Direct Democracy – Institutional Origins, Initiative Usage, and Policy Consequences

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ABSTRACT

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This dissertation consist of three research papers on direct democracy. Each paper addresses a fundamental question about direct democracy. All three questions have a specific role in a larger research agenda on direct democratic institutions.

To out rule any confusion up front I need to define direct democratic institutions. I refer to direct democratic institutions if they can be launched or triggered by citizens and political parties against the will of the executive and the legislature or if they are constitutionally required. The second qualification is that the outcome of the process or mechanism has to be binding. Direct democracy, according to this definition, exists on a national level in Australia, Austria, Denmark, Egypt, Ireland, Japan, Spain, Switzerland, USA (to change the constitution). In Italy, Liberia, Liechtenstein, the Philippines, and Switzerland the people can challenge government policies. Finally, in the US states, Switzerland, Swiss cantons, and also most German Länder there is a right to propose new laws (Hug, 2004).

The purpose of limiting direct democracy to the most powerful subset of such institutions – the ones which can originate from the people and are binding for the government – provides us with specific enough set of institutions such that one can make meaningful statements about them. Direct democracy can be many things; its significant effects, variously for good or ill, have been widely acknowledged (Broder, 2000; Matsusaka, 1995). Do direct democratic institutions inevitably lead to inability of reform (as in California) or do direct democratic institutions constrain political elites and make them more responsive to the electorate (Hug, 2003)? These are the two extreme positions on whether direct democratic institutions are beneficial or disadvantageous. But a normative claim

has to be rooted in a detailed understanding of how these institutions work. To that end, I ask three research questions which shed light on the direct democratic institutions within modern representative polities.

The first paper asks why direct democratic institutions are introduced and extended. Why should politicians in power change the institutional setting in a unfavorable way for themselves? The motivation for this paper is that many scholars regard Switzerland as a peculiar and special case for direct democracy. There is an underlying understanding that there is a special cultural and historical affinity to direct democracy. This paper shows that most regions and cantons did *not* have direct democratic institutions two hundred years ago. The introduction and extension of direct democracy can be understood as a consequence of partisan motivations to restrict power of the party in government.

Are direct democratic institutions the people's means of keeping politicians on a leash? The second paper shows how organized political groups exploit direct democratic institutions. The paper shows that the degree of partisan competition is the main driver of initiative frequency. This paper explains and illustrates how partisan competition is altered by the presence of direct democratic institutions. Finally, the results help to understand why initiatives often target social issues and moral value questions rather than redistribution issues.

Finally, the third paper asks under which circumstances direct democratic institutions yield better policies for the median voter. Is the median voter always better off with direct democracy? The paper shows that the voter is usually not worse off but that the benefit from having direct democratic institutions depends on the specific cleavage structure in a country.

The main relationship and recurrent theme of this dissertation is the cleavage structure and how that interacts with direct democracy. The first paper shows that the more cleavages are actively exploited the more likely introduction and extension of direct democracy becomes. The second paper shows that the cross-cutting cleavages yield the issues which will be exploited by parties in their quest to gain larger support in the next elections. The final paper shows that direct democracy will yield its largest effect when a polity has two cleavages which are cross-cutting and only one of them is relevant for the elections.

What do we learn from these three papers? All three papers in this dissertation center around the cleavage structure. Whether the specific cleavage constellation proliferates direct democracy, or a new cross-cutting cleavage creates the incentives for parties to use direct democracy, or, finally, whether it is predicting when direct democracy will benefit the median voter most. Since the origins, the usage, but also the effects are contingent on the conflict structure within a society it is hard to study direct democracy in a comparative manner. The study of direct democracy has remained a somewhat neglected endeavor and has been mostly delegated to scholars of US state politics or Swiss politics (see Altman, 2011, for an exception). Part of the reason for this may be that it is hard to understand how direct democracy works because those very mechanics depend on the underlying conflict structure in a society.

I believe that the study of direct democracy is central because it strikes at the core of democracy. It is a set of institutions which has the potential to create a more responsive government and to democratize democratic societies even further. At the same time, this comes with costs. The main aspect being that the people's will may very well violate basic liberal rights. Another critique which is often voiced doubts the ability of ordinary citizens to make policy decisions. However, I have never been too impressed in normative discussion when the people's ability to make rational choices was questioned. I do not fully disagree and I do think that people may make mistakes. But after all, this argument was used against general suffrage and proportional representation, two institutions which we nowadays believe to be fundamental democratic principles.

Given the potential of these institutions, intensive study of them is warranted. But the study of direct democracy will only make a leap forward once we surpass the country studies and move on to a truly comparative analysis. Understanding the conditionality of effects and hence understanding how these institutions exert differential effects depending on the societal and institutional environment they exist within is the next big step. This dissertation, hence, can be regarded as a product of the old times - but my aspiration is to also contribute to a newer wave of literature and to work towards the goal of a truly comparative study of direct democracy.

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I dedicate this dissertation to my father, Dr. Beat Leemann.
His confidence and support made this possible in the first place.

Part I

Dissertation

Chapter 1

Origins of Direct Democracy and Cleavage Structure

Abstract: Direct democracy is a fascinating bundle of different institutions. It has the potential to lower the influence of legislative and executive bodies while allowing citizens to do more than periodically elect representatives. Many national and even more subnational systems incorporate a number of direct democratic practices. Somewhat surprisingly, we know little about the political origins of these institutions. The research question of this paper is: What explains the adoption of direct democratic institutions (DDIs) in the Swiss cantons in the long 19th century and how can one explain the different extents to which these institutions are introduced? I argue that the adoption and extension of direct democratic rights can be explained by a specific cleavage constellation among dominant groups in the cantons. The adoption or extension of direct democracy is more likely when the ruling majority is weakened by internal conflicts. This creates potential for the minority to coalesce with a dissenting faction of the majority. The main reason why majorities break up is found in new, salient cleavages.

1.1 Evolution of Direct Democracy in Swiss Cantons 1803-2010

Direct democracy is a fascinating bundle of different institutions. In general it has the potential to lower the influence of legislative and executive bodies while allowing citizens to do more than periodically elect representatives.[1] Many national systems as well as even more subnational units incorporate a number of direct democratic practices (Altman, 2011). Somewhat surprisingly, we know little about the political origins of these institutions. Why are direct democratic institutions

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introduced? Why do elites adopt new institutions which increase power dispersion and limit their future influence? What are the conditions increasing the likelihood of adopting direct democratic elements?

The specific research question of this paper is: What explains the adoption of direct democratic institutions (DDIs) in the Swiss cantons in the long 19th century and how can one explain the different extents to which these institutions are introduced?[2] Current legal and historical work either describes single cases or – when engaging with the all Swiss cantons – is limited to a descriptive approach of defining clusters of Swiss cantons which provide more direct democracy or less.

There is no parsimonious general explanation of the emergence of direct democracy in the Swiss cantons. Most contributions focus on one unit and strive to explain it in its entirety. Existing explanations can be grouped in several distinct categories; the *Kontinuitätshypothese* which claims that DDIs emerge out of pre-democratic forms of municipal organization (see e.g. Blickle, 2000), the *economic* hypothesis which claims that the introduction of DDIs is a response to economic crisis and public dissatisfaction (see e.g. Kriesi and Wisler, 1999), or the *revolution* hypothesis which sees the introduction of DD as a consequence of the French revolution (see e.g. Kölz, 1996). This paper in contrast attempts to deliver an explanation why a canton extends direct democratic institutions (DDIs) by providing a structural explanation resting on the specific conflict structure within the canton.

I argue that the adoption and extension of direct democratic rights is more likely when new cleavages emerge which divide the ruling majority. This creates potential for the minority to coalesce with a dissenting faction of the majority. The main reason why majorities break up is found in new, salient cleavages. These cleavages have members of the majority on either side, members who would have previously been politically unified. The emergence of cross-cutting cleavages, then, creates a political structure which is conducive to the introduction and extension of direct democracy.

This paper shows that such an argument can explain single cases (e.g. the canton of Argovia) and show how a change in conflict structure is followed shortly thereafter by an extension of DDIs.

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[2]Different extents refers here not only to different forms of DDIs but also that they are different e.g. with respect to the signature requirements. After all, having to collect signatures of 500 people or of 5,000 makes a substantial difference in how easy it is to use the institutions.

At the same time the paper illustrates – using a rich data set – that the cleavage structure is a strong and significant explanatory factor for the emergence and extension of DDIs. In the quantitative part of the paper, an original dataset covering all constitutions and constitutional changes since 1803 in all Swiss cantons provides the basis of the investigation. This also allows the testing of the explanatory power of alternative explanations. The guiding research question is why do cantons provide larger or smaller degrees of these democratic rights to their citizenry, and why do they do so earlier or later in their histories?

1.2   Direct Democracy Evolving over Two-Hundred Years

Institutions of direct democracy limit the agenda setting power of the established political forces (in case of a proposing institution, i.e. an initiative) or they add an additional veto player (in case of a limiting institution, i.e. the referendum or the veto). In either case, elected representatives will lose influence over policy making by introducing DDIs.[3] Thus the question is, why are DDIs introduced or strengthened when they curtail the power of the very people which introduce or extend them? This paper explains the evolution of direct democratic rights in 25 Swiss Cantons from 1803 up till 2010.

There is no monolithic subject called direct democracy but rather a number of specific political institutions which are ascribed to it (Hug, 2004). First, there are a number of institutions which are related to constitutions. The constitutional referendum and the constitutional initiative limit the political elite's influence on changing the constitution. The constitutional initiative allows any citizen to propose an amendment if a sufficient amount of signatures has been gathered within a defined time period. Similarly, the constitutional referendum requires that any change of the constitution is put to a public vote and only is implemented if a majority at the ballot boxes supports the change. The same two institutions exist with respect to laws, and finally there is

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[3]Instead of thinking of direct democracy as the opposite of representative democracy, one might rather want to think of DDIs as additional potential institutions which enrich a purely representative system Hug (2009). Direct and representative democracy are not unreconcilable concepts (Manin, 1995, p. 16-17) and this becomes clearest when one looks at the *recall*, allowing people to force an elected politician to step down, which is considered to be an instrument of direct democracy while at the same time it only affects the representation linkage (Kölz, 1996, p. 105).

also a law veto which is an early form of the law referendum.[4] Some of these institutions are unconditional, meaning that they do not depend on any other action. An example of this is the constitutional referendum, which demands that a new constitution is accepted in a public vote. The law referendum, if requiring a number of signatures within a certain time is an example of a conditional DDI as the referendum only takes place *if* a sufficient number of signatures was gathered within the legal period. A different form of a conditional referendum occurs when the upper chamber of a canton decides whether a referendum occurs or not. Hence, more or less direct democracy pertains to how easy or hard it is to actually use these institutions (see Stutzer, 1999).

Empirically, the paper focuses on the Swiss cantons which were the first polities to formally include DDIs in their constitutions. [5] The ideas were first transformed to actual institutions in the Swiss cantons and inspired the populist movement in the United States Rappard (1912). One of many testimonies to this is a quote from a convention of the American Federation of Labor in 1892 "(...) that it finds the principle of direct legislation through the initiative and referendum approved by the experience of Switzerland as a most valuable auxiliary in securing an extension of the opportunities of the wage earning classes."(Goebel, 2002, p.39). A fuller description of the historical diffusion of direct democratic thought can be found in Kölz (1996).

There is a general belief that the pre-democratic regimes of the Swiss cantons all had direct democratic elements, such as citizen's assemblies (*Landsgemeinden*), and that a natural or organic historical development gradually took place (see e.g. Bonjour et al. (1952: 300) for a somewhat outdated perspective). However, most Swiss cantons did not have DDIs at the beginning of the 19th century.[6] Nevertheless, a similar discussion exists in the historical literature between proponents of the *Verschmelzungstheorie* (arguing that it is a continuous slow process) and the proponents of the *Bruchtheorie* which identifies direct democracy as a distinct outcome following deep conflicts

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[4]An additional twist is introduced on how to count the votes. In a law veto, as introduced by the new constitution in St. Gallen in 1831 the absent votes were counted as votes supporting the government's new law (Wickli, 2011, p. 203). Quorums are nowadays still known in Italy (Uleri, 2002).

[5]The first constitutional draft to incorporate direct democratic elements is most likely the Girondist constitutional draft by Condorcet among others (Kölz, 1992). This constitution was subsequently not adopted and France did not have any direct democratic rights guaranteed by its constitution.

[6]This has been acknowledged by some authors (Vogt, 1873; Seiler, 1921*a,b*; Vatter, 2002).

(see Suter, 2006; Roca, 2011; Maissen, 2010; Stettler, 2004). Not all Swiss cantons had long lasting direct democratic legacies - in fact, at the time of the act of mediation by Napoleon in 1803 only a handful of alpine and small rural cantons in central Switzerland have *Landsgemeinden*, a pre-democratic forms of citizen assemblies (de Capitani, 2006; Andrey, 2006). It is less than a third of the cantons which had these pre-democratic forms. These cantons were also small, comprising of less than a tenth of the Swiss population. (Zurbuchen, 2011). This can be contrasted with the case of Fribourg, which introduced the initiative comparatively late, in 1921 (Vatter, 2002, p.233). Note, that the last Swiss canton to adopt the law initiative did this after all US states, which have direct democracy, adopted the law initiative. Direct democratic institutions neither existed in all Swiss cantons before the 19th century nor did they just randomly evolve.

The presence of DDIs in the cantons is the consequence of conflictual processes. While today all cantons have DDIs, the extent of these institutions vary considerably. The question is not whether a canton has a constitutional initiative or a legislative referendum but rather how hard it is for parties, interest groups, or citizens to employ this tool. The varying extent of direct democracy (the variation in how easy it is to employ it) in the cantons is what this paper explains. It is this very variation which allows the identification of an institutional effect *today* and fuels a great number of research projects (see e.g Vatter, 2002; Freitag, 2006; Freitag and Stadelmann-Steffen, 2010; Frey and Stutzer, 2000; Funk and Gathmann, 2009; Ladner and Brändle, 1999; Steffen, 2005; Leemann and Wasserfallen, 2014). The same holds for the literature concerned with the US which often falls back on using mere dummies to measure if DDIs are present or not, although there are notable exceptions where rather than the existence of the institution the cost to use it are operationalized in the empirical models (e.g. Gerber, 1996*a*; Matsusaka and McCarty, 2001). The degree to which direct democratic options exist can be measured and is not random but a direct consequence of political decisions. Understanding that process is the goal of this paper.

1.2.1 Explanations for the Emergence of Direct Democracy

There are two different bodies of explanations for the the emergence of direct democracy. The first one originates from constitutional scholars (e.g. Kölz, 1992) and historians (e.g. Head, 2011, 2002).

Most interesting at first sight is a debate between representatives of the 'continuity hypothesis' (*Kontinuitätsthese* or *Verschmelzungstheorie*) and the 'break hypothesis' (*Bruchtheorie*, see Suter (2012); Roca (2011)). However, Stettler (2004) proposes a view which seems to have gained a lot of support in the last thirty years; he says that *"The Switzerland, in which one lives nowadays, emerged 1848"*.[7] The historical literature is especially strong in providing highly detailed accounts of key cases (see Adler (2006) for Schwyz or Wickli (2006) for St. Gallen). A strong emphasis is also put on political theory and normative arguments. An example of such work is Kölz (1996), who attempts to establish the influence of the French revolution on the cantonal democracy movements.[8] What the historic literature does not yield is a general explanation but rather a case-specific argument which leads to as many explanations as there are cases.

The second body of explanations for the emergence of direct democracy in the cantons comes from political science. The contributions analyze why DDIs were introduced in most cantons between 1830 and 1880. Some argue, close to the explanations by Kölz, that the democrats and the radicals were ideologically pre-disposed to the idea of direct democracy and that they, when taking power, introduced these measures (see e.g. Vatter (2002)). There are also more structural explanations, such as Kriesi and Wisler (1999) with respect to the case of Zürich. They argue that an economic shock (especially in the silk and cotton industry)[9] in the 1860s combined with a cholera epidemic and a wide disappointment with the liberal party (ruling since over fifteen years at that time) caused sufficient pressure, so that direct democracy introduction was used as a valve. Both the existing explanations from political science and the historical ones, point to a specific

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[7]Own translation based on Stettler (2004, p. 391). Maissen might be even clearer on this point when he says *"Die schweizerische Geschichte ist also reich an Konflikten und keine Saga der Harmonie in einem einzig Volk von Brüdern. Sie war auch nicht von jeher ein Hort von Freiheit, Unabhängigkeit, Neutralität, Demokratie oder Föderalismus. Die nationale Geschichtsschreibung hat lange nicht nur die schweizerische Vergangenheit entlang dieser Leitlinien gezeichnet, sondern ihre Wurzeln bereits im Mittelalter entdecken wollen. Schon seit einiger Zeit sind allerdings Historiker davon abgekommen, die frühe Eidgenossenschaft im Hinblick auf eine spätere Erfolgsgeschichte zu behandeln."* (Maissen, 2010, p. 10).

[8]There is no doubt that Condorcet's ideas and the manifestation of them in the *Gironde constitution* are relevant for the history of ideas Badinter and Badinter (1989). Interestingly it might also be the oldest reference to the idea of having a law initiative allowing citizens to bypass a legislature, see Art. VIII-1.

[9]In the early 19th century the cotton industry breaks down after several hostile French acts. The first step was to close the borders for Swiss cotton products (which were highly competitive) and the second step was that French troops seized large stocks of Swiss cotton products at a fair in Leipzig and destroyed it. That was the final event leading to a crash of the Swiss cotton market (Weisz, 1938, p.20).

event or series of events, such has hunger crises (in the winters of 1816/17 and 1845/46) or the breakdown of the silk and cotton industry. But there were many severe economic shocks which did not lead to the introduction or extension of direct democratic rights.

Another source of explanations comes from the literature on DDI introduction in the US states at the end of the 19th century. There are two broad explanations for the American states; a first theory argues that an exogenous shock (the populist movement) explains the push for DDIs; it moreover argues that DDIs are more likely to be introduced where there were weak parties (Smith and Fridkin, 2008). A second explanation, not necessarily in contradiction to the first one, claims that DDIs are a consequence of economic structure. Goebel (2002) argues that monopolies and legislatures incapable of constraining the economic strength of monopolies gave raise to the demand of DDI. Both theories agree that once popular support reached a sufficient level, it was costly for politicians to publicly reject the idea of direct democracy. But this explanation again is bound to its cases and cannot explain the emergence of DDIs in other polities.

Finally, the question of why DDIs are introduced and extended has structural similarities to the more general question of why and when European countries democratized. This is particularly the case as, in contrast to the US, the introduction of direct democracy in the cantons occurs right after democratization and before the democratic consolidation process (suffrage, secret ballot, and PR) is fully over. In the 19th century there occur a number of parallel processes regarding other basic democratic institutions, such as suffrage extension (Przeworski, 2009), secret ballots (Buchstein, 2000), and proportional representation (Braunias, 1932). The structural similarity between these questions is given by the same underlying change of power distribution. Proportional representation and extension of suffrage are both acts that diffuse power and often enlarge the set of actors with political power. I argue that DDIs have a similar effect: they either add an additional veto player or they give part of the agenda-setting power to a broader group (Papadopoulos, 1995). However, the introduction of DDIs decreases the power of the elite in a system that was purely representative. Hence, one can ask what the more general literature on democratization can contribute to the explanation of the rise of DDIs.

One prominent explanation within the democratization literature, is that currently strong actors

anticipate a loss of power and curtail their own influence early. They do this to curtail the power of future successors and thus forestall poor outcomes when their power eventually reduces.[10] A second series of arguments focuses on the underlying economic structure. The two main explanatory factors in Boix's theory of democratization are capital mobility and economic inequality (Boix, 2003), and economic inequality is also a driving factor in the argument by Acemoglu and Robinson (2006). And indeed this may account for the introduction of the veto right.[11] In St. Gallen in 1831 discontent in the countryside was high and rural agitation was mostly driven by innkeepers and rural assemblies which finally peaked in a march of 600 men armed with bats, hence the name *Stöcklimarsch* ('march with sticks', Wickli (2011)), to the constitutional convent which ended with the introduction of the law veto - the first institution giving citizens the possibility to vote on specific legislation outside of the few cantons with pre-modern citizen's assemblies.

In spite of this example, many other changes to political systems have taken place without any demonstrations, violence or threats thereof. The majority of changes to the presence and extent of DDIs did not occur as a consequence of completely new constitutions but was often achieved by amending and changing existing constitutions (*Partialrevision*) and is more of an incremental process than an abrupt one-time event. One of the unusual aspects of the 19th century in Switzerland is the frequent revision of cantonal constitutions and the frequent amending of existing constitutions. Vogt (1873) compared the frequency with which cantons changed their constitutions to regular legislative actions in neighboring countries. Constitutions did not hold a permanent and unchangeable status.

