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Voters elect politicians who closely matched their preferences

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Abstract

What determines political candidates' election prospects? We match roll call votes of candidates for the majority elected upper house of parliament who were previously in the lower house with the preferences of their constituency as revealed in referenda. Thereby, we obtain a unique and direct measure of past congruence. Politicians who better represented the preferences of their constituency in the past exhibit a significantly and considerably higher probability of election. This provides first evidence for the direct retrospective voting rule, i.e. that voters elect politicians who represented their preferences well.

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1 Introduction

The notion that voters condition the election of political representatives on the latter's past behavior ranks prominently in political economy models. Retrospective voting based on past developments in economic variables such as inflation and unemployment appears to be common (for classical treatments see, among others, Downs 1957 or Fiorina 1978; for overviews see, among others, Nannestad and Paldam 1994 or Persson and Tabellini 2002). Recent studies have also explored whether retrospective voting occurs at the local level when citizens have the ability to assign responsibility of politicians to policy outcomes (see Berry and Howell 2007).

However, the most basic and direct retrospective voting rule "Do politicians get elected when they did what their constituents wanted?" has never been tested effectively for individual politicians even though it is a common basis of most theories of democracy. The central requirement for a valid test of this direct retrospective voting rule is that politicians' deeds and the preferences of their voters can be compared with respect to the very same policy issues. Until now this has not been feasible due to obvious data limitations. We exploit a natural setting which allows analyzing whether the election chances of politicians increase when their decisions in parliament correspond better to the revealed preferences of their constituents.

Swiss constituents reveal their preferences for legislative proposals in referenda (see Schneider et al. 1981 or Portmann et al. 2012) after members of the parliament voted on the very same policy proposals. We derive a unique and direct measure of past congruence between the deeds of members of the National Council (lower house of parliament) and voters' preferences by matching the roll call votes of representatives with the preferences of the majority of their constituents referendum by referendum. We can then investigate whether the election prospects of candidates for the Council of States (upper house of parliament) who were former members of the National Council increase when they exhibit a higher level of congruence between their parliamentary decisions and their constituency's revealed preferences. Members of the Council of States are elected by majority rule and they are expected to represent their constituency's preferences. Voters are informed about referendum issues and about politician's opinions, in particular who stands behind an issue in a referendum and who does not. Thus, we observe politicians' decisions and revealed preferences of their constituents which results in a direct test of the most basic retrospective voting rule.

Voters honor politicians who closely represented the preferences of their constituency: Politicians who match their constituency's preferences in 75% of the votes are 20% points more likely to get elected than politicians who match only in 50% of the votes. Thus, our results present new evidence that retrospective voting matters using a direct measure of congruence between representatives' decisions and constituents' preferences.

The remainder of this paper is structured as follows: Section 2 describes our congruence measure between the majority of constituents and politicians. Section 3 provides evidence for the basic retrospective voting mechanism and Section 4 concludes.

2 Identification of past congruence and estimation strategy

We analyze a unique setting to test whether constituents honor politicians who better represented their preferences.

In referenda, constituents judge different policies and rank them against the status quo. Thereby, referenda represent a measure of revealed preferences, as already argued by Schneider et al. (1981). According to Krehbiel (1993) roll call votes are most

proximate to the adoption of governmental policies. From 1995 to 2010 politicians held a total of 126 roll call votes in the National Council (lower house of parliament) on issues which were also presented to citizens in referenda from 1996 to 2011. Thus, revealed preferences of a constituency can be contrasted with their representatives' roll call votes, as both, constituents and representatives decide on exactly the same issues with identical wording (see Stadelmann et al. 2012, 2013 for a discussion and details). Thereby, our empirical approach allows us to identify whether "what legislators do" is "what constituents want," i.e. we measure whether legislators' decisions correspond to revealed preferences of the majority of their constituents.

