem, we try to use a large sample of elections, and, in the next section, try to replicate our findings using a subjective measure of economic conditions.

Data and model

We use a dataset of 327 elections across 33 countries (see appendix B for a list of countries and elections). To get such a wide cross section of elections, we use and amend datasets already developed by Kayser and Peress (2012) and Hellwig and Samuels (2007). The key dependent variable is percentage point change in electoral support for the *executive party* at legislative elections (Δy).[3] The executive party is the party which had primary control with the executive branch at the time of the election (i.e. the party of the prime-minister or the president). Using the executive party rather than the parties in government is common in the literature (see for instance Duch and Stevenson 2008). Further, several studies have shown that the executive party is much more prone to electoral judgment among voters than other governing parties (Van der Brug, Van der Eijk and Franklin, 2007; Fisher and Hobolt, 2010; Debus, Stegmaier and Tosun, 2014).

The key independent variables are economic growth (gr) and tenure in office (ten). Economic growth is a proxy for economic conditions in the country and is measured as GDP per capita growth in the election year (pct.). This indicator is used, because it is available for a large cross section of elections and because it has been widely used in the previous literature. Data on economic growth was taken from the World Bank's database. Time in office is measured as the number

[3] As such, even in presidential systems where the president is directly elected by the voters, it is not support for the president which is used, but rather votes for the president's party in the legislature. This makes the different system's more comparable. The election results used are from the lower house if the legislature is bicameral.

of years since the election in which the current executive party got into power. We focus on the tenure of parties, since the main dependent variable is support for the executive party in legislatures. Data on tenure is taken from the database on political institutions (Beck et al., 2001), and has been extended by the author to create better coverage for the electoral variables. See appendix C for descriptive statistics on all variables.

Turning to modeling, we set changes in electoral support as a linear function of tenure, economic growth and an interaction between the two. We also include fixed-effects for time (π_t) in order to control for any time-trends in tenure, growth and electoral support. However, since the elections are not evenly spaced out, we do not include a dummy for each year, but one for every five-years (starting in the first year for which we have data, 1960). This should safely remove any global time-trends, while not using up to many degrees of freedom. As such, the baseline model we estimate can be described as:

$$\Delta y_{it} = \beta_1 gr_{it} + \beta_2 ten_{it} + \gamma gr_{it} \times ten_{it} + \pi_t + \epsilon_{it} \quad (1)$$

The coefficient of interest is γ, which signifies the change in the effect of economic growth as tenure increases. If the coefficient is negative, it means economic voting decreases with time in office. If the coefficient is positive, it means that economic voting increases with time in office.

Results

Table 1 present key estimates from model (1) in column one. It is estimated using an OLS regression, and the standard errors are estimated with clustering on the country-level. The baseline growth and tenure effects should be interpreted as the effect of the variable when the other variable is held at zero. The base-line effect of economic growth is thus estimated to be 0.42, and can be understood as the (theoretical) effect of economic growth on change in electoral support if an incumbent runs for reelection without any tenure.

The variable of interest is the interaction between economic growth and tenure. The interaction is statistically significant and negative, suggesting that the positive effect of economic growth at the beginning of an executive party's tenure diminishes over time. Specifically, the estimate suggests, that each year the effect of economic growth on electoral support drops 0.04 from the starting point of 0.42. Accordingly, this model suggest that after about ten years in office, the effect of economic growth is essentially zero.

How sensitive is this finding to different model specification? To investigate this, the model is extended in two ways. The first extension is inclusion of country fixed-effects to control for any time invariant country-specific factors. This is done

in column two of table 1. This leaves the results substantively unchanged, although the interaction is only significant at the 10 pct. level.

Table 1: OLS regression of changes in executive party vote share

	(1)	(2)	(3)
Economic growth	0.39^{+}	0.35	0.49*
	(0.21)	(0.21)	(0.22)
Tenure	-0.04	-0.31*	-0.82*
	(0.11)	(0.14)	(0.36)
Economic growth $\times$ Tenure	-0.04*	-0.03^{+}	-0.05*
	(0.02)	(0.02)	(0.02)
Time FE	✓	✓	✓
Country FE		✓	✓
Leader FE			✓
R^2	0.05	0.24	0.66
RMSE	7.27	6.87	5.64
Observations	327	327	327

Standard errors in parentheses.
Standard errors clustered by country.
$^{+}$ $p < 0.10$, * $p < 0.05$

The second extension is the inclusion of leader-fixed effects. That is, a dummy for each of the 128 different incumbents in the dataset.[4] Including the leader-fixed effects mean that any factors which are constant within the same incumbent is omitted when estimating the interaction. As such, the model estimates the interaction by comparing the degree to which the same executive party is punished (or rewarded) for the economic situation across elections, rather than comparing how harshly different executive parties with different levels of tenure are punished. The leader fixed-effects are included in the model estimated in the third column of table 1. In this specification, the interaction-effect is virtually unchanged and statistically significant at the five percent level. Figure 1 plots the interaction using this, the most demanding, specification.

In the supplementary material, two additional robustness checks are laid out. First, we look at whether adding additional controls for parliamentary and government composition affects the results. This means omitting a large number of elections, for which this information is not available, however, the interaction estimates remain unchanged (see appendix E for details). Second, we look at whether a single country is driving the results. We find that the interaction estimates in model 1 and 3 are not sensitive to excluding a single country, but the interaction coefficient in model 2 seem to change quite a lot if one excludes Luxembourg. Accordingly, the estimates from model three and one should probably carry more weight with the reader, than those found in model 2 (See appendix H for details).

[4]The leader-fixed effects counts an executive party which returns to power after being defeated as a new incumbent. For instance, the United Kingdom has five different incumbents in the dataset across 11 elections, in spite of the fact that only two different parties were in power in at these elections.

