

Portmann, Marco; Stadelmann, David; Eichenberger, Reiner

## Conference Paper

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Beiträge zur Jahrestagung des Vereins für Socialpolitik 2019: 30 Jahre Mauerfall - Demokratie und Marktwirtschaft - Session: Political Economy - Elections II, No. C12-V2

## Provided in Cooperation with:

Verein für Socialpolitik / German Economic Association

*Suggested Citation:* Portmann, Marco; Stadelmann, David; Eichenberger, Reiner (2019) : Incentives dominate selection: Chamber-changing legislators are driven by electoral rules and voter preferences, Beiträge zur Jahrestagung des Vereins für Socialpolitik 2019: 30 Jahre Mauerfall - Demokratie und Marktwirtschaft - Session: Political Economy - Elections II, No. C12-V2, ZBW - Leibniz-Informationszentrum Wirtschaft, Kiel, Hamburg

This Version is available at:

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# Incentives dominate selection – Chamber-changing legislators are driven by electoral rules and voter preferences\*

Marco Portmann<sup>a,c</sup>

David Stadelmann<sup>b,c</sup>

Reiner Eichenberger<sup>a,c</sup>

February 2019

**Abstract:** The role of electoral incentives vs. selection is ideally analyzed in a setting where the same legislators are selected to decide on policies under different electoral rules and where voter preferences on policies can be precisely measured. This is the first paper to look at such a situation. The institutional setting of Switzerland allows us to observe the behavior of legislators who change from a proportionally-elected chamber to a majority-elected chamber of parliament with their electorate being the same in both chambers. Voter preferences are revealed in a large number of referenda. We causally identify behavioral changes of legislators who are chamber-changers in comparison to other legislators due to the respective electoral rules along three dimensions, all measured at the level of individual legislators: representation of revealed voter preferences for policies, party loyalty, and interest group affiliations. The evidence suggests that electoral incentives explain the behavioral response of chamber-changers towards voter preferences to such an extent that there remains no role for selection. Chamber-changers become less loyal towards their party and adapt their lobby group affiliations towards more district-oriented interests after having changed from a proportionally-elected chamber to a majority-elected chamber.

**Keywords:** Preference representation, elections, incentives, electoral systems, voting, political presentation, responsiveness, legislative behavior, electoral connection.

**JEL codes:** D72, P16.

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\* We thank Gerhard Glomm, Ali Sina Önder, Kai Konrad, Gustavo Torrens, Mark Schelker, and Stefan Voigt for inspiring discussions. Earlier versions of this paper were presented at the 3<sup>rd</sup> Workshop on Political Economy, Indiana University, and the Ostrom Workshop.

<sup>a</sup> University of Fribourg, Bd. de Pérolles 90, 1700 Fribourg, Switzerland. Corresponding author: [marco.portmann@unifr.ch](mailto:marco.portmann@unifr.ch)

<sup>b</sup> University of Bayreuth, Universitätsstraße 30, 95447 Bayreuth, Germany.

<sup>c</sup> CREMA – Center for Research in Economics, Management, and the Arts, Zurich, Switzerland.

## I. INTRODUCTION

One of the great questions of democratic governance is how to gear legislators to cater for voters' preferences. In economics, the debate focuses on the role of incentives for, vs. selection of legislators (e.g. Persson and Tabellini 2000; Besley 2005; Hillman 2009). In political science, a closely related debate revolves around whether legislators are responsive to voters' preferences or ideologically stubborn, i.e., whether the electoral connection theory is right (e.g. Stratmann 2000; Crespin 2010) or wrong (e.g. Poole and Daniels 1985; Grofman et al. 1995; Hix et al. 2007).

The "incentives view" suggests that legislators are rather indifferent with respect to the content of their policies but are incentivized by reelection constraints (see the seminal works by Downs 1957; Persson and Tabellini 2000; Mueller 2003)<sup>1</sup>. The "selection view" posits legislators which aim at policy outcomes in accordance with their own ideology and voters which select politicians whose ideology fits their own one (e.g. Alesina 1988; Osborne and Slivinski 1995; Besley and Coate 1997; Braendle and Stutzer 2013, 2016).

To understand politicians' behavior and to design better institutions it is indispensable to empirically assess the relevance of the incentives vs. selection view. For doing so, an ideal research environment should exhibit the following three characteristics: (1) There should be reliable and independent measures for the individual behavior of legislators and the preferences of their voters with respect to identical policy issues, i.e., the difference between the measures should indicate whether what legislators do is what voters want. (2) The behavior of the *same* individual legislators should be observed in different but clearly identifiable situations with

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<sup>1</sup> Up to today, the Downsian view of electoral competition and variants thereof have remained the backbone for numerous models of politician behavior (e.g. Besley and Case 2003; Congleton 2003; Lee et al. 2004; Grofman 2004; Padovano 2013; Portmann and Stadelmann 2017).

different incentives. (3) These situations should not differ with respect to other aspects than incentives.

On first sight, it seems difficult or even impossible to find a situation which fulfills all these requirements. The literature has seen diverse attempts to investigate the effect of incentives on ideological stances of legislators. Well known are attempts to look at the effect of last term in office (e.g. Besley and Larcinese 2011; Geys and Mause 2016), electoral margins (e.g. Lee et al. 2004, Henderson and Brooks 2016; Butler et al. 2017) or, changes in voters' ideology, e.g., due to redistricting (e.g. Glazer and Robbins 1985; Stratmann 2000; Crespín 2010). An especially promising strand of literature tries to discern incentives and selection by investigating the behavior of legislators who changed from one set of incentives to another set by changing from one chamber of parliament with given electoral rules to another (e.g. Poole and Daniels 1985; Grofman et al. 1995; Miler 2016). However, changing the chamber usually goes along with changes in the geographical constituency. Thus, chamber-changers are confronted with a change in the electorate they are representing. Moreover, all the respective contributions so far lack a reliable measure for the preferences of the citizens to analyze the congruence of legislators and citizens. On the other hand, the literature on congruence (e.g., Ansolabehere et al. 2001; Blais and Bodet 2006; Golder and Stramski 2010; Golder and Ferland 2018; Stadelmann et al. 2018) does not explicitly separate incentive effects from selection.

We contribute to the debate on the role of incentives vs. selection (or the validity of electoral connection theory) by looking at chamber-changers. We investigate the behavior of members of the Swiss lower house of Parliament who move to the upper house. Lower house members are elected in a system of proportional representation while upper house members face majoritarian elections. The mandate of proportionally-elected lower house members is to cater for the preferences of a specific subsample of their electorate, while majority-elected

upper house members have incentives to cater towards the median voter (see the seminal works by Duverger 1954; Lijphart 1984; Cox 1990; Powell 2000).

