Title:

Economic and Elections in Spain (1982-2008): Cross-Measures, Cross-time*

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* A version of this paper appeared in Electoral Studies, Vol. 31, No.3, September 2012, pp.485-490.

Abstract:

In other leading Western democracies, the effects of economic voting are well-established. However, for Spain, a strong scholarly current argues against economic voting in that nation. Unfortunately, these various studies are limited, because they are based on incomplete survey cross-sections, which use individual subjective measures of the economy. We employ a full survey pool (of eight elections, 1982-2008), to examine the effects of two national economic measures (one objective and one subjective). In a carefully specified, and estimated, general voting model, the impact of economic conditions, variously measured, reveals itself to be statistically and substantively significant. After all, national economic voting in Spain appears to operate much as it does elsewhere.

Keywords:

Economic Voting, Spain, Pooled Voting Models

1. Introduction[i]

In most Western democracies, the link between the economy and elections has been established. (The literature is vast. For recent reviews, consult Duch and Stevenson, 2008; Lewis-Beck and Stegmaier, 2007). The Spanish case, however, does not fit this generalization. There important scholarly opinion denies the presence of an economic vote, claiming that economic perceptions are mere projections of the voter's left-right ideology, rather than objective assessments of the real economy (Maravall and Przeworski, 2001). Of course, not all election survey research on the subject agrees. That is, some extant research does indicate an economic vote in the Spanish context (Fraile, 2005; Lancaster and Lewis-Beck, 1986). The difficulty is that all published studies, pro or con, rely on cross-sectional surveys (sometimes single ones) with subjective individual measures of the economy.

One exception is the article by Fraile and Lewis-Beck (2010), which examines a panel survey, with an instrumental variables technique to "objectify" the subjective economic measures. They find "significant and sharp economic effects on the vote choice." (Fraile and Lewis-Beck, 2010, 219). But that study is not problem-free. First, it addresses only one election, that of 2000. It may well be that it is atypical, in terms of the elections of the entire democratic era. Second, the instrumental variables technique, powerful as it can be, is necessarily open to the charge of arbitrariness in variable selection. [See the classic discussion in Koutsoyiannis (1977, 272).]

What seems needed is use of a complete election survey pool, with economic measures that are not individual and subjective. Here we assemble such an electoral data-set, 1982-2008 (eight elections). Then, we demonstrate the external validity of our

national subjective measure of the economy. Next, we present a well-specified general model of vote choice in Spanish elections, estimating it with logistic regression. As shall be seen, the national economy, measured subjectively or objectively, has a forceful impact on the Spanish voter.

2. The election survey pool and the economic measures

Rather than look at one election survey, or a subset of election surveys, we would like to pool all national election surveys, from the 1970s to the present. Such a pool comprehends the election universe, maximizes variance, and is statistically efficient. Of course, we do not want to combine surveys that are, in fact, quite different in their sampling, timing, or instrumentation. With those constraints, we arrive at a pool of eight Center for Sociological Research (CIS) post-election surveys: 1982, 1986, 1989, 1993, 1996, 2000, 2004, 2008. These national probability sample surveys have an extensive common battery of questions. This pool is the most exhaustive election survey data-set yet assembled for the Spanish case, total N = 40,846.

In survey research models of the economic vote, a standard economic item for Spain could include wording such as "Would you say the national economic situation is very good, good, very bad, bad, or regular?" This item is sociotropic (about the economy as a whole) and retrospective (based on past, rather than future, performance). Fortunately, this item, or a variant of it, was posed in related surveys from each of these eight election years; these items, aggregated to the national level, serve our purposes well. (The items are other *non-election* CIS surveys of the same year. This ensures regularity, consistency, and independence of measurement). These aggregate subjective

measures, e.g., the percentage who think the economy is doing well, are simply grafted onto the individual respondents in each election survey. We label this variable Retrospective Positive Economic Views (RPEV).

