



**Doctoral School of  
International Relations  
and Political Science**

## **THESIS-RÉSUMÉ**

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**Voting Behaviour in Hungary – Are Voters  
Sophisticated Optimisers or Clueless Rubes?**

**Supervisors:**

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Szent-Iványi PhD**

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**Department of World Economy**

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## **1. The research topic and the relevance**

The central importance of relationships among electoral outcome to the wealth of nations and the well-being of people has attracted much interest among academic researchers for many years (Healy and Malhotra, 2013). As a leading political economist, Tufte (1978, 65) famously claimed “When you think elections, think economics”. In the last few decades, economists and political scientists have examined the economics and elections connection, often referred to as economic voting.

Scholars have extensively documented correlations or sometimes causal relation between economic indicators and election outcomes. Three broad theoretical models of voting behaviour emerged that explain these empirical patterns. The first two are best described by a reward-punishment model that accords with a rational choice framework, while the third is rooted in psychological biases. The first explanation within the rational choice theory suggests that voters (principals) are attempting to reduce moral hazard on the part of elected representatives (agents) (Downs et al., 1957; Key, 1966). Accordingly, voters see elections as referenda, punishing incumbents if they presided over poor economic times and rewarding incumbents for a strong state of the economy (Kramer, 1971). By this process, voters incentivise politicians to pursue the best economic interest of the country as well as of the individuals. The second model – again within the rational choice framework – sees economic voting as a process that ensures the selection of a leader who perform most competently after being elected (Fearon, 1999). Within this model, voters not only punish, or reward politicians based on the current or past economic achievements, but they strive to learn about an incumbent’s quality through his or her performance in office and based on this information, they make an optimal decision for the future. As a result, voters either re-elect the most competent leader or support an unknown challenger from the opposition. According to the first two models, elections serve the process of

selecting good performers, and – in the language of rational choice theory – it reduces moral hazard and adverse selection (Healy and Malhotra, 2013). Finally, the third model accounts for an individual’s cognitive and emotional biases and argues that voters are not able to process all relevant information. Voters rather use heuristics to make decisions and rely on cognitive shortcuts that might lead voters to make optimal economic decisions but sometimes lead them astray. Indeed, some argue that heuristics of voters might be reasonable guides in most cases (Lau and Redlawsk, 2001), while others claim that heuristics can also produce significant mistakes (Bartels, 2016). Arguably, the beauty of the reward-punishment model lies in its simplicity and the reward-punishment approach remains the superior explanation within the economic voting literature.

Within the economic voting literature, scholars have developed an interest in considering whether voters are actually looking at the state of the aggregate economy in voting (sociotropic voting), or whether they are examining their own personal economic situation and individual concerns (pocketbook voting or egocentric voting). Additionally, there is a debate on whether voters are looking backwards or forwards in time and whether citizens evaluate previous economic trends (retrospective voting) or expected future economic trends (prospective voting). Nonetheless, the economic voting literature is rife with inconsistencies.

While the survey-based literature concludes that voters care more about national (sociotropic) than personal (pocketbook) economic conditions, backward-looking, and myopic (Fiorina, 1981; Kiewiet and Lewis-Beck, 2011), the macro-based literature finds that voters are driven by pocketbook considerations and that they are largely forward looking and highly capable of disciplining incumbents for economic outcomes (Erikson, MacKuen and Stimson, 2000).

The first main contribution of this dissertation is to test all aspects of the economic voting literature and to see whether voters are driven by sociotropic versus pocketbook considerations; or whether they assess the past or look forward and gauge the future. As such, the first main objective is to conduct confirmatory research. The first half of the dissertation aims at confirming or rejecting the main premises of the economic voting literature and does not intend to challenge a gap in the literature or to construct new hypotheses.

Confirmatory research is still valuable given that the economic voting literature is rife with inconsistencies and with contradictory results. Therefore, precisely testing and estimating the effect of economic variables might bring some clarity in the empirical literature. There is a consensus in the literature that some of the inconsistent results are due to imperfect data. Almost all of the evidence about the individual level effects of economic circumstances comes from survey questions that are elicited at only a single point in time: right before or right after an election. This is potentially problematic, as partisan preferences, limited human memory, and other factors might challenge subjective assessments (Wlezien, 2015). On the other hand, macro data obscures individuals, while a very aggregate “local” contexts are often geographically vast and therefore at best imprecise proxies for local experiences (Dinesen and Sønderskov, 2015; Moore and Reeves, 2020).