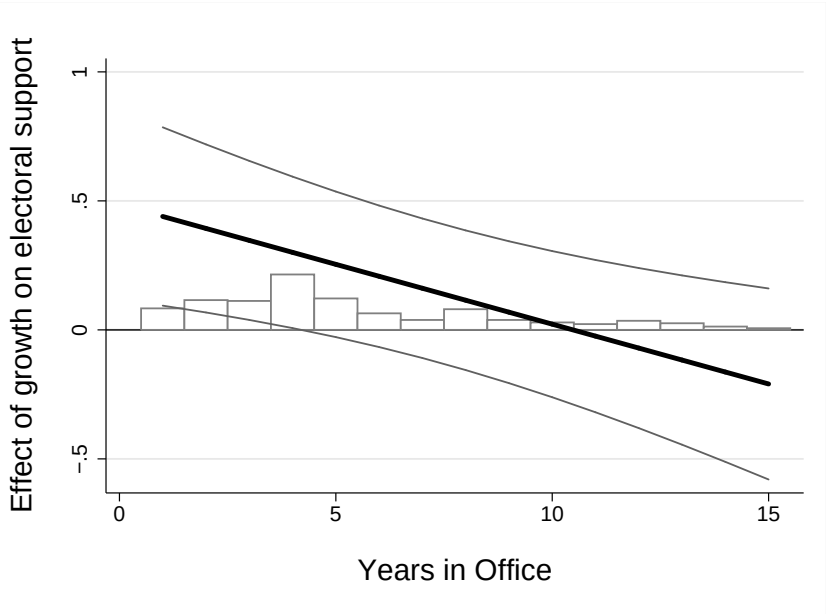

Figure 1: Marginal effects of economic growth on change in electoral support for the executive party across levels of tenure with 90 pct. confidence intervals. Derived from column three of table 1. Bar plot shows the density of the years in office variable.

In conclusion, the evidence suggests that economic growth becomes a less important determinant of the executive party's vote share as the party's time in office increases. That is, the economy seem to matters less for more experienced incumbents.

Before moving on, one alternative explanation for the findings, deserve to be discussed. One might suspect, that the negative correlation between tenure and economic voting is due to strategic election-timing. As such, what we see above might simply be a reflection of the fact that certain types of leaders call early elections, and are more likely to have less tenure when they are running. In the supplementary material, we examine this alternative explanation by trying to control away election-timing in two different ways; (1) including a control for the number of times an incumbent has called an election and (2) restricting the sample of elections to countries with fixed terms. These analyses show that in the most demanding specification, which include leader fixed-effects, the interaction remains negative, is of the same size, and statistically significant at the ten percent level (see appendix D for details).

Individual-level empirics

Having established a relationship between economic voting and the tenure of the executive-party at the country-level, we now explore the same relationship at the

individual-level. Specifically, we try to delineate whether the relationship between voters' perceptions of the economy and support for the executive party follow the same pattern as the one identified for the country-level data. That is, to what extent voters rely less on their perceptions of the national economy when deciding whether to vote for a more experienced incumbent.

To do this we closely follow a recent study by Nadeau, Lewis-Beck and Bélanger (2013), who investigated the relationship between national economic perceptions and the vote for executive parties in 10 Western European countries across the past twenty years. This gives us a well-established model of the economic vote, and allows us to simply extend this model to include an interaction between tenure and the economic percepts.

It is important to motivate, what we hope to gain from this replications. First, since results in the comparative economic voting literature are known to be quite unstable (Paldam, 1991), it makes sense to replicate the findings made above on a new dataset. As such, if we get similar results using a new dataset, it will be more likely that what we found above is in fact generalizable. Second, using the European Election Study, which runs outside the national election cycles, makes it possible to sidestep any additional concerns, which one might have concerning the extent to which the results are driven by election-timing. Finally, using a dataset which focuses on economic perceptions rather than objective economic conditions might help us understand the implications of the findings more clearly.

Data and model

We use the European Election Studies (ESS). The EES is a survey of all EU countries which have been conducted every fifth year since 1979. They are fielded in the year of European Parliamentary elections, and their timing is therefore somewhat independent of national elections. We use the six Europe-wide studies which have been conducted since 1989 (i.e. '89, '94, '99, '04, '09 and '14), as these are the only surveys which include questions about national economic perceptions as well as vote intention in national elections. Moreover, we focus on the ten countries which have participated in all five survey-rounds: Denmark, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain and the United Kingdom (see appendix B for details about the sample used). This gives us 60 cross-sectional national surveys, which can be pooled to test whether the effect of economic perceptions depend on the tenure of the executive party.

Turning to indicators, the key dependent variable is whether respondents report, that they would vote for the executive party if a national legislative election was held tomorrow ($reelect$).

The key independent variables are tenure and national economic perceptions.

Tenure (ten) is measured as the number of years the executive party had been in power at the time of the survey. Once again this variable is taken from Beck et al. (2001), and extended to provide complete coverage for the 60 surveys. National economic perceptions (NEP) are measured using a question, which asked respondents whether the economic situation in their own country had gotten better or worse in the past 12 months. Responses were recorded on a five point scale (except for the 1994 election which used a four point scale). See appendix C for exact question wording of all questions and for descriptive statistics.

We employ the same control variables as Nadeau, Lewis-Beck and Bélanger (2013) use for their standard economic voting models, that is, respondents ideology ($ideology$), self-perceived class ($class$) church attendance ($religion$), a dummy indicating whether the respondent voted for the executive party at the last election ($reelect_{lag}$,).[5] All variables were rescaled to go from zero to one, and recoded so that higher values were likely to mean a higher probability of voting for the executive party.[6]

We model the probability that voters report an intention to vote for the executive party as a logistic function of national economic perceptions, tenure, an interaction between the two and the individual level controls. As such, the model we estimate can be described as:

$$Pr(reelect) = logit(\alpha_0 + \alpha_1 NEP_{ijt} + \alpha_2 ten_{it} + \gamma ten_{it} \times NEP_{ijt} + \mathbf{X}_{ijt}\beta + \epsilon_{ijt}) \quad (2)$$

Where i indicates country, t year and j the respondent. $\mathbf{X}$ is row vector of the control variables $ideology$, $class$, $religion$ and $reelect_{lag}$ and β is a column vector of coefficients attached to these controls. The coefficient of interest is once again γ, which signifies the change in the effect of national economic perceptions as tenure increases. Based on the results for the country-level data, which showed that the effect of economic conditions decrease with time in office, we expect γ to be negative.

Results

In the first column of table 2, we estimate the parameters of model (2) using a multilevel logistic regression. We cluster the standard errors at the country-level and estimate random effects at the survey-level.

Column one in table 2 presents the key estimates from the model. Ideology, class, religion and lagged executive party vote all have the expected signs, and,

[5] We exclude a control used by Nadeau, Lewis-Beck and Bélanger (2013) measuring time since the last election, since this variable is very closely related to tenure.

[6] As such, religion, class, and ideology were coded differently across different surveys to take differences in the ideological position of the executive into account.

apart from religion, are statistically significant. The base-line economy and tenure effects should (once again) be interpreted as the effect of the variable when the other variable is held at zero. The base-line effect of national economic perceptions is estimated to be 1.22, and can thus be understood as the (theoretical) effect of going from one end of the national economic perceptions scale to the other on the logit probability of voting for an executive party without any tenure.