One reason why the *threat* explanation used by Boix (2003) and Acemoglu and Robinson (2006) might thus underperform is that the elite had sufficient other changes it could *trade in* such as suffrage extension, so that it did not have to extend full DDIs to restive populations. After all, among the earliest numbers one finds that only about 23% of the citizens were entitled to vote in

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[10]This explanation has been used to explain the extension of suffrage in the UK Acemoglu and Robinson (2000) or the introduction of PR (Rokkan, 1970; Boix, 1999; Leemann and Mares, 2014). To a certain degree this flavor of argument can be found in Scarrow's explanation of why some German *Bundesländer* increased the DD options for their citizens in the 1980s (Scarrow, 1997, 1999).

[11]Note, that veto is a sword with a blunt blade as all non-participating citizens are counted as supporting the government's position. It requires that at least half of all citizens assemble and all vote against a new law.

1850 which was higher than comparable figures at that time for the US but lower than the French figures (Gruner, 1978a, p.92). In principle all cantons had full male suffrage. But this right was contingent on the cantonal regulations which in some cases were used as quasi-censues. Although the extent of exclusion is low in comparison to other cases (e.g. UK) it provided alternatives for the elite to adopt changes if their power was threatened (Gruner, 1978a; Lutz, 2000, 96). General male suffrage was really only achieved after half a century of struggle between the national governments and the cantons at the end of the long 19th century (Poledna, 2014). Other mechanisms of power sharing, such as proportional representation were only adopted from 1891 on (in Ticino, see Wuarin, 1895). One answer to explain why none of these changes occurred earlier is that the revolutionary threat was just much lower than in other countries. The above mentioned march of barely armed citizens is rather an exception than a constant element of constitutional history in the Swiss cantons during the long 19th century.

1.2.2 The Emergence of Direct Democracy and Cleavage Structure

Understanding the introduction and the development of DDIs requires understanding the motives of the relevant actors. Given the prevalence of changes which emerged out of partial constitutional changes and amendments it is important to understand the the motivation of the political elites who pushed for such changes and amendments.

Part of the difficulty in explaining DDI introduction or extension for the older literature is that there is no apparent simple explanation which fits all cases. As mentioned before, the extension of DDIs is not just a consequence of how long a certain group stayed in power. Kölz (1992) argues that DDIs were extended to a larger degree in cantons where there was a democratic movement (*demokratische Bewegung*). In this, he refers to a part of the liberal party which was more radical and supported citizen participation. However this does not explain why these movements were strong in particular cantons in the first place. Nor does it explain why there are extensive DDIs in cantons which did not have a democratic movement at end of the 19th century. Another reason why there is no easy congruence between group presence and DDI extension, is that sometimes liberals would be opposed to DDIs and sometimes conservatives. Understanding the emergence

and extension of DDIs is less a question of specific group and party strength but more of the overall cleavage structure.

The cleavage structure varies from canton to canton; in some cantons the main cleavage was confessional in nature (Catholics in Argovia in 1841 where DDIs were not introduced) but in others (e.g. Lucerne in 1841) it was rather economic (a cleavage between rural countryside, represented by the *democrats*, who were opposed to the urban liberals). These cleavages are neither stable nor are they identical in all cantons. But the complexity of these cleavages and the number of salient conflict lines can be compared and proves highly relevant for understanding the proliferation of DDIs.

Divisions within the ruling elite give rise to the adoption end extension of direct democracy. When there is one cleavage each side will be represented by one political group and that group will be homogenous. When a second cleavage emerges or increases in salience, the ruling elite's compactness declines as long as the second cleavage is cross-cutting. Under majority rule the minority within the majority has no incentive to split off and create a new party, but will rather stay inside the majority.

One way for the minority in the majority to achieve policy changes in their favor without changing the electoral system is to introduce direct democratic institutions which allow policy-specific coalitions to develop on certain questions. These institutions also give the minority within the majority a stronger position in intra-party negotiations as the looming threat of a referendum can induce changes in their favor in any law (Neidhart, 1970). Where there are several cleavages and the ruling elite is split over secondary (cross cutting) cleavages, the minorities can coalesce with parts of the elite. The development of DDIs is accelerated and enabled by cross-cutting cleavages which provide the necessary incentives for members of the elite to change the rules.

While it is not true that there is the same coalition of actors in every canton, the theoretical argument capable of explaining the institutional outcomes by relying on the cleavage structure rather than the specific content of a given cleavage. The argument also allows the prediction of when introduction or extension will be delayed. When the cultural and the economic divisions align (i.e., when cross-cutting cleavages do not exist), one can expect an even stronger resistance

to further power sharing institutions.[12] Apart from economic and confessional cleavages an intra-confessional cleavage is also possible.[13] The absence of cross-cutting cleavages readily provides an explanation for delayed and moderate development of DDIs. Fribourg which was the last canton to introduce the law initiative and the second last to introduce the law referendum is very homogenous and possessed essentially one salient conflict between the liberal urban elite and the rural conservatives.[14]

One aspect that might raise concern is that this argument presumes that political actors would change the constitution and extend direct democratic rights for specific policy goals. At least at the time there were observers who claimed that the abundance of full and partial revisions of constitutions is a consequence of parties and politicians regarding changes to the constitution as means to an end.[15] On the other hand we can also ask what else, than ultimately policy goals, should lead politicians to change constitutions?

The explanation for the US argues that younger states have had weaker parties, which is one of the essential factors in the US explanation Smith and Fridkin (2008). One could argue that the party youth matters less for the emergence of DDIs than internal party fractionalization. It is thus not so surprising that this is what Goebel's argues when explaining the adoption in Oregon (2002: 79). The latter serves to illustrate that an explanation born out of the Swiss case potentially travels and provide a generalized explanation which can also account for the US cases.

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[12]See Fearon (2003) and Baldwin and Huber (2010) for a similar argument on ethnic politics. In the realm of transition from authoritarian rule to democracy we find a similar argument based on within elite division (O'Donnell and Schmitter, 1986).

[13]See e.g. Ries (2010) for a description of inner-catholic conflicts where catholic liberals opposed the clerical hegemony supported by the *Ultramontanen* (conservatives) in Lucerne towards the end of the 18th century.

[14]The overwhelming majority of its population was catholic and the share of protestant was as low as 12% in 1850 (Ritzmann, 1996).

[15]This contemporary observer was none other than the president of the federal ministers, Jakob Dubs (Dubs, 1868). He writes; "Ueber die Verfassungsrevisionen im Allgemeinen ist schliesslich noch zu bemerken, dass sie in der Schweiz nur darum so häufig sind, weil sie oft bloss als Mittel zu anderen Zwecken dienen. Wenn man einen Regierungs- oder Systemwechsel wünscht, [...], Zuflucht zur Verfassungsrevision nehmen zu müssen. Die Verfassung selbst spielt dabei die Rolle der leidenden Unschuld." (Dubs, 1868, p.10).

1.3 Direct Democratic Institutions from 1803 to 2010

In the following sections I present quantitative and qualitative evidence supporting the main argument. The quantitative part builds on a novel dataset which spans from 1803 to 2010 and covers all cantons. The questions which arises is how to measure direct democracy? Previous authors have focussed on the year in which the initiative was introduced (e.g. Smith and Fridkin, 2008). Such an approach limits direct democracy to one institution and does not cover the full range of institutional provisions which enhance the direct participation of voters such as law referendums, financial referendums, or constitutional initiatives. Focusing only on the introduction of certain institutions does also not allow to take into account how hard it is made to use these institutions. Having a very high signature threshold and a very short time span to collect the signatures is one way to restrict the usage of DDIs. Such nuances would be lost in a binary coding. Rather than focusing on one institution I opt to create an index which captures the *degree* of direct democracy in a polity at any given point in time. The next to subsections lay out the construction of this measure as well as a first univariate analysis.

1.3.1 Constructing the Historical Direct Democracy Index (HDDI)

The birth of modern Switzerland is usually attributed to 1848 when the nationstate formally emerges after a short civil war. The cantons themselves have a longer history and it is not obvious where to start. One common point in history is the break down of the Helvetic Republic and the act of mediation by Napoleon in 1803. The act of mediation granted more rights to the Swiss cantons and essentially reversed all the political centralization that was achieved during the Helvetic Republic. Part of the act of mediation is a constitution for each of the Swiss cantons. The bases of this paper are all constitutions and constitutional changes in all Swiss cantons since 1803.

For every constitution I code whether the constitution was adopted by a final popular vote, whether the people could propose a change to it (constitutional initiative) and whether changes to the constitution required a popular vote to be valid (constitutional referendum). Further, I recorded whether a requirement existed that laws from the legislature had to be confirmed by public vote

(mandatory law referendum) or whether the people could call for such a referendum (optional law referendum). Finally, with regard to the citizenry's ability to propose their own laws I code whether there existed a law initiative. Two more types of DDIs were also incorporated; the financial referendum which treats spending decisions above a certain threshold as a law (and hence makes these decisions subject to a potential referendum) and the recall. For all these institutions the signature requirements as well as the time periods granted within one has to collect the signatures were recorded.

Measuring direct democracy is not a straightforward task. A good point of departure would be a fully explorative factor analysis without imposing any dimensionality. The problem with this approach is that one only has values on certain items if they have a specific DDI; take e.g. the law referendum and the period during which one has to collect the required signatures. In those cases where there is no period or where there is no such DDI, one has no measure. Replacing that measure with a number, forces one to arbitrarily decide whether not having a law referendum should be counted like having one where the period is e.g. 300 days. But there is no good argument to pick 300 or any other number for that matter. The other approach is to rely only on those dichotomous measures which indicate if a specific measure exists or not.

Finally, there is one more alternative to building an index. Rather than performing a factor analysis one can build an index with a clear coding scheme. A seminal paper on measurement of DDIs in the cantons is due to Stutzer (1999) and this measure has subsequently been used across political science and economics (see e.g. Vatter, 2002; Freitag and Stadelmann-Steffen, 2010; Frey and Stutzer, 2000; Funk and Gathmann, 2009; Ladner and Brändle, 1999; Steffen, 2005). Almost all papers analyzing DDI in Swiss cantons nowadays rely on this index. The index regards the mandatory law referendum as a very strict optional referendum rather than acknowledging the separate dimension it represents and this is important as the mandatory law referendum was frequently part cantonal constitutions in the 19th century. Hence, I build on the existing Stutzer Index and put forward a modified direct democracy index which also covers the mandatory law referendum and for the first time presents a comparable measure of direct democracy for all Swiss cantons for more than two hundred years. The here presented index, the Historical

Direct Democracy Index (HDDI), also correlates highly with the Stutzer index once we create that for the time period ($\rho = 0.94$). Given that the HDDI is historically and substantively broader this paper henceforth relies on the HDDI.

The index takes into account four DDIs; the constitutional initiative, the law initiative, the law referendum, and the financial referendum. For the initiatives there are three items which are taken into account; the number of signatures (absolute), the number of signatures (relative to size of vote-eligible population), and the period during which these signatures can be collected. Each item is then classified according to a six point scale and eventually the mean is then a measure for how strong the initiative is. This is also done for law referendums and financial referendums although for the latter also the threshold (e.g. 5% of cantonal spending) is taken into account. Averaging over all these different institutions provides a measure for how much or how little direct democracy is present in the Swiss cantons (see section A.1 for detailed information, and see Vatter et al. (2012) for an alternative). The next section provides a number of descriptive inferences gained from the HDDI.

1.3.2 Preliminary Observations based on the HDDI

Before confronting this measure with potential explanatory factors it is worth inspecting it. From the HDDI alone one can answer a number of questions. Is the development and proliferation of direct democracy a constant evolution or a one-time event? Is there any retrenchment or do polities, once they have adopted DDIs, only extend them? Is there a strong degree of path dependency such that cantons with strong DDIs at the end of the 19th century also had the largest HDDI values at the end of the 20th century? Are there regional patterns which would be supportive of a diffusion argument? These questions can all be answered by a close inspection of the HDDI.

Figure 1.1: Historical Direct Democracy Index (1803-2010)
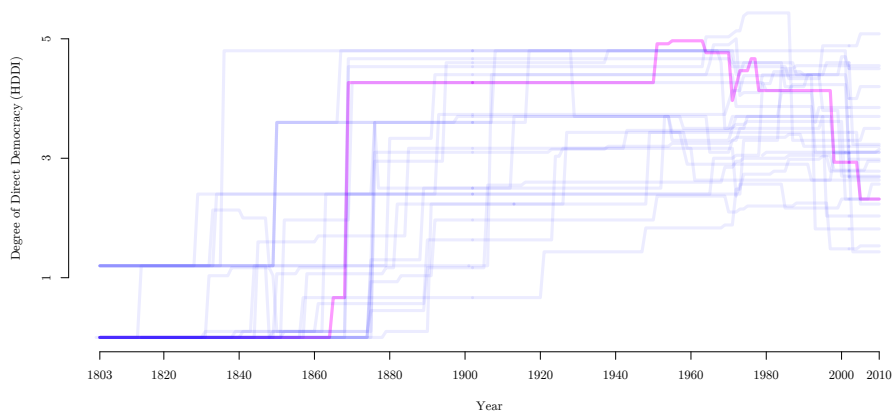
Notes: Each line represents a canton. For illustration purposes the canton of Zürich is displayed in a different color.

Figure 1.1 shows the results for all cantons since 1803. A number of observations can be made from Figure 1.1. First, the degree of direct democracy varies over cantons but also over time. In the first half of the 19th century these rights were limited whereas towards the end of the 20th century every canton provides substantial direct democratic rights. Second, the degree of direct democratic rights granted to the citizenry is not constantly increasing but may even decrease over time. Finally, the most progressive forms of direct democracy in the first half the 19th century are lower than the lowest such granted rights nowadays.

While the above plot shows how individual cantons changed their DDIs it does not show whether

there is any regional clustering or whether certain parts of the country preceded others when it comes to the extension or the retrenchment of DDIs. Figure 1.2 provides a four maps for different periods.

Figure 1.2: Map of Direct Democratic Rights
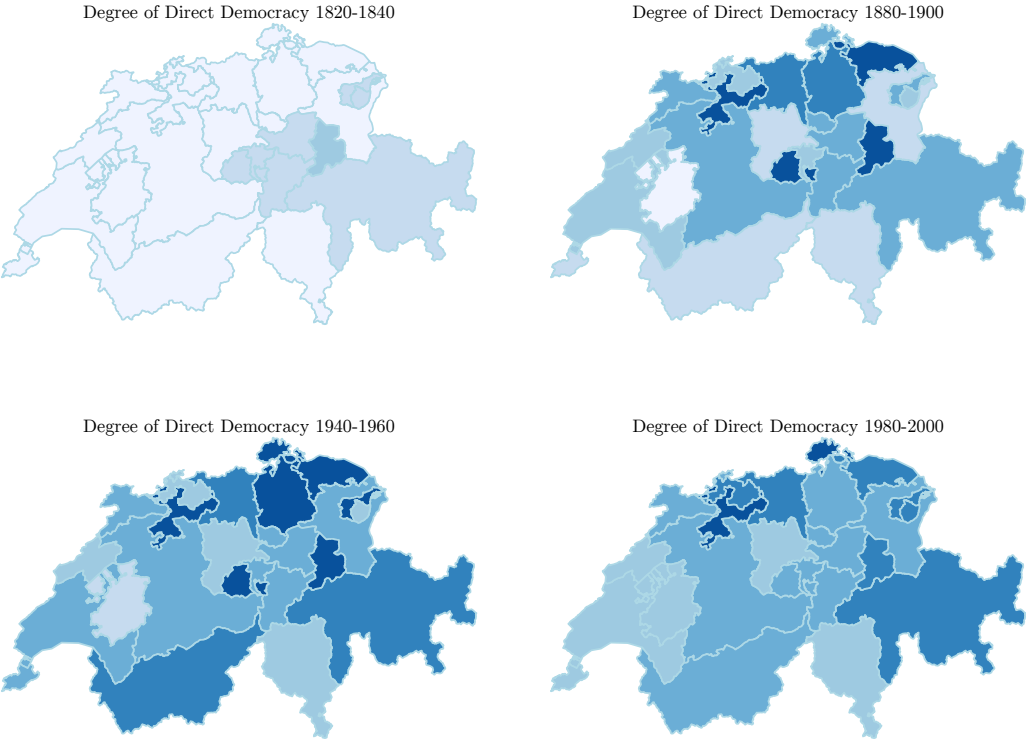
Notes: Darker colors represent more direct democracy.

Another interesting question which one can address with the HDDI is the following: if there is a strong degree of path dependency in this process, cantons which early on extended direct democratic rights more than others should also nowadays provide much more participation possibilities to their citizenry.

If this is the case than there should be a clear relationship between end of 19th century and end of 20th century DDI measures. The relationship is striking; there is a clear bivariate relationship. This relationship does also not break down once one controls for the language spoken by the

majority.[16] In general, cantons that granted extensive direct democratic rights towards the end of the 19th century did so also at the end of the 20th century. With the exception of the cantons with extensive direct democratic rights all others provide nowadays more direct democracy than they did 100 years ago.

Figure 1.3: One Hundred Years of Changes
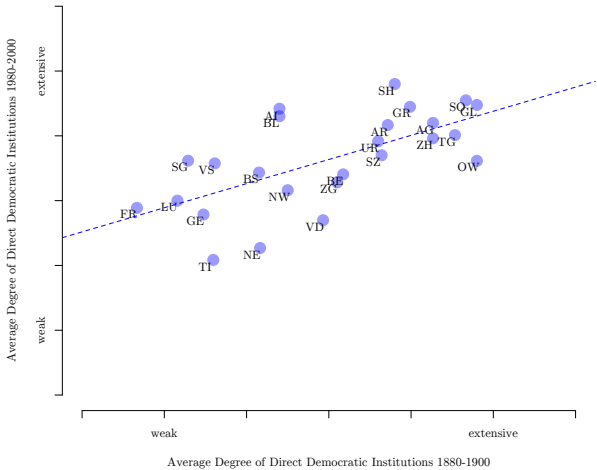
Notes: HDDI average value for 1880-1900 on x-axis and average value for 1980-2000 on y-axis. A simple linear regression yields a $p-$value (for the slope) of 0.001 with 25 observations.

In the next section the variation of DDIs over cantons and time is analyzed. The section lays out the operationalization of the variables and presents a number of control variables. It concludes by presenting quantitative and qualitative evidence which supports the theoretical claim that the degree of direct democratic institutions is a function of the political conflict structure.

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[16]The German speaking cantons possess distinctly more direct democratic rights and this provides a constant source of empirical problems as many macro outcome variables which are correlated with language are likely to be correlated with direct democracy and create the danger of mistakenly assuming a significant relationship. See Stadelmann-Steffen and Vatter (2011) for a notable exception.

1.4 Explaining Variation in Direct Democratic Institutions

This section presents the empirical results. The first part introduces the measures and variables which are used in the second part. The results presented in the second part are based on data from mid 19th century to the present as well as on sub-samples from the 19th century. In addition a number of different model specifications are presented to show the robust effect over various models and subsamples.

1.4.1 Empirical Measures

Vote-eligible Population. The dependent variable, the historic direct democracy index (HDDI), has components which take into account the relative threshold for signatures such as a referendum requiring 5% or more signatures to be valid. These constitutional provisions governing the use of direct democracy are almost always formulated in absolute numbers. When the vote-eligible population increases it is possible that the HDDI increases purely because a given amount of signatures will represent a smaller fraction of the total population than before. To account for these purely *mechanical* changes in HDDI I include the number of vote-eligible citizens divided by 10,000 for readability.

Cleavage Structure. The main argument proposed in this paper rests on the cleavage structure and the question is how to measure that. The difficulty in the Swiss case is that not all cleavages are present in all cantons and it is unclear how one would want to measure this over two centuries. Rather than identifying the exact cleavage as, for example, Lipset and Rokkan (1967) do for a number of West-European countries, one can focus on the consequence of a cleavage; the parties. The argument of this paper is that the extension of DDIs is more likely as the number of cross-cutting cleavages increases. The number of different parties that represent a canton in the national lower house is a function of how many *active* and mobilized cleavages are present in a canton. Based on electoral records from 1848 on one can record the number of parties which successfully gained access to the lower house in national elections. If a canton has two cleavages but they are aligned we expect to find two parties. If the cleavages are cross-cutting and of enduring

nature we eventually expect four parties. The number of parties can tell us how fractionalized the political sphere is. This is not true if cantons use different electoral systems, but since I look at national elections the same rules apply to all cantons. The seats are elected in SMD up until 1919 and then proportional representation is introduced. While this is not an exact count of the number of active conflicts and whether they are cross-cutting or not it is a measure which is correlated to the number of conflicts and the fractionalization this causes.

Political tradition (Legacy): Landsgemeinde. As mentioned above, some cantons knew citizen's assemblies which met once or twice a year and had to approve all new laws. These *Landsgemeinden* were not necessarily very democratic as they restricted full voting rights to certain families or relied on wealth-restriction (Head, 2002). Nevertheless, the experience that citizens, however defined, have to approve new laws likely changes the trajectory of these cantons. They not only enable but most likely constituted *collective memories* which facilitated the later introduction and extension of direct democratic rights (Rothstein, 2000). This variable is a binary indicator for the cantons Uri, Schwyz, Obwalden, Nidwalden, Glarus, Zug, Appenzell Ausserrhoden, and Appenzell Innerrhoden (de Capitani, 2006).

