Performance pressure: Patterns of partisanship and the economic vote

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Abstract. Numerous studies have demonstrated a weakening identification of voters with political parties in Western Europe over the last three decades. It is argued here that the growing proportion of voters with weak or no party affinities has strong implications for economic voting. When the proportion of voters with partisan affinities is low, the effect of economic performance on election outcomes is strong; when partisans proliferate, economic conditions matter less. Employing Eurobarometer data for eight European countries from 1976 to 1992, this inverse association between partisanship and the economic vote is demonstrated. This finding implies a growing effect for the objective economy on the vote in Europe. It helps explain an important puzzle in the economic voting literature: Weak results in aggregate level cross-national studies of economic voting may be attributable to characteristics of the electorate, not just to the characteristics of government.

Introduction

That economic voting varies across countries is well-known. Since Powell and Whitten (1993) first demonstrated the importance of political context, national differences in economic voting have predominantly been explained by political and institutional features that obscure or clarify government responsibility for economic outcomes. Yet even when accounting for clarity, considerable variation remains in the responsiveness of national electorates to economic aggregates. We propose a simple explanation: that the effect of the economy on support for the government is not only conditioned by political and institutional context, but also by differences among electorates themselves.

Specifically, we propose that the degree of partisanship within an electorate moderates the influence of the economy on voting. Modest variation in economic performance (or any other measure of government performance), though likely to exert only a weak effect on the party preferences of strong partisans, often suffices to change the votes of more fickle unaffiliated voters. We extend this logic to assert that the widely documented decline in partisan

attachment in Europe over the last decades poses important and previously neglected implications for governance and electoral accountability. The rising proportion of nonpartisans (i.e., individuals without an affinity toward a political party) in European electorates implies that voters should respond more to the economy than in the past. The effect of the economy on the vote, in short, should vary in inverse association to the partisanship of the electorate. In countries or periods where fewer voters are closely attached to political parties, the performance of the objective economy should matter more; where partisan attachment remains stronger, the economy should matter less.

Little doubt exists that most Western European electorates have become less attached to parties over the last three decades and, in certain countries, since considerably earlier (Dalton 1996; Mair & Biezen 2001). Dalton and Wattenberg (2002 [2000]: 26) document the substantial drop in partisan identification between 1976 and 1992 in Western Europe, with most of the trend resulting from the defection of weak party sympathisers while the proportion of their more strongly identifying former co-partisans in the electorate remained largely unchanged. Schmitt (2002, 2003) demonstrates a similar pattern continuing through the 1990s.

Debate about the consequences of partisan retrenchment has been more varied. Scholars have connected partisan dealignment to effects ranging from greater volatility in vote shares, to increasingly personality-based politics, to increased split-ticket voting, to an increase in the effective number of parties (Dalton et al. 2002 [2000]). To this list we add an important and previously ignored item: greater influence of the economy on election outcomes. At least since Converse and Dupeux (1962), students of politics have associated strong partisan attachments with a dampened effect of short-term shocks on the vote. We apply this observation to a fundamental area of politics – how voters hold governments accountable for economic performance – and connect it to observed trends in European partisan identification. If partisanship does inure the electorate to short-term shocks, partisan decline implies greater responsiveness to shocks, economic or otherwise.

Indeed, although we test only for an increase in the effect of the economy on the vote, the logic of our argument obtains for any politically salient valence measure of government performance, be it improved health care, better schools or lower crime.[1] At its most general – and simple – our argument posits that declining partisanship implies a greater weight for government performance in the vote. (Conversely, where partisanship waxes, the influence of performance on the vote should wane.)

Among other consequences, rising accountability for governments at the polls in certain European countries implies changes in government responsiveness and policy goals. Where partisanship is weaker and accountability for

performance higher, governments could adapt through greater responsiveness on valence, rather than partisan, issues. Consequences, much like we have seen in the United Kingdom, could include the expansion of non-ideological policies aimed at greater efficiency in public goods provision or greater monetary and macroeconomic stability at the expense of bold, ideological policies that appeal to partisans.[2] Interestingly, such policy moderation would imply that winning or losing elections (Anderson et al. 2005) matters less to voters.

Theory

The economics of elections is one of the most studied relationships in political science (Lewis-Beck & Stegmaier 2000). That the economy matters is now almost a truism, but it is not always true. Extant research provides important insights, especially about how the economy matters for election outcomes. In general, we know: first, that performance matters more than policy *per se*, as people tend to reward or punish the incumbent party for economic conditions (e.g., Hibbs 1987a; Lewis-Beck 1988; Alesina et al. 1993); second, that national-level conditions matter more than personal ones (e.g., Kinder & Kiewiet 1981; Kramer 1983; Lewis-Beck & Stegmaier 2000); and third, that short-run economic change matters more than long-term economic levels (e.g., Lewis-Beck 1988; Alesina et al. 1993; Campbell & Garand 2000).[3]

We also know that economic effects on election outcomes are not universal. Although there is strong support from studies of the United States, France, the United Kingdom and Canada, things are less clear in other countries. Indeed, Paldam's (1991) analysis of almost 200 elections in 17 countries reveals only minor economic effects – either statistically insignificant or of trivial size. Given the mounting evidence demonstrating a strong, significant economic effect in individual countries, this result was striking and served to motivate other work. An article by Powell and Whitten (1993), the first and most influential to address Paldam's puzzle, showed that the political context matters, especially those structural differences, such as voting cohesion of governing parties, strong committee systems that empower the opposition, bicameralism, coalition government and minority government status, that lead to varying 'clarity of responsibility' for governments. Where clarity of responsibility prevails, economic factors influence the incumbent vote; where responsibility is not clear, economics matters less.[4]

Analyses of individual vote choice, in contrast to aggregate level studies, show more consistent support for economic effects on voter support for the government, as well as a role for contextual influences (see, e.g., Duch & Stevenson 2008). A key difficulty in this individual-level research is

establishing the causal direction, given that most individual studies rely on economic perceptions rather than on more objective measures.[5] Do differences in individuals' assessment of the economy influence their support for the government or do partisans' judgment of the government, for cognitive or more purely 'psychological' reasons, produce corresponding economic perceptions? This remains an actively contested debate with many recent studies suggesting that subjective measures, due to the endogeneity of economic perceptions to political preferences, overstate the size of the economic vote (Wlezien et al. 1997; Anderson et al. 2004; Evans & Andersen 2006; Ladner & Wlezien 2007; Gerber & Huber 2009; but, in contrast, see Duch & Stevenson 2008; Lewis-Beck et al. 2008).[6]

As we have seen from research on election outcomes, political context accounts for much, but not all, of the differences in economic effects across countries and time. Curiously, while the empirical voting literature has integrated clarity of responsibility and other contextual measures into cross-national research, it has neglected insights from other areas. Since the 1970s, many formal deductive models of voting have represented voting decisions as a function of the payoffs to voters from candidates' policies and, more important for our purposes, a stochastic shock term that has come to be understood as partisan attachment to a particular party (see, e.g., Banks & Duggan 2005).[7] Thus, a direct, but neglected, implication of formal probabilistic voting models is that payoffs (i.e., increases in welfare from government performance, transfers or public goods provision) are conditioned by partisanship (see Persson & Tabellini (2000) for a concise overview).

We recognise this discrepancy between the formal and empirical voting literatures and hypothesise that not only variation in institutions and government composition but also the distribution of partisan attachment in the electorate conditions the effect of the economy on the vote. Moreover, our claim depends on neither a change in the magnitude of individuals' electoral responsiveness at given levels of partisanship nor on different perceptions of policy outcomes by different partisans, although both are possible. Rather, as our model demonstrates, *changing variance in aggregate-level partisan attachment alone is sufficient to alter the strength of the economic vote*.

