

ORIGINAL ARTICLE

Making public infrastructure work: Multi-seat majoritarian elections as a new institutional approach

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ABSTRACT

The wealth of nations depends on the quality of their infrastructure. Often, however, infrastructure suffers from ineffective investments and poor maintenance. Proposed solutions, such as New Public Management or Public-Private Partnerships (PPPs), tend to develop into Politicians-Private Partnerships as politicians collude with private firms to exploit present and future taxpayers. Therefore, it is necessary to give citizens better control over collective decision-making. While there is significant economic literature on empowering citizens via decentralization and direct democratic institutions, the role of electoral rules has thus far been rather neglected. An interesting case in point is Switzerland, which is well known for its high-quality infrastructure, extensive decentralization, and direct democracy. However, this paper argues that there is an additional and previously neglected institution that moves Swiss politicians away from client politics towards better serving the public interest: Switzerland's unique electoral institutions, which effectively combine proportional elections with multi-seat majority elections. The paper explains how these institutions work and how they enhance the relationships between citizens and public and private entities, and the paper argues that they could be implemented in other countries.

Keywords: Public infrastructure; public-private partnerships; institutions; governance; multi-seat majoritarian elections; Switzerland

1. Introduction

Institutions can be seen as humanly devised constraints that determine the incentives of politicians to take citizens' preferences into account (North, 1991). Strong political and economic institutions improve public policies, which, in turn, enhance the success of nations and regions (Ang *et al.*, 2018; Tang and Tang, 2018). Correlational analyses suggest that countries with strong institutions have high-quality public infrastructures (see the Global Competitiveness Report (World Economic Forum, 2018)). However, public infrastructure invest-

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-ments and maintenance often suffer from governance problems linked to weak institutions and poor governance. New Public Management and especially Public-Private Partnerships (PPPs) have been argued to affect and potentially improve the delivery of public services (Osborne, 2000; Savas, 2000; Lane, 2002; Hart, 2003), but findings regarding their effectiveness have been contradictory (Hodge and Greve, 2008).

1.1. From *Public-PPs* to *Politicians-PPs*

There are at least five arguments for using approaches such as PPPs to enhance infrastructure policy: (1) They may help governments to overcome short-run financing and credit constraints. (2) The collaboration with the private sector may induce transfers of managerial knowledge, experience, and expertise to the public sector (3) The potential short-sightedness of political agents can be overcome, as private financiers take a longer-term perspective (i.e., their time horizon does not end at the next election date). (4) If operations are run by private partners, some efficiency-reducing constraints may be overcome.¹ (5) Stakeholders from the private sector have a stronger focus on outcomes than bureaucrats, who tend to follow rules independent of their respective costs and benefits.

However, effective political governance is central to successful infrastructure projects with and without PPPs (Ruiz Rivadeneira and Schuknecht, 2019). At least five arguments explain the limited performance of infrastructure projects, even when organized jointly with the private sector: (1) Governments may use PPPs to circumvent debt and deficit limits as well as to hide future financial obligations by not consolidating accounts. (2) This may lead to an extension of government leeway, as the government does not face financing costs directly and can shift the blame in case of failure. (3) Once infrastructure projects have been realized with private partners, governments may tend to overregulate the respective services, as a large share of regulatory costs must be carried by the private firms. (4) Democratic control is weakened by the sharing of responsibility between political and private actors. (5) Politicians and bureaucrats can be more easily captured by private actors as they directly interact with each other.

Thus, both formal partnerships between private and public actors and other management strategies tend to suffer from systematic governance problems induced by underperforming political institutions. Politicians tend to use PPP arrangements to collude with private firms at the expense of citizens, thereby transforming Public-Private Partnerships into *Politicians-Private Partnerships* that neglect citizens' interests.² Securing the first "P" to fully reflect public interest is, therefore, of paramount importance to ensure successful infrastructure policy.

1.2. Get the Public in the driver seat

Infrastructure investments and maintenance can only be effectively organized if politicians are constrained by institutions to act in the public interest. Unfortunately, many countries suffer from

¹ For instance, it may be easier to implement user charges when operations are not seen as public services provided by the government. Similarly, employees do not need to be public servants, which results in higher flexibility. Indeed, recent research suggests that public sector employees have higher rates of absence from work than private sector employees (Prümer and Schnabel, 2019).

² At the same time, diffusing responsibility between public and private agents increases information costs for citizens and may make politicians more opportunistic agents (Wagner, 2019).

weak institutions, which explain their poor performance regarding public infrastructure. A well-known example of a country with highly specific political institutions and a high-quality infrastructure is Switzerland (World Economic Forum, 2018). This paper provides a new reason for this country's high performance.