Political tradition (Legacy): Aristocracy. Some cantons had an aristocratic tradition. These cantons, essentially almost all the ones with big cities at that time, had a small group of powerful families. Most of the peasant revolts in Switzerland took place in these cantons as the cities own most of rural *Hinterland*. The near-feudal structure in these cities was not fully broken by the new constitutions from 1803 on and the cities often reserved far more seats in the legislative body than would have been justified by their population size (Maissen, 2010, p.186).[17] Following de Capitani (2006) the cantons of Zürich, Bern, Lucerne, Freiburg, Solothurn, Schaffhausen, and Geneva are counted as having an aristocratic legacy.

Inequality: Child Mortality. A major driver of democratization in general has been in-

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[17] One of the oldest attempts to explain the adoption of direct democracy is owed to Rappard (1912) who writes: *"When, looking over the general political development of Switzerland in the course of the nineteenth century, we endeavor to discover the causes which led to the establishment of the initiative and referendum, we find that popular discontent with those in power was always and everywhere the most potent factor. [...] the various cantonal governments [...] rested on aristocratic or oligarchic basis contrary to the democratic spirit of the times."* (1912: 133).

equality. For both Boix (2003) and Acemoglu and Robinson (2006) inequality is a crucial variable for understanding the process of democratization as it is a determinant of the price the elite has to pay upon democratization. The extension of direct democracy poses a similar threat as a majority of people could establish a progressive tax at any time. It is difficult or impossible to create a valid measure of income inequality or wealth inequality due to the fact that taxation was carried out on a cantonal level and their are no standardized records. Boix (2003) uses in his case study of Swiss cantons an average soldier's pay based on Franscini (1827). Rather than using a soldier's pay I rely on child births which is a valid measure for the degree of economic deprivation (Aber et al., 1997). I use the share of children who die within the first year of their life since this measure is available over time and fairly sensitive to economic changes. Section A.2 in the appendix provides detailed information on sources and construction.

1.4.2 Empirical Results

To empirically test the theoretical argument I estimate a number of time-series cross-sectional models relying on all 25 cantons (26 from 1977 on) from 1848 to 2010. The outcome variable is the historical direct democracy index (HDDI). The first model includes the share of vote-eligible population to control for population growth which could increase the HDDI by construction. In addition, the main theoretical variable - the number of parties - is included as well as a binary indicator for whether a canton had pre-democratic forms of citizen assemblies (*Landsgemeinden*) or not. In a next step I include an indicator for whether a canton has an aristocratic legacy. In Model 3 I also include a proxy for inequality. In Model 4 and 5 I include cantonal fixed effects. Since the legacy variables are time-invariant, they are absorbed by the fixed effects. Model 6 then also includes annual fixed effects.

In all specifications there is a clear positive and significant effect for the number of parties on the degree of direct democratic institutions. The estimation results support the core argument that more cleavages tend to lead to more extensive direct democratic rights. The results in Models 1-3 support the contention that there is a legacy effect such that those cantons which had pre-democratic citizen assemblies also have a more extensive direct democratic institutions after

Table 1.1: Full Sample: All Cantons from 1848 to 1995

		Model 1	Model 2	Model 3	Model 4	Model 5
CLEAVAGES	Number of Parties	0.34***	0.34***	0.20***	0.13***	0.10***
		(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
LEGACY	Landsgemeinde	1.56***	1.57***	1.39***	-	-
		(0.06)	(0.06)	(0.06)		
LEGACY	Aristocracy		0.02	0.03	-	-
			(0.05)	(0.05)		
INEQUALITY	Child mortality			−6.49***	−6.61***	0.20
				(0.26)	(0.18)	(0.44)
	Vote-Eligible Population (in 10,000)	0.00	0.00	0.01**	0.01***	0.01***
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
	Constant	1.54***	1.53***	2.61***	3.76***	1.25***
		(0.06)	(0.07)	(0.08)	(0.11)	(0.20)
	FE CANTONS	×	×	×	✓	✓
	FE YEARS	×	×	×	×	✓
	R^2	0.18	0.18	0.33	0.74	0.79
	Num. obs.	4050	4050	3675	3675	3675

Full sample, all cantons for 1848-1995. ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

democratization. But there is no significant effect for the former aristocratic cantons. Models 3-5 also include a measure for child mortality and while its coefficient is negative in two models there is no significant effect once we include annual fixed effects. This implies that inequality cannot account for the extension of direct democracy. The only variable which has a significant effect over all models is the number of political parties.

Before moving on it is also worth looking at when these changes happen. The above model is estimated on the full sample from 1848 up to 1995 but changes to the constitutional provisions governing direct democratic rights are not evenly spread throughout history. In Figure A.1 I show a moving average of the number of cantons who change their direct democratic rights as well as a lowess function. One can see three major periods. A first one lasting up to shortly before 1900 with many changes followed by a period of little to no changes until the end of WW2 and finally a third phase where there are again frequent changes although not as frequent as during the 19th century. One question which arises is whether the empirical results also hold up for the first wave of direct democratic extensions in the 19th century.

Another motivation to re-estimate the models on a subsample is the strong correlation of direct

Figure 1.4: Changes to Cantonal Constitutions with Respect to Direct Democracy
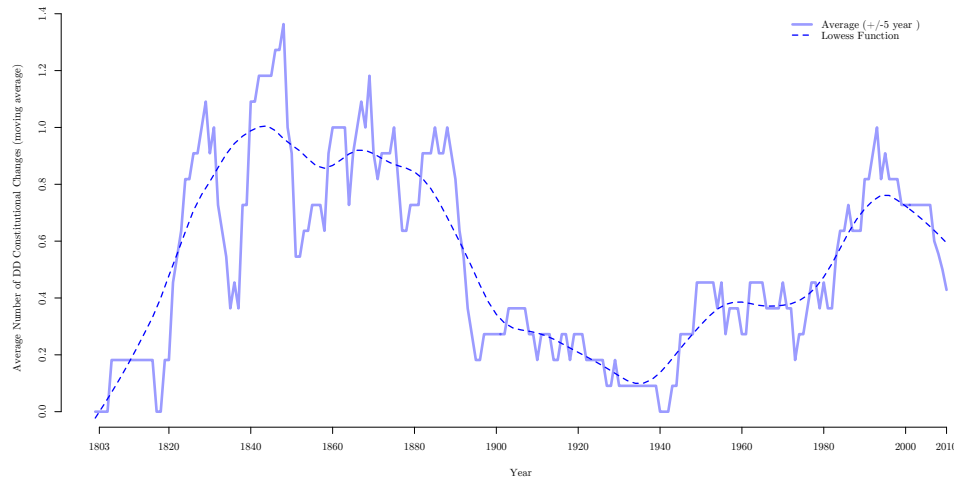
Notes: Shows the average number of changes to formal rules of direct democracy smoothed over $+/-5$ years and a super-imposed lowess function.

democracy index values at the end of the 19th century with the values from the end of the 20th century raise the question of path dependency. If the evolution of direct democracy in the 20th century was mostly path dependent in order to understand its origins we must understand what happened in the 19th century. All three motivations; the bulk of constitutional changes, the use of a majoritarian electoral system, and the potential path dependency motivate a re-estimation on a restricted sample with only 19th century data. To do so the next set of estimated models relies only on observations up till 1895 which covers the first expansion period.

The results in Table 1.2 are very close to the estimation results gained from the full sample spanning over all 150 years. But when restricting the sample to the second half of the 19th century the results remain almost unchanged with one notable exception. The difference between the cantons with and without a pre-democratic legacy of citizen assemblies is stronger in these models based on 19th century data only.[18] This indicates that legacy of *Landsgemeinden* fades out slowly and the gap between cantons with and without citizen assemblies narrows over time.

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[18]When estimating the same models but only on 20th century data the legacy effect is much weaker ($= 0.7$) but still statistically significant at $\alpha = 0.01$.

Table 1.2: Restricted Sample: All Cantons from 1848 to 1895

		Model 1	Model 2	Model 3	Model 4	Model 5
CLEAVAGES	Number of Parties	0.50***	0.50***	0.45***	0.10**	0.07*
		(0.05)	(0.05)	(0.05)	(0.04)	(0.04)
LEGACY	Landsgemeinde	2.31***	2.24***	2.33***	-	-
		(0.11)	(0.11)	(0.11)		
LEGACY	Aristocracy		−0.20**	−0.16	-	-
			(0.10)	(0.10)		
INEQUALITY	Child mortality			−6.69***	−7.50***	−0.58
				(0.67)	(0.58)	(0.83)
	Vote-Eligible Population	0.00	0.01	−0.01	1.26***	0.47***
	(in 10,000)	(0.02)	(0.02)	(0.02)	(0.09)	(0.11)
	Constant	0.32***	0.39***	1.84***	−5.10***	−1.76**
		(0.12)	(0.12)	(0.19)	(0.71)	(0.74)
	FE CANTONS	×	×	×	✓	✓
	FE YEARS	×	×	×	×	✓
	R^2	0.31	0.31	0.36	0.77	0.81
	Num. obs.	1175	1175	1175	1175	1175

Restricted sample, all cantons for 1848-1895.$^{***}p < 0.01$, $^{**}p < 0.05$, $^{*}p < 0.1$

The empirical results consistently support the theoretical argument that in polities where there are more cleavages the political actors are more likely to implement and extend direct democracy. In addition to the results presented so far there is also another set of estimations presented in section A.3 in the appendix where a different model is used. Over all these different specifications and models there is always a positive and significant effect.

1.4.3 Direct Democracy and the Canton of Argovia

The canton of Argovia was religiously heterogenous with about 100,000 Protestants vis-à-vis 82,000 Catholics in 1840 (Arni, 2011, p. 222). The constitution of 1831 granted both religious groups an equal number of deputies in the legislature. The revision in 1840/1841 did not include any such guaranteed parity and is the endpoint of fierce confessional conflicts in the decade leading up to this revision. The new constitution of 1841 did not include any introduction or extension of direct democratic institutions although they were the subject of many discussions and public debates. The Catholics had been strongly advocating the introduction of a *veto* and as one observer put it at the time "With a representative democratic constitution the veto is tightly connected to the

people's sovereignty such that without a veto there can be no sovereignty of the people".[19] Adding the *veto* would have introduced an additional veto point which is beneficial for any minority and the Catholics were definitely expecting this effect (Arni, 2011, p. 229). Not only did the constitution in 1841 not include any such provision but in the same year the cantonal government decided to *desamortize* the monasteries (*Klösteraufhebung*). The strong anti-clerical push was coming from the radicals and also supported by liberals. The main cleavage was the confessional divide and the Catholics were facing a strong liberal-radical group.

The constitution of 1841 had a clause that it could be changed after 10 years. After joining the Swiss federation in 1848 a revision became necessary and the government started the revision discussion in 1849. The revision did far more than just the make the necessary adjustment to join the Swiss federation; the voting age was lowered from 24 to 22 years, the recall (6,000 signatures) for the legislature, and the optional referendum (5,000 signatures) were introduced. How did this happen? The liberals and radicals which used to be an almost monolithic group had been moving apart. A new conflict gained rapidly in salience and after the hunger crisis of 1845/1846 the radicals took very different positions on distributional questions than the liberals. The radicals coalesced with the Catholics and ensured the introduction of DDIs into the new constitution which was eventually accepted overwhelmingly at the polls (Staehelin, 1978, p.126). Interestingly, these same radicals were at the forefront 10 years before pushing for the *disamortization.* But as the economic cleavage gained rapidly in salience such old battles were quickly forgotten. The coalition of two normally opposed groups lead eventually to the introduction of direct democracy (Gilg, 1951).

1.5 Substantive Implications for Direct Democracy Nowadays

One implication is worth briefly discussing. Scholars of Swiss politics are aware that the Latin cantons (the ones speaking French and Italian) tend to have much lower values on various direct democracy indices. This has been true in the 19th century and is still true nowadays. How can

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[19]Translated by author, original version: "Das Veto des Volkes ist bei einer demokratisch-repräsentativer Verfassung so enge mit dem Grundsatze der Volkssouveränität verbunden, dass sich ohne Veto die Volkssouveränität gar nicht denken lässt." published in *Freiämter* newspaper on June 16th 1840.

one make sense out of this? One possibility is to argue that the Latin cantons are more influenced by France and Italy and by that exposure prefer per se a more representative than participatory form of democracy (e.g. Linder, 1999; Trechsel, 2000; Freitag and Vatter, 2000). In this explanation Latin cantons have a different political culture which is more influenced by neighboring countries than by the neighboring german-speaking cantons.

Another view, which is potentially more interesting and in line with the argument in this paper is that it is a consequence of different structural aspects. All cantons with pre-democratic citizen assemblies and hence a legacy of direct democracy are german-speaking. The Latin cantons on the other hand also have fewer cleavages and as a consequence fewer political parties in the 19th as well as in the 20th century. According to this line of argument the Latin cantons have fewer and weaker DDIs because there were fewer political conflicts and absent this the introduction and extension of DDIs lagged behind the more conflict-prone german-speaking cantons.

1.6 Conclusion

This paper set out to analyze the adoption and extension of direct democracy in Swiss cantons in the 19th and 20th century. Existing accounts rely on the political legacies of cantons or on the presence of certain political groups to explain the degree of DDIs granted to the citizenry. Rather than following that path, this paper argues that the conflict structure is what partly explains the degree of direct democracy the cantons implement.

Relying on an original dataset which rests on all cantonal constitutions and amendments from 1803 to 2010 this paper shows that there is empirical evidence supporting the theoretical argument. When there are more politically organized cleavages, the ruling group is more likely to be heterogenous with respect to some of the conflicts over some policies. This creates for minorities within the majority a policy incentive to change the institutional architecture.

While this structural argument is born from the Swiss case and its 25 cantons it has the potential to travel. In attempt to explain the introduction of DDIs in the US states Goebel (2002) often refers to the factionalized character of a dominant party (Oregon) or the coalition of minority

parties (South Dakota). For the US states he writes "The shape of the coalition assembled behind the reforms varied from state to state, depending on such factors as the party system, the level of party competition, the structure of the state economy, the ethnic makeup of the population, the level of urbanization, and the skill of the reformers" (Goebel, 2002, p. 79). Focussing on the structure of the conflict and the political opportunities this creates may hence not only prove to be a strong explanation for the Swiss cantons but travel to the US and its states.

Chapter 2

Political Conflict and Direct Democracy – Initiative Use 1920-2012

Abstract: Political competition is the engine for representative democracy. This paper addresses how direct democratic institutions affect the working of representative systems. Within the representation mechanics I look at the political space or the dimensionality of political conflict and how the structure of conflict affects partisan competition. New dimensions create incentives for parties to either emphasize these new issues or to try to avoid them. The paper argues that the presence of the direct democratic institutions, such as the initiative, gives smaller and weaker groups a powerful tool to force public debate on new issues and it becomes hard or even impossible for established parties to avoid debate on newer issues. Empirically it is shown that the number of submitted initiatives increases as party competition tightens and that this is a consequence of new political dimensions emerging. The findings then highlight that the consequences of direct democratic institutions go beyond occasionally changing policy outcomes. For the specific case on hand, Switzerland from 1920 to 2012, it is shown that despite numerous opposite claims there has not been any underlying change in strategy or equilibrium but just a slow evolution of underlying factors such as institutional requirements and partisan competition.

2.1 Dimensionality of Political Conflict & the Citizen's Initiative

Public contestation is a corner stone of liberal democracies.[1] The range and depth of topics debated in a polity is itself a political outcome (Bachrach and Baratz, 1962). For Dahl (1971) political contestation is one of the two main dimensions of democratization while participation is the other.

This paper looks at direct democratic institutions, which complement classic representative systems, and shows how they can also affect contestation and not only participation.

Direct democracy is an institution which has been ascribed many effects and a large literature describes how direct democracy affects various outcomes. Prominent examples are the effect on political knowledge (e.g. Smith and Tolbert, 2004), the moderating effect on taxes and expenditures (e.g. Matsusaka, 2004), or how direct democracy limits legislators from pursuing too extreme goals (e.g. Neidhart, 1970; Gerber, 1996a). This paper does not look at the relationship of direct democracy to a policy outcome but rather looks at how the presence of direct democracy may alter and change processes within the representative system. In doing so it responds to a claim by Hug (2009) that there is little literature which "[h]as addressed the issue how referendums affect the representative governments that prevail in all democratic states around the world." (2009: 252). This paper on the other hand describes how direct democratic institutions lend agenda-setting power to a large set of actors which, without direct democracy, would not be able to shape the agenda of public debate.

This paper describes how partisan competition in a multidimensional political space is altered when the parties have access to direct democratic institutions. Direct democracy allows outsider groups to force debates on questions which do not closely align with the main conflicts and thereby put pressure on established parties. Apart from changing policy outcomes, direct democracy weakens the parties' abilities to constrain the range of issues which are debated and thereby increases contestation.

To evaluate the argument I rely on the national occurrence of direct democratic initiatives in Switzerland since 1920. The Swiss case is exceptionally well suited as it is one of the few cases where citizens and civil society groups have the right to collect signatures and propose changes on the national level. While many other entities know the initiative process (e.g. half of all US states and German Länder) the Swiss case combines a national party system with direct democracy on a national level. Since the argument hinges on the structure of the multidimensional political space and on partisan actors it is crucial to have a case where direct democracy exists on the same level as where the political space is created and maintained as well as where the party system constitutes

itself. The initiative in Switzerland has experienced increased popularity and is being used more and more. This paper, relying on the theoretical argument, is capable of explaining the varying use.

Empirically, I show how increased partisan competition, via changes of the multidimensional policy space, fuel the use of the initiative during the last 100 years in Switzerland. This analysis deepens our understanding of party competition under direct democracy and also is capable of explaining the frequency of initiatives. Finally, while a considerable amount of the literature regards direct democratic institutions as beneficial for parties and another part of literature highlights potential deficiencies, this contribution rather shows which parties may gain and which may lose and how debates and conflicts are changed in the presence of direct democracy.

2.2 Dimensions of Conflict

The idea to describe political conflict with reference to a spatial model is almost as old as democratic thought. The maybe earliest reference to a spatial model of political competition is found in works from Aristotle assuming that the world views of citizens can be aligned along one dimension and "[t]his dimension is wealth or class" (Hinich and Munger, 1997, 22). Classic contributions using the spatial model are numerous such as the median voter theorem (Black, 1958, inspired by Hotelling (1929)) or political competition (Downs, 1957). Outside of social choice spatial models embodying two or more dimensions have led to many insights. Lipset and Rokkan (1967), for example, identify four main conflicts and explain thereby the structure of European party systems. Current scholarly work usually identifies a two-dimensional space in Western Europe where a first dimension accounts for the distributional conflict and a second dimension represented cultural issues (Kriesi et al., 2008).

Whereas the political conflict for Aristotle was over wealth or class (what we might label nowadays the economic dimension) the content of the conflict changes over time. The first occurrence of the terms *left* and *right* to describe the political space is found after the French revolution and describes where the deputies sat in the National Assembly. When entering the assembly one had to one's left the *Jacobins* and to one's right the *Girondists* (Patrick, 1969). However, the positional

label stemmed from the location of their seats and not from an ideological position. Nevertheless, nowadays there is a conception of what left and right stand for. It usually refers to the main dimension of conflict which is often highly correlated with the distributional conflict so hence it is (close to being) the economic dimension. A citizen's position on this dimension is also a strong predictor of the citizen's party vote choice. Finally, this conception seems to travel at least among Western democracies (Huber, 1989).

The structure of conflict, whether one- or multi-dimensional, changes over time. The substance or meaning of the dimensions is also not time-invariant. In a recent contribution De Vries et al. (2013) show for the Netherlands how the correlation of redistribution preferences and left/right identification decreases from 1980 to nowadays while at the same time the correlation between left/right positioning and anti-immigrant preferences increases. This indicates that the meaning of left/right has changed in the Netherlands and has now a slightly stronger taste of immigration politics than before while at the same time it is less related to redistribution. So, while left/right is a first approximation to structure political conflict, models relying on two dimensions provide additional substance as they distinguish between economic and cultural issues. Nevertheless, the exact content of the cultural issue may vary.

2.2.1 One or More Dimension of Conflict?

While many political questions might align well with the main dimension of political conflict this does not have to be the case. When an issue comes up that does not fit onto the existing structure, and if it is of importance and reoccurring, it is often labeled to be a new dimension or just the second dimension.

The political conflict space in the US, for example, can be described as mostly uni-dimensional although during certain periods there were issues which did not fold neatly into the main axis (ranging from liberal to conservative). For Poole (2008) there are two periods, 1829-1851 and 1937-1970, where a two-dimensional model is better than a uni-dimensional model in describing the political conflict. According to Poole it was the race issue which gave rise to a second relevant axis of contestation. Current day descriptions of Western European political spaces often entail a

second dimension which refers to different issues such as the materialistic vs. post-materialistic values (Ingelhart, 1977), the tension between authoritarian and libertarian positions (Kitschelt, 1994), or the conflict between green-alternative-liberatarian vs. traditional-authoritarian-nationalist positions (Marks et al., 2006). The most compelling description is presented by Kitschelt and Rehm (2014) who label the first dimension as *distributional conflict axis* and the second dimension, according to the authors, conflates the question of who belongs to a polity and which issues are political. The second dimension is then more than just the identity question but also where liberal and authoritative values clash.