National Councilors may run for the Council of States (upper house of parliament). Being a member of the Council of States is generally seen as being more prestigious and rewarding than holding a seat in the National Council. Members of the Council of States are elected by majority rule¹ and are expected to represent the majority of their constituency. Electoral districts of both houses of parliament coincide and have never changed over the sample period.

In most other institutional settings analyzed in the literature, a valid test of retrospective voting of individual candidates is hindered by incumbency effects: First, voters' assessments of an incumbent's performance depend on current socio-economic conditions which may be exogenous to the incumbent's performance and are generally difficult to control for. Second, voters are usually better informed about incumbents' achievements in the past than about potential achievements of candidates. Our setting mitigates both these issues. We concentrate on those candidates for the Council of States who have previously served as National Councilors. Therefore, we know how well these candidates represented the revealed preferences of the majority of their constituents prior to the election date. Moreover, they already held an office in the same federal assembly, are consequently comparable to each other, and may be held equally responsible for (exogenous) economic and other social changes during their time in parliament. Berry and Howell (2007) argue that citizens need to be able to assign responsibility for outcomes to politicians when voting retrospectively. According to the Swiss Constitution, article 150, members of the Council of States are seen as "representatives of the Cantons" (i.e. representatives of the districts) and they are expected to represent their constituency's preferences in parliament. This view is also held by the public as well as constituents of the different districts, and pre-election analyses of voting records of individual politicians are popular. Referenda are preceded by an open public discussion and constituents are informed about parliaments' opinion and responsibilities such as which individual politicians and parties stand behind a referendum and which not. Thus, our setting allows us to directly test whether individual candidates with a higher level of congruence between their decisions in parliament and their constituents' preferences are more likely to become elected to the Council of States.

For each individual candidate we observe how closely her roll call votes matched her constituency's revealed preferences in referenda during a legislative period. We then calculate average congruence levels for all 110 candidates to the Council of States who were members of the National Council in the legislative period before they ran for the Council of States. Descriptive statistics of this variable and all additional variables employed in the analysis, their sources, and a number of descriptive statistics are given in the appendix, Table A1.

Figure 1 illustrates the central motivation of the paper. The upper boxplot shows the distribution of congruence between politicians and the majority of constituents for candidates who were not elected to the Council of States while the lower boxplot stands

¹ An expectation is the Canton of Jura but excluding it from the estimates does not affect results.

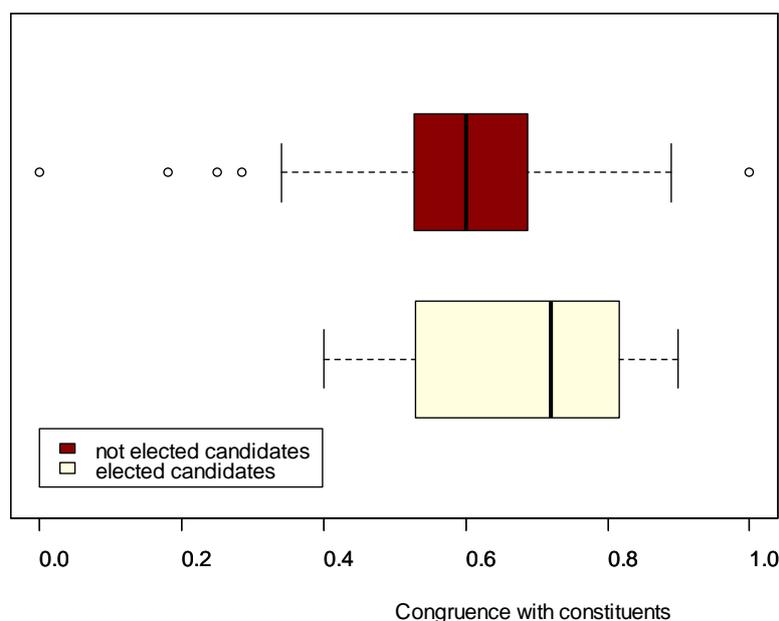
for successful candidates who were elected to the Council of States. We observe that the past level of congruence is generally higher for candidates who were actually elected. Even the median of elected representatives corresponds more closely to the preferences of the majority of constituents than the third quartile of unsuccessful candidates.