To make public infrastructure projects successful, politicians' incentives must be improved and constraints must be changed. Economists have extensively analyzed federalism in the form of decentralization (see, among others, Oates, 1999; Eichenberger, 1994; Espasa *et al.*, 2017, Christl *et al.*, 2019) and direct democracy (see, among others, Frey, 1994; Matsusaka, 2005; 2018) as means to increase competition in politics and thereby align the incentives of politicians with the interests of the public. These two institutions serve as a standard explanation of Switzerland's success: It is highly decentralized and incorporates instruments of direct democracy at all layers of government. However, another relevant institutional feature of Switzerland—its electoral system, with its highly effective incentive and selection effects—has been almost entirely neglected in the academic and public discourse regarding Switzerland's performance in general and the high quality of its public infrastructure in particular.

While economists have mostly concentrated on the difference between majoritarian elections with single-seat districts and proportional elections with multi-member districts (Persson and Tabellini, 2002), this paper argues that there is a third, highly promising way of organizing elections: Multi-seat majoritarian elections may shift politicians away from client politics towards better serving public interest, thereby positively affecting the quality of public infrastructure.

According to the Global Competitiveness Report (World Economic Forum, 2018), Switzerland performs especially well with respect to the quality of its transport infrastructure (i.e., roads, railway, and air transport facilities), as well as its health services and education. The quality of network-related services such as telecommunication, water provision, and waste disposal are also high. In fact, Switzerland performs highly on all measures relevant to citizen welfare.

A central element of Swiss politics is often referred to as political concordance or consociationalism: Not only does parliament comprise a large number of parties, but governments at the local, cantonal, and federal levels are typically composed of members of all important parties from the right, middle, and left of the political spectrum. Swiss politics are less polarized in comparison to the politics of other countries, allowing politicians to find compromises for small and even large infrastructure projects. The paper shows that concordance and high performance are results of the Swiss electoral system, which combines proportional representation with strong elements of majority rule, particularly multi-seat majority voting.

Multi-seat majoritarian elections have been largely neglected by public choice scholars (see Schafer (2019) for an overview). They combine majoritarian rule and multi-member districts, such that voters have more votes and elect more than one politician by majority in their district. The paper describes the strength of this system and why it leads to citizen-oriented, efficient policies. The paper also discusses theoretical arguments raised against multi-seat majoritarian elections and show that they are empirically not relevant, at least for the Swiss case. The paper provides descriptive evidence that multi-seat majoritarian elections decrease the performance limits of the executive, improve cooperation within the executive, and increase citizens' perceived level of satisfaction with the authorities. All this suggests a close but complex connection between multi-seat majoritarian elections and public infrastructure projects. While multi-member majority

elections may help make public infrastructure more effective, they simultaneously decrease the need for PPPs and other forms of New Public Management.

The remainder of this paper is organized as follows: Section 2 presents the institutional background. Section 3 discusses the relevance of multi-seat majoritarian elections and introduces new theoretical arguments. Section 4 provides descriptive evidence that potential arguments against multi-seat majoritarian elections can be refuted in Switzerland and that the performance of this system is likely to be high. Section 5 concludes by examining the relation between multi-seat majority elections and public infrastructure.

2. Institutional background and problems of pure electoral systems

2.1. Electoral institutions in Switzerland

Switzerland has unique electoral institutions³ that are highly representative and support the performance of the country's infrastructure. These institutions lead to political outcomes that represent the interests of the majority while taking into account the needs of the minorities. This paper describes how these institutions work and how they enhance the relationship between the citizens and both public and private entities. The paper suggests that these electoral institutions could be transferred to other countries with infrastructure problems and may be seen as a less risky path to reform than other institutional changes (see Bolen and Williamson, 2019).

Efficient policies and high-quality infrastructures are not solely the result of direct democracy and federalism; they also stem from the Swiss electoral system, which effectively combines proportional representation with strong majoritarian elements. Swiss electoral institutions differ from systems common in other countries in at least three important ways:

1. The two national parliamentary chambers have equal rights but are elected by different procedures. The National Council (lower chamber) is mostly elected by proportional representation, whereas the Council of States (upper chamber) is elected by majority vote. For the Council of States, voters in most cantons have two votes to elect two politicians.⁴
2. The members of the government at the municipal and cantonal levels are elected by the people, usually with majority vote and at large (within a single district; i.e., multi-seat majoritarian elections). The members of the government at the federal level are elected by the parliament (both chambers together) with a majority vote.

Majority-vote elections usually take place in constituencies with several seats instead of single-seat districts. In a representative constituency, therefore, several politicians are elected simultaneously with a majority vote, and each voter has a number of votes equivalent to the number of seats to be filled (Gottwald, 2014). Together, these three elements favor political results that are comparatively good from the citizens' point of view. While the quality of politics is difficult to assess scientifically because there is no well-defined social welfare function (Arrow, 1951), high-performing political systems are often understood to have the following characteristics:

- The decision-making process should be representative.

³ Empirical analyses on the association between electoral system and representation, as well as the influence of interest groups, can be found in the contributions by Stadelmann *et al.* (2014; 2016; 2019).

⁴ For both chambers of parliament, the electoral districts are identical to the cantons.

- Politics should be oriented towards citizens.
- Politics should be moderate (i.e., politics should seek productive compromises and aim at the center of the political spectrum rather than at extreme positions).
- The ability to govern should be high and avoid stagnation and blockades.
- Members of the government should be responsible and accountable for their decisions.