A simple model

To see how our argument works, consider how partisanship affects the strength of policy on a government's re-election probabilities in a conventional probabilistic voting model (Hinich 1977; Coughlin & Nitzan 1981; Ledyard 1984; Persson & Tabellini 2000). This is an especially useful choice of voting model because it introduces a term for a random variable, understood as partisan

attachment, to the conventional welfare maximisation from candidates' policies. 'Attachment', as used here, is simply understood as partisan identification – that is, an affinity toward a party for reasons other than its recent performance in influencing voter welfare (ω^I).[8] Suppose that voters choose between two parties: the incumbent, I, and challenger, C. Each voter has a positive or negative disposition (i.e., attachment) toward the challenger, C, the degree of which, σ, is distributed uniformly over $[\frac{-1}{2\phi}, \frac{1}{2\phi}]$;[9] the aggregate attachment in the electorate to C is captured by $\delta \sim U[\frac{-1}{2\psi}, \frac{1}{2\psi}]$.

In choosing a candidate, voters weigh their utility from the policies of candidate I, ω^I, against the expected utility from those proposed by the challenger, ω^C, and overall partisan attachment. The swing voter is thus located by

$$\sigma_S = \omega^I - \omega^C - \delta \tag{1}$$

Substantively, the swing voter is understood as the individual who, given attachment to a specific party and the welfare implications of the candidates' policies, is completely indifferent between the incumbent and the challenger parties.[10] The incumbent party captures all voters to their side of the swing voter, giving them a vote share of

$$\pi^I = \phi\left(\sigma_S + \frac{1}{2\phi}\right) \tag{2}$$

An increase in voter utility from the incumbent government's policies (ω^I) or a decrease in attachment to the opposition (δ) – which is a proportional increase in attachment to the government – shifts the swing voter to the right, increasing the government's vote share. The government's probability of winning is thus

$$Pr^I = \Pr\left(\pi^I > \frac{1}{2}\right) \tag{3a}$$

Re-expressing π yields

$$Pr^I = \Pr\left(\phi\left(\sigma_S + \frac{1}{2\phi}\right) > \frac{1}{2}\right) \tag{3b}$$

or, in terms of δ

$$Pr^I = \Pr\left(\phi\left(\omega^I - \omega^C - \delta + \frac{1}{2\phi}\right) > \frac{1}{2}\right) \tag{3c}$$

With a little algebra, we can then see that the incumbent party's probability of winning is the probability that the net expected utility of electing them, $\omega^I - \omega^C$, exceeds the attachment to the challenger, δ:

$$Pr^I = Pr\left(\omega^I - \omega^C > \delta\right) \tag{3d}$$

To understand the probability of net utility exceeding partisan attachment, however, we must return to the δ distribution. Note $x = \omega^I - \omega^C$ as a critical value of δ: The probability of a government victory is the probability of $x > \delta$ – that is, the probability of drawing a δ less than x. As noted above, the random variable δ is distributed uniformly over $[\frac{-1}{2\psi}, \frac{1}{2\psi}]$. Thus, the area of the uniform density for which $x > \delta$ is the area from the critical value, x, to the lower bound:

$$Pr^I = \psi\left(x + \frac{1}{2\psi}\right) \tag{3e}$$

or, equivalently,

$$Pr^I = \psi\left(\omega^I - \omega^C + \frac{1}{2\psi}\right) \tag{3f}$$

which simplifies to

$$Pr^I = \psi\left(\omega^I - \omega^C\right) + \frac{1}{2} \tag{3g}$$

We are now able to parse out the relationship between the distribution of partisan attachment and the effect of government performance on the vote. Simply taking the first derivative, we see that the marginal effect of an increase in government performance (ω^I) on the probability of its re-election equals the density of the distribution of partisan attachment:

$$\frac{\partial Pr^I}{\partial \omega^I} = \psi \tag{4}$$

In an electorate with a larger spread in partisan attachment, the density (ψ) of voters at every level of partisan attachment is lower, implying that a given increase in government performance (ω^I) will capture fewer voters. Since partisan attachment (δ) varies from extreme support for a governing party, $\frac{-1}{2\psi}$, to identically strong support for an opposition party, $\frac{1}{2\psi}$, a decline in partisan attachment for all parties implies a compression of the variance of δ.

Thus, a general increase in partisan attachment must decrease its density and consequently decrease the electoral effect of voter utility from government performance. Obversely, a decrease in partisan attachment, as most West European electorates have experienced over the last three decades, must increase the density of voters near moderate values and increase the effect of government performance on incumbent electoral success.

The intuition

The intuition behind this model and our theory is disarmingly straightforward and best conveyed graphically. At the simplest level, we argue that a decline in the proportion of voters with partisan affinities – actually, any decrease in the variance of partisan attachment – implies more voters in the middle of a partisan distribution which, in turn, translates into a larger vote return from a given shift in performance.[11] Figure 1, which continues with the same notation as above, shows two such hypothetical distributions: the first with density ϕ_1, the second with density ϕ_2. We use a uniform distribution for transparency and mathematical tractability but the comparative statics obviously hold for any distribution in which an increase in variance implies a decrease in density in the area near the swing voter.[12]

Suppose, as in the model, that voters fall in a uniform distribution, σ, from most supportive, $\dfrac{-1}{2\phi}$, to the most hostile, $\dfrac{1}{2\phi}$, toward the incumbent party,
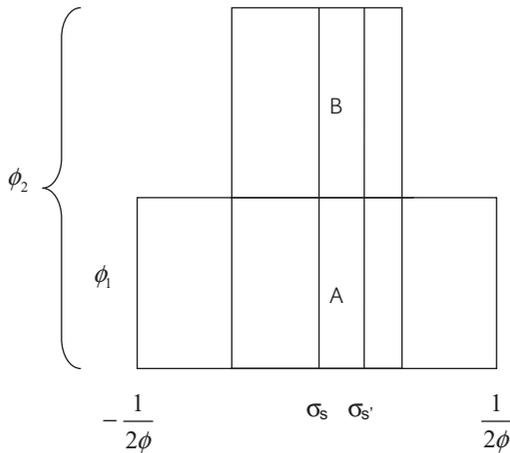

Figure 1. Two distributions of partisan attachment.
Note: A shift in the position of the swing voter from σ_s to σ'_s yields a larger increase in vote share for the government in the lower variance (higher density) distribution.

with uniform density ϕ_1. This is shown in the lower distribution in the figure. If we assume for the sake of simplicity that the parties enjoy equal levels of partisan attachment, δ is set to zero. Having no experience with the challenger party, voters set their expectation for it at the mean performance, which we centre at $\omega^C = 0$, but judge the incumbent party on its performance in the previous period, ω^I. Under these assumptions, which add to clarity but are not necessary for the results, the position of the swing voter, first established in Equation 1, simply becomes

$$\sigma_S = \omega^I \qquad (5)$$

Given average performance, the swing voter falls at the zero point in Figure 1, all voters to his or her left vote for the incumbent party, and the parties tie. If the incumbent party provides above average public welfare, ω^I is positive, the swing voter shifts to the right to σ'_s, and the incumbent party gains an additional $\phi'_1 \sigma'_s$ voters – the area in the figure labeled as A.

