

VOTING, CIVIC DUTY AND TRANSACTION COSTS IN TRANSITION COUNTRIES

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Abstract

This paper examines the determinants of electoral participation. We analyze attitudes to both referenda and voting in national elections. Sample survey data are obtained from the Eurobarometer survey of transition countries in Central and Eastern Europe. The empirical results suggest that electoral participation increases with age, income and education. But attitudinal variables, associated with civic duty, are also important and in particular confidence in the free market economy and satisfaction with the general development of the country impact positively on electoral participation.

JEL Classification: H26, K42.

Key Words: Voting, civic duty, transition economies

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Introduction

The probability that a single person's vote can alter the outcome of an election is miniscule. Given that there are positive costs to voting - involving both the act of voting itself and the acquisition of information prior to voting - the rational strategy for individuals would appear to be to abstain from voting (Downs, 1957). It is surprising therefore that in western democracies voter turnout is generally high (Aldrich, 1993). This has been explained by the proposition that individuals gain utility from the act of voting. Both Downs (1957) and Riker and Ordeshook (1968) argue that that individuals vote to fulfil 'a civic duty', partly out of a fear that democracy will collapse without such participation. Fiorina (1976) argued that the utility from voting also depends upon the act of expressing a preference akin to applauding a fine symphony performance or cheering the success of a home team (Aldrich, 1997). This argument is also consistent with recent developments in cognitive psychology that 'intrinsic motivation leads individuals to undertake activities for their own sake (Deci, 1971). Intrinsic motivation is based on moral and ethical considerations but is also affected by external intervention (e.g., Deci and Ryan, 1980, Jones and Hudson, 2000). For example tax compliance depends, in part, on 'civic duty' (Orviska and Hudson, Forthcoming). Intrinsic motivation, or civic duty, depends upon the nature of the political constitution within which decisions are made, for this may signal the extent to which intrinsic motivation is acknowledged (Frey 1997).

It is also possible that the costs of voting are reduced by institutional developments which facilitate electoral participation. For example, Jones and Hudson (2000) argue that the costs of electoral participation are significantly reduced by the existence of political parties with coherent and well known policy positions who also 'vet' individual candidates. Voters can therefore use political parties as a signal in evaluating individual candidates.

Transition countries offer a unique opportunity to analyze electoral participation in the early years of democratic development. These countries can be regarded as 'new democracies', with few people having actual memories of voting in democratic elections and thus experience of choosing between candidates from competing political parties. Many of the parties

themselves are also new and have had relatively little time to establish a voter awareness to enable them to be used as an effective signal. There are also a larger number of political parties than is typically the case in western democracies. Hence there are reasons to suppose that the transactions costs of electoral participation are high relative to those of established democracies. But as against this the recent memory of a non-democratic past may enhance civic duty. Reinforcing this possibility is the fact that several of these countries are also relatively new nations, e.g. Slovenia and Slovakia.

In this paper we shall test the significance of the external impact on civic duty within the context of the decision of whether or not to vote in elections in the transition countries. A study by Fidrmuc (2000) has found a strong influence of economic factors on the decision of *whom to vote for* in transition countries. But, relatively little work has been done on electoral participation per se, i.e. on *whether to vote*, in these countries. The basis for our analysis will be Eurobarometer data. The specific countries we will be analysing are listed in Table 1. In the next section we will formally discuss the electoral participation decision. We shall then turn to presenting and analyzing the data on electoral participation.

We expect electoral participation to be a function of (i) W , which we shall proxy by household income, the transactions costs of voting (t) and civic duty (d). The transactions costs of voting will be related to cognitive ability, which we will proxy by the level of education, and also by age as our previous analysis suggests that people accumulate informational signals over time which will reduce the variance on prior beliefs regarding individual politicians and parties. Of course the relative newness of many political parties in CEE impacts on this process, but many of the personalities involved have been in public life for a considerable number of years and hence prior knowledge may still play a role. In the regression analysis which follows we will proxy civic duty by two attitudinal variables which relate to the general development of the country and the freemarket. The hypothesis is that people who disagree with either of these will have a reduced sense of civic duty, of involvement or commitment to the country and be less likely to incur the costs of voting. We will also be including current GNP per capita and GNP per capita in 1991 at the start of the transition process. We expect that the better a country is doing in transition the greater will be civic duty.