The key estimate of interest is the one attached to the interaction between national economic perceptions and tenure, which signifies how the effect of national economic percepts change as tenure increases. The interaction-coefficient is statistically significant and negative, suggesting that the positive effect of the respondents' perception of the national economy at the beginning of an executive party's tenure diminishes over time. An interaction effect similar to the one found in the country-level data.

Table 2: Multi-level logit model of voting for executive party

	(1)	(2)	(3)
National Economic Perceptions	1.22*	1.90*	1.88*
	(0.05)	(0.22)	(0.22)
Tenure	-0.05*	-0.02	
	(0.01)	(0.04)	
National Economic Perceptions × Tenure	-0.08*	-0.06*	-0.06*
	(0.00)	(0.02)	(0.02)
Lagged executive party vote	4.36*	4.37*	4.37*
	(0.16)	(0.16)	(0.16)
Ideology	2.33*	2.32*	2.34*
	(0.24)	(0.24)	(0.25)
Religiosity	0.07	0.07	0.08
	(0.09)	(0.09)	(0.09)
Class	0.32*	0.30^{+}	0.30^{+}
	(0.14)	(0.16)	(0.16)
Survey RE	✓	✓	✓
Leader FE		✓	✓
Survey FE			✓
Observations	39,556	39,556	39,556

Standard errors in parentheses.
Standard errors clustered by country.
Tenure omitted in column 3 due to collinearity with Survey FE.
$^{+}$ $p < 0.10$, * $p < 0.05$

We also investigate the sensitivity of these individual-level findings to different model specifications. In column 2 we include leader fixed-effects (cf. the country-level data). This more demanding model does not change the conclusions, as the interaction remains negative and statistically significant. In column 3 we introduce survey fixed effects, that is a dummy for each of the sixty surveys. The interaction between national economic perceptions and tenure remains negative and statistically significant.[7]

[7]This result is robust to a two-step estimation procedure, cf. appendix F. The results are also not

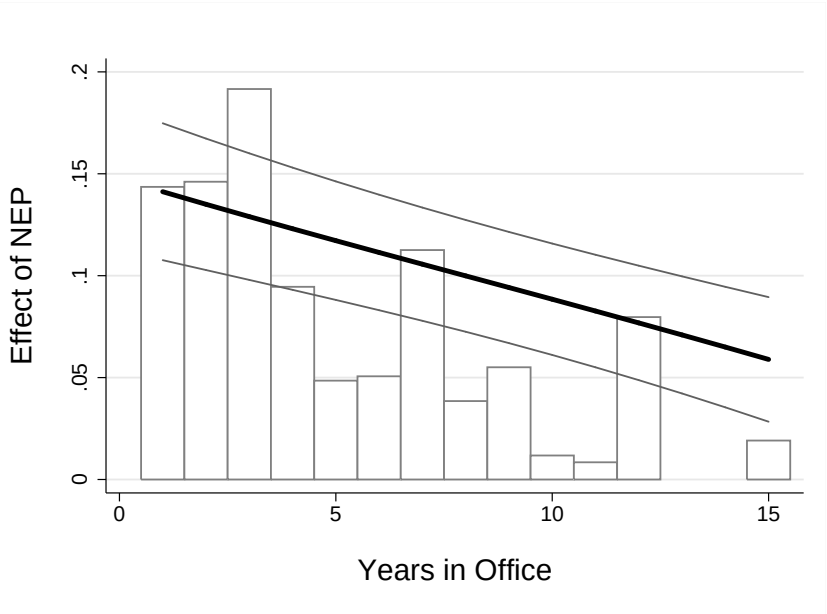

Figure 2: Average marginal effects of national economic perceptions on probability of voting for the executive party across levels of tenure with 90 pct. confidence intervals. Derived from model in column 3 of table 2. Bar plot shows the density of the years in office variable.

In order to investigate the exact consequences this negative logistic interaction has for the average effect of economic perceptions on the probability of voting for the executive party, we derive average marginal effects of these perceptions across different levels of tenure based on the model with survey fixed-effects. These average marginal effects are plotted in figure 2. This figure reveals that the average marginal effect of national economic perceptions is substantially reduced as tenure increases. For an executive party with one year of tenure the effect of a voter going from one end of the economic perception scale to the other is a change in probability of voting for the executive party of about 15 percentage points. For an executive party with about 15 years of tenure the same change leads to a seven percentage point change. A comparison of the average marginal effect at one years of tenure and fifteen years of tenure reveals, that this decline is statistically significant ($p < 0.05$).

There is one important inconsistency between the results identified here, and those for the country-level data. While both datasets show the economic vote decreasing with time in office, the decline seems to be less dramatic in the individual-level data. As such, in the country-level data the estimated effect of the economy is essentially zero after ten years (cf. figure 1). In the individual level data there is still a substantial economic vote left after ten years (cf. figure 2). One explanation

sensitive to outliers, cf. appendix H.

for this inconsistency is that the individual-level data overestimates the amount of economic voting for incumbents for all levels of time in office.

There is some evidence in the extant literature on economic voting, which suggests that we do in general overestimate economic voting, when using voters perceptions of the economy rather than objective economic conditions (Evans and Andersen, 2006; Evans and Pickup, 2010; although see Lewis-Beck, Nadeau and Elias, 2008). Since we use voter perceptions in the individual-level data, this might explain the discrepancy between these data and those on the country-level. The reason for the overestimation, previous studies suggest, is that partisan voters will adjust their perceptions of the economy based on their underlying party-preferences (see also Tilley and Hobolt, 2011; Gerber and Huber, 2010). Accordingly, part of the correlation between economic perceptions and incumbent support identified in table 2 is potentially driven by a tendency among voters, who always prefer the government to other parties, to evaluate economic conditions as more favorable than other voters.

To examine whether such motivated reasoning among partisans might explain the inconsistencies between the country-level data and the individual-level data, we reproduced figure 3, using a smaller restricted sample. Specifically, we did not include those who voted for the incumbent at the last election, because these are more likely to be incumbent partisans and thus engage in the type of "wishful thinking" described above.[8]

As can be seen from figure 3, the pattern identified in this censored sample matches up more closely with that found for the country-level data, than what we found for the full sample. This lends credibility to the conclusion that both datasets paint a similar picture of the relationship between time in office and economic voting, and that the small differences we do see are due to methodological idiosyncrasies of the specific way the two datasets measure the economic vote.

Taken together, the individual-level findings thus reaffirm that the economy loses at least part of the influence it has on the electoral support for the executive party, as the tenure of the executive party increases.