Our empirical setting has several attractive features which allow for the *causal* identification of legislators' behavioral changes towards their voters' revealed preferences due to changes in electoral incentives.

(1) To measure voters' preferences, we draw on a distinctive feature of the Swiss political system, namely direct-democratic decisions. We compute political congruence between legislators' decisions and voters' preferences on the subset of parliamentary final passage votes for which there are identically worded referendum decisions (e.g. Portmann et al. 2012; Giger and Klüver 2016).

(2) We observe the same legislators under two different incentives implied by the electoral systems. We assure that the observed changes in congruence between legislators and constituency reflect legislator-specific responsiveness by employing legislator-fixed-effects and a generalized difference-in-difference approach. That is, we compare legislator-voter congruence of chamber-changers to legislator-voter congruence of legislators who do not change chambers.

(3) While the electoral incentives differ between houses, the *geographical* boundaries of the constituencies in which members of the two houses are elected, are identical, i.e., the electorate is the same such that there is no additional uncertainty regarding electoral incentives.

Our results indicate that the chamber-changers behavioral responses to voters' preferences are fully in line with their changing electoral *incentives*. *Before* they move to the upper house, chamber-changers vote as if they were ideologically spread over the political spectrum, as suggested by the theory on proportional representation. While they are not distinguishable from other members of the lower house, they differ clearly from the members of the upper house. But *once* they sit in the upper house, their legislative decisions correspond

more closely to constituency median preferences, such that they are not anymore statistically different to other members of the upper house. The quantitative effect of electoral incentives is precisely estimated, sizable and corresponds to between 6.9 to 7.4 percentage points change in congruence. Empirical evidence even suggests that it is only electoral incentives which explain the behavioral response of chamber-changers towards voters' preferences such that there is no role for selection. Finally, we find that chamber-changers become more independent from their parties and adapt their lobby group affiliations towards more district-oriented interests.

The remainder of the paper is structured as follows: The institutional setting is presented in Section II. Section III introduces our data and explains the identification strategy. Empirical results on legislators' responsiveness to voters' preferences when moving from the lower house to the upper house are presented in Section IV. Section V offers a discussion and concludes.

## II. INSTITUTIONAL SETTING

### *Federal Assembly*

Switzerland's federal constitution from 1848 established a bicameral parliament comprising a lower house, the National Council or "Nationalrat" in German, and an upper house, the Council of States or "Ständerat" in German.

The two chambers build on the same 26 geographical constituencies (electoral districts, Cantons), i.e., members of both chambers are elected to represent the same geographical constituencies. Members of both chamber serve for four-year terms and are usually elected on the same dates<sup>2</sup>. The 200 members of the lower house are elected under a proportional electoral system with district magnitude being proportional to the districts' population but guaranteeing

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<sup>2</sup> Historically, cantons were free to choose election dates for their representatives to the upper house. However, over the last decades they have mostly unified them. Thus, upper house elections take place simultaneously with lower house elections in the period we analyze.

small cantons at least one representative. The 46 members of the upper house are elected under a two-round majority-plurality system<sup>3</sup>. There are either one or two seats per electoral district for the upper house and voters have either one or two votes, accordingly<sup>4</sup>. Apart from the electoral system, formal election requirements and prerogatives in the two chambers are identical. There are no legal term limits for members of both chambers. The candidates for both chambers are typically elected at delegates meetings of the cantonal party sections.

Both chambers have equal competences and the same legislative power. All parliamentary affairs are treated by both chambers and all enactments must pass both chambers with majority vote. The Parliamentary Services assign the start of the deliberation process in each chamber based on the current work load of the two chambers, thus in effect randomly. With respect to lower house votes, the period of analysis of our study starts in 1996 when electronic recording of votes started, and it ends with the last election in 2015. There has been no electronic voting system for the upper house until 2014 but since winter 2006 a camera records its sessions (see Stadelmann et al. 2014; Benesch et al. 2018). The camera footage allows the identification of individual voting behavior for the members of the Upper House<sup>5</sup>.

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<sup>3</sup> If the candidate achieves a majority in the first round, she is directly elected. Otherwise, there is a second round where only a plurality of votes is required. Exceptions are the Canton of Jura and since September 26, 2011 the Canton of Neuchâtel where the two members of the Upper House are elected under a proportional system. Omitting these cantons does not affect our results or interpretations.

<sup>4</sup> For historical reasons, there are 20 full-cantons and 6 half-cantons (“Vollkantone“ and “Halbkantone” in German). The only difference between a full-canton and half-canton is that the former (latter) has two (one) seats in the upper house and counts for full (half) in popular votes about constitutional amendments in which there is not only a need for a simple majority of the total votes but for a double majority (“doppeltes Mehr” in German) of the votes in a majority of the cantons.

<sup>5</sup> We include all decisions since the installation of the camera in our dataset. In a small number of cases individual votes cannot be observed due to a too slow movement of the camera during the voting phase (see discussion in the appendix to Stadelmann et al. 2018). Using camera recordings to identify voting behavior of members of the Upper House has aroused media interest (e.g., Eichenberger et al. 2011a, 2011b) and ultimately contributed to the introduction of an electronic voting system in 2014.

### *Referendum decisions*

Switzerland exhibits a system of direct democracy with three instruments: (i) Citizen may challenge parliamentary decisions on laws and international contracts in a referendum. After both chambers have decided, citizens can demand a facultative referendum by collecting at least 50'000 signatures (out of approximately 4.9 million registered voters) within 100 days. Any new law or amendment proposed by parliament is rejected, if a majority of voters decides against it. (ii) Constitutional amendments by the parliament are automatically subject to a mandatory referendum. (iii) By collecting 100,000 signatures citizens may launch a popular initiative on a constitutional amendment drafted by themselves. Legislators cannot change the wording of a popular initiative. Nevertheless, they are required to vote on the proposal once the necessary signatures are collected and prior to the referendum as their vote serves as a parliamentary recommendation to voters (see Stadelmann and Torgler 2013). Similar to recommendations by parliament, party conventions issue recommendations to voters. All amendments to the constitution, i.e., those initiated by parliament as well as those by citizens, are only accepted if there is a double majority ("Doppeltes Mehr" in German), i.e., if both, a majority of the voters nationwide ("Volksmehr" in German) as well as a majority of the voters of more than half of the cantons (i.e., at least twelve cantons) agrees ("Ständemehr" in German). Referenda cover a wide range of issues including economic, health, social, migration, and defense proposals, among others<sup>6</sup>. All referendum results are available for each canton.