Empirical Analysis

The data is part of that collected under the Central and Eastern Eurobarometer surveys carried out in October-November 1992, November 1995, November, 1996 and November 1997¹. Surveys were carried out in other years, but a lack of consistency in the questions effectively limited the analysis to these four years. Nonetheless, these years offer the opportunity to analyse how opinions have evolved throughout much of the transition period. The 1992 study was carried out by Gallup UK and the participating Eastern European Institutes. The remaining studies were carried out by GFK Europe and the participating Eastern European Institutes. The countries interviewed in the 1997 survey are shown in Table 1, other countries, for example Georgia, Albania and Belarus, were also interviewed in the earlier studies but in order to retain continuity of data the analysis was restricted to the countries available in 1997.

Table 1 shows the proportion of those indicating that they would not vote in an election. Respondents are asked which party or block they would vote for or might be inclined to vote

¹ This being the final year the survey was carried out.

for. We classify not voting as those who answer either “would vote blank/spoil vote” or “would not vote”. It should be noted that there are a number of constants, in particular Bulgaria and Romania are always high on the last and Hungary always towards the bottom. Table 1 also shows the proportion not voting in the most recent elections to the time of the 1997 survey. The correlation between these percentages and those for the 1997 survey is only 16%. If however, we take the correlation between those who indicate either that they would not vote or that they are uncertain for whom they would vote for the correlation rises to 60%.

Table 2 provides information on two other ‘elections’ which in fact relate to referenda on membership of the European Union and NATO. Those who answer “would not vote” are classified as not voting. Details on all these variables and the exogenous ones are given in an appendix. Data on the referenda were only available in the three most recent years: 1995-7. The fact that when we move to the two referenda issues intended electoral participation increases considerably is at first slightly surprising as the probability of one voter affecting the outcome of a referendum is even smaller than in a constituency election. This therefore tends to confirm the importance of civic duty in determining electoral participation and also suggests that the low turn out in general elections is due to high transactions costs rather than low civic duty. In a referenda there is just one issue and no individual personalities to evaluate compared to a general election where there are many issues as well as candidates.

Table 3 summarizes the survey data on the attitudinal variables. There is no obvious trend with respect to attitudes to the general development of the country. The low figure for Bulgaria in 1996 can readily be explained by the fall in GNP of 7.6% in that year coupled with inflation in excess of 100%. Attitudes to the free market, however, have become steadily less favorable.

The results of the regressions are shown in Table 4. The dependent variables are defined in an appendix and relate to electoral participation defined along a continuum from voting to not voting. Electoral participation increases with the respondent’s income, age and education. It is also greater for students and men and less for the unemployed. All of these are significant at the 1% level of significance. Those who live in villages are also significantly, at the 5% level, more likely to vote. None of the other socio-economic variables are significant at the 5% level. These relate to the self employed, farmworkers and other locational variables. Clearly the political systems in CEE are still in a state of considerable flux. Many of the country specific dummy variables are also significant. These will capture a number of effects. Firstly, differences in civic duty between countries not otherwise captured by the attitudinal variables. Secondly, differences in the transactions costs of voting due to differences in the complexity of the voting procedures and the clarity of the signals of the diverse political parties.

The next four columns relate to intended electoral participation in EU and NATO referendums. By and large the results are consistent with those already discussed. There are several differences however and we shall now focus on these. Firstly, age is no longer as significant a factor in determining electoral participation in the referenda, particularly with respect to the EU. As the impact of civic duty on electoral participation in its various guises should be relatively constant, this suggests that age is more related to the transactions costs of voting than civic duty. Secondly, the self-employed have a higher level of electoral participation for the EU referendum, something which may perhaps reflect self-interest. Thirdly, other things being equal, women have a much lower level of electoral participation relative to men in referenda than national elections. The only variable which is significantly

different in the nature of its impact relates to those living in villages. This is associated with higher electoral participation in general elections, but significantly lower, at the 1% level, participation in the two referenda². However, as we have emphasized most of the variables remain unchanged in the nature of their impact and significant. In particular, the attitudinal variables retain their earlier pattern of significance.