Implications for electoral accountability

Economic voting has long been thought as a mechanism which reinforces electoral accountability. As such, if one assumes that the economy is an indicator of incumbent quality and effort, then a positive relationship between economic performance and electoral support for incumbent's will translate into high electoral support for high quality incumbents and low electoral support for low quality incum-

[8] A more standard measure of partyn identification would be preferable, however, no such measure is included in the survey.

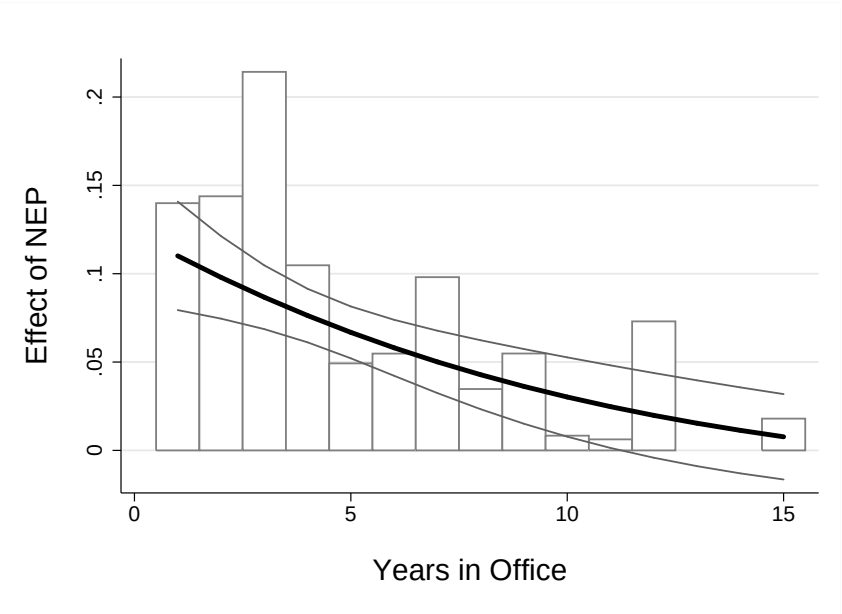

Figure 3: Average marginal effects of national economic perceptions on probability of voting for the executive party across levels of tenure with 90 pct. confidence intervals. Derived from model using respondents who did not vote for the executive party at the last election with survey fixed effects. See appendix G for details. Bar plot shows the density of the years in office variable.

bents (Hellwig and Samuels, 2008). In this light, the results presented above, which suggest that voters become less electorally sensitive to the economic performance of incumbents, as incumbents time in office increase, are potentially problematic. If experienced incumbents are not be held accountable for economic performance, incumbents electoral incentives change with time in office, giving them less reason to provide good economic outcomes (Ferejohn, 1986). Also, if an incumbent's quality deteriorates, voters will not necessarily recognize this, but still perceive the incumbent as high-quality due to the incumbent's historical performance (Alesina and Rosenthal, 1995).

Related to this, it is interesting to investigate, whether there are any signs that the decrease in economic voting, caused by time in office, leads experienced incumbents to provide less favorable economic conditions for their electorate. That is, whether politicians become less focused on providing good outcomes as voters become less inclined to reward them for such outcomes. To investigate this, we revisit the country-level data.

Using the country-level data, we estimate a set of models, which try to predict economic growth in the election year using an OLS regression with time in office as the independent variable. In separate models we then add year fixed effects, country fixed effects and leader fixed effects. The key estimates from these models, the effect of tenure on economic growth, are presented in table 3. As can be seen

from this model, there is no statistically significant effect of tenure.

Table 3: OLS regression of economic growth

	(1)	(2)	(3)	(4)
Tenure	-0.01	-0.03	-0.02	0.04
	(0.03)	(0.03)	(0.04)	(0.18)
Time FE		✓	✓	✓
Country FE			✓	✓
Leader FE				✓
R^2	0.00	0.11	0.22	0.46
RMSE	3.08	2.94	2.91	2.98
Observations	327	327	327	327

Standard errors in parentheses.
Standard errors clustered by country.
$^{+}$ $p < 0.10$, * $p < 0.05$

Why does the economic performance of the executive parties not decline along with economic voting? It is beyond the scope of this paper to give an empirically grounded answer to this question. Even so, there are several possible reasons. For instance, incumbents may still (wrongly) believe, that they are held equally accountable for economic conditions across their time in office. Or perhaps some other force than economic voting ensure that politicians continue to exert effort and remain high quality. No matter the reason, however, the fact that more experienced incumbents do not provide less favorable economic outcomes is reassuring. As such, the decrease in economic voting does not seem to be mirrored by a decrease in electoral accountability, in the sense that it does not seem to be mirrored by a decrease in the quality of incumbents.

Subnational Empirics

Conclusion

The British parliamentary elections of 1997 and 2001 featured two very different incumbents. One was the Conservative party. In power for 18 years and headed by John Major. Prime Minister for seven years and cabinet member for the last ten. The other was the Labour party. In power for four years and headed by Tony Blair. Prime minister with a shiny new cabinet. As British voters searched for clues in 1997 and 2001 about the quality of the incumbent, some probably examined the economic situation. When these voters decided to what extent the economic situation should be leveraged in their eventual electoral decision, did the fact that these incumbents were so different matter? Did the fact that the incumbent up for election in 1997 had been in power for almost two decades make them use the economy differently, than in 2001, when the incumbent had only been in power for four years? Answers to these questions cannot be found in the existing literature on

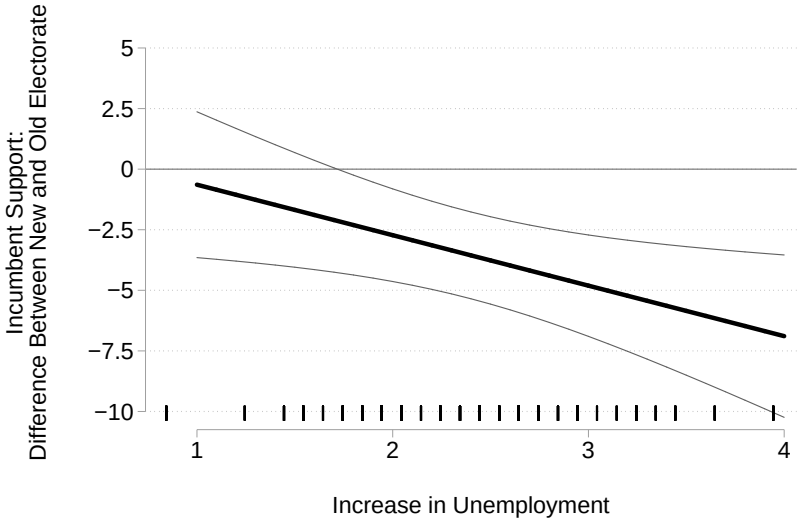

Figure 4: Difference in support for Mayoral party between voters old and those with new Incumbent.