Though in common use, such subjective economic measures face the "Kramer problem" (Kramer, 1983). In a single cross-section, the real economy exhibits no variation; rather, it is a constant, e.g., annual Gross Domestic Product (GDP) growth is a single number. Thus, any perceptual differences in national economic evaluation, as elicited from a sociotropic retrospective question, are due to systematic or random error. With a pool of cross-sections, in contrast, the economy exhibits real variation, here over eight different election years. In the context of pooled surveys, two solutions to the Kramer problem have emerged. Markus (1988, 1992) pooled the 1956-1988 American National Election Studies, and scored each respondent with the Real Disposable Income (RDI) growth number for that election year. Nadeau and Lewis-Beck (2001) took a step beyond Markus, scoring each respondent with an aggregated perceptual measure of the national economy for that election year.

Note that either solution - that of Markus, or that of Nadeau and Lewis-Beck - overcomes the measurement error induced by simply using individual level subjective questions about national economic performance. Both use an aggregate measure of the national economy that is independent of the individual voter's perception, or rationalization. MacKuen et al. (1992, 599, 607) refer to this as the "powers of aggregation", when the "idiosyncratic sources of variation in economic judgment cancel out … to leave only a signal surviving." In our study we employ both an objective and a subjective national economic indicator. For an objective national economic indicator,

we rely on GDP per capita growth, a measure not unlike that of Markus (1988, 1992). For a subjective national economic indicator, we employ, as introduced earlier, the percentage who respond positively (RPEV)to a question about the performance of the national economy in that year. (Such national surveys were carried out at different time points during the election years under study here. Therefore, we took the yearly average frequency of positive responses).

We use this national-level subjective economic measure, RPEV, as a substitute for the individual-level subjective economic measure. This RPEV variable is effectively exogenous, created outside the internal world of the individual voter. But such a strategy loses credibility if RPEV does not relate to economic reality. For RPEV to be a compelling economic proxy variable, it must have a strong connection to established national economic indicators. Fortunately, it does. Using a pooled analysis, RPEV is regressed (OLS) on three leading macroeconomic indicators: unemployment rate, inflation rate, and GDP growth per capita. All these coefficients are statistically significant, and have signs in the expected direction. [ii] Without doubt, RPEV mirrors, to a large extent, national economic reality. In that respect, it seems an ideal proxy variable.

3. A general voting model

Classic studies in Spanish electoral behaviour have established the role of traditional loyalties and social cleavages in shaping the vote choice (Barnes et al., 1985; Gunter et al. 1986; Linz and Montero, 1986). More current work has emphasized in particular the importance of left-right ideology (González, 2002; Maravall and

Przeworski, 2001; Torcal and Medina 2002) and class voting (Cainzos, 2001). In general the idea is that both ideological and class voting are important through the period analysed here. In addition, previous literature, covering a shorter period than the one here, has confirmed the importance of other socio-demographics such as education, age, and gender (see Pallares et al., 2007). In sum, satisfactory specification of any voting model would require, then, inclusion of variables measuring socio-demographics and political ideology. These variables act as fundamental controls, helping to rule out spurious findings on economic voting. In words, here is the model for initial estimation:

Vote = (socio-demographics, political ideology, and economics) Eq.1

Because the data-set is a pool of elections, we are restricted to variables measured, and measured comparably, in all eight surveys. Fortunately, with respect to socio-demographics, we have such measures on age, gender, education, and class. With respect to political ideology we are again fortunate, for left-right self-placement is always measured. That does not mean that everything relevant is available. Essentially, though, the specification of Eq. 1 parallels the theory of Maravall and Przeworski (2001), except we use different economic variables.