Next, we investigate this relationship between past congruence and election probability in greater detail. We use the following logistic model to evaluate whether constituents vote retrospectively:

$$P(\text{elected}) = \Lambda(\alpha_1(\text{Match with constituents}) + \sum_j \alpha_j x_j). \quad (1)$$

Λ denotes the logistic function $\Lambda(X) = e^X / (1 + e^X)$ (where X is a design matrix). *Match with constituents* gives the average congruence level in percent between candidates' decisions in parliament with the preferences of the majority of their constituents on the very same policy issues the over four year period prior to election. If retrospective voting matters in its most basic and direct form, then α_1 should be positive and significant. x_j stand for other controls which ensure that the effect captured by α_1 is not driven by specific personal characteristics, party effects, competition or district characteristics.

Figure 1: Match with constituency's preferences of elected and not elected candidates



Notes: The Box-Whisker-Plot is based on congruence between the roll call votes of individual members of the National Council who ran for election to the Council of States and the preferences of the majority of constituents. The whiskers extend to the most extreme data points which are no more than 1.5 times the interquartile range from the box. Dots represent observations outside the interquartile range.

3 Empirical evidence for retrospective voting

The majority of voters honor politicians who corresponded to their preferences more closely by electing them to the Council of States as evidenced in Table 1. As our data spans a period from 1995 to 2010 over four legislative periods we always control for legislature fixed effects and we report robust standard errors clustered by constituency.²

The base Specification (1) indicates that a higher congruence level leads to a higher probability of election. A congruence level of 50% corresponds to a coin toss and 100%

² Observations are clustered by constituency in recognition of the likelihood that observations in the same constituency are not independent. Estimation without clustering leads to more significant results.

is the maximum possible. Thus, we calculate the discrete effect for a change in the level of congruence from 50 to 75%³ in the lower panel of Table 1. A 25% point higher match with the majority of constituents increase the election probability by approximately 20% points. Thus, a candidate's past congruence with her constituency's preferences systematically increases her election prospects.⁴ Apart from the pseudo R² we also report the Brier score which measures the accuracy of probability assessments by averaging squared deviations of predicted probabilities from real outcomes. The Brier score is bounded between zero and one, where a lower score represents higher accuracy. We note that the pseudo R² and the Brier score point to a fairly good fit of the data for this type of analysis based on individual politicians and using a single explanatory variable.

We include a number of personal characteristics (gender, number of children, education) in specification (2) and control for employment in the public sector (see Brändle and Stutzer 2010 for a discussion of reasons and effects of public servants in parliament) in specification (3). Personal characteristics and public sector employment do not systematically influence the probability of election for majority elected politicians. Only the negative effect of the number of a candidate's children is marginally significant. This is precisely what we would expect (see Downs 1957) as candidates to the Council of States are elected under a majoritarian system and personal characteristic should thus not directly matter as long as they do not represent a relevant electoral policy dimension themselves. Most importantly, if the past level of congruence between candidates and their constituent's majority was high (i.e. 75 instead of 50 percent), the probability of election is approximately 22% points higher, i.e. voters elect candidates who represented the preferences of their constituency more closely.

Table 1: Election probability and match with constituency's preferences

	(1)	(2)	(3)	(4)
Match with constituents	4.562** (1.873)	4.963*** (1.864)	4.903** (1.956)	5.313** (2.096)
Female		0.061 (0.456)	0.028 (0.435)	0.107 (0.443)
Children		-0.228* (0.126)	-0.228* (0.128)	-0.213 (0.133)
Has university education		0.637 (0.564)	0.628 (0.578)	0.655 (0.581)
Employed in public sector			0.095 (0.402)	0.122 (0.383)
Number of competing candidates				-0.141** (0.068)
Intercept	-4.073** (1.595)	-4.468** (1.864)	-4.448** (1.886)	-3.875* (1.979)
Legislature fixed effects	YES	YES	YES	YES
<i>Discrete change: 50% to 75% in 'Match with constituents'</i>	<i>0.200*** (0.056)</i>	<i>0.221*** (0.071)</i>	<i>0.216*** (0.083)</i>	<i>0.205** (0.087)</i>
(Pseudo) R ²	0.1200	0.1750	0.1750	0.2040
Brier score	0.1660	0.1580	0.1580	0.1540
# of observations	110	110	110	110