Table 4: Change in support for Mayoral party '05-'09 (percentage points)

	(1)	(2)	(3)	(4)
New Electorate	-3.08*	1.92	1.91	1.44
	(1.15)	(2.76)	(2.77)	(2.72)
Increase in Unemployment Rate		0.00	0.00	0.00
		(.)	(.)	(.)
Increase in Unemployment Rate × New Electorate		-2.13+	-2.14+	-2.08+
		(1.10)	(1.10)	(1.05)
Support for Mayoral Party 05	-63.08*	-63.15*	-62.95*	-62.75*
	(7.75)	(7.74)	(7.64)	(7.26)
Right Wing Mayor				-10.63*
				(0.98)
Proportion of Votes for Right Wing parties				19.45*
				(7.88)
Turnout			5.83	-1.96
			(7.27)	(6.04)
Log of Eligible Voters			-0.31	0.12
			(0.37)	(0.31)
Municipality FE	✓	✓	✓	✓
R^2	0.82	0.83	0.83	0.84
RMSE	7.27	7.25	7.24	7.04
Observations	1,465	1,465	1,465	1,465

Standard errors clustered by municipality.

economic voting, which has generally given sparse attention to how differences in incumbent characteristics, like tenure, might moderate the economic vote. Instead, this literature has primarily focused on how political and economic institutions affect voters propensity to hold incumbents electorally responsible for the economy.

In this article, we have tried to amend this by providing an empirical investigation of whether there is a relationship between economic voting and time in office. Specifically, we have shown that the electoral support for executive parties become more independent of the economic situation as their time in office increase. A finding which was arrived at using two markedly different datasets, a country-level and an individual-level dataset using respectively an objective and a subjective measure of economic conditions. A finding which was robust across various demanding statistical specifications within each dataset.

It is also a somewhat surprising finding, given the fact that incumbents are likely to be more responsible for the quality of economic conditions as time in office increases, and accordingly, following the large literature on clarity of responsibility, should be held more accountable for economic performance as time in office increases, not less.

One explanation for a negative relationship between tenure and economic voting, proposed above, is that voters generally know more about experienced incumbents quality than they do about new incumbents, which make the economic situation a less important factor in the decision on whether to reelect the former. The logic here is that voter learning about incumbent quality is Bayesian, and therefore partly based on their prior beliefs about the incumbent. In particular, voters prior beliefs about incumbent quality, that is the beliefs they hold before observing economic conditions, are likely to be stronger for more experienced incumbents, as prior beliefs about experienced incumbents, have been informed by years of evidence as to the incumbents quality, and accordingly, any new piece of evidence on incumbent quality, evidence like the economic situation, matters less. Returning to the example above, the present study thus suggest that when deciding whether to reelect the British incumbents, voters relied more on the economic accomplishments of the relatively new Labour administration than they did the economic accomplishments of the relatively old Conservative administration. A difference borne out of voters multitude of past experiences with the Conservative incumbent, and their lack of similar experiences with the Labour incumbent.

Turning to limitations, this study has focused on a large subset of countries and elections, however, the empirics is still mainly focused on Western countries, which of course limits the generalizability outside these countries. Further, while this study has done much to sidestep concerns related to endogeneity, using panel data with country, year and leader fixed-effects, the observational nature of this study makes it hard to know for sure whether the effect of tenure on economic vot-

ing is causal. The main limitation, however, is related to explaining exactly why incumbent tenure crowds out economic voting. The Bayesian learning model advanced above is one potential mechanism, however, there might be others. For instance, changing priorities among voters or changing patterns of partisanship. Unfortunately, while the design leveraged in the present study is good for identifying broad patterns in the economic vote, it comes up short in delineating causal mechanisms; a difficult task even if one has experimental data (Bullock, Green and Ha, 2010). However, future research might be able to uncover such mechanisms, by way of using controlled survey or lab experiments (for work along these lines see Mitchell, 2012). Related to this, future research could also delve into which factors become more important as the explanatory power of the economy wanes. Do voters, for instance, become more interested in the ideological position of the executive party and/or specific policies as tenure increases, or do electorates simply become less malleable, in general, as incumbents time in office increase.

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Supplementary materials: Online appendix

Appendix A: A formalization of the Bayesian learning model

In this model we examine a voter who has to decide whether to reelect an incumbent. We start of by assuming that the voter is more likely to reelect the incumbent if the voter believes the incumbent is more competent. Given this assumption, the voter's goal is to construct a set of rational beliefs about the incumbent's competence given the available evidence. Specifically, imagine an incumbent I which was elected at $t = 0$, and who is now up for reelection at $t = 1$. We denote the incumbents competence as C_I. Based on the voter's previous experience with incumbents (s)he starts of with a normally distributed prior belief about C_I, which we standardize to have a mean of zero with a variance of 1.

Since voters are interested in the incumbents competence, C_I, the voter tries to infer how competent the politician is based on the economic situation, y, which is affected by C_I. However, the economy is also affected by a non-competence related shock ϵ, which is independently and identically drawn in each period from a normal distribution with mean zero and variance σ_ϵ^2. Accordingly, the economic situation at $t = 1$ is:

$$y_1 = C_I + \epsilon_1 \tag{3}$$

In this equation, voters only observe y_1, however, voters know the distribution the non-competence related shock is drawn from. That is, voters know how much of the variance in the economic situation which is due to non-competence related shocks. As such, voters are faced with a signal extraction problem, which the voter can solve by using Bayes rule to update his or her prior information about C_I using y_1. This leaves voters with the following posterior beliefs about C_I:

$$C_I|y \sim N(\frac{1}{1+\sigma_\epsilon^2}y_1; \frac{\sigma_\epsilon^2}{\sigma_\epsilon^2+1}) \tag{4}$$

From this we can see that the voter's belief about the incumbents expected competence is increasing in y_1. That is, a better economic situation leads the voter to infer that the incumbent is likely to be more competent. Specifically, the effect of a one unit increase in y_1 on expected competence is $\frac{1}{1+\sigma_\epsilon^2}$. As such, the effect of beliefs about competence is moderated by σ_ϵ^2. That is, as the variation in non-competence related shocks to the economy increases, it is more likely that any variation in the economic situation is due to non-competence related shocks, and accordingly the economy becomes a less efficient estimator of the incumbent's competence (this is similar to the clarity of responsibility hypothesis).