### *Interest group affiliations*

Swiss legislators must disclose all their affiliations with interest groups such as executive board seats in companies and foundations, committee memberships in public institutions,

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<sup>6</sup> Information on the topics and results are provided by the Swiss Parliamentary Services in three of the four official Swiss languages on <https://www.parlament.ch/de/services/volksabstimmungen>.



expert and counselling activities as well as other activities for lobby groups according to federal law (Art. 11, Parlamentsgesetz). The Swiss Parliamentary Services is required to collect this information and to provide it in an easily and publicly available register online (see Gava et al. 2017; Péclat and Puddu 2017). The register frequently attracts media attention.

To investigate how a change of a legislator from the lower house to the upper house affects her affiliations with interest groups, we count each legislator's number of interest group affiliations on an annual base. Following the literature, we group them into sectional (*#Sectional*) and cause groups (*#Cause*) (see Stewart 1958, Giger and Klüver 2016; Stadelmann et al. 2016; Barceló 2018). Sectional groups tend to focus on specific segments of society and on special interests (e.g. the energy industry). Cause groups, on the other hand, tend to focus on a general belief or principles such as public health or human rights (e.g. human rights groups). In addition, we classify interest groups according to whether they promote regional goals (*#Regional*). In addition to count the number of interest group affiliations, we look at composition of legislator's affiliations, i.e., at the share of different types of interest affiliations (variables denoted with a %-prefix, e.g. *%Sectional*).

### III. DATA AND EMPIRICAL STRATEGY

#### *Datasets employed in analysis*

We employ three datasets for our study. The dataset “*lower house members*” consists of the full universe of legislators and all 156 legislative and constitutional final passage votes in parliament with subsequent popular referendum for the years 1996 to 2015. This corresponds to the 45<sup>th</sup> to the 49<sup>th</sup> legislature of the Swiss Federal Assembly comprising 28308 individual

votes of the 547 distinct members of the lower house<sup>7</sup>. 32 members of the lower house were elected to the upper house during this period. The dataset includes the 1532 decisions these chamber-changers made while they still served in the lower house.

The dataset “*upper house members*” comprises 2086 individual final passage votes with subsequent popular referendum. 769 of these votes were cast by former lower house members. Voting data for the upper house is available from 2007 onwards since the introduction of a camera recording the sessions. The distinct datasets “*lower house members*” and “*upper house members*” are suitable to study whether chamber-changers are statistically different to other members of the chamber in which they currently serve.

In addition, we employ a dataset of “*lower house + former members*” for which we add the 769 decisions by former lower house members to the dataset “*lower house members*” that took place *after* they moved to the upper house. This sample allows to test whether individual legislators change their behavior when changing from the lower house to the upper house.

Detailed descriptions and references for all variables employed are presented in Table A1 in the Appendix. Descriptive statistics for all datasets and variables are reported in Table A2.

### *Measuring congruence between legislators and constituency*

Final passage votes take place at the end of a parliamentary session and are proximate to the adoption of actual policies (see Krehbiel 1993). However, parliamentary decisions in Switzerland do not directly materialize in amendments to the law and constitution but they may be subject to binding popular votes. Citizens vote in referenda on proposals which are word-

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<sup>7</sup> Whereas the theoretical maximum of votes amounts to 31200 (=156 final passages votes times 200 members), the president of the chambers abstains from voting unless there is a tie vote and legislators may be absent or abstain from voting due to sickness, voyage, political duties, professional bias, or other responsibilities, as well as early resignation or death. We analyze all decisions where legislators voted pro or against a legislative proposal.

for-word identical to the final passage votes on which legislators voted before. By voting in referenda, citizens reveal their preferences (e.g. Brunner et al. 2011; Hessami 2016).

We define a binary measure of congruence between legislator  $i$  and her constituency in referendum  $r$ ,  $ConstituencyCongruence_{ir}$ . The measure of congruence takes the value 1 if either both the legislator and the median voter (i.e., the voter majority) of the constituency accept or reject the referendum, otherwise congruence is 0. Accordingly, the unit of observation in our study is legislator-referendum specific, i.e., each legislator's decision is compared to the referendum outcome in her constituency.

Using legislators' and constituents' votes on identical proposals has attractive properties compared to commonly used approaches which, for instance, regress ADA or Nominate scores on constituency characteristics as proxies for voter preferences (e.g. Achen 1977; Gerber and Lewis, Powell 2009 or Matsusaka 2010, Matsusaka2018 who discuss issues afflicting such measures). For a valid measure of congruence not only the text of the proposals but the decision-making situation in general must be comparable for legislators and constituents. Swiss legislators and constituents rank the status quo against a new proposal when they decide on final votes in parliament and referenda, respectively. Referenda are preceded by a phase of intensive public debate enabling voters to make a comparatively informed decision<sup>8</sup>. Parliamentary and referendum decisions entail real consequences for policy. Thus, the Swiss setting comes close to an ideal setting for a measure of congruence (among many others, Schneider et al. 1981; Eichenberger, R., D. Stadelmann, and M. Portmann (2011a). *Ständerat am Puls des Volks*. NZZ am Sonntag, 28.08.2011: 15.

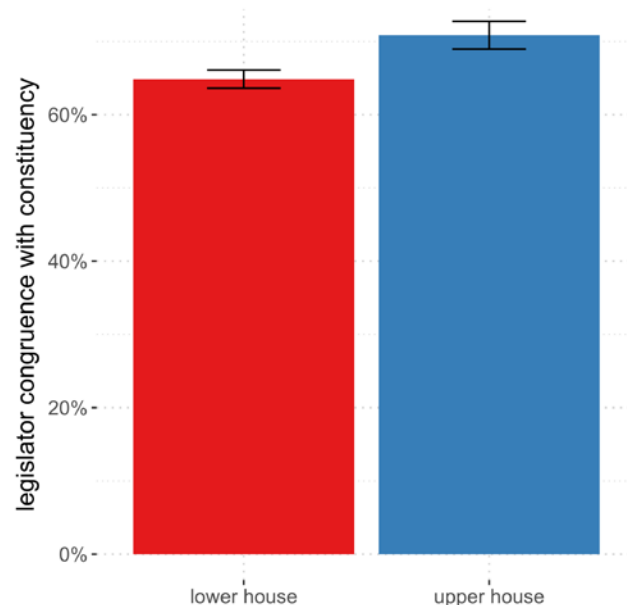
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<sup>8</sup> In contrast, this is often not the case when people are asked in surveys about their opinions on proposals which are treated in parliament. Important in distinguishing parliamentary votes and referenda from surveys of legislators and voters is the fact, that in the first case the actors know that they do not simply express opinions and a public debate has taken place.