We have not yet discussed measurement of the vote. Spain is a multi-party system, which offers the possibility of an elaborate coding of the choice categories. For example, in a current exercise, Fraile and Lewis-Beck (2010) carry out a multinomial logit analysis, distinguishing not only between the conservative and socialist parties but also between the nationalist parties, the United Left, and the abstention. Such a coding,

while useful for its subtlety, poses difficulties with such a complex data pool. To simplify the task, we reduce the dependent variable to a two-party dichotomy, of incumbent v. opposition. This coding is not radical, since the PP and the PSOE are the two dominant parties, and have alternated in government during the whole period considered here (1982-2008). Further, this dichotomy allows a clear test of the classic economic voting hypothesis: if economic performance has improved, the voter favours the incumbent; otherwise, the voter favours the opposition (Lewis-Beck, 1988). If there is any economic voting, it should reveal itself here, since the attribution of responsibility for economic policy is unambiguously linked to a single leading ruling party (Lewis-Beck, 1988, 341; Powell and Whitten, 1993, 393). [iii]

The model of Eq.1, as estimated (binomial logit), appears in Table 1. At the bottom of the table, the details on variable measurement are spelled out. Note the socio-demographic variables of age, education, and gender are entered as interval measures. However, social class is entered categorically, as is ideology. Note in particular that there are two categories on the left, and two categories on the right (with the centre as the excluded reference category). This categorical treatment of class and ideology facilitates interpretation of effects. Also, the class and ideology variables necessarily have independent interaction terms with incumbency (since their effect is obviously different depending on whether the incumbent is PP or PSOE, e.g., if the incumbent is socialist a left voter is more likely to support it). And, the same is true for the effect of education and gender. That is, as the level of educational attainment increases, the likelihood of a conservative incumbent vote increases. In contrast, the likelihood of a socialist incumbent vote decreases, when educational attainment increases. In addition, men are

more likely to support the incumbent if it is conservative, whereas they are less likely to vote for the incumbent when it is socialist.

[Table 1 about here]

In sum, this empirical specification makes for a demanding set of controls, which the economic voting hypothesis may not survive. Consider the impact of socio-demographics. We observe, as expected, that age, gender, education, and class make a difference, as the significance tests show. Examine how well the model performs overall. Clearly, the model stands as a general explanation of vote choice in Spanish national elections. And, this statement holds, despite the vagaries of eight different contests, across a twenty-six year period. Interesting, also, is the fact this statistical performance, in terms of model fit, compares favourably to the United States case with pooled national election survey data. [Those models yielded pooled R-squared of about .50 (Markus, 1992; Nadeau and Lewis-Beck, 2001).]

A remaining statistical question concerns the validity of the significance tests. A critic may worry that the reported standard errors are not as large as they should be, given the clustering of the respondent observations within elections. To illustrate, the voters of 1982 might be more similar to each other than they are to the voters of 1986. To the extent such clustering exists, the independence of these observations diminishes, and the significance values become too large. This intra-class correlation, as it is called, has different remedies. A rather stringent one is the clustered robust standard errors technique, which appropriately expands standard error estimates (Raudenbush and Bryk,

2002). When we implemented this adjustment the strong statistical significance values for the relevant coefficients continue virtually unchanged (results are available on request to the authors).

4. The economic effects

Thus, the model seems theoretically and statistically secure. What does it say, ceteris paribus, about economic effects? Observe there are three specifications of the economic variables: Retrospective Positive Economic Views (RPEV) only, GDP only, RPEV plus GDP (see, respectively, columns 1, 2 and 3 of Table 1). Before discussing the comparative specification merits, it is worth reporting that each economic variable, alone or in combination, carries a properly signed coefficient that easily reaches statistical significance at the highest level (.001). Certainly, the economy matters for the Spanish voter. When the economy improves, subjectively or objectively, the incumbent party gains votes. When the economy deteriorates, subjectively or objectively, the incumbent party loses votes. The only live question is the magnitude of these gains or losses. Put another way, what is the substantive significance of change in these variables, for the vote prospects of the incumbent?