Now imagine the incumbent is reelected in $t = 1$. In period $t = 2$ the voter now has to decide once again whether to vote for the incumbent. However, now

the voter's prior beliefs about the incumbent incorporates the information obtained about C_I at $t = 1$. That is, voters prior beliefs have a mean of $\frac{1}{1+\sigma_\epsilon^2} y_1$ and a variance of $\frac{\sigma_\epsilon^2}{\sigma_\epsilon^2+1}$. Note that the variance of the new prior is smaller than the original prior, since $1 > \frac{\sigma_\epsilon^2}{\sigma_\epsilon^2+1}$ for all possible values of σ_ϵ^2. Voters update this prior using Bayes rule based on the economic situation in $t = 2$, y_2, which is equal to:

$$y_2 = C_I + \epsilon_2 \tag{5}$$

This leaves the voter with the following posterior belief about the incumbents competence.

$$C_I | y_2, y_1 \sim N(\frac{1}{(\sigma_\epsilon^2 + 2)} y_1 + \frac{1}{(\sigma_\epsilon^2 + 2)} y_2; \frac{\sigma_\epsilon^2}{\sigma_\epsilon^2 + \frac{\sigma_\epsilon^2}{\sigma_\epsilon^2+1}}) \tag{6}$$

Just like in period 1 a better economic situation in period 2, y_2, is used to infer that incumbents competence is higher, and just like in period 1, σ_ϵ^2 attenuates the degree to which voters can use the economic situation to make inferences about C_I.

However, there is one key difference from period 1; the effect of the economic situation on the voter's expectations about the incumbents competence have decreased. In period one the effect of a one unit increase in y_1 was $\frac{1}{1+\sigma_\epsilon^2}$, in period two the effect of a one unit increase in y_2 is $\frac{1}{2+\sigma_\epsilon^2}$. Accordingly, variation in the economic situation has less bearing on how competent voters expect the incumbent to be, when the incumbent is up for re-election the second time. This as information about incumbent competence from the last election is used to construct the voter's prior beliefs about competence in the next election. This is the key result from the model, which underlines the assertion made in the theoretical discussion of the article: as voters get more time to get acquainted with an incumbent's competence, the present economic situation plays a smaller role in shaping voters beliefs about the incumbent and, in turn, whether they decide to reelect the incumbent.

Appendix B: Description of the samples

In tables 5 and 6 the samples used in the country-level and individual-level data are described.

Table 5: Elections included in the country-level analysis

Country	First election	Last election	# of elections
Argentina	1985	2001	9
Australia	1961	2007	19
Austria	1971	2008	12
Belgium	1961	2007	15
Canada	1962	2008	16
Colombia	1982	2002	7
Costa Rica	1982	2002	6
Denmark	1964	2007	18
Dominican Republ	1990	2002	4
Ecuador	1984	1998	8
El Salvador	1985	2000	6
Finland	1962	2007	13
France	1968	2007	10
Germany	1972	2009	11
Greece	1981	2009	9
Iceland	1963	2007	13
India	1980	1998	6
Ireland	1973	2007	10
Israel	1969	2006	11
Italy	1972	2008	10
Luxembourg	1979	2009	7
Netherlands	1963	2006	14
New Zealand	1978	2008	11
Norway	1969	2009	11
Papua New Guinea	1987	2002	4
Portugal	1980	2009	10
Spain	1979	2008	9
Sweden	1976	2006	10
Switzerland	1983	1999	5
Trinidad and Tobago	1991	2000	3
Turkey	1987	2002	5
United Kingdom	1964	2010	12
United States	1978	2002	13
Total			327

Table 6: Respondents included in the individual-level analysis

Country	1989	1994	1999	2004	2009	2014	Total
Denmark	576	1,113	682	863	801	1,004	5,039
France	425	671	271	607	409	901	3,284
Germany	601	890	709	308	576	1,369	4,453
Greece	401	1,049	267	328	597	892	3,534
Ireland	501	929	270	725	564	840	3,829
Italy	488	608	1,398	795	414	764	4,467
Netherlands	391	649	694	597	713	1,025	4,069
Portugal	344	773	214	450	492	746	3,019
Spain	379	718	451	696	596	956	3,796
UK	458	743	540	761	537	1,027	4,066
Total	4,564	8,143	5,496	6,13	5,699	9,524	39,556

Appendix C: Variable descriptions and descriptive statistics

Descriptive statistics for the country-level data are presented in table 7.

Table 7: Descriptive statistics, country-level data

	Mean	SD	Min	Max	n
Support for party last election (pct.)	37.02	12.15	0.00	67.30	327
Growth in GDP per capita (pct.)	3.07	3.07	-7.59	13.85	327
Time in office (years)	6.02	4.62	1.00	30.00	327
Number of terms	2.43	1.75	1.00	12.00	327
Effective number of parties	4.04	1.61	1.61	10.49	309
Fixed term	0.14	0.35	0.00	1.00	327
Coalition partners	1.47	1.26	0.00	3.00	327
Government has majority in legislature	0.71	0.46	0.00	1.00	268

The question wording for the different questions used in this individual-level analyses are as follows.

- Executive party vote: "If there were a general election tomorrow, which party would you vote for?" Executive parties are coded 1, others are coded 0.
- Executive party vote (last election): "Which party did you vote for at the General Election of [Year]?" Same coding as for the vote variable.
- Ideology: "In political matters people talk about 'the left' and 'the right.' What is your position? Please indicate your views using any number on a 10-point scale. On this scale, where 1 means 'left' and 10 means 'right' which number best describes your position?"
- Class: "If you were asked to choose one of these five names for your social class, which would you say you belong to — the working class, the lower middle class, the middle class, the upper middle class, or the upper class?"
- Religion: "How often do you attend religious services: several times a week, once a week, a few times a year, once a year or less, or never?"
- National economic perceptions (NEP): In 1989, 1994, 2004, 2009 and 2014: "What do you think about the economy? Compared to 12 months ago, do you think that the general economic situation in this country is: a lot better, a little better, stayed the same, a little worse, or a lot worse?" In 1999: "How about the state of the [country's] economy? Very satisfied, somewhat satisfied, somewhat dissatisfied, very dissatisfied?"

Descriptive statistics for these individual level variables are presented in table 8.