Neither pure proportional nor pure majority systems are suited to reconcile all these goals simultaneously.

2.2. Weaknesses of pure electoral systems

2.2.1. Problems with proportional systems

Pure proportional representation systems in constituencies with many seats bring a great variety of parties and opinions and, thus, a potentially high degree of representativeness. In most countries with proportional electoral systems, the government is formed by coalitions of parties, which can cause problems. Since coalitions are often unstable, governability suffers. In addition, it is difficult to attribute policy results to individual politicians, resulting in little accountability. This reduces individual politicians' responsibility to voters and, thus, their incentives to perform, which is especially relevant for long-term infrastructure projects. Accordingly, politicians use most of their scarce time and resources to represent well-organized interest groups and forceful private actors. It is easier for proportionally elected politicians to present their political achievements to these interest groups in a credible manner. Policy is aimed at redistribution rather than efficiency or the development of universally beneficial infrastructure.

2.2.2. Problems with majoritarian systems in single-member districts

In standard majority voting systems with single-member districts, parties and candidates tend to settle in the middle of the political spectrum (see Downs, 1957). Deviations from the center can, however, be considerable (see Portmann *et al.*, 2012; Stadelmann *et al.*, 2019). Regarding the representation of different interests in single-member majoritarian elections, one of the most important contributions has been made by Duverger (1954), whose law suggests that the simple majority in single-member districts favors the two-party system. The explanation for this law is that a rational voter gives his vote not to his preferred candidate, but to the candidate closest to his preferences with a real chance of winning. Singer (2013), among others, confirmed this hypothesis, even though most majoritarian systems comprise more than two parties. Importantly, as long as only two parties or candidates compete for votes, competition drives them to the center of the political spectrum. However, as soon as there are more than two candidates, strategic games guide them away from the political center, with no convergence to a stable, moderate position. Extreme candidates have realistic chances of winning, leading to abrupt policy changes and uncertain prospects for the governance of infrastructure projects.

Different countries try to solve these dilemmas in different ways. In majoritarian systems, parties often hold primary elections to reduce the number of candidates to prevent the votes of party followers from being widely distributed among the candidates. Countries with proportional representation systems, on the other hand, often attempt to reduce the number of parties by means of electoral hurdles for small parties, thereby increasing the ability to govern and the consistency of politics over time at the expense of representation and competition.

2.3. The power of combining electoral rules

In Switzerland, proportional elections of both the National Council and the municipal and cantonal parliaments ensure great diversity and representation. The multi-seat majoritarian system for the members of the Council of States, in two-member constituencies, and the members of the cantonal and municipal governments, in multi-seat constituencies (usually with five to nine seats), provide incentives for all these politicians to move towards the political center.

Proportional elections give parties and politicians incentives to distribute themselves across the entire political spectrum in the same way as the voters. Candidates' incentives to adopt more extreme political positions increase with the number of seats, corresponding to the idea of broad representation. Thus, ideologically oriented politicians typically sit in the proportionally elected National Council, but not in the majority-elected Council of States (see Portmann *et al.*, 2012).

Since the more relevant parliamentary and government positions are awarded by multi-seat majority vote, candidates positioned in the middle of the political spectrum with balanced and efficiency-oriented positions have better chances to win seats. Correspondingly, in all parties, the particularly influential and capable candidates must move towards the center of the political spectrum. The strong majoritarian element of Swiss electoral institutions channels the broad and diverse flow of proportionally elected politicians to the political center, especially due to multi-seat majoritarian elections, as outlined below.

The combination of proportional representation and majority voting specific to Switzerland has significant advantages. The diversity of parties resulting from proportional representation ensures that all voters' interests are represented and formulated in the political process. The strong majoritarian elements give even ideologically oriented parties and politicians forceful incentives not to pursue overly extreme policies, and multi-seat majoritarian elections give them realistic prospects of a seat in government if they behave comparatively moderately and focus on efficiency. Since such politicians can assume a position in the electoral center only if they do not deviate permanently and too far from their party lines, they prefer their parties to take moderate positions (see Eichenberger *et al.*, 2018). The fact that most governing positions are elected in multi-seat majoritarian elections leads to particularly strong incentives for politicians to move to the center and perform effectively.

3. Multi-seat majoritarian elections

3.1. Functioning and advantages of multi-seat majoritarian elections

The existing literature predominantly distinguishes between majoritarian systems in single-member districts and proportional representation systems in multi-member districts. The combination of multi-member districts and majoritarian rule has received little scholarly attention, which has come mainly from political scientists (Colomer, 2007).

In multi-member majoritarian elections, $M > 1$ seats have to be filled by voters. Voters usually have $V \leq M$ votes (in the case of Switzerland, voters always have $V = M$ votes). Politicians are elected if they achieve a majority of votes in the first round or a plurality in a second round. Majoritarian elections in constituencies with many seats give politicians even stronger incentives than majoritarian elections in single-member constituencies to take positions in the middle of the

political spectrum. Thus, convergence to the center is more likely.