Finally, we turn to examine the impact of including two potentially key macroeconomic variables, current GNP per capita and GNP per capita in 1991 at the start of the transition process. The expectation is that countries which have done 'well' during the transition period are likely to have a higher sense of civic duty than countries who have not done well. As a consequence we expect current GNP per capita to have a positive impact on electoral participation and historical GNP per capita to have a negative impact. The results are shown in Table 5. In general they conform with a priori expectations. Both impacts are as expected and significant at the 1% level for all three type of election, although current GNP is much less important relative to historical GNP in the general election equation. Finally we should note that the equations in Table 5 are significantly better than those in table 6, suggesting that relative living standards are far from being a complete explanation of inter-country differences³. The coefficients on these country variables fluctuate from election to election. For example, other things being equal, the lowest electoral participation in a national election is for Hungary, but for both referenda it has the third best participation. This is possibly a reflection of the complexity of Hungary's electoral system⁴ which Fowler (1998) describes as "notoriously complex" and Rose et al. (1998) as "a complicated mixture of majority and proportional representation systems". However, there are some constants and Romania and Bulgaria, other things being equal, would appear to have a consistently high level of electoral participation in all forms of election.

These results can be contrasted with the relatively small volume of literature which has been done in western countries on electoral participation. For Germany Opp (2001) found that electoral participation increased with age and education, results which are consistent with ours, but that income was insignificant, a result which differed to ours. He also found that '*disaffection*' reduced voting, a result which closely matches our result that those who disapprove of either the general direction in which the country is moving in or more specifically the free market, are less likely to vote. In the UK Jones and Hudson (2000) found a significant role for variables which potentially impact on civic duty such as the perceived integrity of politicians and again this is consistent with our results.

² The latter effect was more expected due to possible higher transactions costs of those living in rural communities, particularly perhaps with respect to international issues. The former may reflect a greater group identity effect in small communities which is sufficient to ensure a positive impact on electoral participation (Schram and Sonnemans, 1996).

³ The fundamental nature of these results is unchanged in binomial probit regressions based on a voting-non voting dichotomy. In particular the coefficients relating to the attitudinal variables, income and education are all unchanged both in significance and sign. This is also in general the case for the macroeconomic variables, although GNPPC becomes insignificant in the national election equation. Age also becomes less significant in the referenda equations.

⁴ Hungary has 1 chamber, electors have two votes, one for a candidate in a single member district (elections can take two stages) and one in one of 20 multi-member proportional representation districts. For the latter if turnout is not 50% a second ballot must be held with a 25% turnout required to distribute seats. To win seats, a party must have a full quota, any seats not allotted are added to the national pool, which has 58 seats. Votes used for national-level allocation comprise all wasted votes in single member districts and wasted multi-member district votes.

Conclusions and Policy Implications

The results tend to confirm the theoretical analysis in that variables reflecting civic duty, transactions costs and self interest all impact on the voting decision. The most clear link with self interest is via income. Our theoretical analysis suggested that electoral participation would increase with income and this was strongly borne out by the results. The significance of the education variable suggests that transactions costs are a factor in the voting decision with those most cognitively able to process the data relating to the voting decision more likely to vote. The same may be true for age. The significance of the attitudinal variables unambiguously indicates the significance of civic duty in the voting decision. It provides very strong evidence that civic duty can be adversely affected by a sense of alienation from the political system, caused by disaffection with the way the system is evolving or works and that this then impacts on the electoral participation decision. The two attitudinal variables reflect individual differences in civic duty but only partially and both the time specific dummy variables and the country specific dummy variables will also capture further differences in civic duty, as well as in factors which affect E' , e.g. the complexity of the voting system.

Of course the research has thrown up some potential anomalies, the most important of which is the insignificance or reduced significance of age in the two referendum decisions compared with the general election equations. A crucial factor in explaining this is the differences between a single issue referendum and voting in a general election. In Central and Eastern Europe the latter requires knowledge on numerous political parties, their candidates, leaders and policy positions on a diverse range of issues. To compound the transactions costs involved in this calculus the political parties themselves are relatively new and people will still be learning about them. Single issue referenda are conceptually much simpler. There is only one issue, it may be a complex issue, but nonetheless still a single issue in which evaluation of personalities is secondary to the decision, as it is not in the case with a general election. For this reason we would expect transaction costs to be lower and electoral participation to be higher than for a general election and this is borne out by the data in Tables 1 and 3. With respect to the two referenda, that relating to the EU is of greater impact, it is less reversible, has more impact on the daily lives of the people and arguably ties the country more tightly to the West than does membership of NATO. This suggests that the importance on self-interest of the EU decision is greater than the NATO⁵ decision and helps explain the higher participation rate in the former decision compared to the latter one.