We can calculate the change in the predicted probability of an incumbent vote, as the subjective economy improves. When RPEV is at its lowest – only two per cent view past national economic performance as positive – the probability of an incumbent vote is about .50. In contrast, when RPEV is at its highest – 35 per cent see a positive economy – the incumbent vote probability approaches .70. But these are extremes. What if RPEV should change in a more typical manner, say an increase of one standard deviation (i.e.,

12.3)? That rise yields a probability change of about .08. Interestingly, that is quite close to the effect reported in an American presidential election pool, for a comparable standard deviation change in the subjective national economic perception (Nadeau and Lewis-Beck, 2001, 165). Seen at the national level, this is not a small effect.

Similarly, we can calculate the changing probability of an incumbent vote, in response to increases in objective economic performance, as measured by GDP per capita growth. Again, we see strong effects on the vote, emanating from this alternative measure of the national economy. At the lowest level of growth, incumbent support is about .52. In contrast, at the highest level of growth, 8.76 percentage points, the impact passes .72. Suppose the change is less extreme, say a one-percentage point rise in the growth rate? That rise yields a probability change of about .03, thus paralleling the finding for an American national election pool, using the objective measure of RDI (Markus, 1992, 831). Objective improvements in the macro economy appear to generate real, rather than imagined, changes in incumbent vote support.

The magnitude of the economic voting appears strong. Note that this effect stands while controlling for the other main voting determinants in Spain, namely social class and ideological predispositions. Look, for instance at social class, where the traditional pattern of left voting by workers prevails. For example, skilled manual workers tend to vote PSOE significantly more than white collar employees. In particular, the net skilled workers coefficient is about more than three times the magnitude of the net white collar employees coefficient when the incumbent is PSOE (1.46 -.37 = 1.09, see the bottom of Table 1, equation 3 when PSOE is the incumbent). The strong traditional pattern of leftists voting PSOE, rightists voting PP is also obvious (see Table 1, column 3). For

example, under a PSOE incumbent those in the Left category decidedly vote PSOE (6.13 – 2.85 = 3.28), while those on the Right decidedly vote PP (-5.64 + 2.59 = -3.05). These, and other potential examples, reveal the basic workings of Spanish electoral behavior: social cleavages and political ideology matter greatly, offering assurances that the model is in order.

5. Conclusions

In the leading Western democracies, strong evidence exists for the presence of economic voting. Spain, however, stands as an exception to this generalization. To test rigorously the orthodoxy – no economic voting in Spain – we constructed a full survey pool of general elections, with grafts of effectively exogenous national economic measures. Specifically, eight national probability, election surveys (1982 – 2008) are pooled. The economic variables are embedded in a well-specified model of Spanish voter behaviour, in order to estimate accurately their possible effects. Voting behaviour in Spain, as in other Western democracies, is a product of long-term and short-term forces In terms of the classic "funnel of causality," the long-term forces are socio-demographics and political ideology (Campbell et al., 1960, 24-26; Lewis-Beck et al., 2008, 22-24). The essential short-term force, under consideration here, is the economic issue. The explanatory power of traditional long-term forces is great, as our analysis shows. The research question is whether, once these profound influences are taken into account, an economic effect remains.

We see that it does. National retrospective evaluations have a statistically and substantively significant impact on the incumbent vote. As positive views of the

economy (RPEV) increase, voters appear to reward the incumbent party. The same holds for increases in GDP per capita. Thus, both subjective and objective national economic measures matter, with each telling a somewhat different part of the story. Taking the two together, economic improvements, real and perceived, offer a handsome boost in incumbent support. Accordingly, economic deterioration, real and perceived, seriously damages incumbent support. Of course, this pooled analysis is not definitive, as no one study ever is. Nevertheless, it perhaps lays to rest the argument of Spanish exceptionalism, one claiming that no economic voting exists. Instead, across these many Spanish elections, and across these different measures, the economy impacts elections much as it does in other industrial democracies.