For simplicity, assume that the political spectrum is unidimensional from left to right and that voters vote for the candidates closest to them on the spectrum. In a single-member constituency with two candidates, competition results in both candidates placing themselves as close as possible to the center of the spectrum (see Downs, 1957). However, as soon as there are three or more candidates, it is optimal for each to deviate from the political center. If a candidate remains in the middle of the political spectrum, with one or more candidates to each his right and his left, the candidate is effectively squeezed. Such a candidate will receive only the votes of the voters positioned in the political center. Thus, convergence to the center and moderation of politics is not ensured if there are more than two candidates in a single-member majoritarian election.

In multi-member majoritarian elections, voters have several votes. Imagine the same three-candidate race outlined above, but with the candidates running for not one, but two seats, with voters casting two votes (as, for instance, in elections to the Swiss Council of States). Now that each voter has two votes to cast, a candidate positioned between two competing candidates no longer faces the problem of squeezing. A candidate positioned in the middle with fewer candidates to the right and left than the number of seats to be filled will receive votes from voters to both the right and the left. This is the case because such a candidate is closer to each voter on both sides of the political spectrum than the candidates on the opposite side of the political spectrum. Accordingly, it is ideal for candidates to position themselves in the middle of the political spectrum and to stay there. Thus, as long as the number of candidates is lower than or equal to twice the number of seats (i.e., fewer or equal to $2V$), convergence of all candidates arises endogenously. Cox (1990) showed that multi-seat majoritarian elections with a number of candidates equal to or fewer than two times the number of seats ($2M$) have a centripetal impact on candidates' positioning, under the assumption that voters cast all their votes. Such cases lead to convergence to the center.

For the case of Switzerland, in which elections to the Council of States usually involve two seats and elections to cantonal and municipal governments seven seats (sometimes five or nine), candidates face strong incentives to position themselves in the political center, as long as there are not more than 4 competitors for the Council of State and 14 (or, 10 or 18) competitors for the cantonal and municipal governments.

3.2. Critical assessment of multi-seat majoritarian elections

Multi-seat majoritarian elections have received virtually no attention from political economists and scholars of New Public Management. They have also received limited attention from political scientists, mostly prior to 2000 and in the context of racial politics in the US.

One critical remark underlying the discussion of representation under multi-seat majoritarian elections is homogenous voting behavior (e.g., along party lines), which may lead to block voting. The assumption is that voters give all their votes to members of their own groups (see Niemi *et al.*, 1985). Tribe (1978), like Gerber *et al.* (1998), argued that multi-seat majoritarian elections create the possibility that a specific majority (e.g., supporters of a certain party or a majority along an ethnic dimension) will elect all the representatives from a multi-member district due to block voting. Essentially, the assumption is that citizens vote fully along party lines, independently of all other characteristics of individual politicians. In contrast, if the multi-member district is broken down into several single-member districts, an outvoted minority might have been able to gain some

representatives.⁵ The critical perspective on multi-member majoritarian elections is, thus, linked to block voting.

Cox (1990) showed the existence of centripetal forces and convergence as long as the number of candidates in multi-seat majoritarian elections is not larger than two times the number of seats (see also Eichenberger *et al.*, 2018). However, this only holds if there is no partial abstention—that is, voters must use all their votes, instead of only some. In contrast to a system without partial abstention, in which the defined threshold of the number of candidates is twice the number of votes a voter can cast ($2V$), Cox (1990) showed that in multi-seat majoritarian elections with partial abstention, convergence is only assured if the number of candidates is not higher than the number of votes per voter plus one ($V+1$). Hence, giving voters the possibility to partially abstain may lower the threshold of convergence.

4. The performance of multi-seat majoritarian elections

4.1. Hypotheses

Multi-seat majoritarian elections have theoretically appealing characteristics, as outlined above. Arguments against the system mainly question the assumptions leading to convergence. However, little empirical evidence concerning multi-seat majoritarian elections exists.⁶ For Europe and all other countries except the US, therefore, it remains difficult to find literature on multi-seat majoritarian elections.

The paper considers the following hypotheses:

1. Citizens do not vote homogenously, but elect candidates of different parties. There is no systematic block voting.
2. Citizens in multi-seat majoritarian elections use all or almost all their votes. Partial abstention is not relevant.
3. The executive faces fewer performance limits under multi-seat majoritarian election systems than under proportional systems.
4. Cooperation and the perceived climate in government are better when politicians are elected under multi-seat majoritarian elections.
5. Citizens who can elect politicians through multi-seat majoritarian elections are more satisfied with the performance of politicians.

Hypotheses 1 and 2 are aimed against the theoretical criticisms of multi-seat majoritarian elections that have been voiced in the past. Hypotheses 3, 4, and 5 pinpoint the positive effects of multi-seat majoritarian elections. As government performance is central to successful infrastructure projects, evidence in favor of the above hypotheses suggests that the proposed electoral system is likely to yield a higher quality of infrastructure.