Notes: Robust standard error estimates for logistic models with constituency clustering are given in parenthesis. The "Discrete change: 50% to 75% in the 'Match with constituents'" represents the change of the predicted probability that a representative is elected when her congruence level increases from 50% to 75% while all other variables are evaluated at their median values. "Legislature fixed effects" represent dummies for different legislative periods (45th to 48th legislature). * Significance level at 5%-10%. ** Significance level at 1%-5%. *** Significance level at < 1%.

³ The first quartile of the distribution of congruence amounts to 52.9 % and the third quartile is 73.4%. Consequently, a change from 50% to 75% reflects a meaningful change in observed congruence levels.

⁴ Note that if all candidates increased congruence with their constituency's preferences prior to election to increase election chances, the identified differential effect between elected and unsuccessful candidates might be interpreted as a lower bound for the total effect of retrospective voting.

Finally, we include in specification (4) a control for the number of competing candidates. As expected, the more candidates there are, the lower is the individual probability of election. Nevertheless, a higher level of congruence with the majority of constituents still ensures a significantly higher probability of election. The magnitude of the effect is similar to earlier estimates. Notably, restricting the sample to politicians with more than 15% *ex-post* vote share to exclude potentially non-effective candidates, yields almost identical results (results not presented but available on request).

Table 2 provides a number of robustness tests. Although, the Council of States is elected by majority rule, party affiliations may affect both a politician's chance of election as well as a politician's accountability to voters. In particular, it may be supposed that candidates who better match their party position or candidates from center instead of wing parties have better election chances. Thus, in specification (1) and (2) we control for a candidate's average match with the official party line and for whether the candidate belongs to a right wing or left wing party group. Both additional controls turn out insignificant and the effect of *match with constituents* is not affected by their inclusion. Thus, a higher level of congruence translates directly into a higher election probability independent of a candidate's party affiliation.⁵

Table 2: Robustness – Election probability and match with constituency's preferences

	(1)	(2)	(3)	(4 - OLS)	(5 - OLS)
Match with constituents	4.749** (1.889)	4.545** (1.777)	5.388*** (1.818)	0.561** (0.230)	0.664*** (0.233)
Personal characteristics and competing candidates	YES	YES	YES	YES	YES
Match with party position	6.420 (4.893)	6.343 (4.855)	6.697 (5.335)	0.983** (0.452)	0.857** (0.424)
Wing party affiliation		-0.194 (0.474)		-0.023 (0.071)	
Left party affiliation			0.444 (0.400)		0.043 (0.076)
Right party affiliation			-1.651 (1.021)		-0.198* (0.115)
Intercept	-9.261* (5.202)	-8.882* (5.122)	-9.417* (5.335)	-0.565 (0.596)	-0.539 (0.575)
Legislature fixed effects	YES	YES	YES	YES	YES
District fixed effects	NO	NO	NO	YES	YES
<i>Discrete change: 50% to 75% in 'Match with constituents'</i>	0.197*** (0.079)	0.180*** (0.064)	0.204** (0.082)	0.140*** (0.057)	0.166*** (0.058)
(Pseudo) R ²	0.2240	0.2250	0.2800	0.3120	0.3340
Brier score	0.1530	0.1520	0.1450	-	-
# of observations	110	110	110	110	110

Notes: Specifications (1) to (3) are logistic models and specification (4) to (5) represent OLS estimates. Robust standard error estimates with constituency clustering are given in parenthesis. The "Discrete change: 50% to 75% in 'Match with constituents'" represents the change of the predicted probability that a representative is elected when her congruence level increases from 50% to 75% while all other variables are evaluated at the median value. "Legislature fixed effects" represent dummies for different legislative periods (45th to 48th legislature). * Significance level at 5%-10%. ** Significance level at 1%-5%. *** Significance level at < 1%.