This second dimension, or these second dimensions, are different depending on the exact circumstances but they all share that the actors' positions on these issues does not map nicely on the main axis of conflict. Dimensional analyses based on voting behavior of EU MPs will often find a second dimension which is labeled *EU integration* and refers to the conflict over how powerful the European Union shall become (Benoit and Laver, 2012). The reason this is understood as a second dimension is that actors' left/right placements do not correlate closely with their positions on EU integration. The second dimension is in general less clearly defined over a specific policy area, unlike the first dimension, which captures the distributional conflict. The second dimension, hence, may be more accurately described has the political struggle over non-redistributional questions.

2.2.2 Dimensionality and Political Parties

Political parties can be separated by positioning them along an axis representing different meaningful positions one can take one an issue. The familiar left/right dimension carries a lot of meaning and even without not knowing a country, one forms immediately specific expectations when a party is labeled as left or right. A left party is expected to be more in favor of economic redistribution and often also more universalistic than the right party. Hence, the left/right continuum is somewhat of a *super-issue* (Gabel and Huber, 2000). A more nuanced description may rely on a primary *distributional* conflict (1st dimension). In Western Europe an additional axis which is partly independent to the first is associated with anti-immigrant positions, environmental politics, and individual freedoms which oppose heteronormativity (2nd dimension).

Where does this second dimension come from and how do new dimensions enter the system? De Vries and Marks (2012) distinguish two different general approaches; the sociological and the strategic approach. The sociological explanations assume that these dimensions exist independent of parties and that they are rather *forced* on the parties. The strategic view point, on the other hand, tends to think of parties *forcing* new issue and dimensions into the political system. One way to distinguish these two different conceptions of the emergence of new dimensions is that if one models parties and their actions in the sociological perspective new dimensions emerge exogenously, while for the strategic account the dimension is a consequence of intentional action. But both accounts agree that political parties may compete over more than one dimension but they differ how these dimensions enter into existence.

In the earlier mentioned work by Kriesi et al. (2008) it is globalization which is the causing underlying economic and sociological structure to change. A consequence of this change is the emergence of a second dimension which is associated with cultural values. This creates incentives for parties to campaign on new issues and by this mechanism the new issue can enter into the political debate and become a second dimension. The social choice literature provides the concept of *heresthetics*, which accounts for the strategic manipulation of the dimensions (Riker, 1990). Political actors are assumed to emphasize a specific issue or dimension if they expect to be more competitive on that dimension. An established party, which has an unfavorable position on a new dimension, will try to protect the current structure and can either remain unclear about its position or try to prevent the new dimension from arising. The former, taking an unclear position, is sometimes referred to as *position blurring* (Rovny, 2012). Especially newer parties may be interested in raising and introducing a new dimension. The faith of newer groups in representative systems hinges on the response of the established groups (Hug, 2001; Meguid, 2005). But if direct democratic institutions are available established parties are taken the option of dismissing an issue entirely. This is one way by which direct democracy may alter contestation.

2.2.3   Direct Democracy and the Dimensionality of Politics

Direct democracy, and initiatives especially, provide political actors with a strong instrument to affect the public debate. Any group, capable of collecting a sufficient number of signatures, can force a plebiscite on a law proposal. This gives groups, especially smaller and newer groups, disproportionally strong influence over shaping public political debates. In a system where parties take positions in a multidimensional policy space external shifts or shocks, such as the rise of a new dimension or a fundamental shift like the post-material wave, will cause great disruptions (Meguid, 2005). In a representative system with direct democratic institutions the dynamics are accelerated as smaller and newer groups can exploit emerging issues in cases where the larger and established parties do not adapt.

If politics was essentially a one dimensional game, elections could – under certain circumstances – produce perfect representation, and if citizens' preferences would be stable one would not expect that direct democracy would ever change policy outcomes compared to a purely representative system. Formal theories of direct democracy identify two possibilities for why citizens would overturn policies: first, elite and base do not share the same preferences (no perfect representation) and second, the elite is uncertain over changed preferences among the citizenry. These models usually assume that pursuing a campaign and forcing an initiative is a costly action for the proposer and mostly rely on a uni-dimensional policy space (see e.g. Gerber, 1996*a*; Hug, 2004). The essence of these models is to identify the consequences of a preference mismatch between the elite and the citizenry on policy outcomes.

A central question in understanding how direct democratic institutions work is to understand how they interact with aspects of the representative system. An initiative offers unique opportunities to a political actor (party or association) to introduce a new issue into the political arena and claim topic leadership (see e.g. Gruner, 1978*b*). In case of a party or politician this also allows to distinguish oneself from a competitor. Hence, it is possible that even if there is no eventual change in policy (because the initiative did not gather sufficient support at the ballot box) a proposing actor logs a net gain from pursuing an initiative. The initiative is uniquely well suited as the proposer can freely chose the change to be proposed. This allows to select issues on which ones own

electorate is fairly homogenous but the electorate of competitors is split (Budge et al., 1987; Smith and Tolbert, 2004). Choosing such *wedge issues* will force the competitor to take a position which comes with an electoral cost. Another potential incentive is that an actor can change the salience of issues and emphasize policy areas where the actor expects to be judge as more competent than the other competing parties (Nicholson, 2005, 2008). It might be a prime example *heresthetics* and corresponds nicely to the description by Riker (1990) that "Heresthetics has to do with changing the space or constraints on the voters in such a way that they are encouraged, even driven, to move themselves to the advantage of the heresthetician" (1990: 47). One problem for formal theories of the initiative is that they grapple to explain why one observes initiatives even when there is little to no hope that the measure would achieve popular approval.[2] After all, the costly action would only be beneficial if the policy is eventually changed. But taking into account that proposers might use the initiative not to affect policy directly but rather to change public discourse and campaign for the upcoming elelctions provides an argument which rests on the assumption that the costs of using the initiative - understood as net gain/loss apart from the actual policy – might also be negative and hence the campaign itself the goal. Simply put, political parties may use the initiative not because they expect to change policy outcomes directly (i.e. the initiative reaches a popular majority and is hence passed) but as a means to take a political position in a very visible way and to campaign.

In line with this argument are some empirical findings from the Swiss cantons. Ladner and Brändle (1999) show that parties in cantons with more direct democracy tend to have more professionalized structure and that the party systems are more fractionalized. And this is very much in line with a related claim that direct democracy creates opportunities for weaker or more periphery groups (Vatter, 2000; Linder, 2005; Kriesi and Trechsel, 2008).

Economic and sociological changes create new potential dimensions of political conflict. There will be some political actors who benefit from increasing the salience on these new conflict dimensions. If direct democratic institutions allow these actors to circumvent the classic law-making

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[2]Since 1891 only 19 out of 182 initiatives have been accepted. Sometimes the government pitches a counter-proposal against the citizen's proposal. Taking this into account there are still less than one in four attempts where policy outcomes are changed successfully.

process and present a measure directly to the people via the ballot then issues which are likely to constitute the second dimension emerge faster then they would in a purely representative system.

Two predictions can be derived from this. First, the emergence of new dimensions should increase competition among parties and this will increase the frequency of initiatives. This implies that partisan competition predicts initiative frequency. Now, even if in the absence of an emerging new dimension in the political landscape, the increased competition should lead to an increase of initiatives. Parties will try to increase salience, via using the initiative, on issues which benefit them. The second implication pertains to the content of the proposed initiatives. If the emergence of a second dimension causes the increased competition, we expect to see an above-average share of second dimension issues which are proposed via the initiative.

To sum up, the consequences of emerging new dimensions is that we see the frequency of initiatives increasing as partisan competition increases. And if it is true that new issues are pursued by weaker or more marginalized groups in the hope of extending their electoral base, then we should see that the initiative is frequently used on topics which do not necessarily align closely with the main dimension of conflict. This is the first argument to my knowledge which allows to systematically explain the frequency and content of citizen's initiatives.

2.3   A First Glimpse: Swiss Initiatives from 1919 to 2011

Before I present the empirical results showing how political competition drives the use of initiative frequency I present a univariate analysis of the number of annual initiatives on the national level. Since 1891, when the initiative was introduced, any Swiss citizen (before 1971 only men) can propose a change to the constitution. If a sufficient number of signatures is collected the proposed change is put to a vote. Up until 1977 it sufficed to have collected 50,000 signatures and thereafter one needed 100,000 signatures. In principle any citizen can propose a change to the constitution and there are examples of successful use where no political party or organization was supporting the initial steps (e.g. the initiative proposed by parents and relatives of a young girl which was the victim of a sex crime, *Verwahrungsinitiative* 2004).

The use of the initiative on the national level in Switzerland has witnessed different periods like ebb and flow. It is somewhat a constant of public debate that opinions are expressed that the direct democratic institutions are *over-used*. In the 1970's one finds in every annual report of the *Année Politique* references to debates that the usage of initiatives and referendums was perceived to be too high and there were discussions on how to change that (APS, 1970, 1972, 1973, 1974, 1975, 1976, 1977). Also nowadays there is a perception in Switzerland that these institutions are being abused, the latest example found in an opinion-editorial of the countries leading newspaper on November 30th (Senti, 2013). A common explanation is that parties nowadays abuse direct democracy and that this is detrimental to the efficacy of the political system.[3] Finally, on December 11th about twenty percent of the legislature signed a postulate demanding that the government propose suitable changes which would limit the number of initiatives. In a newspaper article the proposer of said postulate claims that he does not want to limit direct democracy but rather wants the institution to take up again its original role (Friedli, 2013). Implied in this argument is that there is an exogenous shock which fundamentally changed the mechanics and that there are two periods, the (good) old period where direct democracy was used rarely and a newer period where it is being abused. This structural break hypothesis claims that while the initiative was used to stimulate new topics and shed light on issues it has now become a vehicle of party politics. This change in its use happened around 1970 and resulted in an increase of initiatives.

Before analyzing and explaining the frequency of initiatives in the next section I present here the results from a univariate analysis. The purpose of this exercise is to take a close look at the claim that there has been a sudden change in initiative frequency in the 1970s. To test this statement I look at the distribution of annual numbers of initiatives on the national level from 1921 to 2011. To test whether there has been a sudden change in the frequency of initiatives I rely on Bayesian change point model (Spirling, 2007; Park, 2010).

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[3]One such way by which increased use may be detrimental is that citizens are not capable of being informed on a large number of issues. This argument was for example presented in a governmental report by the executive in 1975 (Sigg, 1978, p.11). The actual document can be found here: `http://www.amtsdruckschriften.bar.admin.ch/viewOrigDoc.do?id=10046413`. Support for this argument can be found in Selb (2008) who shows that citizens tend to make more mistakes when confronted with more ballots on a given day. A counter argument is that citizens just need to know the cues to be empowered to vote correctly (Lupia, 1994).

The Bayesian change point model allows us to describe the probability of a sudden change based on the parameter estimates. In this case the model is based on a Poisson process which is suitable for a count variable. The Bayesian change point model is an extension in which one can estimate, for example, a Poisson model with a structural break creating two different data generating processes, each for a different time period. One can then estimate several different models which only differ in the number of structural breaks they incorporate (Gill, 2007). Finally, the model with the highest data fit will yield a disciplined answer to the question whether there are any structural breaks in the data.

Figure 2.1: Change Point Model: National Initiatives 1919-2011
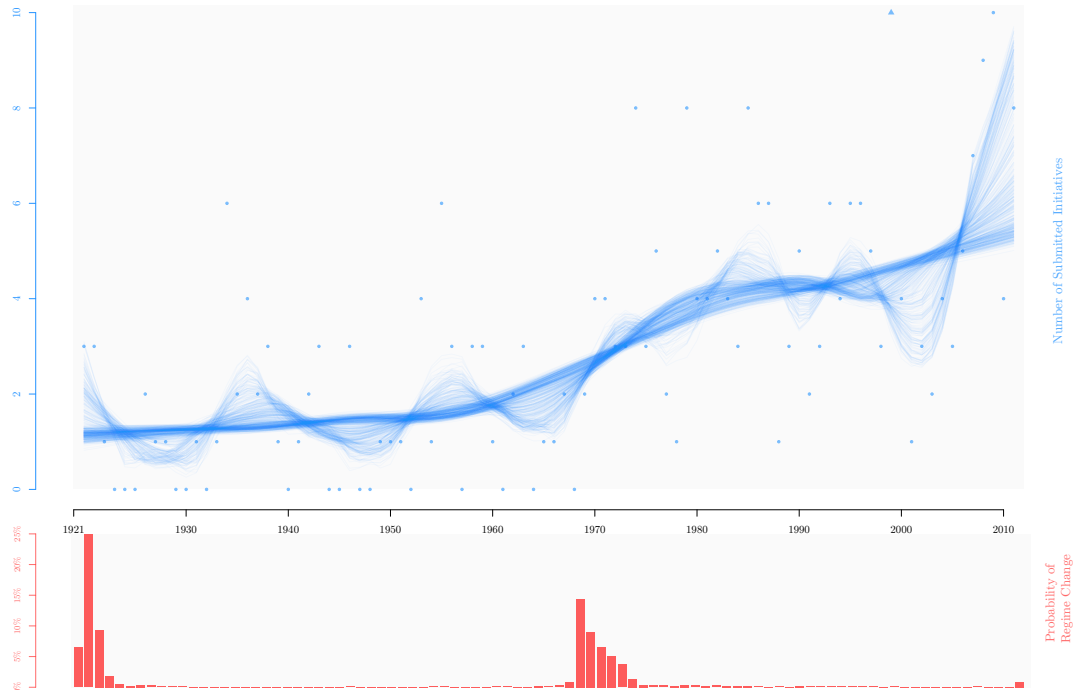
Notes: The blue dots in the top panel are the number of submitted initiatives in a given year. The blue lines show different locally weighted polynomial regression lines. The lower panel shows the probability of a regime transition in a given year. Shows all initiatives which were submitted.

Comparing the Bayes factors allows to adjudicate between the different models. The Bayes factor is the ratio of probabilities that a specific model produced the observed data. Technical details for this analysis are provided in the appendix (see Change Point Model of Initiative Usage). For the five models (no change, one change, two changes, three changes, and four changes) the estimated results indicate that the two-break model fits the data best, closely followed by the model with one structural break. The two-break model indicates that there is an early regime which lasts till the mid 1920's. After that there is an almost 50 year period for the second regime, and finally in the late 1960's there is the onset of a third regime lasting till today. While the first regime has on average 2.4 initiatives per year, there is a clear drop to about 0.8 for the second regime, and a steep increase to 3.2 in the second regime.

Figure 2.1 shows the frequency of initiatives and the estimation results from the model with two regime-changes (or structural breaks). The upper panel shows the raw data as well as a super-imposed *lowess* function. Since the lowess function is somewhat sensitive to the exact smoothing

parameter I draw thin lines for a wide range of smoothing parameters (Cleveland, 1979). The lower panel shows transition probabilities indicating the two structural breaks in the 1920's and the late 1960's. The first and second regime are not very different which coincides with the results from the model comparison (the one-break model without the first break is almost as good as this two-break model) as well as the average number of submit initiatives. The second break is clear and significant in size. The two structural breaks coincide with larger political phases, such as the post-WW1 period where many fundamental institutional changes were implemented.[4] The second structural break around 1970 coincides with a number of different processes. Kriesi et al. (2006), for example, mention five different changes: secularization, value change, increased education, increased wealth, and sectoral change, which fundamentally affect and alter the political conflict. From a macro-historical perspective these structural breaks are clear and explicable.

This first result is in line with the structural break hypothesis. Following that, the initiative is used regularly up to 1970 at which point there is a clear shift and parties start using it to catch "political attention" (*"politische Aufmerksamkeit"*; Senti, 2013). Contrary to this result I will argue in the remaining part of the paper that there has not been a sudden shift of strategies or a breakdown in cooperation which led actors to pursue different strategies leading to a new equilibrium. I argue that there is an increase in the use of initiatives which occurs gradually and is predictable. Rather than actors changing their strategies, I show how the circumstances change and eventually as a consequences lead to an increase of initiatives. Finally, I show that much more has remained stable than one might assume. As a first step of this argument I set out to explain or predict the frequency of initiatives.

2.4 Empirical Results: Explaining Initiative Frequency

This section present three different analyses. First, I present a regression-based model which allows me to illustrate the explanatory strength of different factors which are contributing to initiative

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[4]In Switzerland the largest strike ever was carried out in November 1918 and within the three years 1918, 1919, and 1920 eighteen European countries changed there electoral rules and switched to proportional representation (Germany, Austria, Poland, Rumania, Estonia, France, Hungary, Italy, Luxembourg, Norway, Switzerland, Czechoslovakia, Denmark, Estonia, Iceland, Latvia, Lithuania, Yugoslavia, Rokkan (1970)).

frequency. I show that partisan competition and institutional requirements are powerful predictors of initiative frequency. These results are not causal but only correlational in nature. To further strengthen the empirical case for the argument I test two implications of the theoretical claim. If parties exploit the emergence of new issues to submit initiatives we should see that the initiatives pertain to these new issues. We should also see that the share of second dimension initiatives increases with the post-material wave towards the end of the 1960s. The second implication is that a large share of initiatives should be of partisan origin rather than being submitted by civil-society groups. Again, politicians should be especially dominating from the end of the 1960s on.

This strategy allows to show that partisan competition drives initiative usage. After establishing correlational association and ruling out reverse causation, I show that two implications from the argument are empirically supported. First, the majority of submitted initiatives in the boom period touch on issue pertaining to the second dimension. Second, the raise in initiative usage can be mostly attributed to politicians and political parties rather than increased involvement of civil society groups. Taking all together this section provides empirical support for the argument.

The analysis in this section is based on all 165 initiatives on the national level (APS, 2013).[5] The outcome variable is the number of national initiatives per year. The structure of the dataset is a time series from 1921 to 2011. The main variables used in this section is the degree of electoral competition and the signature requirements. One way to measure electoral competition in a polity over time is to look at electoral volatility (see e.g. Kitschelt and Wilkinson, 2007, 114-116). I use the vote returns from the federal parliamentary elections to calculate the volatility measure. To measure the costs of using the initiative I calculate the share of vote-eligible citizens that have to sign a petition before an initiative actually is presented to the voters. The next section presents an analysis of annual initiative frequencies.

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[5]In addition, information on content and proposers was collected from the official records of the Federal Statistical Office and the Federal Chancellery.

2.4.1 Analyzing Initiative Frequency

There are two main factors which can explain the frequency of initiatives on a national level. On the one hand the institutional rules affect how costly it is for an actor to submit an initiative. First and foremost the number of signatures required affects these costs. The second aspect is the degree or extent of partisan competition. The higher the competition, the more parties are inclined to try and win over supporters of another party or to try and re-enforce the attachment of existing voters.

Electoral Competition: As political issues, which do not align well on the first dimension, enter the political arena, political opportunities emerge. Fundamental changes to the multidimensional structure of political competition create additional incentives for some parties or interest groups to submit initiatives. In a first step I use electoral volatility as a proxy for political competition. The main operationalization is the sum of absolute changes on the cantonal level of party vote in the last national elections. The more intense competition is the more willing parties should be to incur the costs of organizing an initiative.

Institutional Requirements: Analyzing the use of initiatives also requires to take into account any potential institutional changes which occurred during the last one hundred years. The most relevant costs an actor incurs when submitting a proposal is that one needs to gather a significant amount of signatures (Eder et al., 2009). Up until 1977 the constitution required 50,000 signatures for an initiative to be submitted. As a consequence of the introduction of women's suffrage (1971) the signature requirement was adjusted in 1977 such that now an initiative had to gather the support of 100,000 citizens. Nevertheless, the requirement is formulated as a fixed number of signatures rather than a constant share of the citizenry.[6] The consequence of this is that the formal requirement constantly changes in terms of how difficult and costly it is to gather a sufficient amount of signatures. In 1891, right after the introduction of the initiative on the national level, the requirement meant that one had to get 7.6% of all citizens eligible to vote to sign. Some eighty years later in 1977 this was almost three times less when 50,000 signatures only

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[6]The state of California requires e.g. 5% of the total vote casted in the last gubernatorial election (see California Constitution, art. II, § 8(b), http://www.leginfo.ca.gov/.const/.article_2). The canton of Geneva is the first Swiss canton to adopt this approach in its new constitution from 2013 (http://www.ge.ch/constitution/faq.asp).

amounted to roughly 2.5% (Degen, 2013). And even the change of formal institutions, the increase to 100,000 signatures, only raised the requirement back to the level it had six years earlier right before women's suffrage was introduced. Nowadays 100,000 signatures is less than 2% of the vote eligible population. This steady decrease is a central factor of how easy or hard it is to submit an initiative. For the states in the USA (Matsusaka, 1995, p.592) has shown the relationship between signature requirements and number of initiatives.

Table 2.1 shows the estimation results for five different negative binomial regression models. The two main variables are *electoral competition* and *signature requirement*. Apart from these two variables there are additional models with alternative specifications including indicator variables for election years and for pre-election years.