A further difference between referenda, probably most referenda, but clearly on these issues, and voting at a general election is the value of accumulated knowledge. Even though many, even most, of the political parties are relatively new, voters will have known at least some of their leaders in the pre-transition days and the accumulated information of older voters will be of use to them in choosing between alternatives. Hence the transactions costs of older voters will be less than those for younger voters and this helps explain the significance of age in the regressions on electoral participation in a general election. This is much less likely to be the case for the two referenda issues, the possibility of joining the EU and NATO are relatively new, no older than the transition process itself. Information on the advantages and disadvantages of these options will not have been accumulated over time and the old will have much less of an advantage over younger people in this respect. Hence, this explains why we do not see such a strong age effect in the two referenda equations. In passing we might note that

⁵ Because of this probably greater importance of the EU decision the civic duty element may also be more important in this electoral participation decision.

although this study is very issue specific, it might well have greater relevance, in that arguably many referenda issues are relatively new ones for which past experience offers little guidance. These results may also indicate that the general significance of age in explaining electoral participation in Western Europe may at least in part be also due to a similar transactions cost effect. On the policy side this does suggest a little discussed advantage of referenda over elections in widening participation. This may be particularly important in emerging democracies with a plethora of relatively new political parties. The results also suggest that the complexity of the electoral system has an impact on electoral participation and that this too is a factor which needs to be taken into account when analysing optimal voting systems.

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Data Appendix: Variable Definitions

Dependent Variables

- General Coded 0 for those who indicated for whom they would vote in if an election were held 'tomorrow', 1 if they were uncertain as for whom to vote and 2 if they would not vote.
- EU/NATO Coded 0 for those who indicated how they would vote if a referendum (on EU/NATO) were held 'tomorrow', 1 if they were uncertain as to how they would vote and 2 if they would not vote.

Independent Variables

- SEX Takes a 1 if the respondent is female, otherwise 0.
- EDUCN The highest level of education achieved, ranges from a 1 (up to elementary) to 4 (higher education).
- LAGE Log of Age in years
- LINCOME Log of household income prior to tax and deductions using an increasing scale of 1 to 16
- UNEMP Takes a 1 if the respondent is unemployed, otherwise 0.
- SELFE Takes a 1 if the respondent is self-employed, otherwise 0.
- CITY Takes a 1 if the respondent lives in a non-capital city, otherwise 0.
- CAPITAL Takes a 1 if the respondent lives in a capital city, otherwise 0.
- TOWN Takes a 1 if the respondent lives in a town, otherwise 0.
- VILLAGE Takes a 1 if the respondent lives in a town, otherwise 0.
- FARM Takes a 1 if the respondent is a farmer, otherwise 0.
- STUDENT Takes a 1 if the respondent is a student, otherwise 0.
- FREEMKT Responses to a question which asked "Do you personally feel that the creation of a free market economy, that is one largely free from state control, is right or wrong for (OUR COUNTRY'S) future?". Those who answered "right" were coded 0 The alternative includes 'dont knows', but not those who declined to answer.
- GENDEV Responses to a question which asked "In general do you feel things in (OUR COUNTRY) are going in the right or in the wrong direction?" Those who answered "right" ("wrong") were coded 0 (1)
- DUM9X, Dummy variables operative if the questionnaire was carried out in 199X.
- GNPPC GNP per capita (constant 1995 US\$) in the year current to the survey time
- GNPPC91 GNP per capita (constant 1995 US\$) in 1991 at the beginning of the transition process⁶.

⁶ Except for Slovenia where data was not available for 1991 and 1992 was used instead.