Unfortunately with the results of this analysis we cannot make specific considerations about the growth of the importance of the economic voting in Spain in comparison to the importance of ideological or class voting across time as, for instance, the article of Bellucci (in this volume) does for the Italian case[iv]. Previous studies, however, have found that the magnitude of the economic voting effect appears to have grown across time (Fraile 2005) despite the persistence of both ideological, religious and/or class voting. While in the Italian case it seems that the growth of the economic voting is parallel to a decline in the ideological, religious or class voting, in Spain there is no such sign. Moreover for the case of ideological voting previous studies have suggested a changing pattern across time depending on who is the incumbent, with the PP being more able to retain the support of their natural conservative electorate than the PSOE (Torcal and Medina 2002). For the case of religious voting, after a period of continuing decline during the nineties, recent studies have identified a pattern of substantive growth

of religious voting from the end of the nineties onwards (see for instance Calvo and Montero 2002). To close, the growth of the importance of the economic voting seems to be parallel to the other more traditional determinants of the vote in Spain.

6. References

Barnes, S. McDonough, P. López Pina, A. 1985. The Development of Partisanship in New Democracies: The Case of Spain. American Journal of Political Science 29 (4), 695-720.

Calvo, K., Montero,J. R. 2002. Cuando ser conservador ya no es un problema: religiosidad, ideología y voto en las elecciones generales de 2000. Revista Española de Ciencia Política 6, 17-56.

Caínzos, M. 2001. La evolución del voto clasista en España, 1986-2000 Zona Abierta. 96/97, 91-172.

Campbell, A., Converse, P. E., Miller, W. E., Stokes, D. E. 1960. The American Voter. John Wiley and Sons, New York.

Duch, R., Stevenson, R. 2008. The Economic Vote: How Political and Economic Institutions Condition Election Results. Cambridge University Press, Cambridge.

Fraile, M. 2005. Cuando la economía entra en las urnas. El voto económico en España (1979-1996). Centro de Investigaciones Sociológicas. Colección Monografías, Madrid.

Fraile, M., Lewis-Beck, M. S. 2010. Economic Voting In Spain: A 2000 panel test. Electoral Studies 29 (2), 210-220.

González, J. J. 2002. Las elecciones generales de 2000: Voto ideológico/voto racional. Revista Internacional de Sociología 32, 7-33.

Gunther, R., Sani, G., Shabad, G.1986. Spain after Franco: the Making of a Competitive Party System. University of California Press, Berkeley.

Koutsoyiannis, A. 1977. Theory of Econometics, Second Edition. Macmillan, London.

Kramer, G. H. 1983. The Ecological Fallacy Revisited: Aggregate- versus Individual-level Findings on Economics and Elections, and Sociotropic Voting. The American Political Science Review 77 (1), 92-111

Lancaster, T. D., Lewis-Beck M. S. 1986. The Spanish Voter: Tradition, Economics, Ideology. The Journal of Politics 48 (3), 648-674.

Lewis-Beck, M. S. 1988. Economics and Elections. The Major Western Democracies. The University of Michigan Press, Ann Arbor.

Lewis-Beck, M. S., Jacoby, W. G. Norpoth, H. Weisberg, H. F. 2008. The American Voter Revisited. The University of Michigan Press, Ann Arbor.

Lewis-Beck, M. S., Stegmaier, M. 2007. Economic Models of Voting. In: Dalton, R., Klingemann, H. (Eds.), The Oxford Handbook of Political Behavior, Oxford University Press, Oxford, 518-537.

Linz, J., Montero. J. R. (Eds.) 1986. Crisis y Cambio: Electores y Partidos en la España de los Ochenta. Centro de Estudios Constitucionales, Madrid.

Mackuen, M. B., Erikson, R. S. Stimson, J. A. 1992. Peasant or Banker: The American Electorate and the US Economy. American Political Science Review 86 (3), 597-611.

Maravall, J. M., Przeworski, A. 2001. Political Reactions to the Economy. In: Stokes, S. (Ed.), Public Support for Market Reforms in new democracies, Cambridge University Press, Cambridge, 35-76.