While the objective of the first contribution is to include all aspects of economic voting variables in one regression and hence to avoid leaving any of the economic considerations in the error term, it still focuses on individuals’ perceptions on economic circumstances that might introduce another bias in the estimation. Therefore, the second main contribution of this piece is to provide an unbiased estimation on voters’ sociotropic considerations by relying on a source of exogenous variation. A widely cited problem with cross-sectional designs arise when a covariate in an estimating equation is correlated with the error term and as a result, this correlation will

produce a biased and inconsistent estimate of the effect of that covariate. In economic voting models, these biases may occur because of endogenous relationships between a measure of party preference and the evaluations of national or personal economic conditions over retrospective or prospective time horizons. For instance, party support (partisan attachments, vote intention or the vote itself ) colours voters' attitudes about economic conditions that leads voters to view the same economic events more favourably if their preferred party is in office. In other words, voters' judgement on economic conditions are led by whether they support or oppose the incumbent party. That is, voters decide who they are going to vote for, and then report an economic evaluation that conforms with that choice (Chzhen, Evans and Pickup, 2014; Healy et al. 2017). Some empirical papers have attempted to overcome the issue of endogeneity problems in several ways. For instance, one possible empirical solution is to use pre and post election panel data, with all covariates measured in the pre-election wave panel and voting reports measured in the post-election wave. The idea being is that if voters cast their ballots on election day, then the act of voting could not have caused pre-election responses to economic evaluations. Another way to overcome reverse causality is to use objective measures rather than subjective assessments of economic conditions (Van der Brug, Van der Eijk and Franklin, 2007). Others are concerned with identifying (potentially exogenous) economic shocks that hit one segment of the society and compare how this segment (a potential treatment group) is different to the rest of the groups in the society (a potential control group). Finally, a prominent paper by Healy, Persson and Snowberg (2017) – that also motivated our research – use personal financial data from tax records (more precisely changes in disposable household income) as an exogenous source of variations for individuals' perception on their own financial situation.

The relevance of this paper is rather straightforward. First, political scientists as well as economists take advantage of the unprecedented quantity of available information on economy

and voting behaviour. Based on a wide variety of dataset, scholars make important conclusion and articulate striking implications about the effect of economy on voting behaviour. Nonetheless, one of main messages of this dissertation is that our understanding of economic voting depends crucially on the quality of available data and on the empirical strategy. Second, economic voting is a crucial component of democratic accountability. As the punish-reward model suggests, the process of voting indeed incentivises politicians to satisfy voters by growing the economy, and allows voters to sanction politicians who do not perform well via regular elections. Thus, understanding whether voters judge politicians for economic performance is crucial for any assessment of representative democracy.



## 2. Methods

For our empirical analysis data are drawn from TARKI Omnibusz surveys. The survey is designed at the individual level and provides information on the demographic characteristics, income level, the economic perceptions and vote intention of the survey respondents. TARKI applies random selection sampling and prepares surveys that are representative of the Hungarian adult population. In our sample, there are 107 public opinion survey waves with 108 442 face-to-face individual level interviews. The surveys were conducted between January 2006 and January 2018.

Additionally, this dissertation merges the survey data with national and local economic measures between 2006 and 2015 that is in many ways superior to data used in existing research. The dataset is designed at individual and survey wave level and includes relevant local economic measures (such as changes in settlement level income and changes in settlement level unemployment rate) as well as national economy measures (such as GDP growth or changes in unemployment measures).

This dataset allows us to achieve two main objectives. First, this dataset enables us to test all four economic premises on one dataset and to precisely estimate the effect of sociotropic voting, pocketbook voting, retrospective voting as well as prospective voting in one single regression so that none of the economic voting variables are omitted from the calculus. We use Ordinary Least Square estimation to estimate effect of the four main variables on individual's likelihood of supporting the incumbent. To control for additional confounders, we include the age, the gender and the level of education of the survey respondents. In addition to this, we rely on wave fixed effect to control for any time-invariant events (e.g.: the effect of global business cycle) that affect survey respondents.

Second, to overcome the issue of endogeneity, we rely on two-stage least square estimation. To capture the exogenous variation in the perception variable, we estimate variations in the perception on national economic circumstance with the most widely cited economic measures in the literature. In particular, we first rely on local level objective measures: changes in income level at settlement level as well as changes in unemployment rate. We then turn to national level macroeconomic variables: GDP growth rate and changes in the unemployment rate as potential sources of exogenous variations in the perception on national economy. Thus we test how changes in objective economic measures at local as well as at national level explain individuals' perceptions and in turn their party preferences. This idea resonates with the identification strategy of Healy, Persson and Snowberg (2017) who also argue and empirically show that changes in an individual's household disposable income affect party preferences but only through perception on individuals' own financial circumstances. To precisely estimate the effect of individuals' perception on national economy and on their party preferences, we rely on the exogenous variation in the perception variables: changes in objective economic variables both at local and at national levels. The main assumptions here are that the instrument correlates with the endogenous variable, thus the first stage is strong and that the instrument only affects the dependent variable through the endogenous variable.

### **3. Results**

#### **1) Creating of new database**

- a. The first main results of the dissertation is the creation of a database that includes 107 public opinion survey waves with 108 442 face-to-face individual level interviews. The survey is designed at the individual level and provides information on the demographic characteristics, income level, the economic perceptions and vote intention of the survey respondents. The surveys were conducted between January 2006 and January 2018.
- b. This is a unique database as the method, the codes and the labels of the variables were changing across survey waves, and therefore each and every variable in each and every survey were cleaned, re-coded and re-labelled.
- c. Additionally, this dissertation merges the survey data with national and local economic measures between 2006 and 2015 that is in many ways superior to data used in existing research. The dataset is designed at individual and survey wave level and includes relevant local economic measures (such as changes in settlement level income and changes in settlement level unemployment rate) as well as national economy measures (such as GDP growth or changes in unemployment measures).
- d. This dataset is unique in the literature because 1) the objective economic measures have an extremely low level of aggregation (the median settlement in our data set has less than 700 eligible voters); 2) we link individuals' perception on the economy to their micro environment as well as to the macro environment; 3) in contrast to most of the economic measures that are

observable at such a low level of aggregation, this administrative data are measured without sampling error.