Table 1: Proportions not Voting in general elections

	% note voting in:		general election		1997		Non-voting in actual elections ^a			
	1992	1995	1996	1997	1997	1997	1997	1997		
Bulgaria	10.8%	[4]	19.9%	[7]	16.8%	[6]	20.5%	[6]	37.1%	[1997, 8]
Czech Republic	12.2%	[5]	12.2%	[5]	17.2%	[7]	20.9%	[8]	24.2%	[1996,2]
Slovakia	14.4%	[6]	19.4%	[6]	18.3%	[8]	12.4%	[3]	15.8%	[1998,1]
Estonia	25.4%	[8]	14.4%	[4]	12.9%	[2]	17.0%	[5]	31.1%	[1995, 6]
Hungary	27.3%	[9]	21.8%	[8]	20.7%	[9]	22.3%	[10]	43.8%	[1998, 10]
Latvia	22.6%	[7]	12.2%	[3]	21.9%	[10]	20.7%	[7]	29.0%	[1998, 4]
Lithuania	8.2%	[1]	24.8%	[9]	14.8%	[5]	10.1%	[1]	28.5%	[1997P, 3]
Poland	35.1%	[10]	10.1%	[2]	14.1%	[3]	15.2%	[4]	39.0%	[2000P, 9]
Romania	10.6%	[3]	8.3%	[1]	10.2%	[1]	10.7%	[2]	34.7%	[2000P, 7]
Slovenia	9.5%	[2]	28.4%	[10]	14.5%	[4]	21.7%	[9]	30.7%	[1996, 5]
All countries	17.3%		17.1%		15.6%		16.9%			

Notes: Sources: Eurobarometer surveys in the years specified, a: Rose et al (1998), [.] denotes a ranking with [1] indicating the highest electoral participation

Table 2: Proportions not Voting in Referenda

	Number		% note voting in Referenda on joining:				1997					
	NATO	EU	1995	NATO	EU	1996	NATO	EU				
Bulgaria	6.6%	[3]	4.7%	[3]	10.0%	[3]	7.6%	[3]	10.5%	[6]	7.4%	[5]
Czech Republic	12.0%	[9]	12.6%	[9]	16.5%	[9]	13.7%	[7]	12.3%	[7]	11.5%	[9]
Slovakia	15.9%	[10]	14.9%	[10]	16.3%	[8]	14.6%	[8]	12.9%	[9]	11.2%	[8]
Estonia	9.2%	[4]	9.1%	[5]	17.6%	[10]	15.5%	[9]	16.2%	[10]	12.9%	[10]
Hungary	11.1%	[7]	10.9%	[7]	11.7%	[5]	8.3%	[4]	9.2%	[5]	8.2%	[6]
Latvia	10.1%	[5]	9.0%	[4]	12.6%	[6]	9.8%	[6]	12.4%	[8]	10.9%	[7]
Lithuania	11.1%	[7]	11.9%	[8]	14.4%	[7]	15.5%	[9]	8.6%	[4]	7.2%	[4]
Poland	4.6%	[2]	3.6%	[2]	5.2%	[2]	3.4%	[2]	7.6%	[3]	6.8%	[3]
Romania	3.4%	[1]	3.1%	[1]	2.7%	[1]	2.7%	[1]	3.7%	[1]	3.3%	[1]
Slovenia	10.4%	[6]	9.5%	[6]	11.5%	[4]	8.8%	[5]	7.0%	[2]	5.9%	[2]
All countries	9.5%		8.9%		11.7%		9.9%		10.0%		8.5%	

Notes: Sources: Eurobarometer surveys in the years specified. [.] denotes a ranking with [1] indicating the highest electoral participation

Table 3: Attitudes to the Transition Process

	Number % note favoring Developments with respect to:												1997			
	1992		1995		1996		1996		1996		1997		1997			
	FREEMKT	GENDEV	FREEMKT	GENDEV	FREEMKT	GENDEV	FREEMKT	GENDEV	FREEMKT	GENDEV	FREEM	GENDEV	FREEM	GENDEV		
Bulgaria	56.3%	[4]	41.3%	[6]	40.3%	[8]	34.5%	[7]	45.8%	[5]	11.0%	[10]	52.3%	[4]	52.1%	[3]
Czech Republic	55.1%	[7]	58.1%	[2]	43.7%	[6]	56.7%	[2]	44.9%	[6]	50.9%	[4]	29.8%	[10]	28.3%	[9]
Slovakia	50.5%	[8]	47.0%	[3]	39.8%	[10]	31.2%	[8]	42.4%	[8]	26.2%	[8]	34.7%	[9]	25.3%	[10]
Estonia	49.7%	[9]	41.6%	[5]	56.0%	[3]	58.0%	[1]	57.0%	[3]	59.7%	[2]	55.6%	[3]	58.5%	[1]
Hungary	55.6%	[6]	20.2%	[10]	40.3%	[8]	12.4%	[10]	38.6%	[10]	15.4%	[9]	37.8%	[8]	30.3%	[8]
Latvia	39.5%	[10]	32.9%	[7]	43.4%	[7]	37.6%	[6]	44.7%	[7]	36.4%	[6]	47.5%	[6]	46.1%	[6]
Lithuania	65.8%	[2]	25.5%	[9]	49.6%	[4]	19.7%	[9]	40.8%	[9]	29.0%	[7]	50.3%	[5]	42.1%	[7]
Poland	55.7%	[5]	27.8%	[8]	64.2%	[2]	42.0%	[5]	63.4%	[2]	41.8%	[5]	66.3%	[2]	51.8%	[4]
Romania	65.6%	[3]	42.8%	[4]	71.5%	[1]	43.5%	[4]	80.3%	[1]	75.6%	[1]	69.1%	[1]	54.5%	[2]
Slovenia	66.0%	[1]	66.3%	[1]	46.4%	[5]	50.7%	[3]	46.0%	[4]	53.0%	[3]	46.6%	[7]	48.7%	[5]
All countries	56.2%		40.2%		49.5%		38.8%		50.8%		40.6%		48.8%		43.5%	
Variance																