Eichenberger, R., D. Stadelmann, and M. Portmann (2011b). Dunkelkammer mit Videoüberwachung. *Weltwoche*, 20.10.2011: 44.

1994; Hug and Martin 2012; Giger and Klüver 2016). For these reasons the number of scholarly papers relying on final passage votes and referenda has been increasing recently (see, e.g. Portmann et al. 2012; Brunner et al. 2013; Portmann 2014; Potrafke 2013; Matsusaka 2017; Barceló 2018; Stadelmann et al. 2018).

Figure 1 shows average congruence levels for legislators from the lower and upper house. Consistent with the theory on electoral systems (e.g. Downs 1957; Cox 1990; Persson and Tabellini 2000) we observe that proportionally-elected legislators from the lower house exhibit on average a congruence with median constituency preferences of 64.8% which is 6.1 percentage point lower than the corresponding figure for majority-elected legislators from the upper house (70.9 %). The difference in average congruence levels for legislators of the respective houses is statistically significant at the 1% level<sup>9</sup>.



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<sup>9</sup> The error bars in Figure 1 correspond to 5% confidence intervals and are calculated based on standard errors clustered at legislator level.

**Figure 1:** Average legislator congruence with constituency in lower and upper house

*Empirical strategy*

*a. Testing for responsiveness when incentives change*

While proportionally-elected legislators have on average lower congruence levels than majority-elected legislators, we are interested in responsiveness. Thus, we analyze whether individual legislators who are elected from the lower to the upper house *change* their congruence levels. The dataset “*lower house + former members*” contains the voting behavior of all lower house members and the voting behavior of chamber-changers *before* and *after* changing from the lower to the upper house. We employ this dataset and estimate the following equation:

$$(ConstituencyCongruence)_{ir} = \alpha_1 + \beta_1(ChangedChamber)_{ir} + \xi_{1i} + \Gamma_1 \mathbf{X}_{ir} + \epsilon_{1ir} \quad (1)$$

*ChangedChamber* takes the value 1 for votes by legislators from the lower house *after* they have taken seat in the upper house, and it takes the value 0 otherwise. While chamber-changers move at different points in time to their new mandate in the upper house, we always observe the voting behavior of lower house members and chamber-changers on the same votes<sup>10</sup>. Since we focus on behavioral adaption to electoral incentives by individuals who we observe in two chambers, we include legislator fixed-effects denoted  $\xi_{1i}$  to hold legislator specific time-invariant characteristics constant. Legislator fixed-effects insure that the coefficient of interest  $\beta_1$  captures the legislator independent effect of a change in congruence due to a change from the lower to the upper house. Essentially equation (1) corresponds to a generalized difference-in-difference estimator where constituency congruence of lower house members serves as a

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<sup>10</sup> To recall, this is due to the fact that members of both houses are required to accept legislative and constitutional amendments in a final vote.

comparison group. Hence,  $\beta_1$  identifies the *causal* effect of a mandate change on legislator-constituency-congruence if parallel trend assumptions for both chambers hold.

To defend this assumption, it is first important to see that legislators change their mandates at different points in time<sup>11</sup>. Because we can, by logic, observe house changers in the upper house only *after* they have served in the lower house, and because our period of observation for the upper house begins in 2007, we control for time trends with year fixed effects. Congruence between legislators and constituents is on average higher for constitutional amendments (mandatory referenda and popular initiatives) and lower for facultative referenda (amendments to laws). Therefore, we also include referendum type fixed-effects captured by  $X_{it}$  in equation (1). Most legislators would consider the upper house as the more prestigious chamber and legislator often serve there at a later stage of their career. Thus, we also control for time-variant legislator characteristics such as time in office, among others, which are also summarized in  $X_{it}$ .  $\epsilon$  stands for the error term. As legislator congruence with constituency is a binary variable, the above equation is formulated in terms of a linear probability model<sup>12</sup>. We opt to present results from a linear probability model for ease of interpretation. Estimating logistic models (see Table A6 in the Appendix) yields qualitatively identical and quantitatively similar results.

Our setting does not only causally identify behavioral changes of legislators but the above specification distinguishes the “selection view” from the “incentive view”. Our expectation for  $\beta_1$  are the following: As the lower house is elected under proportional representation, its members do not face incentives to cater for median voter preferences, whereas majority-elected

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<sup>11</sup> Whereas there is one point in time where the treatment takes place in a classical difference-in-difference setting, we have more points in time for each legislator who moves from the lower to the upper house.

<sup>12</sup> We estimate robust standard errors clustered at the legislator level in recognition of the likelihood that observations from the same legislators may not be independent (see Cameron and Miller 2015). As we observe the universe of politicians and decisions, neither the sampling process of individual legislators is clustered nor is there any cluster assignment mechanism (see Abadie et al. 2017).

members of the upper house face such incentives. We expect  $\beta_1 = 0$ , if voters select legislators to the upper chamber who have already been median oriented during their terms in the lower house<sup>13</sup>. If, on the other hand, legislators who change to the upper house react to incentives, we expect  $\beta_1 > 0$ . As we observe the identical legislators in both roles, we can empirically distinguish selection from incentives.

*b. Testing for differences to other members of the chamber*

Of course, if  $\beta_1 > 0$ , selection may play some role too, but incentives always matter in that situation. To investigate whether selection can be ruled out as an explanation for changes in individual responsiveness to voter preferences, we define the binary variable *IsChamberChanger* which takes the value 1 if a legislator will at some point in time move from the lower to the upper house and it takes the value of zero otherwise<sup>14</sup>. We run the following regression for observations from the lower house only (dataset “*lower house members*”):

$$(\text{ConstituencyCongruence})_{ir} = \alpha_2 + \beta_2(\text{IsChamberChanger})_{ir} + \mathbf{\Gamma}_2 \mathbf{X}_{ir} + \epsilon_{2ir} \quad (2)$$

Since *IsChamberChanger* is a time-invariant characteristic of the legislator, we cannot include legislator fixed-effects. If legislators who move to the upper house constitute a selection of politicians who are close to the median voter, we should find  $\beta_2 > 0$ . If, on the other hand, chamber-changers while serving in the lower house are similar in terms of congruence to other legislators in the lower house, it results that  $\beta_2 = 0$ , which would imply that voters did not select them in elections due to higher congruence levels than their peers in the lower house.