Now consider what a government performance of equal magnitude implies in a less partisan electorate. The second and taller uniform distribution in Figure 1 shows a less partisan electorate with more voters clustered in the centre of the distribution, which, accordingly, forces up the density from ϕ_1 to ϕ_2. An identically positive (i.e., above average) government performance, ω^I, now captures a larger area (i.e., more voters) than before. In addition to voters in area A, the identical government performance also delivers the voters in area B. Thus we see that an identical increase in public welfare gains more votes in less partisan electorates than in more partisan electorates. Negative incumbent performance, conversely, costs more votes when voters are less partisan. Simply put: performance matters more where partisanship matters less.

The difference in votes for the incumbent party in the low variance as opposed to the high variance distribution is

$$B = \pi_2 - \pi_1 = \phi_2\left(\sigma'_s + \frac{1}{2\phi_2}\right) - \phi_1\left(\sigma'_s + \frac{1}{2\phi_1}\right) \qquad (6)$$

Thus, the difference in gains in vote share from a greater than average provision of public welfare, which measures from the mean performance, $\omega^C = 0$, simplifies to

$$B = \omega^I(\phi_2 - \phi_1) \qquad (7)$$

Given above average incumbent performance, $\omega^I > 0$, a decrease in partisanship, $\phi_2 - \phi_1 > 0$, rewards the incumbent party with additional votes ($B > 0$).

When the electorate shifts toward greater partisanship, $\phi_2 - \phi_1 < 0$, however, the same positive performance delivers fewer votes ($B < 0$). Finally, and intriguingly, incumbent parties that deliver substandard levels of public welfare, $\omega^I < 0$, but sufficiently polarise their electorates, $\phi_2 - \phi_1 < 0$, can actually reduce their losses.

Our model focuses on a hypothetical two-party system. Multiparty systems are obviously more complex. Under a single-party majority government, things remain straightforward. When times are good, for instance, individuals become more likely to vote for the majority party, and it gains support from weak partisans of other parties. As public attachment to the parties increases, however, the numbers of people at the margins decline, thus dampening the effect of economic change. Under coalition governments, attachment to the challenging parties is understood as partisan attachment to any party not in the government. A partisan attachment to any party, so long as it is not in the government, increases δ, shifting the swing voter σ_s to the left and

decreasing the proportion of support for the government, $\pi^I = \phi\left(\sigma_S - \left(\dfrac{-1}{2\phi}\right)\right)$.

The key point here is that it does not matter if there are multiple opposition parties. Any positive δ, no matter which party it is associated with, will reduce the government's support. Rewriting the government support function in terms of partisan attachment – that is, re-expressing σ_s in terms of attachment (δ) and expected utility from government policies and opposition policies (ω^I and ω^C, respectively) – makes this more apparent:

$\pi^I = \phi\left(\sigma_S - \dfrac{-1}{2\phi}\right) = \phi\left(\left(\omega^I - \omega^C - \delta\right) - \left(\dfrac{-1}{2\phi}\right)\right)$. An increase in δ reduces π, the pro-

portion of the vote going to the government. One caveat obtains, however: where clarity of responsibility for economic outcomes is muddled – for example, when coalition members are numerous and espouse ideologically disparate policies – changes in voter welfare may not as readily translate into changes attributed to the government (ω^I). We therefore might expect a more modest effect for partisan attachment on the economic vote in low-clarity contexts.

Empirics

Models and methods

The claim we advance in this article has clear empirical implications that could, in principle, enable testing at either the individual or the aggregate level. While the behaviour that we study – voting – is at its most fundamental

individual-level, our theory concerns aggregate properties of the distribution of voters, most notably its variance. Moreover, the substantive interest we possess – electoral outcomes – also resides on the aggregate level. It neverthe-less is useful to first establish the relationship at the individual level before turning to the aggregate. This can provide us with confidence that our later aggregate-level tests of the model are grounded in actual voter behaviour. We thus begin with an individual-level logit model,

$$ln\left(\frac{pr=1}{pr=0}\right) = \alpha + \beta_1 E_t + \beta_2 PID_{i,t} + \beta_2 E_{i,t} * PID_{i,t} + \gamma Z_{i,t} + \varepsilon_{i,t}, \qquad (8)$$

in which E_t represents objective economic growth and $PID_{i,t}$ represents each individual's attachment to a political party. $Z_{i,t}$ captures a series of common individual-level voting controls (sex, age, income, education and government partisanship) intended to show robustness.

On the aggregate level, the model changes very little. The dependent vari-able is now the vote share for incumbent party(ies), $V_{j,t}$, that we predict vote share as follows:

$$V_{j,t} = \alpha + \beta_1 E_{j,t} + \beta_2 PID_{j,t} + \beta_2 E_{j,t} * PID_{j,t} + \varepsilon_{j,t} \qquad (9)$$

where $E_{j,t}$ represents the objective national economy in country j at time t and $PID_{j,t}$ is now an aggregate summary variable of attachment to political parties. The partisan attachment variable, because it is not party-specific, captures variance. Low attachment, for example, corresponds to a distribution with a high density of observations clustered around moderate values, much like the second distribution in Figure 1. On both levels, we posit that the economy will have an interactive effect on the vote, conditioned by partisan attachment – that is, the effect of the economy should decrease as partisan attachment increases.

The aggregate-level cross-section time-series data – essentially panel data with small N and large T – require more careful analysis than the rather straightforward individual-level logit above. To begin with, it is necessary to confirm stationarity. We employ Levin-Lin tests to reject the possibility of a unit root in our variables. While stationary, the data do exhibit considerable autocorrelation that could bias ordinary least squares coefficient estimates (Keele & Kelly 2006) and standard errors. We adjust for the time depen-dence by transforming the observations with a (pooled) AR1 autoregres-sive parameter (ρ) standard to Prais-Winsten regression. Specifically, Prais-Winsten regression is a form of generalised least squares in which the observations undergo a Cochrane-Orcutt transformation to remove autocorrelation. The product of the AR1 parameter (ρ) and the preceding

period observation is subtracted from each observation such that $y_t - \rho y_{t-1} = (1 - \rho)\alpha + \beta_1(x_1 - \rho x_{1,t-1}) + u_t$. Unlike the Cochrane-Orcutt proce-dure, however, Prais-Winsten estimates, rather than discards, the first obser-vation. We use Prais-Winsten regression instead of OLS with a lagged dependent variable because of concern that the latter could bias the coeffi-cients given high serial-correlation among the covariates and disturbances themselves (Achen 2000).[13]

Measures

Most European countries conduct election studies in election years, which can be pooled into a common dataset with irregular intervals between observa-tions. Eurobarometer (EB) surveys, on the other hand, provide regular, semi-annual readings of electoral preferences from responses to a 'trial heat' question asking how the respondent would vote were a general election to be held tomorrow. We employ this second data source for its many advantages: balanced panels, more meaningful autocorrelation estimates, more observa-tions and, as we discuss below, partisan attachment data. Our dependent variable is thus vote intention for a party in the incumbent government in each of the EB surveys in each of the eight countries that participated in the surveys since 1976.[14] The variable is dichotomous on the individual level; at the aggre-gate level we use the proportion of respondents who expressed an intention to vote for a party in the incumbent government.