The same pattern also holds when using identifiers for left and right parties separately in specification (3) such that center party affiliation forms the omitted category. We observe that none of the party identifiers significantly influences the probability of election. The variable *Match with constituents* is still positive and significant with a discrete effect of approximately 20% points.

⁵ Similarly, we observe in supplementary tests that a higher level of congruence always leads to higher election probability even when analyzing subsamples of center and wing parties separately.

In specifications (4) and (5) we take account of district fixed effects to control for potential differences in election chances between districts. Fixed effects in logit models may induce an incidental parameter problem and might render estimators inconsistent (see Lancaster 2000). The common remedy is to estimate linear probability models. The linear probability with district fixed effects produces similar results as the previous logistic models without fixed effects. A higher level of congruence increases the probability of election significantly and a discrete increase of 25% points in the match with the majority of constituents increases the election probability by between 14 and 16.6 % points.

4 Conclusion

We are interested in whether voters elect politicians to office who represented voter preferences better than competing politicians. We focus on politicians who run for the majority elected Council of States but were previously members of the Swiss National Council. Swiss parliamentarians often decided on precisely the same legislative proposals as their constituents vote on in referenda. By contrasting politicians' individual roll call votes in the National Council with constituents' revealed preferences in referenda, we obtain a direct measure of past congruence. This setting allows testing the basic retrospective voting rule whether "voters elect politicians who did what they wanted" for the first time. Until now a direct and valid test of this voting rule has not been possible due to data limitations as political decisions and constituents' preferences could not be directly contrasted.

First empirical evidence strongly supports a basic retrospective voting rule, i.e. if politicians correspond more closely to their constituency's revealed preferences they have a significantly higher election probability. The positive influence of past congruence on the election probability is large in magnitude and robust to the inclusion of personal characteristics, parties, the number of competing candidates and district fixed effects.

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Table A1: Descriptive Statistics

<i>Variable</i>	<i>Description & Source</i>	<i>Mean</i>	<i>SD</i>	<i>Median</i>
Match with constituents	Average congruence based on match between roll call votes and referendum outcome in constituencies. Swiss Parliamentary Services and Année Politique Suisse.	0.619	0.164	0.612
Female	Indicator variable: Member of parliament is a woman. Swiss Parliamentary Services.	0.318	0.468	0.000
Children	Number of children of a member of parliament. Swiss Parliamentary Services.	2.036	1.636	2.000
Has university education	Indicator variable: Member of parliament has university education. Swiss Parliamentary Services.	0.536	0.501	1.000
Employed in public sector	Indicator variable: Member of parliament is employed in public sector (or union). Swiss Parliamentary Services.	0.391	0.543	0.000
Number of competing candidates	Number of competing candidates for election in district. Federal Statistical Office.	8.591	2.950	8.000
Match with party position	Average match with the official party line based on roll call votes and official party position. Swiss Parliamentary Services and Année Politique Suisse.	0.923	0.069	0.941
Wing party affiliation	Indicator variable: Member of parliament is affiliated with left or right party. Swiss Parliamentary Services.	0.646	0.481	1.000
Left party affiliation	Indicator variable: Member of parliament is affiliated with left party (SP, PdAS, GPS). Swiss Parliamentary Services.	0.409	0.494	0.000
Right party affiliation	Indicator variable: Member of parliament is affiliated with right party (SD, SVP, Lega, EDU). Swiss Parliamentary Services.	0.236	0.427	0.000

Notes: Unweighted descriptive statistics. Data sources indicated next to variable descriptions.