Table 8: Descriptive statistics, individual-level data

	Mean	SD	Min	Max	n
Executive party vote	0.29	0.46	0.00	1.00	55184
Executive party vote (last time)	0.34	0.47	0.00	1.00	49266
National economic perceptions	0.43	0.28	0.00	1.00	55184
Time in office (years)	5.46	4.24	1.00	17.00	55184
Class	0.45	0.31	-0.33	1.33	52700
Religion	0.53	0.32	0.00	1.17	49165
Ideology	0.50	0.26	0.00	1.00	51030

Appendix D: Strategic election timing in the country level data

To probe the plausibility of the strategic election timing explanation we introduce two different type of controls for election timing.

The first type of control we employ to disentangle election-timing and tenure is a variable which counts the number of times an incumbent has been up for election as the incumbent. We add this variable as a control to the set of models already estimated in table 1. These models are reported in the first three columns of table 9. As can be seen from table 9 the interaction remains negative, it has the same size, and in two of the three specifications it is statistically significant ($p < 0.1$).

Table 9: OLS regression of changes in executive party vote share

	(1)	(2)	(3)	(4)	(5)	(6)
Economic growth	0.45^{+}	0.36	0.56^{*}	0.74^{+}	0.76^{*}	0.75^{+}
	(0.23)	(0.23)	(0.27)	(0.29)	(0.26)	(0.29)
Tenure	-0.07	-0.32	-1.21^{*}	0.09^{*}	0.17	0.60
	(0.20)	(0.24)	(0.59)	(0.01)	(0.12)	(0.41)
Economic growth × Tenure	-0.06^{*}	-0.04	-0.05^{+}	-0.01	-0.00	-0.05^{+}
	(0.03)	(0.02)	(0.03)	(0.01)	(0.01)	(0.02)
Time FE	✓	✓	✓	✓	✓	✓
Country FE		✓	✓		✓	✓
Leader FE			✓			✓
R^2	0.07	0.25	0.67	0.43	0.57	0.90
RMSE	7.34	6.97	5.73	4.76	4.39	2.78
Observations	327	327	327	45	45	45

Standard errors in parentheses.
Standard errors clustered by country.
$^{+}$ $p < 0.10$, * $p < 0.05$

The second way we disentangle election-timing and tenure is by restricting the sample of elections to the five countries in which election dates are fixed. This leaves 45 of the original 327 elections. In these countries the executive cannot time the election, and accordingly, any relationship found between time in office and the importance of the economy cannot be attributed to election timing. Using this restricted sample, we re-estimate the models from table 1. The key estimates from these models, namely those attached to the interaction variables growth and tenure, is reported in the three rightmost columns of table 9. As can be seen from table 9, the interaction effect remains negative, and in the third model, which includes the

leader fixed effects, the interaction is also statistically significant ($p < 0.1$) and of a similar size to that found in table 1.

Taken together, the fact that across both types of control for election timing the interaction remains negative and substantially unchanged in the most demanding specification (model 3), suggests that the results laid out in table 1 were not the result of strategic election-timing. One might argue with this interpretation, stressing that the level of statistical significance drops from a 0.05 to the 0.1 level when introducing these controls. However, the drop in statistical significance can be explained by increasing standard errors, a natural side-effect of introducing a variable which is highly correlated with tenure (i.e. number of terms) or dropping most observations (i.e. those with non-fixed terms). In this regard, it is important to emphasize that the interaction effect sizes are not smaller than those found in table 9, something we would expect, when introducing controls for election-timing, if the interaction between tenure and economic voting was driven by election-timing.

Appendix E: Using controls in the country-level data

Below we add some controls to the models estimated on the country-level dataset of elections. This means dropping a number of observations, about 80, for which we do not have data on the controls. In order to make the estimates with and without controls more comparable, we start by estimating the same models as in table 1 on the smaller sample of elections, for which we have controls. This is done in the three leftmost columns of table 10. As we can see, the results are fairly similar to that found using the full sample. The main difference is that the interaction effect estimated in column two is slightly smaller, causing it to become statistically insignificant. At the same time degrees of freedom decrease, leaving the estimated coefficient in column three significant at the 0.1 rather than 0.05 level.

Next, we introduce the controls. The controls we use are number of government coalition partners, including a dummy for one, two and three or more partners; majority government, including a dummy if the government has more than fifty percent of the seats in parliament; effective number of parties in parliament, a linear index measuring the size-adjusted number of parties in the legislature. All these variables have been taken from the database of political institutions (Beck et al., 2001). They have been chosen with the following considerations in mind: We know that government composition affects economic voting (Ferejohn, 1986, cf.), lessening the clarity of responsibiliy of the executive party over economic policy, and it seems possible that effective number of parties can work in a similar way - the more parties there are to blame for any economic misfortune. Also, it seems likely that government and parliamentary composition can influence tenure, making it a good candidate for confounding. Finally, unlike most other institutional

factors, government and parliamentary composition are not already controlled for using the year, country and leader fixed effects.

In the last three columns of table 10 the controls are introduced. This causes the interaction effects to drop slightly across the line (the drop is about 0.002 for each model). The estimated effects in columns 1 and 3 remain statistically significant at the ten percent level.

In sum, the statistical significance of the interaction coefficient drops, when introducing the controls, however, this is primarily due to a drop in the number of observations analyzed. The estimated effect sizes are comparable to those found in table 10.

Table 10: OLS regression of changes in executive party vote share

	(1)	(2)	(3)	(4)	(5)	(6)
Economic growth	0.40	0.42	0.59*	0.41+	0.45+	0.59*
	(0.25)	(0.25)	(0.25)	(0.22)	(0.24)	(0.25)
Tenure	-0.02	-0.35+	-0.91*	-0.01	-0.32	-0.85*
	(0.13)	(0.19)	(0.44)	(0.14)	(0.20)	(0.40)
Economic growth × Tenure	-0.04*	-0.03	-0.05+	-0.03+	-0.03	-0.04+
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Government has majority in legislature				-0.77	-0.21	-1.41
				(1.10)	(1.21)	(1.75)
One coalition partner				1.79	-0.22	-2.51
				(1.47)	(1.85)	(3.27)
Two coalition partners				1.76	0.23	-1.84
				(1.98)	(2.01)	(3.20)
More than two coalition partners				0.34	-0.67	1.02
				(2.22)	(2.10)	(3.43)
Effective number of parties				0.63	1.02	0.99
				(0.48)	(0.84)	(0.72)
Time FE	✓	✓	✓	✓	✓	✓
Country FE		✓	✓		✓	✓
Leader FE			✓			✓
R^2	0.05	0.28	0.61	0.09	0.29	0.62
RMSE	7.17	6.64	5.87	7.11	6.67	5.86
Observations	250	250	250	250	250	250

Standard errors in parentheses.
Standard errors clustered by country.
$^{+}$ $p < 0.10$, * $p < 0.05$

Appendix F: Two-step models of individual-level data

Another way to examine whether there is an interaction between time in office and national economic perceptions is to estimate a multilevel model which allows for a random slope with respect to national economic perceptions across the different surveys, and then examine whether the size of the survey-sepecific slopes are related to the tenure of the incumbent party at the time of the survey.