  Rather conveniently, the EB surveys also include a question gauging party attachment in all eight of our sample countries from 1976 to 1994.[15] No other source offers such data at regular intervals in multiple countries over so long a period of time.[16] Examining these responses quickly confirms the decline in party attachments so prominently noted by other scholars (see, e.g., Dalton & Wattenberg 2002 [2000]; Schmitt 2003; Schmitt & Holmberg 1995; Mair & Biezen 2001). Figure 2 plots the mean response by country over half-yearly EB surveys, using a 4-point scale increasing in strength of party identification. Identification with particular political parties has clearly declined over time in Europe, most notably since the early-1980s. Similarly, Figure 3 plots the per-centages of respondents asserting that they were 'close to no particular party'. Here the steady rise in nonpartisans again suggests a weakening of partisan attachment over time. We use each of these measures of partisan attachment – the mean, *MeanPID*, the proportion of voters attached to no particular party, *NonPartisans*, and, at the individual level the original categorical response, *PID* – as key independent variables. The lesson is clear: partisan attachment has declined in Europe.[17] This already is well-known. Its consequences for economic voting are not.

Testing for changes in the strength of the economic vote, of course, requires economic data. Our measure of economic performance is the semi-annual percentage change in real GDP.[18] GDP growth is the most general objective measure of economic welfare and also offers advantages over subjective measures of the economy – essentially survey questions about how respondents perceive economic performance. At the most fundamental level, we wish to test the effect of the economy – not perceptions of the economy (Duch et al. 2000; Van der Brug et al. 2007) – on the vote. The heterogeneity of the data on perceptions of the same economy is discomfiting. It raises the question of whether respondents are focusing on different aspects of the same economy – inflation, unemployment, equity markets – or, more worryingly, whether political preferences might be influencing individuals' perceptions of the economy. The first possibility raises validity concerns; the second suggests possible endogeneity bias – that is, political preferences influencing perceptions of the economy that also predict political preferences. We sidestep these issues by using objective economic data.[19]

Finally, we also employ a host of standard individual-level and aggregate-level controls. The individual-level controls (*sex*, *age*, household *income* and
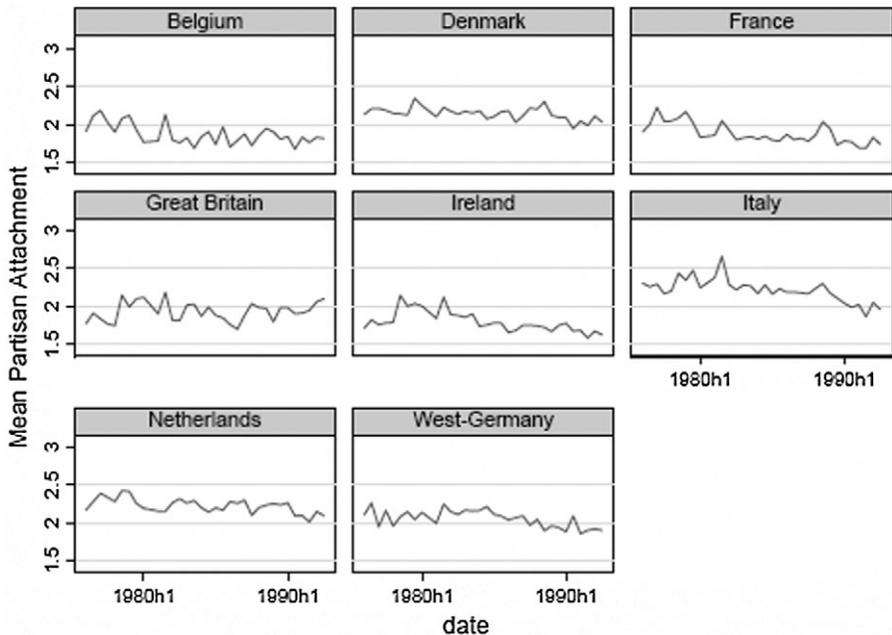

Figure 2. Mean partisan attachment over time.
Note: Year and half-year ('h1' or 'h2') are indicated on the x-axis; the mean partisan attachment of respondents is indicated on the y-axis.

education[20]), like the aggregate level controls, do not appear in our probabilistic voting model, but are commonly included in individual-level voting research. Thus, the more parsimonious models can be interpreted as a test of our theory, while the individual-level controls can be viewed as a test of robustness. Since the gender, age, income and education of respondents are variables that may influence support for right or left governments, and not just governments, we interact each of them with a right government dummy.

On the aggregate level, we follow a similar approach. First we estimate parsimonious models that best match the formal model, then we add controls to check robustness. As cross-national aggregate-level research has demonstrated repeatedly the importance of clarity of government responsibility for economic outcomes (i.e., the degree to which voters can identify which parties are responsible for policy outcomes), we include key clarity variables. Coalition fractionalisation (*CoalFrac*) captures the number of parties in the governing coalition; the number of significant (i.e., at least 3 per cent of seats) political parties in parliament (*ParlParties*) identifies the degree of party political fragmentation; the governing coalition's seat share (*CoalSeatShare*) measures the dominance of the governing coalition; and the ideological clarity
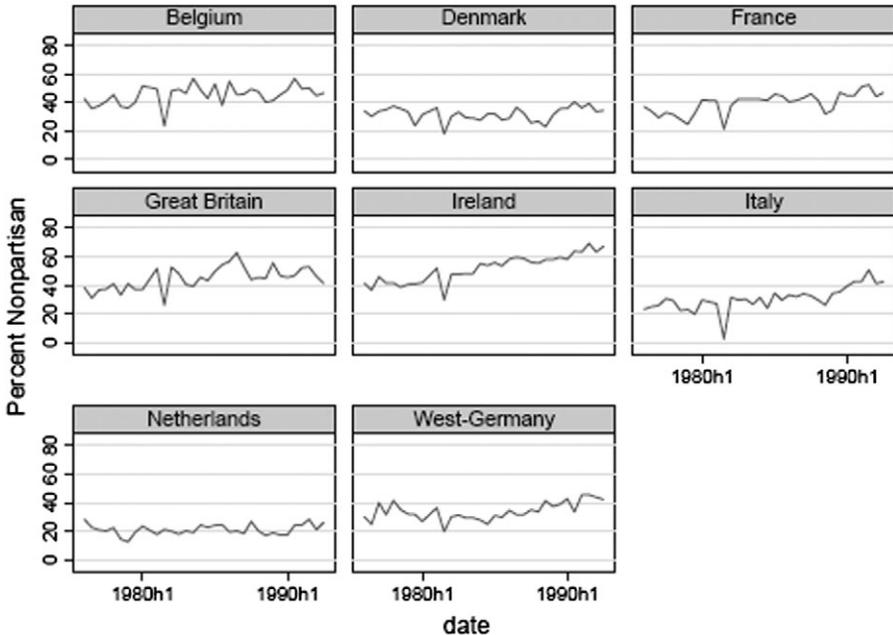

Figure 3. Proportion of nonpartisans over time.
Note: Year and half-year ('h1' or 'h2') are indicated on the x-axis; the proportion of respondents indicating no attachment to any particular party is indicated on the y-axis.

of the coalition (*CoalIdeo*) captures the variance of ideological positions among coalition members. All of these variables are important determinants of how readily voters can identify parties that can be held accountable for economic outcomes (Powell & Whitten 1993; Whitten & Palmer 1999; Nadeau et al 2002; Duch & Stevenson 2008). As these context measures end in 1992, so must our analysis.[21]

An analysis of the vote

The individual level. Our empirical analysis follows Equation 8 above. Our key expectation concerns the coefficients for the economy and the measures of partisan attachment. The effect of the economy on vote intention for government parties should decrease as partisan attachment increases. In terms of our estimation results, this translates into an expectation (where β_1 and β_2 are the respective coefficients for the economy and the interaction of the economy with individuals' partisan attachment) that the sum, $\beta_1 + \beta_2 * PartyID$, decreases as attachment increases. This sum, although declining, should remain positive, or at least not significantly negative.