Table 2.1: Competition and Signature Effects

	Model 1	Model 2	Model 3	Model 4	Model 5
Electoral Competition	0.43***		0.21**	0.22**	0.22**
	(0.09)		(0.09)	(0.09)	(0.09)
Signature Requirements		−0.55***	−0.43***	−0.42***	−0.43***
		(0.08)	(0.09)	(0.09)	(0.09)
Election Year				0.29*	0.40**
				(0.16)	(0.17)
Pre-Election Year					0.29*
					(0.18)
Constant	1.00***	0.95***	0.94***	0.85***	0.74***
	(0.08)	(0.08)	(0.08)	(0.09)	(0.12)
McFadden R^2	0.20	0.30	0.34	0.36	0.38
N	92	92	92	92	92
$\ell\ell$-test	26.79	46.83	56.20	62.12	65.41
p	0.00	0.00	0.00	0.00	0.00

Outcome variable: Number of Initiatives submitted in year j. Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; Negative binomial model. All variables (except dummies) are standardized. "$\ell\ell$-test" stands for likelihood ratio test.

In all model specifications there is negative and significant effect for the signature requirements. As the requirement is lower, in percent of the vote eligible population, the number of submitted initiatives increases. These results are contrary to Barankay et al. (2003) who fail to find a clear and robust effect of signature requirement on the use of initiatives. Electoral competition is itself positively related to the frequency of initiatives. Finally, more initiatives are submitted in election

years, then three and four years before an election. But there is no significant difference for election and pre-election years.[7]

In the appendix (Alternative Count of Initiatives) I present a number of robustness checks and replicate the results with alternative measures. The outcome variable, that is the number of submitted initiatives, is replaced by the number of submitted initiatives which eventually were put on the ballot. The reason for doing so is that part of the initiatives are not being submitted with the intention to put them to a vote but rather to pressure the legislature. It is hard, based on these purely quantitative measures, to distinguish which initiatives served the purpose to strengthen a negotiation position in the parliament and which were not. Initiatives which are used to strengthen a negotiation position are usually submitted and once the legislature adopts a bill that is sufficiently closer to the desired outcome (closer than it would have been without a threat via an initiative) the proposers usually pull back the initiative and is it not brought to a vote.[8] The robustness check supports the findings. The main results, i.e. the negative effect of the signature requirements and the positive effect of electoral competition, remain significant over all models and measures. This first cut identifies two predictors of annual initiative frequency: the degree of electoral competition and the signature requirement.

There are two more aspects of the empirical analysis to present. First, since there is literature which argues that the signature requirement does not matter it is worth dwelling on this somewhat more Barankay et al. (2003). The introduction of female suffrage which lowered the signature requirement *de facto* by half and the change in required signatures six years later provide two sharp changes in one of the explanatory variables. If the signature requirement affects the numbers of submitted initiatives, we should see a clear difference for the period between 1971 (female suffrage) and 1977 (signature requirement raised from 50,000 to 100,000) and the years leading up to the first

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[7]Based on Model 5 one can test whether the two coefficients, $\hat{\beta}_{\text{election}}$ and $\hat{\beta}_{\text{pre.election}}$, are different. The difference dis not significant (test statistic is 0.56 and the $p-$value is 0.58).

[8]Article 73.1 of the Federal Act on Political Rights grants any committee proposing an initiative to withdraw said initiative up until the the parliament fixes a voting date. One of the earlier examples of this mechanism is found in the initiative seeking to abolish any separate judiciary powers within the army. The government started to reform the law only months before the Social Democrats submitted 119,000 valid signatures which they started to collect clearly before the reform was initiated (Sigg, 1978, p.122). But in this case the initiative was not pulled back and this highlights that there is no easy way of adjudicating between motivations.

change and right after the second. The t-test statistic is -1.81 and has a *p*-value of 0.09 indicating that there were significantly more initiatives in the short period after 1971.

A second aspect is the direction of the causal arrow between party competition and direct democracy usage. After all, increased use of the initiative should also increase competition. Hence, the results in Table 2.1 could be biased due to endogeneity. One way to address this issue is to rely on lagged values of competition to predict future number of submitted initiatives. If there is a significant effect it can only arise from a causal relationship where the arrow points from competition to initiative usage and *not* vice versa. The results of this are presented in the appendix (see Model with Lagged Values for Competition). Another way to address this problem is to rely on an instrumental variable regression. One potential instrument is data on competition from a country which shares a similar electoral system and whose society and economy developed in the same phases as the Swiss case. I use electoral data from Denmark to instrument for Swiss electoral competition. Both countries have proportional representation with similar district magnitudes and while danish electoral volatility is slightly higher, they both trend in a similar fashion (Pedersen, 1979). Finally, the evolution of newer parties, such as the new left and the new popular right, are parallel and originate form the same basic changes in values (Oesch, 2012). For this instrument to be valid there cannot be any reverse causation; in this case that means that Danish election results are not influenced by Swiss initiatives. There is no reason to believe that this is the case. According to Sovey and Green (2011) on can assess the strength of the instrument through an F-test and strong instruments should have a test value of 10. The instrument achieves values from 9.15 to 12.12 depending on the exact model specification. Table 2.2 present the same four model specifications but relying on the Wald estimator and instrumenting Swiss party competition by Danish party competition.

The results show that there is a causal effect from partisan competition on the use of initiatives. The raw coefficients are larger in magnitude because the estimates come from a Wald IV model which is based on a linear regression. Substantively the results imply that when political competition increases by a standard deviation there should be at least one and a half initiatives more per year. These IV results show a weaker effect then the simple regression models imply but there is

Table 2.2: Wald IV Estimation with Danish Competition Instruments

	Model 1	Model 2	Model 3	Model 4
Electoral Competition	2.61***	1.51*	1.52*	1.63**
	(0.86)	(0.78)	(0.77)	(0.78)
Signature Requirements		−1.13***	−1.13***	−1.12***
		(0.30)	(0.30)	(0.30)
Election Year			0.99*	1.29**
			(0.55)	(0.60)
Pre-Election Year				0.82
				(0.60)
Constant	2.98***	2.98***	2.72***	2.43***
	(0.32)	(0.24)	(0.28)	(0.36)
N	92	92	92	92
Wald	9.18	19.52	14.22	10.88
p	0.00	0.00	0.00	0.00

Wald IV estimator. Outcome variable: Number of Initiatives submitted in year j. Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. All variables (except dummies) are standardized.

still a statistically significant and substantially relevant causal effect from political competition on direct democracy usage.

2.4.2 Empirical Implications: Origin and Content of Initiatives

The results so far show that initiatives become more frequent when the costs of launching them decreases and when politicians and political parties can use them to position themselves. Hence, initiatives are used more frequently in election years and as political competition tightens, the number of initiatives goes up. The statistical results reported so far support all these statements. The argument also has two more qualitative impactions which we can evaluate. One looming question is whether these results support the main argument of the paper with regard to dimensionality. After all, in the age of mass parties and constant campaigns one would expect such a pattern irrespective of the dimensionality of conflict (Swanson and Mancini, 1996; Norris, 2000). To strengthen the argument that it is the second dimension which is driving the competition and thereby the initiative frequency, one has to look at the substance of the ballot proposals. The new emerging issues pertaining to identity, such as immigration policies and environmental questions, the post-material values, should be center stage.

A second implication is that we should be able to observe that a large part of the initiatives are actually submitted by politicians and political parties rather than civil society groups and local ad-hoc issue committees. To evaluate both these implications I have studied all submitted initiatives for the entire period and coded on which dimension of the political landscape they seek a change and who was launching the initiative. The next two subsections introduce the coding procedures and provide further empirical evidence for the main argument.

2.4.2.1 Analyzing the Content: Dimensionality and Ballot Box Issues

What issues do the submitted initiatives touch on? Is their, as argued, a rise in second dimension issues such as environmental issues and universal rights? To answer these questions I analyze all initiatives which were subject to a vote between 1920 and 2012. Within this period of almost 100 years there are 165 votes. I coded each vote according to its content and the debate it inspired to be a *1st dimension issue*, a *2nd dimension issue*, or an *institutional question.*

Distributional conflicts, that is economic questions, are coded as primary dimension, while questions pertaining to environment, culture, and immigration are coded as second dimension. One immediate question is whether it is possible to think of the conflict dimensionality as something stable which has not changed over the last 100 years. While I do make this assumption here, I believe that it is not generally the case, but that it holds for the period from 1920-2012. The first claim is that the economic dimension was the main conflict line already in 1920. While it is true that there were still some discussions which were a product of the *Kulturkampf* the tension had mostly disappeared. After all, it was in 1920 when the Swiss government allowed the Vatican to re-install the apostolic nunciature (Jost, 2006, p.759). In 1919 the largest strike in Swiss history, the *Landesstreik*, pitched young army recruits vis-à-vis workers in a number of cities (Maissen, 2010). The time between 1920 to 1930 was marked by the highest strike frequency in Swiss history.[9]

To code the initiatives I started with the encyclopedic contribution of Linder et al. (2010) which provides a summary of the emergence, the campaign, and the outcome of the vote. Apart from

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[9]Strike data is based on BfS (http://www.bfs.admin.ch/bfs/portal/de/index/themen/03/05/blank/data/00.html) as well as Ritzmann (1996), see also http://www.fsw.uzh.ch/histstat/main.php and http://www.seco.admin.ch/themen/00385/00420/00421/index.html?lang=de.

other sources which were relevant for one or two votes the book by Sigg (1978) provided detailed information on many votes from the first half. One problem which occurred was that there are votes which seek to change the institutional order. While some are broad changes such as the introduction of proportional representation and do not serve a specific policy goal but rather a general political goal there are also other questions. A vibrant issue seems to be the construction of hydroelectric power stations. An initiative in 1956 wanted to make it mandatory that the national parliament explicitly has to give permission rather then the executive for new hydroelectric projects. While this is an institutional change it is made with the pure intension of making it harder to build hydroelectric power stations and thus is coded as an environmental issue (2nd dimension). When in doubt I also looked at who was submitting an initiative. An example where this helped to categorize an initiative is in 1993 when the people voted on whether the national holiday should be an official, and hence payed, holiday. This could be an economic issue as it gives all employees an additional day of payed vacation or a second dimension question. Given that it was proposed by a small right wing party (*Schweizer Demokraten*) it is coded as 2nd dimension.

Figure 2.2: Primary and Secondary Conflict in National Initiatives 1920-2012
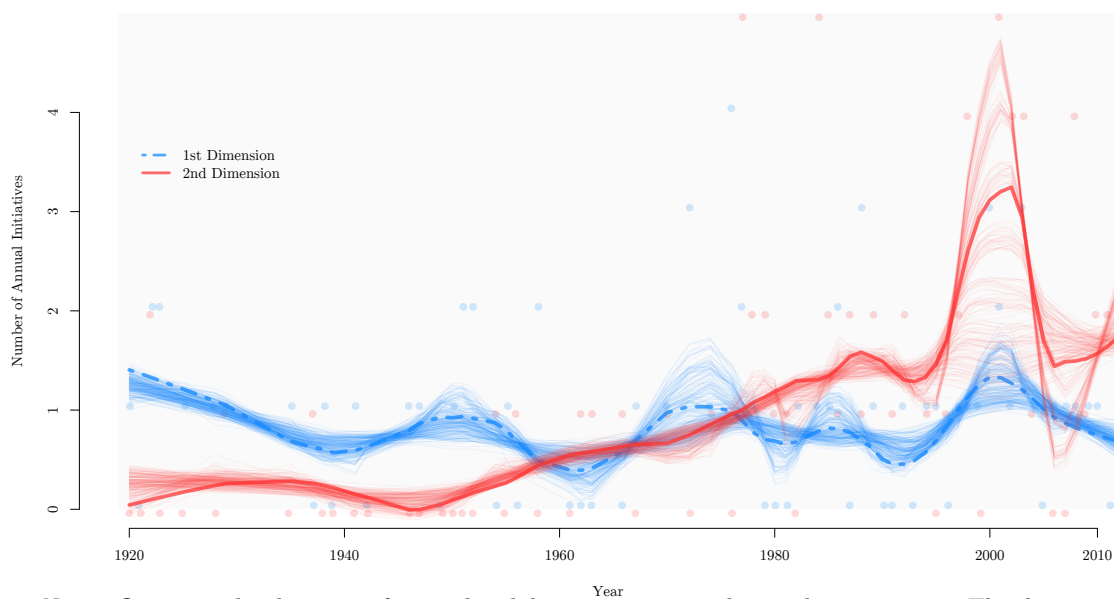
Notes: Over time development of 1st and 2nd dimension issues submitted as initiatives. Thin lines represent alternative weighted polynomial regression lines. Dots in the background show actual counts.

Figure 2.2 shows the number of submitted initiatives for each year for 1st and 2nd dimension

issues. The dots in the background show the actual counts and the lines present different *lowess* functions. It is striking how constant the number of economic initiatives is; on average there is slightly less than one per year. The second dimension comprising mostly environmental, immigration, and foreign policy questions is less important up until the 1960/1970s but thereafter accounts for more than half of all submitted initiatives.[10] This plot then strongly supports the main argument that structural changes to society and the economic system lead to the emergence of a multidimensional political space which in turn leads to a significant increase of initiatives.

After showing that electoral competition is strongly and significantly related to the number of submitted initiatives and also that there is a large increase of second dimension politics for exactly the period where there is a large increase of initiatives overall there is a remaining question. Is it the change of dimensionality which increases electoral competition and opens avenues for political parties to introduce wedge issues? Alternatively, it could also coincidentally be that electoral volatility increases parallel to the emergence of the second dimension. To shed light on these aspects the next subsection looks at who has submitted these initiatives.

2.4.2.2 Looking at the Originator: Who Is Submitting the Initiatives?

The final question now becomes who is submitting an initiative. If the paper's argument is to hold, we should see that there is a surge in initiatives submitted by partisan politicians rather than ad-hoc citizen groups and the civil society in general. If the main factor driving initiative frequency is party competition, and party competition is increased by new conflict dimensions, we ought to see that the many initiatives are over such new conflicts. This is what the last section illustrates. Yet another implication of the argument is that as competition increases over time, the share of party politicians using the initiative should increase. After all, if most initiatives are submitted by civil society groups the argument would not hold. This second implication, the partisan origin of initiatives, is tested in this section.

I examined every single one of the 165 initiatives and coded its origin. An initiative could either

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[10]In Figure B.3 the same plot is shown but also with the institutional questions. After WW2 there are almost no broad institutional questions which are brought up in an initiative anymore.

emerge from a civil society group (usually an ad-hoc group or a non partisan issue group) or was submitted by politicians. Unlike Serdült and Welp (2012) who distinguish between opposition and government parties, I have only identified whether an initiative was launched by a national politician or a group of national politicians. The coding was done based on the entries in Linder et al. (2010), Hofer (2012), and Sigg (1978). Whenever there was no clear political origin the federal report (Bundesblatt) was consulted which reveals often times the names of all members of the committee who submitted the initiative.[11] Initiatives, launched by committees which had national politicians as members, were counted as having a political origin. If the initiative was launched by local politicians which were neither member of the national parliament nor the national party elite, it was coded as having a civil society origin.[12] As an additional quality control I also compared my codings to the ones presented in Serdült and Welp (2012) and Rohner (2012). The coding is mostly identical with few differences. Some differences emerge because Rohner (2012) rely on a more legalistic or formal definition of political origin. These two authors code e.g. an initiative from the communication workers' union as being a civil society project despite the fact that more than two-thirds of the committee which drafted the initiative and submitted it are national legislators.[13] Another motivation for this coding is that even if formally a non-partisan group, e.g. a union, launches an initiative this might be very well with the implicit backing of a party or factions of a party. It becomes possible to separate originators which might have electoral goals from those who do not have electoral goals. This coding also allows to see how many initiatives can be counted as bottom-up and how many are rather to be categorized as top-down (see e.g. Altman, 2011).

The argument states that the increased competition leads parties and politicians to increasingly use the initiative to further their electoral goals. So far it has been shown that as political competition increases the number of initiatives raises. Also, as initiatives launched closely to elections should provide a more efficient avenue, one should see more initiatives submitted closer to the

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[11]See Example of Bundesblatt Report for an example of such an entry.

[12]A list of members of the lower chamber of Switzerland can be found here: http://www.parlament.ch/d/suche/seiten/ratsmitglieder.aspx?export=excel.

[13]The *Postal services for all* initiative had twelve active or former members of parliament in the committee (more than two thirds). Unlike Serdült and Welp (2012) I code this initiative as having a political origin.

election. This has been shown in section 2.4.1. Yet another derivation of the argument implies that we should see that a large share of the initiatives is been launched by politicians.

Figure 2.3: Political Origin vs. Civil Society
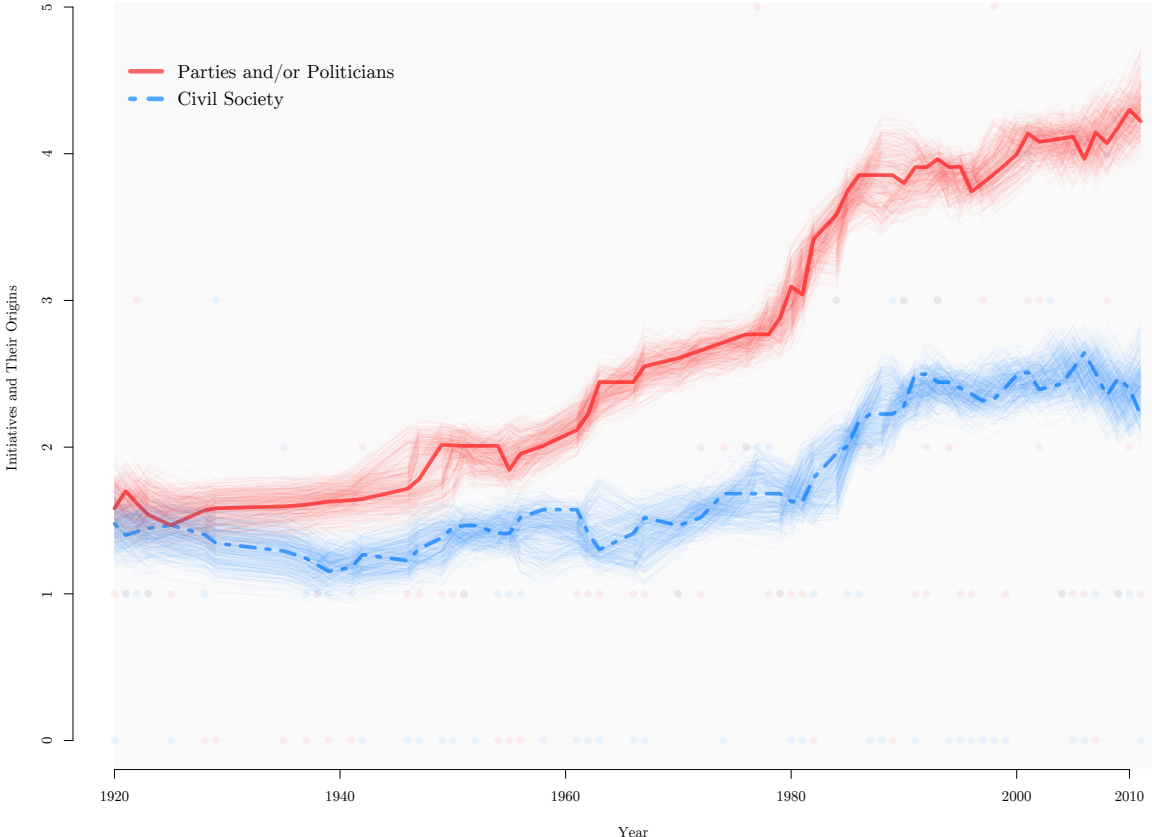
Notes: Illustrates over time variation in number of initiatives originating from civil society groups and initiatives with a political origin. Thin lines represent alternative weighted polynomial regression lines.

Figure 2.3 shows the moving average of annually submitted initiatives by civil society groups and politicians. The red line shows the average number of submitted initiatives coming from politicians or political parties while the blue line represents civil society groups. The number of initiatives which originate from the broader public slightly increases and contributes somewhat to the overall surge in initiatives. But the largest driver the increased numbers of initiative submissions is found in political parties and politicians. There is a steady increase which accounts for most of the submitted initiatives. Almost twice as many initiatives are being submitted by politicians and political parties. This is in line with the theoretical argument that as new issues emerge, parties and politicians will use direct democratic institutions to further their electoral goals.

2.4.3 The Swiss Case: Steady Change or Sudden Rupture?

Above the analysis of an empty Bayesian change point model was presented which suggested that there have been two structural breaks in the usage of initiatives since 1920. But since we have established an empirical model, relying mostly on the costs to submit an initiative (signature requirement) and on the incentives (competition), we can also use that parametrized model as a baseline.

When we re-estimate the Bayesian change point models but include the explanatory variables there is clear support that the best model is the one with a structural change point in 1924 or 1925.[14] What does that mean? That implies that once we take into account that the costs and benefits of submitting an initiative have change over the last one hundred years, there is one break early on. That also means that the surge in initiatives is not a sudden phenomena but the consequence of changing underlying factors. The evolution of initiative submission follows the changes in the signature requirement and the in the degree of political competition.