Notes: Sources: Eurobarometer surveys in the years specified, [.] denotes a ranking with [1] indicating the highest level of approval

Table 4: Ordered Probit Regression Results

	Dependent Variable: Electoral Participation					
	General Election	General Election	Join EU	Join EU	Join NATO	Join NATO
Constant	1.419 (11.35)	1.676 (13.25)	0.168 (1.24)	0.335 (2.44)	0.400 (3.01)	0.496 (3.71)
SEX	0.0948 (5.48)	0.0749 (4.30)	0.198 (10.57)	0.187 (9.94)	0.267 (14.61)	0.261 (14.25)
EDUCN	-0.120 (11.68)	-0.0980 (9.48)	-0.194 (12.97)	-0.181 (16.17)	-0.129 (11.96)	-0.121 (11.19)
LAGE	-0.386 (14.81)	-0.412 (15.67)	-0.0612 (2.19)	-0.0744 (2.64)	-0.136 (4.96)	-0.143 (5.22)
LINCOME	-0.098 (5.91)	-0.0650 (3.87)	-0.157 (8.36)	-0.136 (7.19)	-0.166 (9.15)	-0.155 (8.48)
SELFE	0.00761 (0.19)	-0.0252 (0.62)	-0.125 (2.69)	-0.110 (2.38)	-0.0655 (1.49)	-0.0574 (1.30)
CITY	0.0234 (0.93)	0.0158 (0.62)	-0.0300 (1.12)	-0.0336 (1.25)	0.0116 (0.45)	0.00933 (0.36)
CAPITAL	0.0391 (1.42)	0.0374 (1.35)	-0.0596 (1.97)	-0.0667 (2.20)	-0.0621 (2.12)	-0.0651 (2.22)
VILLAGE	-0.0493 (2.22)	-0.0560 (2.51)	0.0725 (2.93)	0.0745 (3.04)	0.0748 (3.09)	0.0752 (3.10)
DUM92	-0.131 (5.36)	-0.131 (5.32)				
DUM95	-0.0296 (1.20)	-0.0459 (1.85)	0.00715 (0.32)	0.0112 (0.49)	-0.0782 (3.54)	-0.0605 (2.72)
DUM96	-0.0760 (3.06)	-0.0879 (3.52)	0.115 (5.06)	0.140 (6.11)	0.114 (5.18)	0.135 (6.07)
BULGAR	-0.281 (6.91)	-0.313 (7.64)	-0.0492 (1.03)	-0.0731 (1.52)	0.0966 (2.11)	0.0852 (1.86)
CZECH	-0.223 (5.67)	-0.258 (6.49)	0.311 (7.38)	0.305 (7.21)	0.286 (6.89)	0.285 (6.86)
SLOVAK	-0.197 (5.15)	-0.289 (7.53)	0.228 (5.67)	0.180 (4.45)	0.360 (9.14)	0.336 (8.50)
ESTONIA	-0.194 (4.83)	-0.168 (4.15)	0.557 (13.41)	0.587 (14.08)	0.500 (12.40)	0.514 (12.74)
HUNGARY	0.0494 (1.23)	0.0424 (1.04)	-0.0731 (1.59)	-0.128 (2.75)	-0.0533 (1.19)	-0.0801 (1.76)
LATVIA	0.0354 (0.82)	0.0002 (0.00)	0.381 (8.15)	0.372 (7.94)	0.385 (8.42)	0.379 (8.28)
LITHUAN	-0.285 (7.06)	-0.362 (8.85)	0.506 (11.68)	0.464 (10.61)	0.415 (9.73)	0.391 (9.11)
POLE	-0.0492 (1.29)	-0.053 (1.38)	-0.224 (4.95)	-0.213 (4.67)	-0.241 (5.50)	-0.232 (5.28)
ROMANIA	-0.475 (12.19)	-0.454 (11.52)	-0.580 (12.59)	-0.540 (11.61)	-0.592 (13.29)	-0.566 (12.65)
FARM	-0.00917 (0.20)	-0.0199 (0.43)	0.0519 (0.30)	0.00499 (0.10)	0.0592 (1.16)	0.0557 (1.09)
STUDENT	-0.200 (4.66)	-0.173 (4.04)	-0.105 (2.45)	-0.0796 (1.86)	-0.0484 (1.17)	-0.0352 (0.85)
UNEMP	0.0960 (2.97)	0.0796 (2.45)	0.0332 (0.91)	0.0158 (0.43)	-0.0118 (0.33)	-0.0217 (0.61)
FREEMKT		-0.122 (6.28)		-0.162 (8.61)		-0.110 (5.74)
GENDEV		-0.315 (16.37)		-0.218 (8.61)		-0.116 (6.36)
N	24352	24352	20239	20239	19893	19893
Log Liklhd	-17575.9	-17368.1	-14630.8	-14528.5	-15719.0	-15681.2
R Log Liklhd	-17993.3	-17993.3	-15604.9	-15604.9	-16684.5	-16684.5