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<sup>13</sup> Similarly, if legislators are ideologically stubborn, i.e., non-responsive, we expect  $\beta_1 = 0$ . If, on the other hand, the electoral connection hypothesis is true, we expect  $\beta_1 > 0$ , i.e., chamber-changers are responsive and move towards the median voter.

<sup>14</sup> *IsChamberChanger* differs from *ChangedChamber* since the latter only takes the value 1 *after* the move to the upper house took place.

Analogously to the above, we can compare chamber-changers once they are elected to the upper house to other upper house members. We run the following regression for observations from the upper house only (dataset “*upper house members*”):

$$(ConstituencyCongruence)_{ir} = \alpha_3 + \beta_3(IsChamberChanger)_{ir} + \Gamma_3 \mathbf{X}_{ir} + \epsilon_{3ir} \quad (3)$$

If chamber-changers do not fully adapt their congruence levels when in the upper house, we should find  $\beta_3 < 0$ . If, on the other hand, chamber-changers fully adapt their behavior to the new incentives they face in the upper house and if they behave similar to other upper house members, we expect  $\beta_3 = 0$ .

To summarize, if we find  $\beta_1 > 0, \beta_2 = 0, \beta_3 = 0$ , only incentives drive individual legislators’ congruence with their voters’ preferences. Chamber-changing legislators would fully correspond to their electoral mandates in the respective chambers. On the other hand, if we find  $\beta_1 = 0, \beta_2 > 0, \beta_3 = 0$ , selection would be the driving force for congruence. Then, no individual behavioral changes would be observed, and elected legislators would behave similarly to upper house members while still in the lower house. Finally, if we find  $\beta_1 > 0, \beta_2 > 0, \beta_3 \leq 0$ , both selection and incentives would matter. Table 1 highlights our hypotheses to distinguish the “incentives view” from the “selection view”.

**Table 1:** Distinguishing the “incentives view” from “selection view” by coefficients

	Electoral incentives matter	Electoral incentives do not matter
Selection matters	$\beta_1 > 0, \beta_2 > 0, \beta_3 \leq 0$	$\beta_1 = 0, \beta_2 > 0, \beta_3 = 0$
Selection does not matter	$\beta_1 > 0, \beta_2 = 0, \beta_3 = 0$	no specific pattern for $\beta_1, \beta_2, \beta_3$

*c. Party loyalty and interest group affiliations*

Our setting allows us to analyze further dimensions regarding the behavior of legislators. We can explore whether a change of chambers induces a change in party loyalty and interest group affiliations.



As parties issue voting recommendations, we use this information as a measure for party loyalty and define the binary measure of congruence between legislator  $i$  and her party's voting recommendation in referendum  $r$ ,  $PartyLoyalty_{ir}$ . This measure takes the value of 1 if both, the legislator, as well as the majority of the party convention simultaneously accept or reject the referendum, and zero otherwise. Moreover, we employ our variables for the number of lobby groups as a dependent variable to analyze if chamber-changers change their number and share of different lobby affiliations. To analyze whether the party loyalty and lobby affiliations of legislators change when they change the chamber, we estimate in full analogy to regression (1), employing our measures of party loyalty and interest group affiliations as dependent variables.

$$(PartyLoyalty)_{ir} = \alpha_4 + \beta_4(ChangedChamber)_{ir} + \xi_{4i} + \Gamma_4 \mathbf{X}_{ir} + \epsilon_{4ir} \quad (4)$$

$$(Interest\ affiliation\ measure)_{ir} = \alpha_5 + \beta_5(ChangedChamber)_{ir} + \xi_{5i} + \Gamma_5 \mathbf{X}_{ir} + \epsilon_{5ir} \quad (5)$$

Whereas official party positions are determined by the national party elite, upper house members face stronger incentives to cater for district median preferences. Hence, analogously to congruence with constituency, we expect  $\beta_4 < 0$  if the incentives matter, while we expect  $\beta_4 = 0$  if politicians are selected and ideologically stubborn.

Individual members of the upper house are more influential than individual members of the lower house due to the number of seats being lower in the upper house. This could make upper house members more attractive partners for interest groups. This line of reasoning would imply that  $\beta_5 > 0$  when the dependent variable are lobby affiliations. On the other hand, public expectations and media attention may also be higher, such that we could also expect that  $\beta_5 < 0$ . In general, taking a mandate view of responsiveness, chamber-changers should neither increase nor decrease their lobby affiliations such that  $\beta_5 = 0$ . An exception to that could be

regional interest group affiliations of chamber-changers. These groups may have interests that are well-aligned with constituency preferences<sup>15</sup>.

## IV. RESULTS

### *Incentives matter for legislator congruence*

#### *a. Congruence with constituency and party loyalty*

Specifications (1) to (3) of Table 2 present our main results regarding the causal effect of a change from the lower to the upper house on congruence of legislators with median constituency preferences.

**Table 2:** The effect of a change from the lower house to the upper house on congruence with voters and party loyalty

Dependent variable	ConstituencyCongruence			PartyLoyalty		
	(1)	(2)	(3)	(4)	(5)	(6)
ChangedChamber	0.0730*** (0.0280)	0.0737*** (0.0280)	0.0693** (0.0282)	-0.0317** (0.0127)	-0.0314** (0.0126)	-0.0319** (0.0129)
Legislator FEs	yes	yes	yes	yes	yes	yes
Time-variant controls	no	no	yes	no	no	yes
Referendum type FEs	no	yes	yes	no	yes	yes
Time FEs	yes	yes	yes	yes	yes	yes
n. Obs.	28308	28308	28308	28308	28308	28308
R2	0.0867	0.1018	0.1021	0.065	0.0707	0.0711
Dataset	lower house + former members					

Notes: \*\*\*, \*\*, and \* indicate a mean significance level of <1%, 1-5%, and 5-10%, respectively. Robust clustered standard error estimates are reported. Linear probability models are estimated.

We introduce our primary variable of interest, *ChangedChamber*, together with individual fixed-effects and time fixed-effects in specification (1). The results provide support for  $\beta_1 > 0$  and suggest that by moving from the lower to the upper house individual legislator

<sup>15</sup> Evidently, by using regressions (2) and (3) with party loyalty and the different interest groups measures as dependent variables, we can also test whether chamber-changers differ from the other members of their current chamber. We perform these tests for party loyalty in Table 5 and for interest groups in Table A8 and A9 in the Appendix.

congruence increases by approximately 7.3 percentage points. This increase closely corresponds to the difference between the average congruence levels of lower and upper house (as illustrated in Figure 1). The change in congruence already suggests that incentives matter when chamber-changers move from the proportionally-elected to the majority-elected house, which is also consistent with the electoral connection hypothesis.

