Voter Behavior as Micropolitical Foundation of Agricultural Protectionism: Estimating a Probabilistic Voting Model of the Agrarian and Non-agrarian Population

Christian H.C.A. Henning and Svetlana Petri
chenning@ae.uni-kiel.de, spetri@ae.uni-kiel.de

Problem

- Politicians often favor special interest groups to increase their reelection prospects, because the special interest groups monitor better the politicians and are more informed about the party platform and therefore show a stronger voter response to politically redistributed welfare compared to the general public.
- To assess the question of special interest groups empirically we separate different voting motives: policy-oriented versus not-policy-oriented (ideologically). The more voters are informed about politics the more they vote policy-oriented.
- In this paper we estimate econometrically the importance of policy and non-policy-oriented voting across voter groups: Which social-economic groups vote the most ideologically?

Theoretical Model

Probabilistic voter theory: Voter from group \( J \) and district \( n \) will vote for the governmental party \( A \) as long as:

\[
W^J(X^A) - W^J(B) + K^J \mu_n + \delta + h(C^A - C^B) > 0
\]

where \( Z^A \) is the policy outcome, \( Y^J \) is the preferred policy outcome of voter from group \( J \). Uncertainty component \( \omega \) is stochastic and uniform distributed with zero mean and variance \( \frac{1}{4} \). With stochastic relation \( Z^A = X^A + \omega \) and assumption \( d = Y^J - X^A \), it follows \( W^J(X^A) = -|d - \omega| \).

Expected utility from policy \( X \), \( EU(X) \), is:

\[
EU(X) = -\sigma \int_{-\frac{1}{2}\sigma}^{\frac{1}{2}\sigma} |d - \omega| \, d\omega = -\frac{1}{8} \sigma^2
\]

Results: the higher the uncertainty, i.e. the higher the variance of \( \omega \) and the lower is the density \( \sigma \), the lower is the weight of the policy outcome when compared to the ideological preference, i.e. the less informed a voter the more ideologically she votes ceteris paribus.

I ideological Indicator

\[D^j_i = \sum \beta_0 (d^j_t - d^j)^2 + \sum \beta_1 (\gamma_{ij} - \gamma_j) h_{it} \]

Results: \( D^j_i \) corresponds to the shift in the policy component that compensate the ideological advantage of a party \( j \) when compared to another party \( j' \). Ideological indicator is the mean of all components \( D^j_i \), i.e. for all party pairs \( j \) and \( j' \). The higher the value of the Ideological indicator the higher is the importance of non-policy when compared to policy oriented voting for voter \( i \).

Empirical Model

Data is derived from 301 non-farm and farm household questionnaires for four rural communities in Slovakia. Estimated model is \( V_i = \alpha_j + \beta_{EU} d_{EU} + \beta_{Eco} d_{Eco} + \beta_{Soc} d_{Soc} \), where \( d_{EU} \), \( d_{Eco} \), \( d_{Soc} \) are policy variables (Euclidean distances in three policy dimensions: EU-Subsidies, Economic and Socio-cultural). Method 1) Latent Class Analysis (LCA) 2) Evaluation of Ideology indicator for each voter based on the class membership probabilities 3) Kernel density estimation of Ideology indicator for different subgroups.

Results: LCA provides the best fit for 2-class model. Class membership is significantly determined by occupation status farm ‘vs’ non-farm’ employment at the micro level as well as by community performance at the macro level, i.e. ‘low’ vs ‘high’ performing communities. The voters from class 2 are mainly farmers and live in high performing communities, whereas voters of class 2 vote significantly less ideologically when compared to other class 1. The later mainly comprising of non-farmers and inhabitants of ‘low performing’ communities.

References