Markus, G. B. 1988. The Impact of Personal and National Economic Conditions on the Presidential Vote: A Pooled Cross-Sectional Analysis. American Journal of Political Science 32 (1), 137-54

Markus, G. B. 1992. The Impact of Personal and National Economic Conditions on Presidential Voting, 1956-88. American Journal of Political Science 36 (3), 829-34.

Nadeau, R. , Lewis-Beck, M. S. 2001. National Economic Voting in U.S. Presidential Elections. The Journal of Politics 63 (1), 159-181.

Pallarés, F., Fraile, M., Riba, C. 2007. Variables socio-estructurales y comportamiento electoral en las elecciones generales en España: una perspectiva evolutiva (1979-2000). Revista de Estudios Políticos 135, 109-158.

Powell, G. B. and Whitten, G. D. 1993. A Cross-national Analysis of Economic Voting: Taking Account of the Political Context. American Journal of Political Science 37 (2), 391-414.

Raudenbush, S. W., Bryk, A. S. 2002. Hierarchical Linear Models: Applications and Data Analysis Methods, 2nd Edition. Sage, Thousand Oaks, CA.

Torcal, M., Medina, L. 2002. Ideología y voto en España: 1979-2000: los procesos de reconstrucción racional de la identificación ideológica. Revista Española de Ciencia Política 6, 57-98.

Table 1. Objective and Subjective National Economic Measures and the Incumbent Vote. Binomial logit estimates. Spain 1982-2008

Variable	(1)	(2)	(3)
Incumbent (1= PSOE, 0 = Conservative)	1.85***	1.69***	2.20***
	(0.26)	(0.25)	(0.26)
When incumbent is conservative:			
Age	0.016***	0.017***	0.016***
	(0.00)	(0.00)	(0.00)
Gender	0.22**	0.21**	0.22**
	(0.08)	(0.08)	(0.08)
Education	0.30***	0.30***	0.29***
	(0.06)	(0.06)	(0.06)
Social Class:			
Service class	0.03	0.04	0.05
	(0.15)	(0.15)	(0.15)
White collar	-0.07	-0.06	-0.05
	(0.13)	(0.13)	(0.13)
Skilled manual worker	-0.53***	-0.58***	-0.55***
	(0.12)	(0.12)	(0.12)
Unskilled manual worker	-0.43***	-0.42***	-0.44***
	(0.12)	(0.12)	(0.12)
Ideology:			
Extreme left	-3.64***	-3.78***	-3.66***
	(0.34)	(0.34)	(0.34)
Left	-2.85***	-2.93***	-2.85***
	(0.11)	(0.11)	(0.11)
Right	2.58***	2.64***	2.59***
	(0.12)	(0.12)	(0.12)
Extreme right	3.19***	3.25***	3.19***
	(0.23)	(0.23)	(0.23)
DK/DA	0.36***	0.24***	0.32***
	(0.07)	(0.07)	(0.07)
When incumbent is PSOE:			
Age* Incumbent	-0.02***	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)
Gender* Incumbent	-0.34***	-0.33**	-0.33***
	(0.10)	(0.10)	(0.10)
Education * Incumbent	-0.60***	-0.58***	-0.61***
	(0.08)	(0.08)	(0.08)
Social Class:			
Service Class * Incumbent	0.23	0.18	0.17
	(0.20)	(0.20)	(0.20)
White Collar * Incumbent	0.37*	0.42*	0.37*
	(0.18)	(0.18)	(0.18)
Skilled Manual * Incumbent	1.46***	1.58***	1.46***
	(0.16)	(0.16)	(0.16)