Interestingly, this increase does not apply to the institutional alternative, the referendum. During the entire period the share of laws against which parties or organizations launched a referendum remained steady - on average 6.4% of all passed laws are voted on (Kriesi and Trechsel, 2008, p.57). relevant here is that this figure does not grow as the signature requirement for the referendum is loosened and does not increase as party competition increases. The reason for this is that parliament can accommodate potential opposition groups by softening law and that for campaigning it is much more beneficial to use an initiative. Whereas with the referendum one can only say no to a drafted law, the initiative allows to custom-tailor the ballot and hence also mobilize the right groups. It, hence, offer much more flexibility to the proposing group than a referendum.

2.4.4 Summarizing the Empirical Results

The results indicate that initiative usage did not suddenly change but rather that there is gradual increase. This increase is partly due to its lowered costs which are decreasing further with the growth

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[14]All technical details as well as the Bayes factor table are presented in the appendix (see Bayesian Change Point Model for Parametrized Model)

in vote eligible population. The second factor is the incentive for parties to use the initiative to force wedge issues on the other parties. Hence, a strong predictor for the number of initiatives to be submitted is the degree of partisan competition; as competition increases parties and politicians become more active and submit more initiatives. In the 1920s there was a higher usage than for the four decades thereafter but that was also a time of intense political competition as the parliament just was elected the first time by proportional representation which led to severe changes in the partisan make up. Already Neidhart claimed that the frequency of initiatives can be understood as the consequence of the political cycle (*politische Konjunktur*; Sigg, 1978, p.82).

The results show that the frequency of initiatives is a consequence of the larger political landscape. As it becomes less costly to use initiatives their frequency increases. Beyond this somewhat mechanical factor there is also a second major factor driving the use of direct democracy. Political competition increases the stakes and politicians as well as political parties will increasingly rely on initiatives as a means of constant campaigning.

2.5 Conclusion

This paper asks how the presence and viability of direct democratic institutions alters or changes political conflict in a representative system. The late 1960s and 1970s mark a period for most Western countries during which fundamental changes in values and political attitudes take place. Such structural changes give rise to political opportunities and there are political actors which seize the moment. The initiative offers a very potent instrument to such actors which guarantees a public debate and press coverage. In this sense, this institution increases contestation and democratizes the subjects which are up for debate (Bachrach and Baratz, 1962). The empirical case I analyze is the use of initiatives on a national level in Switzerland since 1920. The initiative is being increasingly used and there is at least since the 1970s an ongoing discussion on whether this instrument is being *over-used*. I analyze annual submissions, the content of the launched initiatives and I identify the actor or actors behind these projects. I show that the increase is due to two factors; first, the costs to launch an initiative have constantly decreased and second, the emergence of new issues which

are not well absorbed by the existing party system.

The implications for this is that direct democratic institutions not only complement representative systems in terms of citizen involvement but also that parties can strategically use these institutions. This is especially visible for times of change as we find in the post-materialism wave of the 1970s. The presence of direct democratic institutions lowers the agenda control of dominant partisan actors and thereby changes the content of the political discussion and increases contestation. This paper shows that direct democratic institutions not only affect directly policy outcomes but rather also the issues which are subject to political discussions and conflicts. In an institutional engineering perspective, one should keep in mind that adding such institution to a constitution will decrease the capacity of parties to control the agenda and make it harder for parties to establish in a young democrat.

Chapter 3

Direct Democracy, Representation, and Congruence

Co-authored with Fabio Wasserfallen

"I assume that a key characteristic of a democracy is the continuing responsiveness of the government to the preferences of its citizens" (Dahl, 1971, 1).

Abstract: When do the people get what they want? A key requirement of democratic governance is that policy outcomes and the majority preference of the electorate are congruent. While the representation literature focuses on "good" representation (i.e., a small gap between the preferences of the electorate and the political elite) as the key factor for policy congruence, the literature on direct democracy emphasizes the positive effects of initiatives and referendums. We analyze the interaction of both arguments. The main prediction of our formal model is that the positive effect of direct democracy on policy congruence increases, the more strongly the electorate and the political elite disagree. This argument is supported by an empirical analysis of original Swiss data with multilevel modeling and post-stratification. Our finding that "bad" representation strengthens the positive effect of direct democratic institutions on policy congruence indicates that the ways people get what they want in representative and direct democratic systems are fundamentally distinct and not mutually reinforcing. Adding participatory elements to representative democracies might be more problematic than suggested by the literature.

A core element of a democracy is the alignment of legislative and government actions with voters' preferences.[1] The normative idea that public policies should reflect the majority will of the electorate, what we define as policy congruence, is as a general democratic principle hardly contested. Two literatures have approached the study of policy congruence from different angels. Representation scholars argue that a small gap between the preferences of the electorate and the political elite is the key factor for policy congruence. Accordingly, they investigate which electoral system is associated with the smallest elite-voter preference gap (Miller and Stokes, 1963; Golder and Stramski, 2010). The literature on direct democracy, however, identifies another mechanism that effectively empowers people to get the policies they want: policy congruence is expected to be higher, the more comprehensive the institutions of direct democracy (Gerber, 1996*b*; Matsusaka, 2010). We investigate in this study whether the direct democratic and representative mechanisms of policy congruence are compatible or even mutually reinforcing. Our answer is no because the key elements of both mechanisms interact in a distinct way.

We provide a formal and empirical analysis of how the effects of direct democratic institutions on policy congruence interact with the representation mechanism. The formal model shows that the positive effect of initiatives and referendums on policy congruence increases, the more the preference gap between the political elite and the electorate deepens. A large gap (i.e., "bad" representation) is thus good for policy congruence in a direct democratic system. Compared to the argument of the representation literature, according to which a small gap (i.e., "good" representation) is the key factor for policy congruence, this positive interaction between the preference gap and direct democracy shows that the two mechanisms do not reinforce one another; it suggests rather the contrary. This is because the two mechanisms work in fundamentally distinct ways. While in representative democracies policy congruence is achieved through competitive elections that

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minimize the preference gap between representatives and the electorate, voters rely less on elections in direct democratic systems to get the policies they want. Instead, the initiative and the referendum are their instruments to trump the deviating preferences of the elite, and these institutions become more effective, the clearer it is that the representatives and the electorate disagree in a specific policy question.

For the empirical investigation, we take advantage of the unique variation in direct democratic institutions among Swiss cantons (which are on many other dimensions comparable polities). To derive accurate preference measures, we analyze elite and voter surveys that have been designed for this research. Concretely, we asked cantonal politicians and citizens whether they support a specific policy or not for a total of 10 tax, health, education, and family policy questions. With this survey data and fine-grained census information, we estimate cantonal elite and voter preference measures with advanced hierarchical modeling and post-stratification (Gelman and Little, 1997; Park et al., 2004; Lax and Phillips, 2012). The empirical model directly follows from the theoretical analysis, and the empirical findings support the prediction of the formal model that the positive effect of direct democracy on policy congruence increases, as the preference gap between the electorate and the elite deepens.

We overcome with our design three major problems of the empirical literature on the institutional effects of direct democracy. First, most studies investigate whether specific policies, for example, tax levels, correlate with variation in direct democracy (Matsusaka, 2004; Feld and Kirchgässner, 2000). The validity of these analyses hinges on the implicit assumption that the preferences of the electorate (on tax levels in that example) are constant between the units of analysis. Second, if the preferences of the electorate are analyzed, they are typically not measured on the same scale as the policy outcomes, which is problematic for the empirical analysis (Achen, 1978; Erikson et al., 1993; Matsusaka, 2001; Hug, 2011). Third, many studies investigate one-single or a few policy areas, which might bias the findings (Gerber, 1996b; Lax and Phillips, 2009a). We overcome the mentioned problems with our design given that we analyze various policy areas and study the preferences of the electorate and the elite on the same metric (yes or no) as the policy outcomes. The common binary metric allows us to derive consistent measures for policy congruence and the

preference gap. To the best of our knowledge, we provide the first policy congruence study that investigates theoretically and empirically the full democratic chain, from voters' preferences, to the elite's preferences, and the eventual policy outcomes over a large number of policy areas.[2] The core contribution of our analysis is that we show how the representative and the direct democratic mechanisms of policy congruence work differently and that adding direct democratic elements to a representative system does not simply take advantage of the democratic strengths of both models.

The remainder of this paper is structured as follows; section 3.1 derives the theoretical model; section 3.2 presents the measurement technique and section 3.3 the empirical results; section 3.4 discusses the implications of the findings; and section 3.5 concludes.

3.1 Theory

In representative systems, elections are the key in holding politicians responsible and in making them responsive to the electorate's preferences. Elections are supposed to minimize, on a regular basis, the preference gap between the electorate and the representatives, and a small preference gap between the political elite and the electorate is eventually ensuring that policy decisions are congruent with the preferences of the people. In direct democratic systems, however, policy congruence is achieved in a different way: people can express their policy preferences directly in referendums or initiatives, which exerts indirect and direct effects on policy decisions. The direct effect can be observed when people reject a law that was passed by the legislator, or when they introduce a new law with an initiative; while the indirect effect is what causes legislators to propose a different bill then they would have actually preferred because they believe that their favorite bill would not find voters' approval.[3] A rather intuitive, and often advocated, idea is that the combination of both systems would take advantage of the democratic strengths of both models. If we had competitive elections that minimize the gap and, additionally, direct democratic instruments that correct policy stemming from the elite's deviating preferences, we should have the perfect responsive model of

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[2] For an exception, see Gerber's (1996) study on abortion and the death penalty.

[3] This anticipating behavior, the indirect effect, has been recognized early on by scholars (Rappard, 1912; Neidhart, 1970).

democracy that produces consistently congruent policies. Our analysis, however, suggests that this might be wishful thinking because the key for policy congruence in representative systems, a small preference gap, is not conducive for the effectiveness of direct democratic institutions.

We approach the analysis of how people get the policies they want with a theoretical model that shows how the mechanism of direct democracy interacts with the preference gap between the electorate and the elite, which is the core element of the representative mechanism of policy congruence. Strategic behavior of political elites in direct democratic settings can be captured ideally with a game theoretic model. We present a stylized model of policy production and its comparative statics to analyze the policy effects of direct democracy under the scenarios of "good" representation (i.e., a small preference gap between the government and the electorate) and of "bad" representation (i.e., a large gap). The model's prediction is that the direct democratic mechanism of policy congruence works better under the scenario of "bad" representation. The finding that a large preference gap between the elite and the electorate is conducive for policy congruence in direct democratic systems highlights that the direct democratic and the representative mechanism of policy congruence are fundamentally distinct and not mutually reinforcing.

There are a number of formal models of direct democracy that elaborate on the dynamics of the initiative process and the referendum (Romer and Rosenthal, 1978; Lupia, 1992; Streunenberg, 1992; Gerber, 1996*b*; Hug, 2004): all of them model a continuous policy space, whereas the policy can be set arbitrarily far away from an ideal point. We depart from this and adopt a discrete policy space as can also be found in Besley and Coate (2008). In our model, a law is either in place or it is not (a jurisdiction either has, for example, a smoking ban or not). Doing so has two advantages: first, it reduces the actors' decision set (and thus complexity), which allows us to simultaneously focus on referendums and initiatives, and second, the binary nature of policies allows us to conceptualize and operationalize our main variables for the empirical analysis. Given that the voters and politicians are either against or in favor of a specific policy, we can estimate the support for a law within the political elite and the electorate on a common scale and accordingly derive consistent measures for policy congruence and the preference gap between the elite and the voters (see empirical section).

The model includes two players, the people (P) and the government (G), which both have a preference, measured on a continuous scale that represents the degree of support for a specific policy (e.g., smoking ban). The reason why we analyze the government (and not the parliament) as the relevant player of the political elite is because we investigate in the empirical analysis Swiss cantons. In cantonal policy making the government is considered to be the more powerful actor than the parliament (Vatter, 2002). In other political systems, however, the appropriate actor would be the parliament.

Figure 3.1: Theoretical Model: Extensive Form
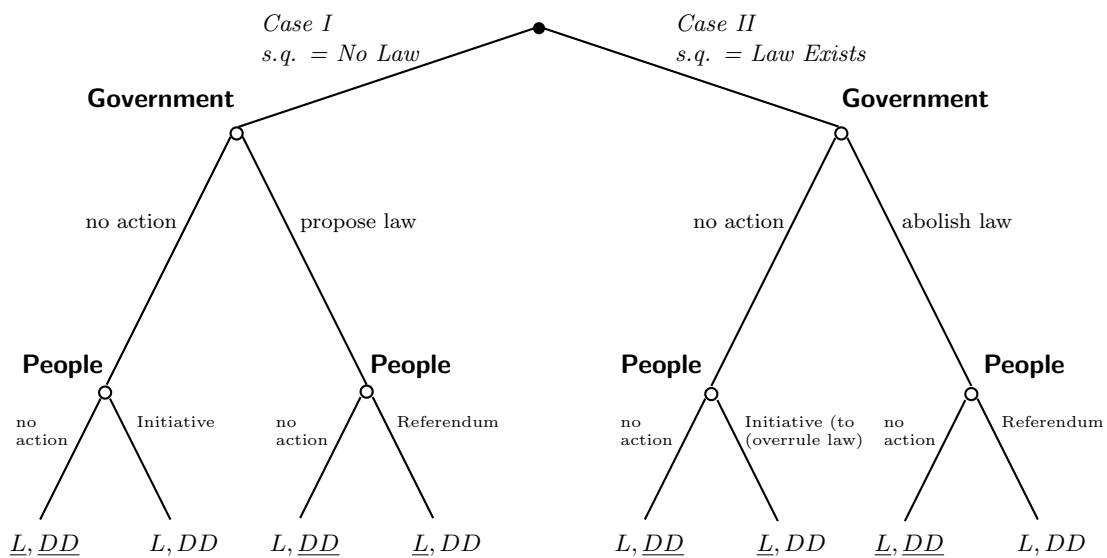
Notes: L denotes that a law is present, *L* denotes that there is no law. *DD* If an initiative or a referendum is used, *DD* if there is no use of direct democratic institutions, *s.q.* = status quo.

Figure 3.1 illustrates the set up of the model. The game starts with a specific law being present or not. The government moves first by choosing between two options: either to stick with the status quo (*s.q.*) or to propose a policy change (abolishing or introducing a law). The model assumes that changing policy is costless for the government. In a second step, the people either accept the governments move or, in case they disagree, they may use direct democratic rights (i.e., calling for a referendum, if the government introduced a new law, or launching an initiative, if the government

stuck with the status quo).[4] If they chose to use direct democratic action, the government will lose the vote and the majority of people will be satisfied. A direct democratic campaign is associated with costs for the people (c_P), which have to collect the necessary amount of signatures and incur campaign costs. The use of direct democracy is also associated with costs for the government (c_G), as it also invests money and time into the campaign. Accordingly, we write the following linear and symmetric utility functions:

$$
\begin{aligned}
U_G &= -|x_{out} - x_G| - I_{dd} \cdot c_G \\
U_P &= -|x_{out} - x_P| - I_{dd} \cdot c_P,
\end{aligned}
$$

whereas I_{dd} denotes the use of direct democratic institution ($I_{dd} = 1$ if the people call for a referendum or launch an initiative, $I_{dd} = 0$ if the people do not take action). The final policy outcome is denoted x_{out} and it can either be 0 or 1 depending on whether the law is eventually on the books or not. The preference of the government is x_G and the preference of the people is x_P, ranging from 0 (no support) to 1 (full support). If a third of the people support a law, for example, $x_P = 0.33$.

Finally, we assume full information for the electorate, and that the government does not know exactly the voters' preference. One way to motivate the informational differences is that the government, who moves first, typically has neither enough information on the people's preference, nor can it precisely anticipate the dynamics of a potential campaign and the eventual voter turnout (Romer and Rosenthal, 1979; Matsusaka and McCarthy, 2001; Hug, 2004; McCarty and Meirowitz, 2007). Accordingly, we assume that the government acts based on a belief of how strong the support *will be*. A technical way to think about this is that nature draws from a probability distribution the degree of support among the citizens (x_P). The government does not observe the exact value but receives a noisy signal, $\hat{x}_P$, which it uses to form a belief of the people's support for a law. The belief follows a beta distribution – ensuring that the government only assigns non-zero probability

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[4]Our model only has two players (there is no opposition using direct democratic rights). This simplification would only be problematic if there were no organized political organization that would collect signatures for a referendum or an initiative in case the majority of voters disagrees with the government. However, in our application, there are always a number of parties and organized interests that oppose the government's decision and are able to organize the collection of signatures, if there is enough resistance within the electorate.

to valid values between 0 and 1 – and the expected value is an unbiased estimate of the true value $(\mathrm{E}(\hat{x}_P) = x_P)$.[5] In the following, we assume a status quo in which a policy does not exist (for the equilibrium solutions of the the scenario that a policy exists, see section C.1). We start with the last node in the game tree, which is the electorate's decision to use direct democratic rights, for identifying the conditions for a Bayesian Nash equilibrium.

Let us start with the situation in which the government does not change the status quo (i.e., no law). In that case, the people decide whether they want to launch an initiative for the introduction of the law. Since the electorate has full information, its decision comes down to comparing its preference for a new policy to the costs of an initiative.[6] The utility from not launching an initiative is $U_P(\underline{L}|\underline{DD}) = -|0-x_P|$, and the utility from launching an initiative is $U_P(L|DD) = -|1-x_P|-c_P$. The people will launch an initiative whenever $x_P \geq \frac{1+c_P}{2}$ (condition 1). Condition 1 states that for citizens to launch an initiative, the support within the electorate (x_P) must be greater, the higher the costs for launching an initiative (c_P) are. In case the government proposes a new law, the people decide whether they want to block the legislation with a referendum. The utility from calling a referendum is $U_P(\underline{L}|DD) = -|0-x_P|-c_P$, and the utility from not calling a referendum is $U_P(L|\underline{DD}) = -|1-x_P|$. The people will call for a referendum whenever $x_P \leq \frac{1-c_P}{2}$ (condition 2). Condition 2 states that the people will get their preferred outcome when the costs for calling a referendum are very low $(c_P \to 0)$, even if only slightly more than 50% of the electorate is against the new law introduced by the government. However, as the costs for a campaign increase to sufficiently high levels, the voters will not call for a referendum, even if the new law is very unpopular. Hence, if the costs of using direct democracy are sufficiently high, the government is not constrained by such institutions.

Based on the two conditions (1 & 2) we can now analyze the government's decision to propose a policy change. The government does not know the exact preference of the people (i.e., they do

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[5]This ensures that the belief is always bounded between 0 and 1 (the belief is over the strength of support among the citizens). The first shape parameter is a function of $\hat{x}_P$ and the second is set constant (e.g. $s_2 = 30$). Accordingly, as $\hat{x}_P$ increases, the government assigns a higher probability to higher values for x_P $\left(\frac{\partial F(\hat{x}_P)}{\partial \hat{x}_P} > 0\right)$.

[6]In equilibrium, the government will always loose when the people launch an initiative, as we only model uncertainty for the government, but not for the actor launching an initiative. This is the same in other models of direct democracy (see, e.g., Hug, 2004).

not know exactly how strongly the people support or oppose a law). The government's decision then becomes a decision under uncertainty where it relies on its belief about the people's preference ($\hat{x}_P$). The government will pass a new law, when its expected utility of doing so exceeds the utility from sticking with the status quo. The government is risk-neutral and the expected utility from proposing a new law is $p_{\text{ref}} \cdot U_G(x_{out} = 0|DD) + (1 - p_{\text{ref}}) \cdot U_G(x_{out} = 1|\underline{DD})$, whereas p_{ref} is the government's anticipated probability that the people will trigger a referendum, which is a function of the referendum costs for the people and its belief of x_P.[7] Similarly, the expected utility of proposing no policy change is $p_{\text{ini}} \cdot U_G(x_{out} = 1|DD) + (1 - p_{\text{ini}}) \cdot U_G(x_{out} = 0|\underline{DD})$, where p_{ini} denotes the probability that the people launch an initiative. Based on this, we can derive the following inequality condition under which the government proposes a policy change (condition 3):

$$x_G \quad \geq \quad \frac{p_{\text{ref}} \cdot (c_G - 1) - p_{\text{ini}} \cdot (c_G + 1) + 1}{2(1 - p_{\text{ref}} - p_{\text{ini}})}$$

An intuitive implication of condition 3 is that the lower the costs of using direct democratic rights for the people (c_P), the more responsive is the government to the people's preference. While the government does, what the majority of the people wants, when the people can easily use direct democratic rights, the decision of the government also depends on its own preference for a policy change: for example, when the the costs for the people to launch a referendum (c_P) are high, the government will propose a policy change, even when only a small majority in the government supports that decision.[8] In sum, the model shows how the decision of the government to propose a new law and the decision of the electorate to use direct democratic rights are a function of the players' preferences and the costs of direct democratic action. This set up allows us to investigate in more detail how the costs of using direct democratic rights affect the probability that policies are congruent with the majority preference of the median voter, and whether the effect of direct

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[7]The government's belief of x_P feeds into the expected probability of a referendum. The belief follows a beta distribution and condition 2 $\left(x_P \leq \frac{1-c_P}{2}\right)$ provides $p_{\text{ref}} = \int_{x_P=0}^{\frac{1-c_P}{2}} \frac{x_P^{\alpha-1}(1-x_P)^{\beta-1}}{B(\alpha,\beta)}$, whereas α and β are the shape parameters and $B(\cdot)$ is the beta-function.