⁵ Findings by many authors (e.g., Gerber *et al.*, 1998; Tribe, 1978) compare multi-seat majoritarian elections in unified districts with single-member elections in local districts; however, one would need to compare both at the same district level. If the multi-seat majoritarian districts were divided into single-member districts, such that the minority group was concentrated in one district and could elect one legislator, this group would not have any leverage over the politicians of other districts (Grofman *et al.*, 1986).

⁶ If anything, multi-seat majoritarian elections have been mostly treated in the US literature and with US data (see, e.g., Tribe, 1978; Niemi *et al.*, 1985; Grofman *et al.*, 1986; Gerber *et al.*, 1998; Calabrese, 2000; Bertelli and Richardson, 2008). The focus has typically been on questions of minority representation and not on other outcomes.

4.2. Empirical results

4.2.1. Block voting is an exception

At the national level, members of the Council of States are (generally) elected in multi-seat majoritarian elections. The same holds for cantonal governments.⁷ Table 1 gives the number of seats and the number of parties present in office for the Council of States and the cantonal governments for the period from 2015 to 2019. The first number in each cell stands for the number of seats and the second stands for the number of parties present in office.

There is no evidence that block voting is driving election outcomes (i.e., it is not the case that voters elect representatives of only a single party to the Council of States or the cantonal governments). In the current period, the Council of States consists of members of one single party in only two cantons with two seats (SZ and VS). In cantonal governments, there are always at least two parties present. The presence of several majority-elected politicians from different parties may lead to some form of political concordance: In Switzerland, it is important to discuss issues until a consensus can be found that is acceptable for a large majority (see Klöti *et al.*, 2017), as voters do not block vote for a single party. All members elected to the Council of States and the cantonal governments need to be oriented towards the center.

Table 1. No block voting: Seats and parties present in multi-seat majoritarian elections

Canton ⁸	AG	AR	AI	BL	BS	BE	FR	GE	GL	GR	JU	LU	NE
C. of States	2-2	1-1	1-1	1-1	1-1	2-2	2-2	2-2	2-2	2-2	2-2	2-2	2-2
Government	5-4	5-4	7-3	5-4	7-5	5-4	7-3	7-5	5-4	5-4	5-4	5-4	5-2
Canton	NW	OW	SG	SH	SZ	SO	TG	TI	UR	VD	VS	ZH	ZG
C. of States	1-1	1-1	2-2	2-2	2-1	2-2	2-2	2-2	2-2	2-2	2-1	2-2	2-2
Government	7-3	5-4	7-4	5-3	7-3	5-4	5-4	5-4	7-3	7-3	5-3	7-4	7-3

Notes: Current compositions (2015–2019) of the Council of States and the cantonal governments. The first number in each cell stands for the district magnitude and the second number for the number of parties present in office.

The absence of pervasive block voting in Switzerland incentivizes parties to reduce the number of candidates. This, in turn, makes it more likely that the theoretical requirements for convergence are fulfilled. Typically, some voters do not engage in block voting; rather, they give some votes to candidates of other parties and distribute the remaining votes among the candidates of their favorite party. This implies that each party's candidates receive fewer votes than they would if the party had fewer candidates on the list, meaning that parties can increase their candidates' electoral prospects by reducing the number of candidates. However, as all parties do this, voters (i.e., even those who cast their votes based only on the parties' ideological positioning) can only use all their votes if they distribute them among the candidates of different parties. This encourages candidates to pursue policies that make them attractive to voters from other parties—an objective they can best achieve by moving to the political center. Thus, the ideological differences among candidates vanish,

⁷ The cantons of Jura and Neuchâtel use a proportional system for the election of members to the Council of States and the canton of Ticino uses such a system for the cantonal government.

⁸ Cantons JU and NE use proportional representation system for the Council of States, and the Canton of Ticino for the cantonal government.

increasing the weight of voters' other criteria for evaluating candidates. This, again, strengthens parties' incentives to further reduce the number of candidates. This self-reinforcing process creates an equilibrium in which parties nominate only those candidates with realistic chances of being elected (indirect evidence for such a mechanism is provided by Lutz, 2014; Lachat and Kriesi, 2015).

4.2.2. Partial abstention exists but is not relevant

Cox (1990) showed that if partial abstention is the norm, multi-seat majoritarian elections produce convergence of politicians to the center only if the number of candidates is lower or equal to the number of votes plus one. Thus, partial abstentions affect convergence. The relevance of partial abstentions can be determined by examining the elections to the cantonal governments in Switzerland.

Table 2. The average number of votes cast in multi-seat majoritarian elections is close to the maximum number of votes possible

Canton	BE	VD	BS	ZH	SG	ZG	NW	SZ	UR	GE	FR
Average votes p. voter	4.5	4.7	4.8	4.8	4.9	4.9	5	5.2	5.2	5.7	6.8



Notes: Own illustration based on information from cantonal "Staatsarchive". The values give the average number of votes cast in multi-seat majoritarian elections in cantons electing seven members of government.