Table 1 presents the logit estimates of vote intention for all respondents in the EB surveys for the eight countries. Column 1 contains results from the specification that includes only our three main variables: real GDP growth, party attachment and the interaction of the two. Column 2 shows the results when country fixed-effects are estimated; and column 3 includes both country and time (semi-annual EB) effects. Finally, column 4 adds a range of demographic controls – specifically, gender, age, income and education.

Strong evidence that economic voting is moderated by partisan attachment emerges quickly. As all four regressions include an interaction, it is important to recall that the coefficients on solo variables that also appear in an interaction only reveal the effect of that variable when the interaction variable equals zero.[22] What matters to us is the sum of the coefficients on *Growth* and its interaction with the partisan attachment variable *PartyID*.

Consider the basic equation in column 1. Here the estimate for economic growth (0.105) is positive, but the coefficient on the interaction of growth with partisan attachment (–0.028) is negative, implying that higher levels of partisan attachment are associated with a weaker effect of the economy on vote intention. Indeed, as Figure 4 demonstrates, the effect of the economy on the vote declines as partisan attachment increases, to the point where it is no longer statistically distinguishable from zero among the most partisan voters. The greater the attachment to a party, the smaller the influence of the economy. This is exactly as we predicted. The pattern is robust – indeed, virtually

Table 1. Binomial logit estimation

	NoFE (1)	C-FE (2)	C-EB-FE (3)	C-FE-Dem (4)
Party ID	0.109 (0.007)	0.093 (0.007)	0.90 (0.007)	0.55 (0.008)
Growth	0.105 (0.009)	0.084 (0.010)	0.116 (0.010)	0.082 (0.011)
PID*Growth	−0.028 (0.004)	−0.026 (0.004)	−0.027 (0.004)	−0.026 (0.005)
RightGov				−1.719 (0.049)
Sex				0.127 (0.015)
Sex*RightGov				−0.090 (0.020)
Age				−0.004 (0.000)
Age*RightGov				−0.016 (0.001)
Income				−0.002 (0.003)
Income*RightGov				0.084 (0.003)
Education				−0.051 (0.003)
Edu*RightGov				0.066 (0.004)
Constant	−0.446 (0.016)	−0.698 (0.020)	−0.846 (0.034)	−0.496 (0.034)
N	211,935	211,935	211,935	162,984
LR Chi^2	439.069	3590.38	4494.01	6574.76

Notes: Dependent variable is vote intention for a governing party. Model 2 includes country fixed effects; model 3 adds Eurobarometer (half-yearly) fixed effects; model 4 combines country fixed effects and demographic control variables. Standard errors in parentheses.

unchanged – when unit and time controls are added, as can be seen in models 2 and 3 of Table 1. The same is true when the demographic variables are included in column 4.

As the dependent variable is in the form of log odds, it is difficult to interpret the substantive effect of these coefficients from the table. Figure 5 simplifies interpretation by plotting the predicted probabilities of an intention to vote for a governing party derived from model 1. More precisely, the figure plots the effect of growth on vote intention at different levels of party attachment. The lines are predicted probabilities of voting for the government party(ies). For individuals who feel 'very close' to a party, represented by the solid line in the figure, economic growth has no effect. As growth increases, voters are no more likely to support government; as attachment weakens, however, economic growth becomes more important. For those who feel 'fairly close' to a party (the dashed line), there is a slightly positive effect; for those who only 'sympathise' (the dot-dashed line), the effect is even more pronounced. Economic growth has the greatest effect among those 'who do not feel close to any party' (the dotted line). Party attachment clearly conditions economic voting at the individual level. Moreover, the effect is substantively meaningful: for

respondents with no party attachment, a one point increase in economic growth predicts a 2.5 per cent increase in the probability of vote intention for a governing party. For those with strong attachments to a political party, a one percentage point expansion in GDP is associated with a negligible change in the probability of their electoral support for a governing party.

The aggregate level. While our individual-level findings are important, we are most interested in whether similar patterns apply to election outcomes themselves. Our key expectation again concerns the coefficients for the economy and the measures of partisan attachment. The effect of the economy on vote intention for the governing parties should increase as partisan attachment diminishes. As in the individual-level models above, this translates into an expectation (where β_1 and β_2 are the respective coefficients on the economy and the interaction of the economy with mean partisan attachment) that the sum, $\beta_1 + \beta_2 * MeanPartyID$, decreases as party attachment increases. We expect, however, that this figure, although declining, should remain positive, or at least not significantly negative. Similarly, the sum, $\beta_1 + \beta_2 * Nonpartisans$, in which β_2 is the coefficient on the interaction of the economy and the proportion of nonpartisans, should increase as the percentage of non-attached respondents in the electorate increases. We expect this sum to remain positive or, at least, not significantly negative, even when extremely few voters are unattached to parties.
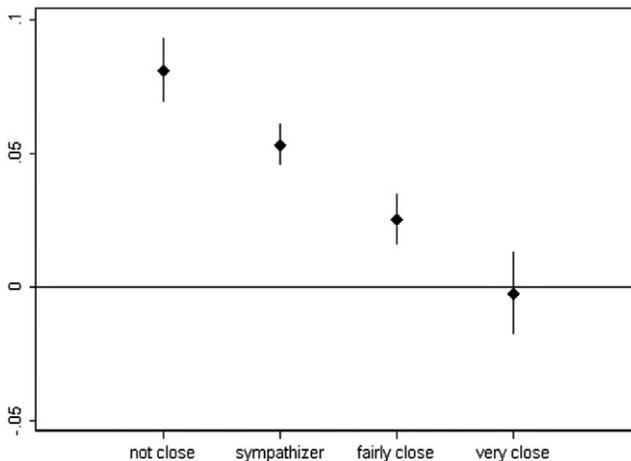

Figure 4. The effect of real GDP growth on individual-level vote intention at different levels of partisan attachment.
Notes: Diamonds mark point estimates; spikes represent 95 per cent confidence intervals. Calculated from model 1 of Table 1.

We report the results of our model of vote share for the government in Table 2, first using the measure of mean partisan attachment, and second, the proportion of nonpartisans. As discussed above, both aggregate-level models are estimated with country-fixed effects and using Prais-Winsten AR(1) regression. Both models suggest that the economic vote is moderated by partisan attachment. The negative coefficient for the interactive variable in the first model implies that higher levels of mean party attachment diminish the relationship between GDP growth and pro-government vote intention. In the second model, the interaction of the proportion of non-attached voters and GDP growth implies the substantive equivalent: as the number of nonpartisan voters increases, so does the effect of the economy on the vote. The pattern of results is exactly as we expect if partisanship conditions the economic vote. We cannot strictly draw this conclusion from Table 2 alone as the interactive coefficients are not significantly different from zero.