X² 835.0 1250.4 1948.3 2152.7 1930.8 2006.5

The equations were estimated by ordered probit. See the appendix for definitions of the data. (.) denotes t statistics. X² relates to the log-likelihood ratio.

Table 5: Regression Results with Macroeconomic Variables

Dependent Variable: Not Voting in:

	General Election	Join EU	Join NATO
Constant	1.290 (10.96)	-0.779 (0.62)	0.253 (2.08)
SEX	0.0757 (4.36)	0.199 (10.75)	0.267 (14.76)
EDUCN	-0.103 (10.31)	-0.184 (17.01)	-0.127 (12.26)
LAGE	-0.406 (15.53)	-0.0395 (1.43)	-0.121 (4.48)
LINCOME	-0.0812 (5.15)	-0.0515 (3.03)	-0.0881 (5.33)
SELFE	0.0412 (1.02)	-0.109 (2.40)	-0.0568 (1.31)
CITY	0.00212 (0.09)	-0.0252 (0.96)	0.0124 (0.49)
CAPITAL	0.0543 (2.01)	-0.0379 (1.32)	-0.0550 (1.96)
VILLAGE	-0.0554 (2.52)	0.0479 (1.98)	0.0344 (1.45)
DUM92	-0.154 (6.10)		
DUM95	-0.0680 (2.68)	-0.0795 (3.43)	-0.144 (6.41)
DUM96	-0.0933 (3.72)	0.0956 (4.25)	0.0901 (4.11)
FARM	0.00363 (0.08)	0.0599 (1.17)	0.0902 (1.80)
STUDENT	-0.160 (3.78)	-0.0450 (1.07)	-0.00266 (0.07)
UNEMP	0.0931 (2.86)	0.0405 (1.12)	0.00181 (0.05)
FREEMKT	-0.111 (5.79)	-0.174 (9.40)	-0.134 (7.40)
GENDEV	-0.318 (17.05)	-0.203 (10.59)	-0.129 (6.99)
GNPPC	-0.0000565 (3.83)	-0.000295 (19.40)	-0.000257 (17.28)
GNPPC91	0.000117 (6.69)	0.000386 (20.30)	0.000335 (18.81)
N	24352	20239	19893
Log Liklhd	-17466.90	-14931.9	-16120.9
R Log Liklhd	-17993.34	-15604.9	-16684.5
X ²	1052.9	1346.0	1127.2

The equations were estimated by ordered probit. See the appendix for definitions of the data. (.) denotes t statistics. X² relates to the log-likelihood ratio.

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