Table 2 shows the average number of votes per voter in the last election for all cantons with a seven-member cantonal government. The average number of votes ranges from 4.5 for the canton of Bern, to 6.8 for the canton of Fribourg. Thus, though partial abstentions exist, voters tend to use most of their votes. This further increases the likelihood of parties reducing their candidate pools to include only those with realistic chances of being elected, making convergence more likely.

4.2.3. Multi-seat majoritarian elections lead to fewer performance limits

Swiss municipalities use either multi-seat majoritarian elections or proportional systems to elect executives. This makes them a good testing ground for hypotheses 3, 4, and 5, as it is possible to make use of sensible comparison groups (i.e., municipalities that use proportional representation). Moreover, Swiss municipalities perform numerous important infrastructure projects, making them a relevant case to study.

The paper employs survey data from communal secretaries in Switzerland for the years 1998, 2005, 2009, and 2016 (Ladner, 1998; 2005; 2009; 2016). With this dataset, it is possible to identify the differences in political outcomes between municipalities that use multi-seat majoritarian elections and municipalities that use proportional systems.

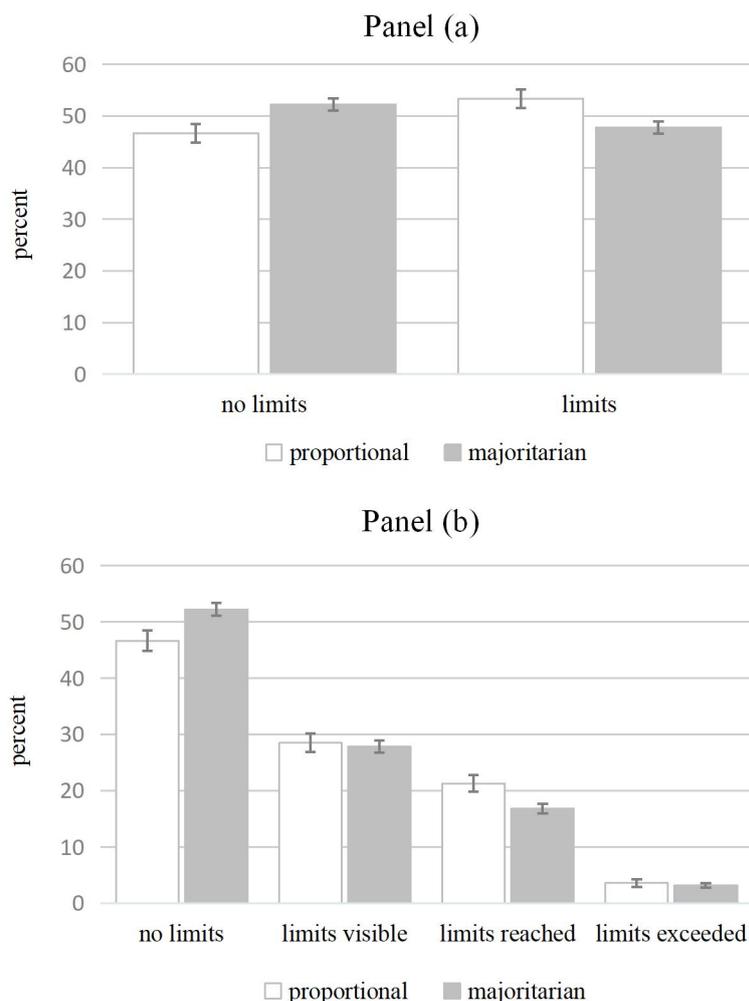


Figure 1. Municipal secretaries report fewer instances of performance limits when government members are elected in multi-seat majoritarian elections.

Notes: Data from Ladner (1998; 2005; 2009; 2016), Survey of Municipal Secretaries

The paper first investigates performance limits according to municipal secretaries. Evidence for more effective management in municipalities with multi-seat majoritarian elections is presented in **Figure 1**, panels (a) and (b). The results are based on a total of 7,110 observations, of which 2,051 stem from municipalities with proportional elections and 5,059 stem from municipalities with multi-seat majoritarian elections (abbreviated as ‘majoritarian’ in the figure).

Panel (a) suggests that approximately 52.2% of municipalities with politicians elected in multi-seat majoritarian elections face no executive performance limits. In contrast, only about 46.7% of municipalities electing politicians using proportional systems face no performance limits. The difference is 5.5% and statistically significant at the 10% level. Investigating disaggregated information in panel (b), we observe a similar pattern. Municipalities with multi-seat majoritarian elections have lower probabilities that performance limits are exceeded, that limits are reached, and that limits are visible. This evidence suggests that the performance of politicians chosen through multi-seat majoritarian elections is higher than when politicians are elected in a proportional system.

4.2.4. Perceived climate is better in municipalities with multi-seat majoritarian elections

In multi-seat majoritarian elections, numerous politicians are elected by a majority of voters. Candidates who win elections tend to be positioned in the middle of the political spectrum, take balanced positions, and be willing to make compromises. Moreover, as all elected candidates are supported by a majority of voters, inter-candidate hierarchies tend to be flat. All these should lead to a good and productive work environment in which cooperation is likely to emerge. In the most recent survey (Ladner, 2018), members of the municipal council were asked how they perceive the climate in the executive. **Figure 2**, panels (a) and (b), provide the results based on a total number of 4,970 observations, of which 1,346 were from municipalities with proportional elections and the remainder were from municipalities with multi-seat majoritarian elections.