Of course, it is impossible to determine the effect of the economy and its statistical significance over all values of partisan attachment from the table alone. Figure 6 provides a more complete representation of the conditional relationship at different values of attachment.[23] As the 95 per cent confidence intervals suggests, GDP growth only has a statistically significant effect on the vote once mean partisan attachment drops below 2.09 (first panel) or the proportion of nonpartisans in the electorate rises above 32 per cent (second
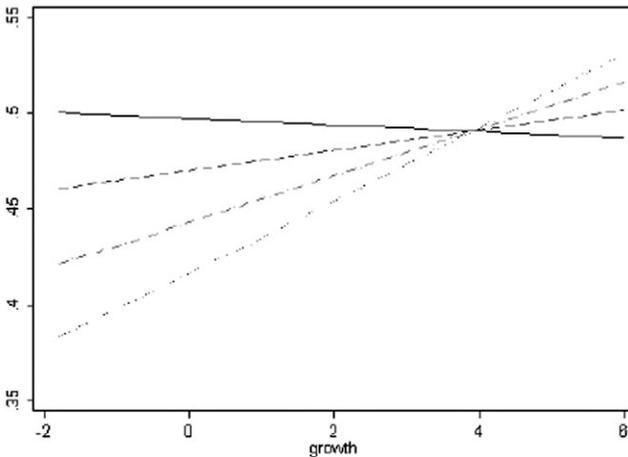

Figure 5. Predicted probability of a vote intention for a governing party by partisan attachment (PID) and level of real GDP growth.
Notes: Based on model 1 of Table 1. The solid line represents individuals that feel 'very close' to a party; the dashed line those who feel 'fairly close'; the dash-dotted line those who 'sympathise' with a party; and the dotted line those who do not feel close to any party.

panel). When attachment is high, the government is more insulated from the effects of short-run economic swings. Conversely, when attachment is relatively low, the economy has strong effects. With a mean identification of 1.93 or when 43 per cent of voters are unaligned, which is what we observe in 1992, each percentage point increase in half-yearly GDP growth leads to slightly more than a 1.3 point increase in the incumbent vote. This is a sizable return, equal to what we observe in American presidential elections (Fair 1996; Campbell 2004). Given increasing erosion of partisan attachment, the effect may be even greater today. Patterns of partisanship have real implications, and it appears that recent declines in overall attachment have changed the nature of how incumbents are judged.

Robustness: Political context. Our results strongly suggest that the effect of the economy on the vote is indeed conditioned by voter attachments to parties. Yet, how confident are we that the moderating effect of party attachment is not simply picking up the influence of variables whose conditioning effect has already been demonstrated in the literature? It is now broadly established that political context variables that obscure or clarify the degree of government responsibility for policy outcomes are an important moderator of the size of the economic vote (Powell & Whitten 1993). Where voters are able to identify which parties are responsible for economic (or other) outcomes, they are also able to punish those whose performance is found wanting. Despite the

Table 2. The economic vote conditioned on partisan attachment

	Mean PID (1)	NonPartisans (2)
ΔGDP	5.961 (3.722)	−0.399 (1.222)
Mean Party ID	7.001 (4.688)	
ΔGDP*Mean PID	−2.484 (1.836)	
NonPartisans		−0.101 (0.074)
ΔGDP*NonPartisans		0.036 (0.031)
Constant	42.557 (9.168)	60.339 (3.904)
N Observations	263	263
N Countries	8	8
R^2	0.409	0.408
Chi^2	99.903	95.494
ρ	0.470	0.486

Notes: Prais-Winsten AR1 regression with country fixed-effects. Response variable is percentage of vote for government parties. All half-yearly observations, 1976–1992. Panel-corrected standard errors in parentheses. All models calculated including a large PID outlier in 1981h2; omitting this date improves results.

progress that has been made in measuring and studying the role of political and institutional context (Duch & Stevenson 2008), instability in the economic vote is still a defining feature of the literature, especially at the aggregate level (Lewis-Beck & Paldam 2000: 114; Dorussen & Taylor 2002: 1). We argue that the neglect of variation among voters – specifically in their attachment to parties – is a key source of this instability. The effect of the economy on voters' support for the government is not only conditioned by institutional and political context, but also by differences among voters' attachment to parties. Demonstrating this, of course, demands that we show the conditioning effect of partisan attachment to be robust to the inclusion of common measures of political context.

Table 3 replicates the models in Table 2 but adds variables for four key contributors to clarity of governmental responsibility: coalition fractionalisation, the number of nontrivial parties in parliament, the share of parliamentary seats controlled by governing parties and the ideological cohesion of the coalition members. Each is interacted with growth in real GDP. Initial inspection of the results quickly reveals very similar coefficients for the interaction of
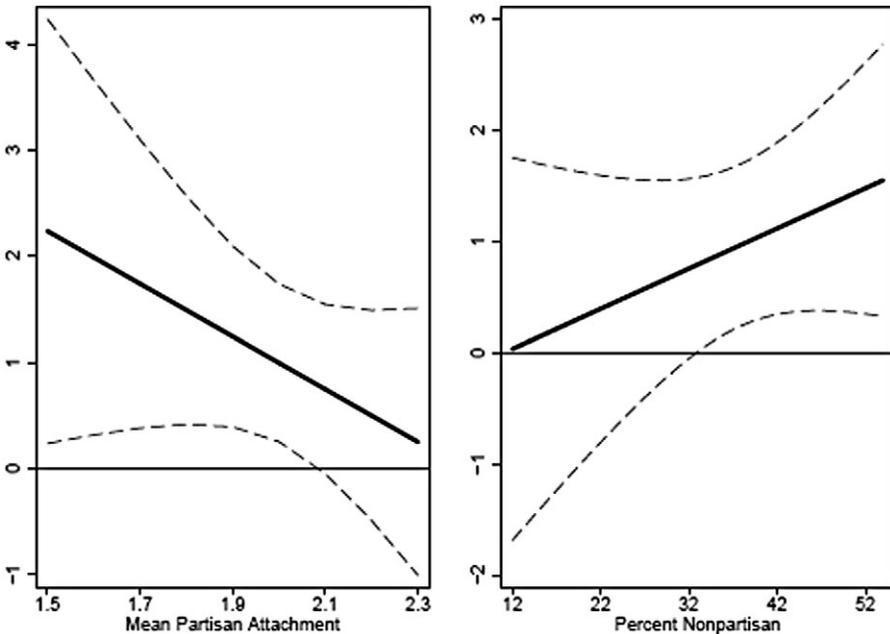

Figure 6. The marginal effect of real GDP growth on vote intention for the government at different levels of partisan attachment.
Notes: Each graph plots effects within two standard deviations of the respective partisan attachment mean. Based on models 1 and 2.

the two partisan attachment variables with growth as were estimated in
Table 2. The interaction of growth with several additional variables compli-
cates interpretation, however. The coefficient on ΔGDP must now be under-
stood as the effect of growth on the share of respondents intending to vote for
a governing party *when every variable that is interacted with growth equals
zero*. As several of these variables (e.g., *CoalSeatShare*, the share of parliamen-
tary seats held by members of the governing coalition) cannot meaningfully
equal zero, the coefficient on ΔGDP is clearly an out-of-sample extrapolation.
More informative interpretation comes from marginal effects holding all vari-
ables at their sample means. A one percentage point increase in real GDP is
thus associated with 1.098 and 1.075 point increases in the percentage of
respondents intending to vote for the government in models 3.1 and 3.2,
respectively.[24] These effects again increase as partisan attachment decreases.