To do this, we estimate a set of multi-level logit models of the probability of voting for the executive party with the full set of individual-level controls, omitting

time in office, and instead allowing the effect of national economic perceptions to vary across the surveys (i.e. estimate a random slope model). We estimate three of these models; one with survey random effects, one with leader fixed effects and one with survey fixed effects. For each of these models we obtain sixty different logit coefficients, which represent the effect of national economic perception in the individual surveys. Finally, we plot the logit coefficients against incumbent tenure the time of the survey. This is done for each of the three models in figure 6.

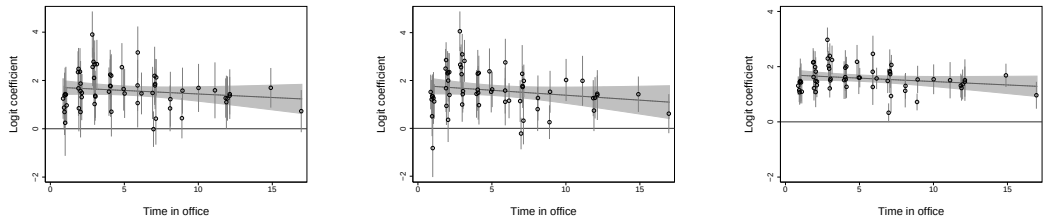

Figure 5: Random slope of NEP plotted with 95 pct. confidence intervals. From left to right the models used for plotting include random effects, leader fixed effects and survey fixed effects. Uniformly distributed random noise added to the horizontal placement of the dots. Linear fit (95 pct. CI).

As can be seen from these figures there is a negative relationship between time in office and the size of the logit coefficients. OLS regressions of time in office on the logit coefficients reveal that the negative relationship is statstically significant ($p < 0.05$, using country clustered standard errors). As such, this alternative way of estimating the effect of time in office on the economic vote gives the same baisc result as that identified above.

Appendix G: Models without incumbent "partisans"

The estimates in column three of table 11 presents the logistic regression which is used for deriving the average marginal effects plotted in figure 3. The estimates in column 1 and 2 show that the interaction variables have approximately the same size irrespective of the specification used (i.e. sample RE and leader FE).

Table 11: Multi-level logit model of voting for executive party

	(1)	(2)	(3)
National Economic Perceptions	2.41*	2.53*	2.51*
	(0.31)	(0.32)	(0.31)
Tenure	0.05	0.00	
	(0.03)	(0.04)	
National Economic Perceptions × Tenure	-0.13*	-0.18*	-0.14*
	(0.05)	(0.05)	(0.05)
Ideology	2.96*	2.98*	2.97*
	(0.28)	(0.28)	(0.28)
Religiosity	0.09	0.02	0.10
	(0.11)	(0.14)	(0.12)
Class	0.26	0.30+	0.29
	(0.17)	(0.17)	(0.18)
Survey RE	✓	✓	✓
Leader FE		✓	✓
Survey FE			✓
R^2			
RMSE			
Observations	25,220	25,220	25,220

Standard errors in parentheses.
Standard errors clustered by country.
$^{+}$ $p < 0.10$, * $p < 0.05$

Appendix H: Sensitivity to outliers

Are the interaction effects presented above based on broad patterns in voting behavior or idiosyncrasies related to just one country? This is always an important question when dealing with time series cross sectional data. In order to investigate whether this was the case for the present analyses, we re-estimated the key models in the country-level and individual-level datasets, looking for evidence of instability in the effect-sizes which stem from the exclusion of one important set of cases.

For the country-level data, we re-estimate the models from table 1 excluding one country, for all country's in the sample. The resulting 33 OLS regression coefficients, attached to the interaction between economic conditions and incumbent tenure, are plotted for each model in the left panel of figure 6. As can be seen from this figure the interaction coefficients in model 1 and 3 seem rather stable, however, in model 2 one of the estimated coefficients deviates substantially from the rest. Inspection of the underlying data, reveals that the omitted country in this context is Luxembourg. There are two reasons why this is not very problematic. First, model 3, which is a more demanding model, does not have a similar problem. Second, Luxembourg is not one of the countries included in the individual-level dataset, and as such the negative relationship between economic voting and tenure, cannot said to describe Luxembourg alone.

For the individual-level data, we re-estimate the models from table 2 excluding one survey, for all survey's in the sample (i.e. country-year). The resulting 60

logistic regression coefficients, attached to the interaction between economic perceptions and incumbent tenure, are plotted for each model in the right panel of figure 6. As can be seen from this figure, the interaction coefficients are relatively stable across all models.

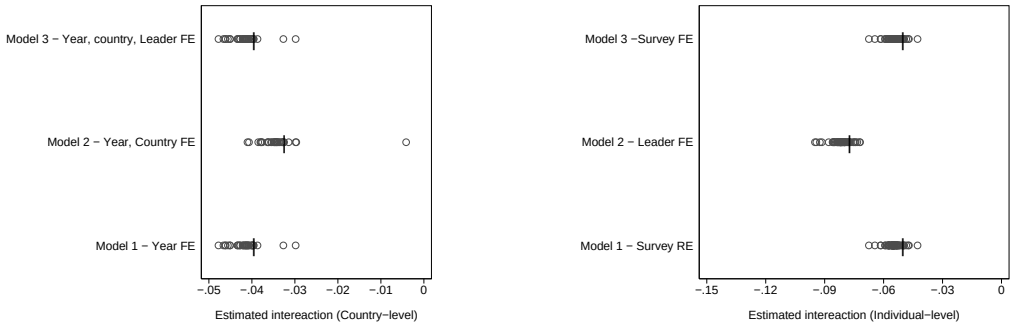

Figure 6: Lines represents interaction coefficient (tenure by economic conditions) from linear and logit models in tables 1 and 2. Each dot in the left panel represent an interaction coefficient from one of the three linear models, estimated with one of the 33 countries omitted. Each dot in the right panel represent an interaction coefficient from one of the the three logit models, estimated with one of the sixty surveys omitted.