Specifications (2) and (3) provide further support for our results by adding referendum type fixed-effects (2) as well as time-variant MP controls (3) such as *TimeInParliament* (and the squared term of it), *FirstYearInOffice*, and *FirstTermInOffice*. With these specifications we intend to rule out, firstly, a change in the mix of referendum types, and, secondly, any effects of time in office (which result, e.g., from experience, incumbency advantages, seniority) as confounders. The effect of the change of the house on legislator congruence remains a statistically robust increase of between 6.9 to 7.4 percentage points<sup>16</sup>.

In specifications (4) to (6) we turn to party loyalty and analyze the causal effect of a change in chamber on party loyalty. The results show that legislators who move to the upper house reduce their congruence with their party by approximately 3.1 percentage points, independently of which control variables we include. This is once more in line with the incentive view as a change from the lower to the upper house brings about more independence from the party line. Thus, incentives matter for legislator congruence.

#### *b. Interest group affiliations*

Table 3 presents results for the effects of a change from the lower to the upper house on the number of interest group affiliations and the composition of interest groups. Panel (a) exhibits the effects on the absolute number of affiliations. Specifications (1) to (3) indicate that a change from the lower to the upper house is neither associated with a change in the number

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<sup>16</sup> Even when including interest group affiliations (which are a potentially endogenous variable to the change in chamber), the quantitative effects of a change in house remain almost identical.

of interest group affiliations, nor with affiliations disaggregated for cause groups, sectional groups, and regional interest groups at conventional statistical significance levels for chamber-changers. This evidence can be interpreted as consistent with the incentive view (and the electoral connection view) of legislator responsiveness, i.e., legislators do not gain more interest group affiliations once they have changed chamber.

**Table 3:** The effect of a change from the lower house to the upper house on the number and the composition of interest group affiliations

<b>Panel (a):</b> Number of interest group affiliations				
Dependent variable	#IG	#Sectional	#Cause	#Regional
	(1)	(2)	(3)	(4)
ChangedChamber	-0.8255 (1.0606)	-0.5655 (0.5001)	-0.2496 (0.8146)	0.3754 (0.2315)
Legislator FEs	yes	yes	yes	yes
Time-variant controls	yes	yes	yes	yes
Referendum type FEs	yes	yes	yes	yes
Time FEs	yes	yes	yes	yes
n. Obs.	28308	28308	28308	28308
R2	0.7776	0.8137	0.7417	0.7026
Dataset	lower house + former members			

<b>Panel (b):</b> Composition of interest group affiliations				
Dependent variable	% Sectional	% Cause	% Regional	
	(1)	(2)	(3)	
ChangedChamber	-0.0311 (0.0473)	0.0323 (0.0473)	0.0459*** (0.0173)	
Legislator FEs	yes	yes	yes	
Time-variant controls	yes	yes	yes	
Referendum type FEs	yes	yes	yes	
Time FEs	yes	yes	yes	
n. Obs.	25008	25008	25008	
R2	0.847	0.8462	0.751	
Dataset	lower house + former members			

Notes: \*\*\*, \*\*, and \* indicate a mean significance level of <1%, 1-5%, and 5-10%, respectively. Robust clustered standard error estimates are reported. Linear probability models are estimated.

With respect to the relative importance of types of interest group affiliations, panel (b) shows that the share of sectional interest group affiliations (*%Sectional*) and the share of cause interest groups (*%Cause*) are not affected by a change of legislators from the lower to the upper house at conventional significance levels. In contrast, the change from lower to upper house is

accompanied with a statistically significant increase in the *share* of regional interest group affiliations (*%Regional*) of 4.6 percentage points. As regional interest groups can be expected to represent regional interests, this is consistent with the evidence presented in Table 2 that chamber-changers are responsive to incentives and more closely correspond to their constituency's preferences *after* having changed to the upper chamber.

*Comparison within chambers to distinguish selection from incentives*

*a. Congruence with constituency*

In Table 4 we analyze how legislators who are chamber-changers behave regarding constituency congruence and party loyalty *before* and *after* they changed the house compared to other members of their current house. In specifications (1) to (3) we restrict the sample to the lower house and in (4) to (6) to the upper house<sup>17</sup>.

**Table 4:** Congruence of chamber-changers while in the lower house and once in the upper house in comparison to other members of the respective houses

Dependent variable	ConstituencyCongruence					
	(1)	(2)	(3)	(4)	(5)	(6)
IsChamberChanger	0.0097 (0.0301)	0.0113 (0.0300)	0.0242 (0.0205)	-0.0367* (0.0211)	-0.0382 (0.0291)	-0.0137 (0.0267)
Party FEs	no	no	yes	no	no	yes
Time-variant controls	no	yes	yes	no	yes	yes
Referendum type FEs	no	yes	yes	no	yes	yes
Time FEs	yes	yes	yes	yes	yes	yes
n. Obs.	27539	27539	27539	2086	2086	2086
R2	0.0223	0.038	0.0722	0.0176	0.0596	0.0632
Dataset	lower house members			upper house members		

Notes: \*\*\*, \*\*, and \* indicate a mean significance level of <1%, 1-5%, and 5-10%, respectively. Robust clustered standard error estimates are reported. Linear probability models are estimated.

<sup>17</sup> As we cannot include legislator fixed-effects because *IsChamberChanger* is an identifier for legislators, we include their party affiliations in specifications (3) and (6).