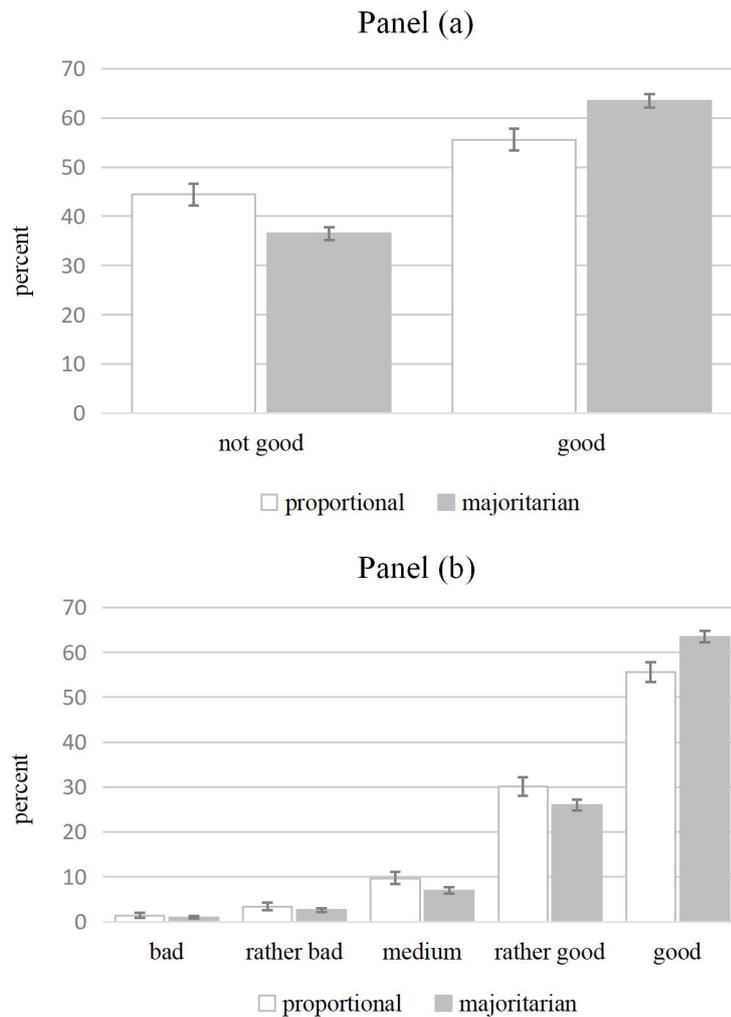


Figure 2. Members of the municipal council report a better climate in the executive when government members are elected in multi-seat majoritarian elections.

Notes: Data from Ladner (2018), Survey of Municipal Councils

We observe a clear pattern. When politicians are elected through multi-seat majoritarian elections, the probability that the climate in the executive is good is 63.5%. This probability is 7.9% higher than when politicians are elected under a proportional system. A more disaggregated look at the data in panel (b) reveals that most secretaries evaluate the working climate as “good” or “rather good”. However, we observe that the likelihood of evaluating the climate as “bad”, “rather bad”, or only “medium” is higher under a proportional system than under multi-seat majoritarian elections.

4.2.5. Citizens' satisfaction in municipalities with multi-seat majoritarian elections

Well-set incentives in the electoral system should lead to satisfactory outcomes regarding different criteria. As it is difficult to measure good politics, the paper sets out to explore the potential effects of multi-seat majoritarian elections on citizens' average satisfaction levels with their municipalities' executive.

Figure 3, panels (a) and (b), report perceived satisfaction of citizens towards their municipalities. The figures are based on a survey conducted in 1998 (Ladner, 1998) with 2,317 observations, of which 767 were from municipalities with proportional elections and the remainder were from municipalities with multi-seat majoritarian elections.