Table 3. The economic vote conditioned on partisan attachment with context controls

	Mean PID (1)	NonPartisans (2)
ΔGDP	−1.438 (0.824)	−1.420 (0.801)
Mean Party ID	7.966 (4.025)	
ΔGDP*Mean PID	−2.961 (1.534)	
NonPartisans		−0.104 (0.065)
ΔGDP*NonPartisans		0.027 (0.025)
Coalition Frac	−3.004 (1.484)	−2.912 (1.525)
ΔGDP*Coal Frac	0.360 (0.575)	0.185 (0.576)
Parl Parties	−0.438 (0.605)	−0.119 (0.604)
ΔGDP*Parl Parties	0.429 (0.229)	0.219 (0.186)
CoalSeatShare	0.607 (0.108)	0.659 (0.109)
ΔGDP*CoalSeatShare	0.077 (0.038)	0.022 (0.033)
CoalIdeo	−11.313 (7.322)	−8.865 (7.510)
ΔGDP*CoalIdeo	1.971 (2.144)	−1.276 (1.600)
Constant	7.056 (14.782)	20.048 (13.959)
N Observations	263	263
N Countries	8	8
R^2	0.596	0.592
Chi^2	299.959	289.086
ρ	0.420	0.433

Notes: Prais-Winsten AR1 regression with country fixed-effects. Response variable is
percentage of vote for government parties. All half-yearly observations, 1976–1992.
Panel-corrected standard errors in parentheses. All models calculated including a large PID
outlier in 1981h2; omitting this date improves results.

Moreover, the net economic effects are indistinguishable from what we observed excluding the various contextual variables in Figure 6. Whether at the individual level or the aggregate level, partisan attachment strongly conditions the influence of the economy on the vote.

Although suggestive, the success of our regression models in predicting a strengthening relationship between the economy and the vote begs an unsettling question: might it – and indeed the two measures of partisan attachment – be capturing the effect of an omitted and similarly trended variable that is the true source of the strengthening economic vote? We offer two arguments. First, there seems no obvious theoretically plausible alternative. Second, and hopefully most compelling, the probabilistic voting model that we offered above demonstrates that, within its framework, declining bias for a given party *necessarily* increases the effect of government performance on the vote.

Validity

The dependent variable used in all of our estimates is *Vote Intention*. A careful reader might reasonably question how faithfully vote intention maps to the actual vote. As mentioned previously, it is quite difficult to test for the validity of vote intention as a measure of the actual vote since only a small number of the semi-annual EB surveys were conducted near the date of actual elections. Survey vote intention essentially captures partisan sentiment at a given moment in time and its accuracy as a predictor of the actual vote declines as the time between the two expands. Despite these concerns, 52 EB surveys did occur in the same half-year as national general elections. We leverage them here to investigate how well vote intention corresponds to the actual vote.

A simple correlation of the proportion of respondents intending to vote for a governing party and the governing party's actual vote share reveals a strong but imperfect association ($r = 0.72$). Two reasons likely underlie the deviation between the measures. Certainly not all respondents in the EB surveys actually voted. Predicting which voters will turn out is a longstanding difficulty in election forecasting and one that the EB surveys are poorly designed to address. The second threat to validity, however, is more easily investigated. The more time that exists between survey and election, the more opportunities exist for new events to occur and partisan preferences to shift. We do not have a measure of politically salient intervening events, but we can measure the time gap between the measures and gauge their influence.

Table 4 simply regresses the actual vote share of governing parties on their share of the intended vote. If vote intent (*VoteGov*) were a perfect proxy for vote share, we would expect a coefficient of one, at least when both variables were measured at the same time. The vote intent variable, in reality, achieves a

Table 4. The validity of vote intention over time: OLS

Variable	Coefficient	Standard error
VoteGov	0.818	(0.124)
TimeGap	0.266	(0.139)
VoteGov*TimeGap	−0.007	(0.003)
Constant	8.140	(5.899)

Notes: The sample is the 52 observations in which a general election falls within the same half-year as a Eurobarometer survey. The response variable is the actual vote share of governing parties.

coefficient of 0.82, showing a very strong but imperfect relationship between the two measures when the time gap is set at zero. As expected, as the gap in the absolute number of days between the survey and the election (*TimeGap*) increases, a one unit increase in vote intent share corresponds to smaller increases in the actual vote share. For those cases in which the survey and the election were less than a month apart, the correlation between vote intent and vote, previously 0.72, rises to 0.91. Thus, we conclude that vote intent is indeed a valid measure of actual partisan sentiment with an important caveat: vote intention faithfully captures the partisan preferences of respondents only near the time that the survey is taken. If actual elections had occurred every half year, we expect that they would closely resemble the EB survey results.[25]

Discussion and conclusion

This article demonstrates a relationship neglected in the expansive study of representation, accountability and voting. Scholars have argued that the instability in the economic vote may come from the failure of nearly all research to take account of the role of voters' preferences for parties, not just the vote for the government (Van der Brug et al. 2007: 14). In a country in which many voters are cross-pressured between parties, a small shift in the performance of the government could yield a big change in the vote. If voters, however, are all strongly tied to a given party, the performance of the government will have little effect on vote shares. If voters who are cross-pressured between parties are the same ones who do not have strong party attachments to begin with – and we believe this is the case – then we provide a simple means of accounting for the role of parties in the economic vote.[26] If Van der Brug et al. (2007) are correct, this may provide the missing piece of the instability puzzle in the study of economic voting.

We argue that the votes of people at the partisan margin are more suscep-tible to short-term forces such as the economy. They are the true 'floating voters', whose support of political parties can change easily with performance. Thus, when partisan attachment is high, incumbents are more insulated from the vagaries of economic performance, but when partisan attachment is low, the economic vote strengthens. The results also conform with other observa-tions, including Zaller's (2004) important finding that low information voters are more responsive to the economy. It may even be that low information voters are more responsive to the economy because they are less partisan.

The generally downward trend in partisan attachment in Western Euro-pean countries also introduces a temporal implication to our results. We predict and find that declining partisan attachment yields a strengthening economic vote over time. This result contrasts with the predictions of previous research. While some authors (e.g., Hibbs 1987b: 220) have also found a strengthening effect of the economy on the vote in Europe, several others have not. Duch and Stevenson (2008) find a diminishing economic vote; Hellwig (2001) argues that voters hold governments less accountable for economic variation that is beyond their control in a globalising economy.[27] Still others (e.g., Anderson 1995) argue that greater governmental involvement in the economy explains an *increasing* economic vote over time and attribute this to an increasing role of government in the economy. Kenneth Scheve (2001) argues that lower economic volatility in more open economies implies that the strength of the economic vote should rise in tandem with globalisation. As our analysis does not fully confront this temporal issue, we do not gainsay any effect found elsewhere. It is possible that these effects may be real but sub-stantially counterbalanced by the effect of declining partisanship.

Our findings imply that the prominent decline in party attachment in Europe over the last three decades bears strong consequences for the nature of electoral competition and governance. If party attachment is indeed declin-ing, performance should matter more and policy should matter less to voters.[28] This gives incentives to parties to pursue pragmatic, rather than ideological policies, and there is indeed evidence of party convergence in parts of Europe (e.g., Klingemann et al. 1994; Bara & Budge 2001). As policy differences dis-sipate and governments increasingly compete on valence issues, voters find themselves choosing between different management teams – a far cry from the pitched, class-centred competition that characterised European politics through the 1970s (also see Clarke et al. 2004). To voters, winning and losing on election day matter less. For governments, meanwhile, winning and losing are less strictly controllable. Indeed, accountability for the economy in Europe is increasing at the same time that domestic control of the economy seems to be decreasing. This implies greater electoral uncertainty for governments and also

gives governments incentives to attempt to compensate, to find ways to reduce the uncertainty, such as the opportunistic timing of elections (Kayser 2005). Ultimately, rather than finding that the hold of governments on office has become more tenuous, we may discover that incumbent politicians have found new ways to secure electoral advantage.

Though our empirical results may help us understand evolving patterns of electoral behaviour in Europe over the last three decades, our model is not tied to any particular historical trend. It can also account for the implications of rising party identification, for example, in the present-day United States (Bartels 2000). Confirming such speculation, of course, forms a rich topic for future research. In the meantime, we limit our assertions to what we have been able to demonstrate: declining partisan attachment increases governmental accountability for economic outcomes.