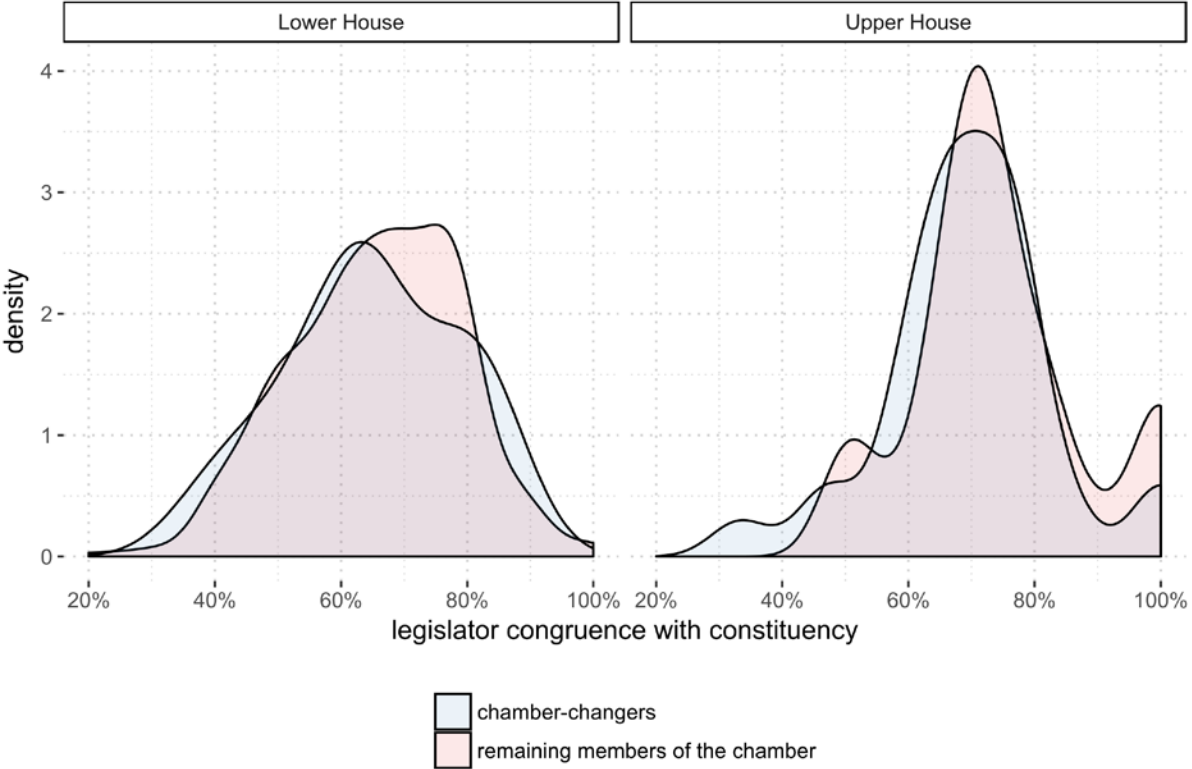
Results show that congruence of legislators who move to the upper house is not statistically significantly different to other members of the lower house *before* they change chamber (specifications 1 and 2), i.e.,  $\beta_2 = 0$  cannot be rejected at conventional levels of statistical significance. Even when including party fixed-effects (specification 3) chamber-changers are neither statistically more nor less congruent with their constituents than other legislators of the lower house while having been active in the lower house.

Once legislators take up their new mandate in the upper house they get closer to their new peers regarding constituency congruence (see again Table 3). Specifications (4 and 5) show that (without party control) congruence of chamber-changers tends to be by about 3.7 to 3.8 percentage points lower compared to other members of the upper house. While these differences in congruence are at best borderline statistically significant, they evaporate if party affiliation is accounted for in specification (6). There is virtually no difference between chamber-changers and other upper house legislators. Jointly,  $\beta_1 > 0$  (chamber-changers increase congruence after a change),  $\beta_2 = 0$  (chamber-changers are not different to lower house members as long as they are in the lower house) and  $\beta_3 = 0$  (chamber-changers are not different to upper house members once they are in the upper house) suggest that only incentives matter to explain legislator congruence with voters' preferences.

Figure 2 reveals that the results of Table 4 even hold when looking at the whole distribution of legislator congruence with their constituency. The left panel shows the distribution of constituency congruence of members of the lower house, the right panel shows the same for the upper house (right panel). Chamber-changers are in light blue while in the respective house, chamber non-changers are in light red.

We observe in Figure 2 substantial overlaps of the distributions of chamber-changers and other members of the lower house while both are active in the lower house (left panel). It is worthwhile to note from the distributions, that some legislators who *will be* elected to the upper

house (i.e., chamber-changers) have lower congruence levels with their constituency’s preferences than other lower house members who are *not* elected to the upper house. Thus chamber-changers are *not* a selection of politicians with high congruence, i.e., there is no support for the view that voters specifically elect legislators from the lower to the upper house because of higher congruence *prior* to being elected. Similarly, the distributions of chamber-changers and other members of the upper house overlaps for the period both are in the upper house. Thus, chamber-changers fully adapt to the incentives faced in the upper house.



**Figure 2:** Legislator congruence with constituency of chamber-changers and members of their respective current houses

*b. Party loyalty and interest group affiliations*

In Table 5 we investigate differences regarding party loyalty between those who move from the lower to the upper house and the remaining members of their current chambers.

The coefficients of *IsChamberChanger* are statistically significant and range from 1.3 percentage points if party fixed-effects are included (specification 3) to 2.5 percentage points in the other specifications for the lower house. Thus, prospective chamber-changers are more loyal to the party than other members of the lower house. This finding is consistent with the fact that candidates running for upper house mandates are usually endorsed by their parties.

**Table 5:** Party loyalty of chamber-changers while in the lower house and once in the upper house in comparison to other members of the respective houses

Dependent variable	PartyLoyalty					
	(1)	(2)	(3)	(4)	(5)	(6)
IsChamberChanger	0.0246*** (0.0060)	0.0248*** (0.0059)	0.0130** (0.0059)	0.0279 (0.0197)	0.0494* (0.0266)	0.0095 (0.0186)
Party FEs	no	no	yes	no	no	yes
Time-variant controls	no	yes	yes	no	yes	yes
Referendum type FEs	no	yes	yes	no	yes	yes
Time FEs	yes	yes	yes	yes	yes	yes
n. Obs.	27539	27539	27539	2086	2086	2086
R2	0.023	0.0286	0.043	0.0223	0.0434	0.0905
Dataset	lower house members			upper house members		

Notes: \*\*\*, \*\*, and \* indicate a mean significance level of <1%, 1-5%, and 5-10%, respectively. Robust clustered standard error estimates are reported. Linear probability models are estimated.

Results for the effect of the mandate change on party loyalty tend to show that once chamber-changers are in the upper house, they are not statistically different from other members of the upper house regarding party loyalty. Only in specification (5) when excluding party fixed-effects, a marginally statistically significant positive effect of party loyalty shows up. Once controlling for party fixed-effects in specification (6), chamber-changers turn to be virtually identical to other members of the upper house in terms of party loyalty<sup>18</sup>. All these results are consistent with the view that incentives matter for legislator congruence.