[8]In the appendix we present comparative statics (see section C.2) and show two plots illustrating these key aspects of the model.

democracy on policy congruence is mediated by the preference gap between the government and the voters. To answer these questions, we estimate how variation in direct democracy and preferences affect policy congruence. More concretely, we run simulations with the following parameters:

Simulation Parameters:

- The government's preference is constant and clearly in favor of introducing the policy ($x_G = 0.7$), the status quo is 0 (no law).

- The support within the electorate for changing the status quo varies between 0.1 to 1.0 ($x_P \in (0.1, 1.0)$).

- To account for the government's probabilistic belief we run 1,000 simulations for every value of x_P. The shape parameters for the government's belief are defined as $s_1 = \frac{\hat{x}_P \cdot s_2}{1 - \hat{x}_P}$ and $s_2 = 30$.

- The costs of using direct democratic rights is either high or low.

Figure 3.2 shows the findings. The top plot displays how the probability of policy congruence varies as a function of the electorate's preferences. When only few voters support the introduction of a new policy (see the dashed black line in the left part of the upper plot), the government will not change the status quo (although it supports the introduction as $x_G = 0.7$), because the government anticipates that the strong resistance within the electorate against the policy will trigger a referendum that it will eventually lose. Thus, the non-adoption of the policy is congruent with the will of the median voter. As the electorate's support for the policy increases, the line starts falling in the area when the costs of using a referendum become too high ($x_P \geq \frac{1-c_P}{2}$). Although the majority of the electorate still opposes the new law, the voters will refrain from using direct democratic rights against the introduction of the policy. As now the government starts getting what it wants against the majority preference in the electorate, the probability of policy congruence decreases. Once the people's preference approaches the indifference point at 0.5, the probability of policy congruency jumps to 1 because in that area both the government and the median voter support the introduction of the policy.

Finally, we manipulate the costs of using direct democratic rights (c_P). The lower the costs of using direct democratic rights are, the more direct democratic is a system. The solid grey line shows the findings with a lower cost parameter (i.e, more direct democracy). While there is no difference in prediction when the electorate and the government both support the introduction of the policy

(i.e., the median voter's preference is > 0.5), the turning point of the grey line (where $x_P = \frac{1-c_P}{2}$) shifts to the right, which shows that more direct democracy leads to less introductions of the policy against the opposing majority preference of the electorate. Accordingly, the probability of policy congruence decreases, the harder it is for voters to use direct democratic institutions. If we further increase the cost parameter to a very high level (see dotted grey line), the positive effect of direct democracy disappears because the high costs are equivalent to not having direct democratic rights at all.[9] The prediction of the model that direct democracy has a positive effect on policy congruence, if the electorate and the government hold opposing views, is quite well established in the literature.[10]

Figure 3.2: Comparative Statics
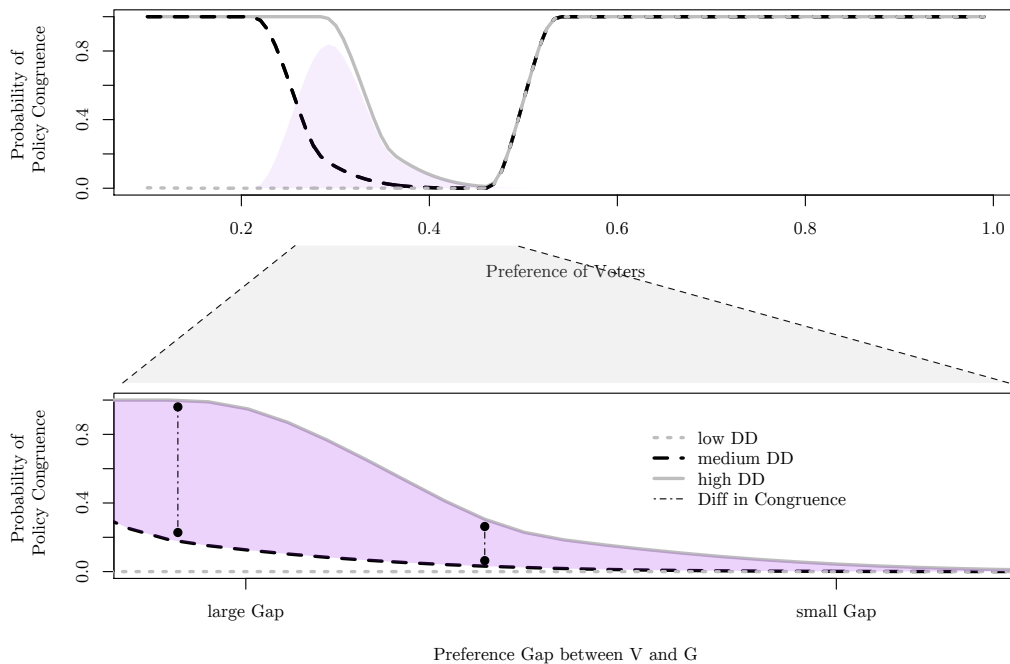
Notes: Government preference: $X_G = 0.7$; high cost (low DD): $c_P = 0.9$; medium cost (medium DD): $c_P = 0.5$; low cost (high DD): $c_P = 0.35$.

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[9]In that scenario the voters will not use the very costly direct democratic rights, the government knows that and its decision is thus not affected by the voter's preferences.

[10]The exception is Besley and Coate (2008, 392), who show that under specific circumstances their model predicts less policy congruency with more direct democracy.

The most interesting range, highlighted in the lower plot, is between the turning point $x_P = \frac{1-c_P}{2}$ and the area before the electorate and government share the same view (people's preference > 0.5). As the preference of the government for the introduction of the policy is constant ($x_G = 0.7$), while the median voter's preference against the new law varies, we can interpret the variation of the voters' preference in that area as variation in the preference gap between the government and the electorate (if both hold opposing views.)[11] The findings show that the larger the gap between the electorate and the government, the stronger the effect of direct democracy on policy congruence. In other words, the model predicts that an increasing disagreement between the government and the electorate is conducive for the positive effect of direct democracy on policy congruence.

Our novel theoretical argument on the conditional effect of the preference gap on the direct democratic mechanism of policy congruence is of particular importance because the preference gap between the government and the people has been identified in the representation literature as the key variable for more policy congruence. Several representation studies have shown that a small gap (i.e., good representation) is the key for policy congruence. In contrast to that argument, our model suggests that in direct democratic systems a small gap is actually bad (not good) for policy congruence, which can be illustrated by the following example: take a situation in which the people strongly oppose a new law that is very popular in the government (i.e., the preference gap is large). In that scenario, the government *knows* that there is little chance that it will win a referendum. If, however, the preference gap is small because only a bare majority of the electorate opposes a law proposed by the government, it is not clear whether the voters will be willing to pay the costs for calling a referendum. As there is a chance that this will not happen, the government proposes the law and might get it through against the majority preference of the voters. From the perspective of the voters, it is thus better when the preference gap is large because the institutions of direct democracy will then make sure that the government will not prevail against the opposing view of the people.

A strength of the presented theory is that the key variables are operationalizable and that we can thus empirically test the theoretical predictions. The next section discusses how we derive the

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[11]The results apply due to symmetry also in the opposite case where the status quo is closer to x_G, see section C.1.

preference measures and the cost factor of using direct democratic institutions, which is basically a function of how demanding it is to launch an initiative or a referendum in terms of the required number of signatures or the maximal time to collect signatures (Gerber, 1996*b*; Besley and Coate, 2008).

3.2 Measuring Voter and Elite Policy Preferences

For our empirical analysis, we need accurate voter and elite preference measures. Key for the rigorous empirical analysis of our arguments is that the policies and the preferences of the elite and the voters are measured on the same metric. This is the case in our investigation, as we rely on elite and voter surveys that were designed and executed for this research. We asked voters and cantonal politicians wether they support or reject 10 specific controversial policies that cantons either have or do not have (for the importance of using binary metric, see also Achen (1978); Erikson et al. (1993); Matsusaka (2001); Hug (2011)). The 10 questions cover various areas, such as tax, family, immigration, education, and health care policies. The surveys included questions on, for example, the progressivity of cantonal taxes, the voting rights of foreigners, and smoking bans (see section C.3 for all 10 policy questions).[12] The broad policy spectrum is important, as it allows us to rule out that our empirical analysis is biased because of selecting distinct policy areas.

Our main methodological challenge is the estimation of voters' policy preferences on the cantonal level with national survey data, which includes 1,507 respondents in total. We cannot estimate measures for subnational units by disaggregating the data of such a standard national survey sample, as there are only very few observations for some cantons (Levendusky et al., 2008; Warshaw and Rodden, 2012). Instead, we take advantage of recent developments in survey research, using the so-called Multilevel Regression and Post-Stratification (MrP) method, which provides good estimates, even when the samples for individual subnational units are small. MrP goes back to Gelman and Little (1997), which have combined hierarchical modeling and post-stratification. Park et al. (2004) subsequently introduced the method to political science with a lasting impact on the

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[12]The survey was conducted by the leading Swiss survey institute in June 2012 (CATI).

discipline (Lax and Phillips, 2009a,b, 2012; Warshaw and Rodden, 2012; Kastellec et al., 2010; Pacheco, 2012; Tausanovitch and Warshaw, 2013).

Multilevel regression with post-stratification estimates preferences of small constituencies in four distinct steps. The first step is to conduct a survey, which collects, besides the policy questions, minimal personal information of the respondents (survey step); in a second step, a hierarchical model is fitted to the data to make predictions for specific hypothetical voters (response model step); in the third step, the model estimates are used to make predictions for predefined hypothetical voters (prediction step); finally, based on fine-grained census data, researchers calculate constituency support by weighting the estimated preference of each hypothetical voter according to the number of voters that have the same characteristics as the hypothetical voter in a specific constituency (post-stratification step). To identify voter categories, we include *education* (6 categories), *domicile type* (4 categories), *age* (4 groups), and *gender*. Altogether, this yields for any canton 192 distinct types of voters. For each of these variables a random effect is included. In addition, we add variables, which vary over cantons, such as the share of german speakers and the share of left party support, denoted by the matrix $\mathbf{X}$, and we account for regional variation.[13] In addition, we add a cantonal random effect, a fixed effect based on $\boldsymbol{\beta}\mathbf{X}$, and a random effect for the region.[14] The model is specified as follows:

$$
\begin{aligned}
Pr(y_i = 1) &= \Phi\left(\beta_0 + \alpha_{j[i]}^{sex} + \alpha_{k[i]}^{education} + \alpha_{l[i]}^{domicile} + \alpha_{m[i]}^{age} + \alpha_{n[i]}^{canton}\right) & (3.1) \\
\alpha_j^{sex} &\sim N(0, \sigma_{sex}^2), \text{ for } j = 1, 2 \\
\alpha_k^{education} &\sim N(0, \sigma_{education}^2), \text{ for } k = 1, ..., 6 \\
\alpha_l^{domicile} &\sim N(0, \sigma_{domicile}^2), \text{ for } l = 1, ..., 4 \\
\alpha_m^{age} &\sim N(0, \sigma_{age}^2), \text{ for } m = 1, ..., 4 \\
\alpha_n^{canton} &\sim N(\alpha_{o[n]}^{region} + \boldsymbol{\beta}\mathbf{X}_n, \sigma_{canton}^2), \text{ for } n = 1, ..., 26 \\
\alpha_o^{region} &\sim N(0, \sigma_{region}^2), \text{ for } o = 1, ..., 7
\end{aligned}
$$

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[13] *Education* categories: 1 (mandatory schooling or no response), 2 (apprenticeship), 3 (university-entrance diploma [Matura], teachers college), 4 (additional job training [höhere Fachausbildung]), 5 (Advanced training [Höhere Fach-hochschule]), 6 (University degree incl. U. of App. Sciences); *domicile* categories: 1 (urban center), 2 (agglomeration municipality), 3 (isolated city), 4 (rural municipality); *Age* categories: 1 (-34 years), 2 (35-49 years), 3 (50-74 years), 4 (75- years); *Region* categories: 1 (Geneva, Valais, Vaud), 2 (Bern, Fribourg, Jura, Neuchâtel, Solothurn), 3 (Aargau, Basel-Stadt, Basel-Landschaft), 4 (Zurich), 5 (Appenzell I. Rh., Appenzell A. Rh., Glarus, Graubünden, St. Gallen, Schaffhausen, Thurgau), 6 (Lucerne, Nidwalden, Obwalden, Schwyz, Uri, Zug), and 7 (Ticino).

[14] To specify the best response model, we estimated for each policy question 64 combinations of five different cantonal predictors and choose the models that minimize AIC and BIC. For more detailed information on the model specification in this study, see subsection C.4.2.

MrP takes advantage of the data structure, as we estimate the predicted support of a voter i, based on all the people in the sample who share the attributes of i. Concretely, when we estimate whether a 55-year-old woman with a university degree, who lives in a rural village, supports a policy or not, we use information from the entire sample, but the estimates are especially influenced by the answers from the 50 to 64 year old people in the sample, the university degree holders, the people living in rural areas, and the women. The property of partial pooling is key for the accuracy of MrP, as we neither just look at the average for all people of a canton, nor at the average of the entire sample, but rather at the weighted mean of the two averages (Steenbergen and Jones, 2002; Gelman and Hill, 2007). With the model estimates of Equation 3.1, we can then carry out steps 3 and 4 (prediction for all hypothetical voters and post-stratification).

We have 192 ($= 2 \times 4 \times 6 \times 4$) different hypothetical voters in each canton, and for each of these hypothetical voters the model predicts the probability with which these voters support a policy. Since we have in addition information about the variation among cantons, we create for all hypothetical voters in each canton predictions ($\hat{\pi}_{ng}$). For the final step, post-stratification, we use census information on how many people belong to the pre-specified hypothetical voter groups in each canton (N_{ng}). More specifically, we sum the predicted support over all hypothetical voter types and weighs each type by its frequency in a given canton (N_n is the total number of eligible voters):

$$\hat{\pi}_n = \frac{\sum_{g\in n}^{G} \hat{\pi}_{ng} N_{ng}}{N_n} \tag{3.2}$$

Following this four step procedure, we estimate the cantonal voter support for each policy question. Besides the cantonal preference of voters, we also need a measure for the preference of the elite (i.e., the cantonal governments), which we derive with the same method. We estimate a preference measure for each relevant party in the 26 cantons and weigh the estimated party measures according to the government seat shares to calculate preference measures for all cantonal governments. The elite data were collected with a online survey addressed to cantonal politicians. We selected politicians from cantonal parties that represent at least 10% of the electorate. The sample consists of 459 respondents, including at least 3 respondents for each cantonal party with

more than 10% electoral support.[15] The specification of the response model is different to the model discussed above: to derive the elite preference measure, we model, on the individual level, the party affiliation and the cantonal belonging of a politician.[16] For the post-stratification step, we use the government composition of each canton. Using this procedure, we could generate preference estimates for the elite's in each canton for all of the ten policies.

3.3 Empirical findings

Following our definition of policy congruence, the outcome variable is whether the policy in a given canton is supported by a majority of the citizens or not. The two main explanatory variables of the theoretical model are the costs of using direct democratic rights and the preferences of the voters and the elite. An implication of the model is that a policy is congruent with the majority view of the electorate when both actors support or oppose a policy. However, if the people and the government hold opposing views, the probability that the policy is congruent decreases, as the costs of using direct democratic rights increase. The main prediction of our model is that the positive effect of direct democracy on policy congruence is even stronger, when the preference gap between the people and the elite is large.

To measure the costs of direct democracy usage, we rely on a widely used index of direct democratic rights (Frey and Stutzer, 2000; Freitag and Vatter, 2006; Stadelmann-Steffen and Vatter, 2011; Stadelmann-Steffen, 2011). The index measures how difficult it is to use direct democracy, for example, in terms of granted time to collect signatures and the number of required signatures (Stutzer, 1999; Frey and Stutzer, 2000). These elements fit to our theoretical model, as they represent the costs that make it easier or harder to successfully call for a referendum or launch an

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[15]For the first online survey wave, we invited, on March 15, 2013, 1,046 cantonal politicians to participate in the sample with a personally addressed e-mail. After analyzing the sample of the first wave, we contacted, on March 28, 2013, 99 additional cantonal politicians from the yet underrepresented cantonal parties (again with personalized emails). Of the total 476 received responses, we dropped 17 from the sample that either included impossible canton and party combinations or were double entries (hitting the submit button twice). The final sample consists of 459 respondents (40.01% of the 1,145 contacted politicians). See section C.4 for more information.

[16]We chose the combination of explanatory variables on the cantonal level in the response model ($\mathbf{X}$) that maximizes a combination of AIC and BIC to guard against over-fitting (see footnote 14).

initiative (note that high values on the index imply low costs, that is, more direct democracy). The preference gap is measured as the absolute distance between the government's and the people's preferences. The variable is is set to 0 when both want or reject a law. Thus, the gap variable denotes the size of the preference gap in case the elite and the voters hold opposing views (which is exactly what we analyzed in the theoretical model).

The models reported in Table 3.1 are cross-nested hierarchical probit models with random effects for policies and cantons. The first model includes a measure of direct democracy. The estimates confirm the positive and significant effect of direct democracy on policy congruence. In the second model, we introduce the preference gap between the government and the voters. The estimates show that the preference gap is a strongly significant predictor of policy incongruence: the more the people and the government disagree, the less likely is policy congruence, as suggested by the representation literature. In the third model, we empirically test the main prediction of the theoretical model, namely that the effect of direct democracy increases, the greater the preference gap between the voters and the government is. To investigate that prediction empirically, we include an interaction between the preference gap and direct democracy. The estimation results are perfectly in line with the theoretical analysis: the positive and significant effect of the interaction term corroborates that the positive effect of direct democracy increases as a function of the size of the dissonance (this is the case if the government and the majority of the electorate disagree, $\text{GAP} \neq 0$). The findings also show that direct democracy has no effect on policy congruence if the government and the people both support or reject a policy ($\text{GAP} = 0$). Finally, Model 4 includes as control variables the voter and opinion clarities, measured as the absolute deviation of the preference from 0.5, because the findings of the gap effect could be driven by extreme voter or government opinions (Lax and Phillips, 2009a). The results are robust and the estimates in Model 4, where we include opinion clarity, are essentially identical to the estimates in Model 3.