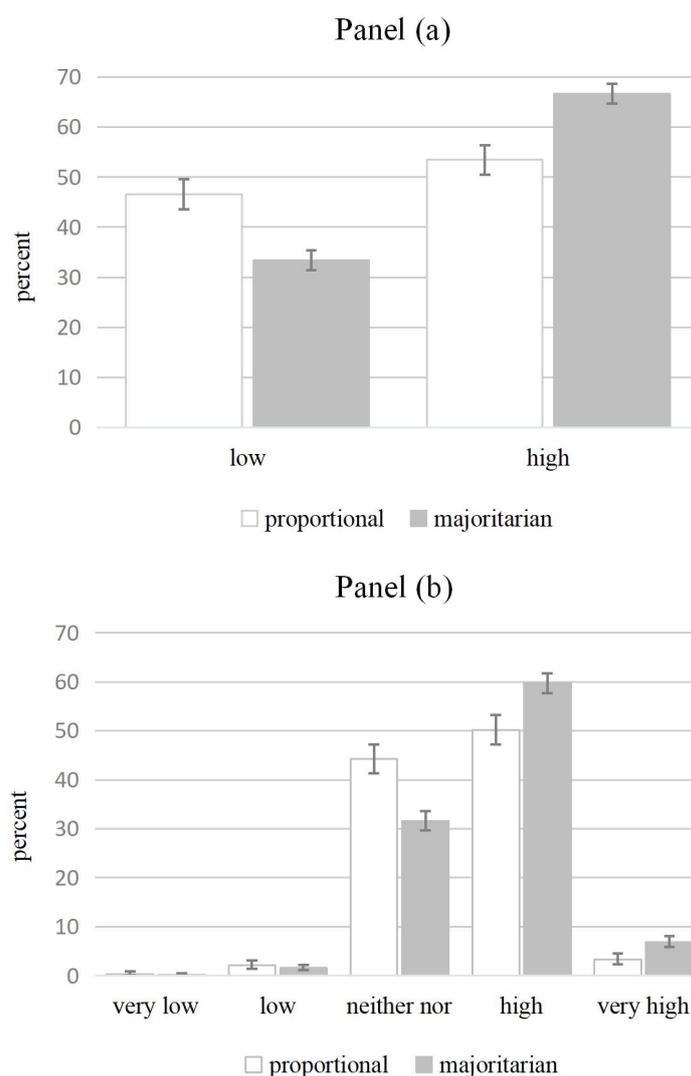


Figure 3. Citizens' perceived satisfaction with the municipality is higher when members are elected in multi-seat majoritarian elections.

Notes: Data from Ladner (1998), Survey Municipal Secretary

We observe in panel (a) that the perceived satisfaction is systematically higher in municipalities in which the executive is elected in multi-seat majoritarian elections. A more disaggregated analysis in panel (b) supports this view. In municipalities with multi-seat majoritarian elections, 6.9% of respondents report "very high" perceived satisfaction and 59.7% report "high" satisfaction. In

contrast, the corresponding numbers for municipalities with proportional elections are 3.3% and 50.2%, respectively.

Of course, this evidence must be considered with caution and represents only a first step in evaluating the performance of multi-seat majoritarian elections. Omitted variables or other endogeneity issues may affect citizens' satisfaction with their municipalities, the perceived climate in the executive, and the performance limits. Nevertheless, the evidence points to an interesting and, so far, underestimated potential of multi-seat majoritarian elections as a new institutional mechanism to achieve high performance and satisfying outcomes.

5. Conclusion

The success of public infrastructure projects is closely related to the quality of governance and the strength of institutions. Indeed, countries with strong institutions tend to have high-quality infrastructure, according to the Global Competitiveness Report (World Economic Forum, 2018). A promising institutional approach to increase performance lies in the electoral system and is inspired by Switzerland, which excels with respect to infrastructure and uses multi-seat majority elections to select a large portion of its most important politicians.

This paper presents fresh theoretical arguments and empirical insights into multi-seat majoritarian elections. It suggests that, in such elections, politicians are more focused on serving the preferences of the citizens and achieving the performance and efficiency crucial for high-performing infrastructure.

Since multi-seat majoritarian elections enhance governance, they may be a more valuable solution to the provision of infrastructure than PPPs or other forms of New Public Management. While multi-seat majoritarian elections make PPPs less likely to develop into Politicians-Private Partnerships, they also make the theoretical advantages of PPPs superfluous, while avoiding their disadvantages. Jurisdictions that are credit-constrained may benefit from private partners who contribute capital. However, the better governed a jurisdiction is, the less likely it is to be credit-constrained. Again, Swiss municipalities and cantons, with their multi-seat majority backgrounds, are a case in point. They have free access to the capital market and can take up loans at lower rates than potential private partners; thus, they do not have to rely on financing via PPPs.

Furthermore, from the perspectives of politicians and potential private partners, multi-seat majoritarian elections make alternative forms of cooperation with private actors less attractive, as politicians are geared toward the preferences of citizens. Thus, the leeway offered to politicians by such instruments as PPPs can no longer be exploited.

Multi-seat majoritarian elections fill the executive with more politicians who hold moderate positions and are willing and able to make compromises. At the same time, these politicians face forceful incentives to cooperate with the private sector, provided such cooperation helps them increase the efficiency of public service provision. This cooperation may consist of contracting out certain services to private firms or providing the financial means for services, rather than producing the services through the government itself. Examples in Switzerland are the health care system (in which insurance is obligatory, but citizens can freely choose an insurer) or the pension system (in

which capital-funded saving accounts are obligatory, but employers can freely choose a pension fund for their employees).

Multi-seat majoritarian elections can be easily exported to other countries as they are not only less risky, but also require smaller adjustments than, e.g., the decentralization of government service provision or the implementation of direct-democratic instruments. Of course, the transferability of the Swiss system of multi-seat majoritarian elections requires further research and needs to be performed on a case-by-case basis.

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