**2) To confirm or to reject the relevant hypotheses of the economic voting literature and to test whether voters are driven by sociotropic versus pocketbook considerations; or whether they assess the past or look forward and gauge the future.**

- a. Distinguishing between three periods following the Hungarian four years term length (that is between 2006 and 2010; 2010 and 2014; and 2014 and 2018) the main results suggest that on average, 1) pocketbook voting has strong explanatory power in Hungary between 2014 and 2018; 2) the importance of sociotropic voting remain – roughly equally – significant in all three periods; 3) retrospective and prospective voting on the national economy explain party preferences with the former having the stronger effect.

**3) To confirm or to reject the relevant hypotheses of the economic voting literature and to test the changing importance of the variables over time and relative to each other between 2006 and 2018.**

- a. Evaluating the changing importance of the economic voting variables over times, we find that 1) the relative importance of retrospective voting in explaining support for the incumbent party is larger in 2014–2018 than in 2010–2014; 2) pocketbook voting has strong explanatory power in Hungary between 2014 and 2018, but not before; 3) the importance of sociotropic voting remain – roughly equally – significant in all three periods.

**4) To overcome the issue of endogeneity and to disentangle partisanship from economic perceptions, we estimated an unbiased coefficient on the perception on national economy.**

- a. Using two stage least square estimation, we find that Ordinary Least Squares (OLS) regressions systematically overestimate the effect of individuals' perception on their own national economy on party preferences. If we only rely on the variations in perception that is estimated by the changes in the actual and objective measures, we calculate a smaller – in magnitude – coefficient. Nonetheless, the perception on national economy has a statistically significant explanatory power and the estimation provides evidence that voters are punishing incumbents if they presided over poor economic times and rewarding incumbents for a strong state of the economy.

**5) To test whether voters sociotropic evaluation is informed by local level objective measures or by national level objective economic measures**

- a. We find that voters form their perception on national economy by looking at changes in national level GDP as well as changes in national level unemployment rate rather than by assessing any changes in their settlement level economic measures. Thus, we find that individuals' perceptions about the macroeconomy are reasonably well informed; voters appear to understand the extent to which their local economy is different from the national economy.

## 4. References

Bartels, L.M., 2016. *Unequal democracy*. Princeton University Press.

Brug, W. Van der, Eijk, C. Van der and Franklin, M., 2007. *The economy and the vote: Economic conditions and elections in fifteen countries*. Cambridge University Press.

Chzhen, K., Evans, G. and Pickup, M., 2014. When do economic perceptions matter for party approval? *Political Behavior*, 36(2), pp.291–313.

Dinesen, P.T. and Sonderskov, K.M., 2015. Ethnic diversity and social trust: Evidence from the micro-context. *American Sociological Review*, 80(3), pp.550–573.

Downs, A. 1957. *An economic theory of democracy*. Harper New York.

Erikson, R.S., MacKuen, M.B. and Stimson, J.A., 2000. Bankers or peasants revisited: Economic expectations and presidential approval. *Electoral Studies*, 19(2-3), pp.295–312.

Fearon, J.D., 1999. Electoral accountability and the control of politicians: Selecting good types versus sanctioning poor performance. *Democracy, Accountability, and Representation*, 55, p.61.

Fiorina, M.P., 1981a. *Retrospective voting in national American elections*. Yale University Press.

Healy, A. and Malhotra, N., 2013. Retrospective voting reconsidered. *Annual Review of Political Science*, 16, pp.285–306.

Healy, A. and Lenz, G.S., 2017. Presidential voting and the local economy: Evidence from two population-based data sets. *The Journal of Politics*, 79(4), pp.1419–1432.

Kiewiet, D.R. and Lewis-Beck, M.S., 2011. No man is an island: Self-interest, the public interest, and sociotropic voting. *Critical Review*, 23(3), pp.303–319.

Lau, R.R. and Redlawsk, D.P., 2001. Advantages and disadvantages of cognitive heuristics in political decision making. *American Journal of Political Science*, pp.951–971.

Key, V.O., 1966. *The responsible electorate*. Cambridge, Mass: Harvard University Press.

Kramer, G.H., 1971. Short-term fluctuations in US voting behavior, 1896-1964. *The American Political Science Review*, 65(1), pp.131–143.

Tufte, E.R., 1978. *Political control of the economy*. Princeton University Press, NJ: Princeton University Press.

Wlezien, C., 2015. The myopic voter? The economy and US presidential elections. *Electoral Studies*, 39, pp.195–204.

## **5. Own work**

Benczes, I. and Szabó, K., 2021. An economic understanding of populism: An analytical framework of the demand and the supply side of populism. *Working paper*.