<sup>18</sup> The difference between specifications (5) and (6) suggests that the effect is heterogeneous along party lines (see Stadelmann et al. 2017).



When analyzing lobby affiliations for chamber-changers while they are still in the lower house we essentially find no systematic differences between them and other members of the lower house. Chamber-changers are not statistically different to other members of the upper house once they serve there. For the sake of brevity, we present these results in the Appendix (Table A8 and A9).

### *Robustness checks*

In addition to the results shown in Tables 2 to 4 we performed a battery of robustness checks and we briefly discuss a selection of them.

In Table A3, A4, and A5 in the Appendix, we investigate whether restricting the sample to legislators for whom a minimum of 10 or 20 votes are available per chamber, affects the size of the mandate change effect on constituency congruence. We also present results based on a restricted sample from the year 2000 onwards because for a few chamber changers there is a time gap of several years between the last vote in the lower house and the first observed vote in the upper house. All our main results are robust and our quantitative and qualitative interpretations need not be qualified.

In Table A6 in the Appendix, we show that results hold when estimating logit models. Moreover, a stepwise inclusion or omission of control variables does not affect our interpretations.

All estimates above account for robust standard errors clustered for legislators. In Table A7, we present results based on a wild cluster bootstrap where we treat all votes by a legislator as one block. Results show that statistical significance of our earlier findings is not driven by particular legislators nor is it an artifact of assumptions underlying the clustering.

Tables A8 and A9 in the Appendix investigate the number and the composition of interest group affiliations of chamber-changers in comparison to other legislators while they serve in

the lower and upper house. As mentioned above, there are no statistically significant differences between chamber-changers and other members of the respective houses and the estimated coefficients are quantitatively small.

## V. DISCUSSION AND CONCLUSION

### *Summary of findings*

Our empirical evidence shows, (1.) that legislators respond to constituency preferences when changing from the lower house to the upper house. The change from proportional representation in the lower house to majoritarian elections in the upper house is reflected in legislators' move towards constituency median preferences after elections, i.e., chamber-changers are responsive in terms of congruence. (2.) Regarding congruence with constituency preferences, we find no differences between lower house members who *will* move to the upper house and lower house members who stay in the lower house. (3.) Once chamber-changers are in the upper house, they are similar to other members of this chamber regarding their median voter orientation. (4.) Chamber-changers are slightly more party loyal before they move to the upper house than members of the lower house who stay there, and (5.) they become less loyal once they are in the upper house (6.) which finally makes them similarly loyal to parties as other members of the upper house. (7.) While chamber changing legislators show similar patterns of interest group affiliations as other members of their chambers, (8.) they adapt their affiliations towards more regionally oriented interest groups once they move from the lower to the upper house

### *Discussion*

Our findings provide evidence that politicians are not ideologically stubborn but respond to constituency preferences. All the observed behavioral changes with respect to congruence are consistent with the changes in electoral incentives. This also applies to the redirection of

the interest group affiliations of chamber-changers to more regional interest groups. While proportionally elected legislators have incentives to pander to specific ideological segments of their constituency, majority elected legislators have incentives to pander to a majority interests of their constituency.

At first glance, our results may be seen as evidence in favor of an “only electoral incentives matter” as opposed to an “only selection matters” view of political representation. While this result is astonishing, we would, of course have liked to further bolster it by testing more refined hypotheses. For instance, it could be hypothesized that electoral incentives of chamber-changers from small districts (i.e., cantons) with only one or two seats in the lower house change less severely than the one of house-changers from large districts with up to 35 seats in the lower house, i.e., the behavioral change of chamber-changers from small districts should be smaller than the behavioral change of chamber-changers from larger districts. However, only two legislators from districts with less than five representatives in the lower house were elected to the upper house. Thus, we cannot investigate this aspect.

Another potentially interesting differential hypothesis could be derived from the argument that electoral incentives for chamber-changers are not only changing after they became members of the upper chamber but already when they are running for a seat in the upper chamber<sup>19</sup>. Testing this hypothesis would allow to differentiate the effect of electoral incentives from pure incentives given by the electoral mandate. If citizens rather honor how a candidate fulfils her current mandate (i.e., as a proportionally elected member of the lower house) than how her behavior already fits the mandate of the potential future position (i.e., as a majority elected member of the upper house), there should be no pre-election incentive effects. However, with the current data base it is not possible to discern these effects for two

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<sup>19</sup> Miler (2016) argues that legislators in other countries may gradually change their behavior in light of upcoming candidacies for other mandates.

reasons: First, members of the lower house who run for a seat in the upper house sometimes also run for a seat each in the lower at the same time (and opt for the seat in the upper house if they win both seats). Second, the number of referendum votes usually decreases in the months before elections making statistical tests less powerful<sup>20</sup>.

If we accept our results as a fair picture of the Swiss situation, we have to ask whether and to what extent it can be generalized to other countries. A standard argument against generalizing Swiss results is that they could be specific to Swiss institutions with their extensive direct democracy. This argument does not apply to our results. While we have only been able to investigate the incentive vs. selection views due to Swiss institutions which generate the necessary data, the respective mechanisms, i.e., proportional vs. majoritarian electoral rules, are not specific to Switzerland. As we pursue a strictly comparative analysis of electoral incentives in the two chambers which are not differentially affected by the institutions specific to Switzerland, we see no reason why our results should not generalize. However, we would like to note the following two limitations:

First, our results do not imply that selection does not play any role at all. Of course, it is perfectly possible (and, from our perspective, probably true) that both, the members of the lower and the upper chamber, originate from a specifically selected group of citizens, namely successful political candidates. However, the systematic differences in their behavior regarding congruence under different electoral rules are not driven by further selection but by differences in incentives. Second, our results have a marked focus on congruence with voter preferences. Taken at face value they imply that chamber-changers are no specific selection of legislators with respect to their voting behavior and preference representation. Given our setting we cannot

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<sup>20</sup> Remember that our analysis is based on parliamentary final passage votes on affairs for which popular referenda take place as well. The federal chancellery usually schedules as few referenda as possible in the election year to avoid that parties and politicians use referenda as campaigning tools. Therefore, the number of observations close to election date naturally drops.

exclude that chamber-changers are a specific selection (or react to incentives before their election the upper house) with respect to characteristics complementary to their voter congruence behavior, for instance, how they speak about policy issues or whether they may draw personal utility from fulfilling public expectations of an office rather than from following their own ideology. Given these caveats, we conclude that legislators behave at least *as if* they were driven only by incentives.

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