Unskilled Manual * Incumbent	1.27***	1.20***	1.24***
	(0.16)	(0.16)	(0.16)
Extreme left * Incumbent	7.29***	7.45***	7.33***
	(0.44)	(0.44)	(0.44)
Left * Incumbent	6.10***	6.18***	6.13***
	(0.16)	(0.16)	(0.16)
Right * Incumbent	-5.60***	-5.65***	-5.64***
	(0.15)	(0.15)	(0.15)
Extreme right * Incumbent	-6.88***	-6.99***	-6.95***
	(0.28)	(0.28)	(0.28)
Retrospective positive economic views	0.02***		0.03***
(RPEV)	(0.00)		(0.00)
GDP growth per capita (% change)		0.10***	0.12***
		(0.01)	(0.01)
Constant	-1.85***	-1.79***	-2.58***
	(0.21)	(0.20)	(0.22)
LR Chi 2	13664.89***	13660.22***	13746.79***
PseudoR^2 (McFadden)	0.57	0.57	0.58
Percent predicted	87	87	88
N	17264	17264	17264

Source: the survey data are pooled from CIS post electoral surveys. The GDP data are from the International Monetary Fund – 2008World Economic Outlook.
The dependent variable is the incumbent vote dichotomy (1 = incumbent party: PSOE in 1986. 1989. 1993. 1996. and 2008 elections; UCD in 1982 elections; PP in 2000 and 2004 elections; 0 = Vote for the main opposition party: PP in 1986. 1989. 1993 1996 and 2008 elections; PSOE in 1982. 2000. and 2004 elections)
Independent variables are coded as follows: Incumbent party (1= PSOE. socialist party. 0 = PP or UCD. conservative parties) Age = in years; Gender = 1 for men; Education (0= no education. 1= primary. 2= secondary. 3 = university); For Social Class self employed is the category of reference; Ideology (0= extreme left. 1= left. 2= centre. 3= right. 4= extreme right. and 5= do not know or no answer). centre is the category of reference.
*** = statistical significance. .001 ** = statistical significance. .01; * = statistical significance. .05; two-tailed tests.
Figures in parentheses are standard errors
More on the measures and data sources for the subjective and objective measures of economic performance and descriptive statistics appear in the Appendix (Table A.1).

APPENDIX

Table A. 1. Descriptive statistics

Variable	Observations	Mean	Standard. Deviation	Minimum	Maximum
Vote	19060	0.54	0.50	0	1
Incumbent	40846	0.68	0.47	0	1
Age	34653	45.39	18.00	4	99
Gender	40382	0.55	0.50	0	1
Education	40542	1.17	0.93	0	3
Social Class	32778	3.23	1.38	1	5
Ideology	36999	2.13	1.56	0	5
Positive economic views (RPEV)	40846	15.42	12.32	1.99	34.78
GDP growth per capita (% change)	40846	4.55	2.32	0.65	8.76
Unemployment Rate	40846	16.78	4.98	9.50	22.64
Inflation Rate	40846	5.61	3.03	3.05	14.41
EU	40846	0.74	0.44	0	1

Source: the survey data are pooled from CIS post electoral surveys. The International Monetary Fund - 2008 World Economic Outlook provides the data for the three objective economic indicators

Notes

[i] Marta Fraile acknowledges the financial support of the Ministerio de Ciencia e Innovación. Secretaría de estado de investigación (Proyect number: CSO2008-3819/SOCI**.**

[ii] Moreover, the variables, taken together, account for 86 percent of the variation in national economic assessment. Results are available on request to the authors.

[iii] This means that declared vote for other parties are not included in the analysis. While we recognize that this is a simplification of the reality, we had no choice if we wanted to properly specify a voting model with this pooled data set. Moreover the specification of the equation required inclusion of a set of interactions of class, ideology, education, and gender with incumbency (that classifies individuals under a conservative incumbent versus respondents under a social democratic incumbent), given that the effect of these variables on the probabilities of voting are different depending on which party is in government. During the whole period under analysis here there was only two incumbent parties (the PP and the PSOE). Thus, voters of the other parties were not included in the analysis.

[iv] The pooled data set imposes some constraints in the estimations. It turns out to be impossible (due to statistical efficiency problems) to specify an additional interaction term of the economic variables with a hypothetical time variable.