Acknowledgements

Notes

1. In fact, economic performance itself may not be a pure valence issue. Environmental trade-offs, for example, might cause some individuals to oppose specific types of economic growth. We nevertheless hold that positive economic performance is sufficiently close to a pure valence issue to be included in this set.
2. Indeed, Boix (2000) has documented that the variance in left and right government policies has declined since the 1980s, although he attributes this to constraints from international economic integration. Our results raise the question of how much of the shift to more centrist policies is attributable to external economic constraints and how much to changing domestic political environment. See Green and Hobolt (2008) for evidence that British voters valued competence more than ideological position in the 2005 general election.

3. Of course, the foregoing are general statements and conceal the rich complexity of the literature, which reveals many other things, e.g., the importance of performance reputations, which is partly about previous successes and failures (Sanders 1996). Also see Anderson and Wlezien (1997).

4. Subsequent research has extended the analysis and offered further evidence of the conditioning effect of clarity (Whitten & Palmer 1999; Nadeau et al. 2002; Samuels 2004; Duch & Stevenson 2005). Cameron Anderson's (2006) research also reveals a 'vertical' dimension to clarity, reflecting the decentralisation of responsibility to subnational governments; other research investigates how voters hold governments accountable for domestic economic performance given extensive international economic integration (see Kayser 2007).

5. Any of the standard measures of macroeconomic performance (e.g., GDP growth, inflation or unemployment) constitute an objective measure of the economy. Subjective measures are individual assessments of perceived economic performance collected via surveys. Van der Brug et al. (2007) is an important exception. Markus (1988, 1992) was the first to build objective economic measures into a survey analysis; Nadeau and Lewis-Beck (2001) later added an aggregated subjective measure, which yielded a larger effect than the objective measure.

6. Also see Bartels (2002) and Bafumi and Shapiro (2009).

7. This term is often called 'bias.'

8. A large literature investigates the source of partisan identification, conceiving it as everything from a running tally of parties' past performance to socialisation from family and social environment. See Green et al. (2004 [2002]) for an overview.

9. A voter at the lower bound is fully devoted to the government; at the upper bound, to the challenger. Note that the domain is thus a function of the density, ϕ, which also appears in the denominator of the upper and lower bound. This will prove helpful by holding the size of the electorate (the product of the density and domain) fixed at unity.

10. Similarly, a non-partisan is an individual for whom $\delta = 0$.

11. Note that individual-level arguments about how distorted perceptions of the objective economy may lessen as individual partisanship wanes are complementary, but redundant, to our argument. We simply offer an argument about variance in partisan attachment.

12. Results even hold for asymmetric and bimodal distributions that meet this condition.

13. Expressed less technically, Prais-Winsten partially differences a time-series to remove autocorrelation before estimation.

14. Namely, Belgium, Denmark, France, Ireland, Italy, Germany, the Netherlands and the United Kingdom. We exclude Luxembourg, for which we have no clarity of responsibility data. We include only countries that participated in the Eurobarometer (EB) for the full period so that the change in the magnitude of the economic vote over time is more clearly attributable to changes in partisan attachment, not to changes in the country sample. Where more than two EBs existed in a year, we chose the two including the most relevant survey questions. Also note that EB surveys vary in their timing with the 'spring' survey, for example, sometimes coming as late as June or as early as February. Most often, however, they occurred in or near April. We identified the parties in each government with the aid of Woldendorp et al (2000) and data in annual issues of the *European Journal of Political Research*. Where a government change occurred during a survey period, we used the composition of the outgoing government.

15. Specifically, respondents were asked: 'Do you consider yourself to be close to any particular party? <If yes> Do you feel yourself to be very close to this party, fairly close

or merely a sympathiser?' We recoded these responses so that the response number increases in party attachment: (1) 'close to no particular party', (2) 'merely a sympathiser', (3) 'fairly close' and (4) 'very close'. The semiannual EBs were assembled into one helpful 'trend file' by Schmitt and Scholz (2002). EB surveys dropped party identification questions, particularly 'closepty', after EB42 in the autumn of 1994. Note also that the party ID question did change in some countries and languages (Katz 1985).

16. We applaud the authors of the Mannheim Eurobarometer Trend File, 1970–1999, which combines individual country EBs into a single resource. The data are available online at: http://webapp.icpsr.umich.edu/cocoon/ICPSR-STUDY/03384.xml

17. Of the 16 measures of partisan attachment over time (mean attachment and proportion of non-partisans in eight countries), 15 show a decline in partisan attachment. The one exception – the mean measure in Great Britain – is also not a full exception since the proportion of nonpartisans has been rising there over time. Regression of the party attachment variables on the date shows that the trend is negative and significant in seven out of eight countries for the mean attachment measure and positive and significant in eight out of eight countries for the proportion of nonpartisans.

18. Where quarterly GDP data is available these have been used to calculate the growth rate, where growth during the first half-year is from the fourth quarter of the previous year through the second quarter of the current year and growth during the second half-year is form the second quarter to the fourth quarter. The source for quarterly GDP data is the OECD Main Economic Indicators (CMPGDP.VIXOBSA Units: 2000=100, Power: –2) calculated as a volume index. For some years, and especially in certain countries (Denmark, Germany and Ireland), quarterly data were not available, requiring the use of annual data. In these cases, equal semi-annual (not annual) growth rates were assigned to each half-year. The source for annual data is the World Bank World Development Indicators.

19. A concomitant concern with objective economic measures in individual-level research is that repeated observations of the same value inflate the number of observations and bias standard errors downward. We address this issue two ways: first, growth is interacted with party attachment, which does vary over individuals within individual surveys; second, we also test our hypothesis on the aggregate level.

20. *Sex* is a dummy coded 1 for female; *age* is interval-level and ranges from 19 to 99; household *income* is 12-category ordinal; and *education* is a 10-category ordinal measure of the age a respondent left school in which 1 corresponds to less than 14, 9 to 22 or older, 10 to still studying, and 2–8 to 15–21, respectively.

21. This is not a great cost for our analysis since the EB stopped collecting party attachment data in 1994. We thank Dick Niemi and Antoine Yoshinaka for the use of their clarity data.

22. More precisely, if $y = \alpha + b_1 x_1 + b_2 x_2 + b_3 x_1 * x_2$ then $\dfrac{\partial y}{\partial x_1} = b_1 + b_2 x_2$. Thus b_1 only has an unconditional interpretation when $x_2 = 0$. We only mention this because readers often misinterpret 'main effects' as having an unconditioned meaning. See Brambor et al. (2006) and Braumoeller (2004) for a survey and discussion of the frequency of this error in political science literature.

23. Given Model 2, the marginal effect is $\dfrac{\partial vote}{\partial \Delta GDP} = \beta_1 + \beta_2 MeanPartlyID$.

24. The level of partisan attachment at which statistical significance is attained and, indeed, the slope itself, are a function of the values of the covariates interacted with growth.

25. Other research reaches a similar conclusion – see, e.g., Whiteley (1979), Campbell (2004) and Wlezien and Erikson (2002).
26. Van der Brug et al. (2007) argue that the role of parties cannot be addressed on the aggregate level and advocate an alternative design: individual-level data with individuals stacked within parties.
27. Kayser (2009) demonstrates, however, that the vote for left and right parties, if not for their government, is influenced by the international component of the business cycle.
28. This can be a cause of partisan dealignment or a consequence, and we are entirely agnostic about the directionality.

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