Figure 3.3 illustrates the interaction effect between the preference gap and direct democracy. Shown are the predicted probabilities of congruence, including the uncertainty of these predictions (Herron, 1999; Gelman and Hill, 2007). The $x-$axis displays the preference gap and the $y-$axis the predicted probability of policy congruence. The purple line reports the predictions for moderate

Table 3.1: Estimation Results

	Model 1	Model 2	Model 3	Model 4
DIRECT DEMOCRACY	0.21***		0.15	0.14
	(0.08)		(0.10)	(0.10)
GAP (PEOPLE, GOVERNMENT)		−2.65***	−11.41***	−11.46**
		(0.82)	(4.42)	(4.47)
DD x GAP			1.88**	1.96**
			(0.92)	(0.94)
VOTER OPINION CLARITY				1.88
				(1.29)
GOVERNMENT OPINION CLARITY				−1.03
				(0.92)
CONSTANT	−0.94**	0.15	−0.47	−0.58
	(0.37)	(0.16)	(0.45)	(0.52)
CPC	69%	68%	70%	72%
BIC	359.04	356.42	355.17	363.67
$\ell\ell$	-168.40	-167.09	-160.90	-159.59
N	260	260	260	260
Groups: Cantons	26	26	26	26
Groups: Policies	10	10	10	10
Variance: Canton	0.00	0.05	0.04	0.04
Variance: Policy	0.22	0.14	0.19	0.19

CPC: Correctly predicted cases; baseline is 51%.***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

levels of direct democracy and shows that the probability of congruence declines as the preference gap widens. Thus, in the case of moderate direct democracy, the negative effect of a large elite-citizen gap on policy congruence dominates. In contrast, the blue line reports the predictions for a hypothetical canton with high values of direct democracy (i.e., low costs of using direct democratic rights). The increase in direct democracy (from moderate to strong) has two effects: first, citizens in cantons with more direct democracy get more often what they want. The probability of policy congruence is always higher, no matter how large the preference gap is. For example, for a small value of the preference gap (e.g., 0.00), the difference in predicted probabilities of policy congruency between moderate and strong direct democracy is about 17.3%-points (95% CI: $[−0.03, 33.89]$), while this measure increases to 53.5%-points (95% CI $[21.79, 70.78]$) for a slightly more sizable preference gap ($= 0.10$). Second, the differences in the predicted probabilities also document the interaction effect of the gap and direct democracy. The difference between moderate and strong

direct democracy increases, as the gap deepens. Based on the difference in the differences, we can estimate whether the interaction effect is significant or not (Brambor et al., 2006; Tsai and Gill, 2013), which is the case in our model ($\Delta(\Delta\hat{p})$ =36.2% (CI 95% $[0.04, 57.92]$)). In short, the results support the main prediction of our theoretical model, namely that the positive effect of direct democracy increases, as the gap between the elite and the electorate widens.[17]

Figure 3.3: Illustrating the Interaction Effect
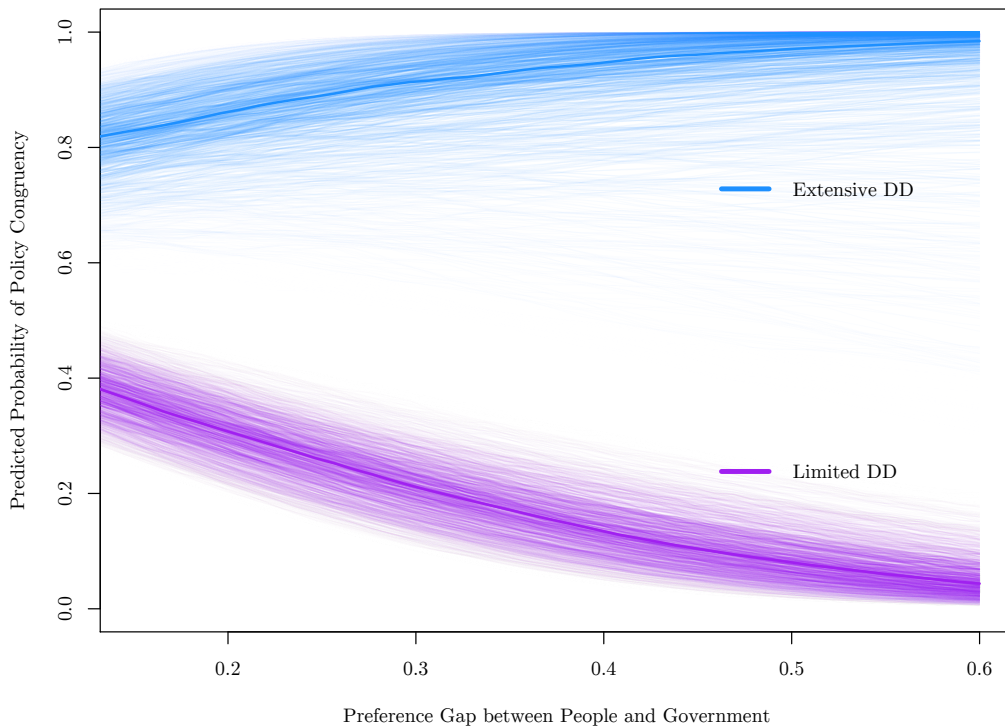
Apart from the finding that more direct democracy increases the probability of policy congruence and that this effect becomes more sizable the larger the gap between elites and the electorate, Figure 3.3 also shows that the effect of the preference gap on policy congruence turns from negative

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[17]One potential objection regarding the hypothesis tests is that some of the explanatory variables are measured with uncertainty (the preference variables) and that we underestimate the full uncertainty in Models 1 through 4 (see e.g., Lewis and Linzer, 2005). To account for the full uncertainty we estimate the same models but relied on 1,000 posterior draws of the preference predictions (first stage), re-run the models for each draw and thereby save 30 draws of the second stage posterior. The resulting sum of draws reflects both, the uncertainty from measurement (first stage) as well as the variation in the estimated coefficients (second stage). This approach still yields a significant difference of differences estimate on an α-level of 0.05.

to positive if we change the decision making from moderately to strongly direct democratic. This may need further explanation. In general, a large preference gap between elite and citizens means that the preference of the electorate is not well represented in policy making. Bad representation is bad for policy congruence. However, this is not the case for high levels of direct democracy. In that case, a large gap is positive because the elites know that the people are so strongly opposed to their position that the intervening factors of how noisy the preference signal of voters and how costly the use of direct democratic instruments are become inconsequential. In that setup, a large preference gap between elite and citizens effectively empowers the electorate to overturn the strongly deviating preferences of the elite. The empirical findings are perfectly in line with the predictions of the theoretical model in that regard.

3.4 Implications of the Findings

The classic aspiration of political philosophy is to provide theoretical guidance for the design of the "best" model of democracy. A core question in that normative debate is whether citizens should delegate power to elected representatives or whether they should participate directly in decision making. Ever since the athenian democracy, passionate arguments for and against the models of representative and participatory democracy have been put forward, among others by the classic works of Alexis de Tocqueville, John Stuart Mill, or Jean-Jacques Rousseau.

The fundamental characteristics of the representative model, described in Schumpeter's seminal work (1942), is that parties compete for votes to gain office and that the electorate can every once in a while replace or confirm the incumbent government in free and competitive elections. Decision making is delegated to representatives that are held accountable through democratic elections. The main criticism of the proponents of the representative model against direct democracy is that citizens lack the intellectual capacity and the political interest to make informed and reasonable policy decisions (Sartori, 1987; Budge, 1996). A series of studies have analyzed the competence of citizens in direct democratic decision making (Lupia and McCubbins, 1998; Bowler and Donovan, 1998). Kriesi (2005, 9) provides a comprehensive investigation of Switzerland and concludes that

"argument-based systematic voting is more widespread than expected", which confirms the classic Lupia (1994) argument that voters can effectively rely on cues in decision making.

The empirical finding that voters can make informed decisions supports the advocates of direct democracy, who believe in the promise of direct democracy. Some emphasize that the institutions of direct democracy themselves lead to better educated citizens (Barber 1984). The debate surrounding the question of how competent voters are highlights how proponents of representative and direct democracy have argued why either of the two models is superior over the other. The main implication of our analysis, however, is not that either of the two models is better than the other. Instead, our findings provide insights on how direct democratic institutions change the mechanism of how people get what they want. Policy congruence is achieved differently in direct democratic and in representative democracies.

What matters for a representative system is that competitive elections ensure that the political elite is responsive to the will of the electorate. Mansbridge (2009) argues that representation is linked to policy congruency via selection and sanctioning: citizens (s)elect representatives with similar preferences and sanction (i.e., do not re-elect) incumbents, if the behavior in office deviates from their will. Following that model, several studies have investigated whether the preferences of the political elite are closer to those of the electorate in proportional or majoritarian systems (McDonald et al., 2004; Powell, 2009; Golder and Stramski, 2010). Our finding that "bad" representation (i.e., a large preference gap between the electorate and the political elite) has a substantial and significant negative effect on policy congruence underlines that this research effort is important: the quality of representation is a key determinant of policy congruence. To get more policy congruence, we should design electoral systems that reduce the preference gap between the elites and the electorate. However, this only holds for representative democracies.

The advantage of direct democracy is that voters are not forced to elect representatives that decide according to their will in *all* policy areas. Referendums and initiatives allow to unbundle issues, which reduces the importance of good representation over all policy areas in direct democratic systems (Besley and Coate, 2008). As our theoretical and empirical findings show, in the presence of strong direct democratic institutions, we do not need a minimized preference gap be-

tween the elite and the electorate to get policy congruence; on the contrary: a large preference gap is good for congruence in direct democratic systems, as it ensures that the elite cannot put through its deviating preference. The theoretical and empirical findings show that if voters elect representatives that share their majority preference in *most* policy questions, but not in a few, it is better for the electorate when the preference gap is large in those few policy issues on which the representatives and the electorate disagree. The key determinant for policy congruence in strongly direct democratic systems are clear signals; the representatives should know when the electorate holds a clearly distinct view in a specific policy question.

Hug (2009) rightly emphasized in a recent critique of the literature on direct democracy that we should seek to better understand how direct democratic institutions interact with the key elements of representative democracy.[18] The interesting question is not whether one model of democracy is superior over the other, but how adding participatory elements to a representative democracy affects policy making with what consequences. As far as policy congruence is concerned, we believe that our findings provide a nuanced answer to that question. The main implication of our finding is that there is a potential trade-off between the positive effects of direct democracy and the negative effects of the preference gap between the electorate and the elite. This argument is supported by additional, rather circumstantial, evidence.

In representative democracies, competitive elections with high voter turnout re-calibrate representation every four years or so. In direct democratic systems, however, elections are relatively unimportant, as the Swiss case illustrates: election turnout over the last 40 years was below 50% and the shifts in partisan support after elections are marginal (Linder, 2005). Elections are in direct democratic systems less important because the people make policies congruent by using referendums and initiatives, not via elections. The constant scrutiny of the policy decisions with direct democratic instruments is the critical democratic mechanism of how the people control policy making. The downsized importance of good representation and elections is also highlighted by the fact that members of the government never step back or are voted out of office after loosing

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[18]For an exception in the literature, comparing California, Liechtenstein, Italy, and Switzerland, see Marxer and Pállinger (2009).

a referendum, no matter how smashing the defeat in the referendum was. Sharing the majority preferences of the people is not vital for political survival. As a consequence, the political elite can hold deviating preferences without (or only marginal) political consequences, and the elite-voter preference gap is not constantly minimized to the extent to which this is the case in purely representative democracies. Following that, we should expect that representation is worse, the more direct democratic a system is. Our data supports that interpretation, as we find that direct democracy and representation are negatively correlated (i.e., the preference gap is greater in cantons with more direct democracy).[19]

Obviously, we cannot make the argument that direct democracy has a negative *causal* effect on representation based on that correlation. It is well-known that we should be careful in drawing causal inferences from institutional effects because of potential reversed causality and confounding variables. However, if direct democracy indeed would cause representation to deteriorate, this would even strengthen our results. We would then interpret our main finding as follows: an increase in direct democratic rights leads to a larger preference gap, which in turn magnifies the positive effect of direct democracy. No matter whether there is a negative causal effect from direct democracy on representation, the critical question is whether improving representation or enhancing direct democratic rights is more effective to get more policy congruence? We provide a conditional answer to that question. The key insight of our analysis is that the positive effect of direct democracy is not straightforwardly transferrable to representative systems because the positive effect of direct democracy on policy congruence can be counter balanced by a weakening of the representation mechanism (which can in turn even lead to less congruence).

In other words, there are two ways to achieve policy congruence that are not mutually reinforcing. The representation mechanism keeps policy makers accountable via competitive elections. Good representation is the key of the representation mechanism, while in the case of the direct democratic mechanism strong disagreement between the elite and the voter (i.e., bad representation) is conducive for policy congruence. Our findings suggest that a democracy should be based primarily on direct democratic or on representative principles, which contradicts the view that

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[19]The correlation between gap and direct democracy is 0.2 (p=0.01).

the adding direct democratic elements to a representative system simply takes advantage of the democratic strengths of both models. The best of both worlds are not necessarily compatible.

That enhancing direct democracy in systems that are primarily based on representative principles is not necessarily positive for policy congruence, is also evident if we take a closer look at traditional representative democracies that hold referendums only rarely. The representation mechanism of policy congruence unfolds through regular competitive elections, while the direct democratic mechanism rests on the condition that the electorate expresses its genuine policy preferences in referendums or initiatives. Both are quite complex mechanisms that need to be embedded in a set of formal and informal institutional rules. That the rather ad hoc combination of the two models can be problematic is highlighted, for example, by the debates surrounding the EU referendums that were held in representative democracies with no institutionalized tradition of direct democracy. Pundits and academics discussed whether the votes of the electorate reflect some general dissatisfaction with the government or whether we should interpret them as the genuine expression of the preferences on the EU-Treaties (Garry et al., 2005; Hobolt, 2009). The former basically means that direct democratic instruments are used as a (rather suboptimal) substitute for elections, and not as a opportunity to express sincere policy preferences. If the outcomes of referendums are not clear signals of policy-related preferences, we should not expect that direct democracy improves policy congruence.

In sum, the direct democratic and the representative mechanisms of policy congruence have to be embedded in distinct institutional models, and our theoretical and empirical findings suggest that the two models cannot straightforwardly be combined. This may also explain why some scholars have found evidence that direct democracy leads to more policy congruence (Gerber, 1996b, 1999; Matsusaka, 2004, 2010), while others could not replicate that result (Lascher et al., 1996; Lax and Phillips, 2009a, 2012).

3.5 Conclusion

This paper presents a theoretical model of how direct democratic institutions achieve policy congruence (i.e., the match between the majority preference of the electorate and policy outcomes). The formal model shows that the positive effect of direct democracy on policy congruence increases, the more the voters and the elite disagree. While the representation literature emphasizes the positive effect of a small elite-voter gap on policy congruence, this result suggests that in a direct democratic system a large gap is conducive for policy congruence. Eventually, this finding highlights the trade-off between the policy congruence mechanisms of the two models of democracies. What is good for policy congruence in the representation model is not conducive in the direct democratic systems.

To test the predictions of the formal model, we rely on original survey data on the preferences of the voters and the elite for 10 different policy areas in Swiss cantons. The specification of the empirical model follows directly from the theoretical analysis. We take advantage of the variation in the usage costs of direct democratic institutions for voters across Swiss cantons. The estimation results are as predicted by the formal model and are robust across different specifications. That we measure the voters' preferences, the elite's preferences, and the actual policies all on the same scale, allows us to evaluate the institutional effect of direct democracy within representative systems. To our knowledge there is no other contribution which builds on preference estimates for all relevant actors and spans across several relevant policy areas.

Conventional wisdom holds that direct democracy can enrich representative systems. When the electoral mechanism fails, direct democratic institutions provide a safeguard. This view rests on the idea that we can simply add on the positive effects of direct democratic institutions to representative systems without consequences. However, our investigation of how representation and direct democratic achieve policy congruence differently shows that the two mechanisms cannot be simply combined as suggested in the literature.

Part II

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Part III

Appendices

Appendix A

Appendix for "Origins of Direct Democracy"

A.1 A: The HDDI

The Historical Direct Democracy Index (HDDI) is a cumulative index covering a wide array of direct democratic institutions. The coding scheme was original devised by Stutzer (1999) and has been subsequently used broadly.

The coding rules for constitutional and law initiatives, institutions allowing citizens to propose constitutional amendments or new laws, are as follows:

Law & Const. Initiative	Absolute Numbers of Signatures	Points	Relative Share of Signatures	Points	Allowed Collection Period	Points
	0-2,500	6	0-1%	6	more than 300 days	6
	2,500-5,000	5	1-2%	5	241-300 days	5
	5,000-7,500	4	2-3%	4	181-240 days	4
	7,500-10,000	3	3-4%	3	121-180 days	3
	10,000-12,500	2	4-5%	2	61-120 days	2
	more than 12,500	1	more than 5%	1	less than 60 days	1

The coding rules for the optional law referendum are as follows:

If a canton has a mandatory law referendum for all laws than that canton gets another 6 points.

Finally, the remaining category of direct democratic institutions pertain to public expenditure are

Optional Referendum	Absolute Numbers of Signatures	Points	Relative Share of Signatures	Points	Allowed Collection Period	Points
	0-1,250	6	0-1%	6	more than 150 days	6
	1,250-2,500	5	1-2%	5	121-150 days	5
	2.500-3,750	4	2-3%	4	91-120 days	4
	3,750-5,000	3	3-4%	3	61-90 days	3
	5,000-6,250	2	4-5%	2	31-60 days	2
	more than 6,250	1	more than 5%	1	less than 30 days	1

subsumed under the name financial referendum. If a planed expenditure by the legislature surpasses a certain threshold the decision to spend is treated like a law and hence in case of a mandatory law referendum there will be a vote. In case of a optional referendum right, parties or political groups may try to collect a sufficient amount of signatures during the allowed period. The thresholds are used to code the financial referendums contribution to the index.

Financial Referendum	Expenditure per capita Mandatory	Points	Expenditure per capita Optional	Points
	0-10 CHF	6	0-5 CHF	6
	10-20 CHF	5	5-10 CHF	5
	20-30 CHF	4	10-15 CHF	4
	30-40 CHF	3	15-20 CHF	3
	40-50 CHF	2	20-25 CHF	2
	more than 50 CHF	1	more than 25 CHF	1

To create the HDDI one takes for each element the average so that it will be a value between 0 (if it does not exist) and 6. In a second step one computes the mean over all six institutions (constitutional initiative, law initiative, mandatory law referendum, optional law referendum, optional financial referendum, and mandatory financial referendum).

A.2   B: Data Issues: Sources and Interpolation

- **POVERTY:** Measure of newborns dying in first year is based on the number of children which die in their first year divided by all births in a given year. Data on children deaths only start in 1837.

  - *Source*: **Child births:** Ritzmann (1996) where the following original sources are provided: 1. Stat. Lief. Nr. 112: Ehe, Geburt und Tod 1871-1890: Geburten 1801-1870 (Anhang); 2. Stat. Lief.: Bewegung der Bevölkerung, Bde. 1871-1995; 3. Zürcher "Monatliche Nachrichten" (Taufen, Ehen, Sterbefälle 1750-1830).

    Child deaths within first year: Ritzmann (1996) where the following original sources are provided: 1. Stat. Lief. Nr. 128, 193 und 1928/4; 2. Stat. Lief.: Bewegung der Bevölkerung, Bde. 1871-1995; 3. Kantonale Regierungs-

und Sanitätsarztberichte 1841-1870; 4. Appenzellische Jahrbücher 1855-1858; 5. Vuillemin 1847; 6. Dunant 1876; 7. Staatsarchiv des Kantons Neuenburg.

– *Missing data and interpolation for the ratio measures*: **ZH** − Missing years: 1837-1840, NAs replaced with linear trend based on data from 1841-1846. 1847-1848, NAs replaced with linear trend based on data from 1841-1846. 1850, NA replaced with linear trend based on data from 1851-1870. **BE** − Missing years: 1837-1855, NAs replaced with linear trend based on data from 1856-1899. **LU** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **UR** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **SZ** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **OW** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **NW** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **GL** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **ZG** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **FR** − Missing years: 1837-1869, NAs replaced with linear trend based on data from 1870-1899. **SO** − Missing years: 1837-1839, NAs replaced with linear trend based on data from 1840-1850. 1851, NAs replaced with linear trend based on data from 1840-1850. **BS** − Missing years: 1859-1863, NAs replaced with linear trend based on data from 1864-1899. 1854-1855, NAs replaced with linear trend based on data from 1856-1899. 1837-1850, NAs replaced with linear trend based on data from 1851-1899. **BL** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **SH** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **AR** − Missing years: 1837-1854, NAs replaced with linear trend based on data from 1855-1899. **AI** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **SG** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **GR** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1867-1899. **AG** − Missing years: 1837-1854, NAs replaced with linear trend based on data from 1855-1899. **TG** − Missing years: 1865-1866, NAs replaced with linear trend based on data from 1867-1899. 1863, NA replaced with linear trend based on data from 1864-1899. 1837-1842, NAs replaced with linear trend based on data from 1843-1899. **TI** − Missing years: 1837-1868, NAs replaced with linear trend based on data from 1869-1899. **VD** − Missing years: 1842-1866, NAs replaced with average of linear trend based on data from 1867-1899 and the average value from 1837-1841. **VS** − Missing years: 1837-1866, NAs replaced with linear trend based on data from 1870-1899. **NE** − Missing years: 1848-1866, NAs replaced with average of linear trend based on data from 1867-1899 and the average value from 1837-1847. **GE** − Missing years: 1837-1850, NAs replaced with linear trend based on data from 1851-1899.

- **PROPORTIONAL REPRESENTATION:** Records the year in which a canton changed from single-member districts to multi-member districts and used a proportional allocation of seats to votes. Data is based on government reports and parliamentary records which were collected and coded by Lutz and Zila (2009). Ambiguity exists over the correct coding for **VD** (whether it is 1948 or 1961) and I have used the year 1948 as the introduction year of PR.

- **SIZE OF VOTE-ELIGIBLE POPULATION:** To compute the HDDI one needs to know the total of the vote-eligible population. Only with this number one can calculate how many percent of the vote-eligible population were need to e.g. launch successfully an initiative. From 1848 on their are official statistics of the number of vote-eligible citizens per canton for national referendums. The data is originally collected on a five year bases and missing years between that are interpolated. For the period before 1848 there are only sources reporting the total size of the population. To construct a measure of vote-eligible population I take the vote eligible population in 1848 and the total population and compute a suffrage ratio for each canton. Based on this ratio, I extrapolate the exact size of the vote-eligible population in the cantons back to 1803. This is only valid if there are no major changes to the rules and practices governing suffrage. What can be seen from the constitutions is that more than half of the cantons which restricted suffrage based on religion changed that after 1848. Further, the changes to voting age are less frequently than before 1848. Nonetheless, this measure remains a rough estimate for the time before 1848 and the vote-eligible population is likely over-estimated which in turn implies that the HDDI for pre-1848 might be over-estimated.

  – *Source*: **Total population:** Ritzmann (1996) where the following original sources are provided: 1. Kantonale Volkszählungen 1836/37; 2. Eidgenössische Volkszählungen 1850-1990; 3. Meyer von Knonau 1834; 4. Gisi 1868; 5. Guillaume 1876; 6. Meyer 1908; 7. Bickel 1947; 8. Ceschi, Gamboni, Ghiringhelli 1980; 9. Mattmüller 1987.

    Vote-eligible population: Based on Gruner (1978a).

- **ARISTOCRATIC AND LANDSGEMEINDE CANTONS:** The coding is based on Im Hof et al. (2006) and Maissen (2010) and counts these seven cantons as city based aristocratic cantons: ZH, BE, LU, FR, SO, SH, and GE – the following eight as *Landsgemeinde* cantons: UR, SZ, OW, NW, GL, ZG, AR, and AI. Note that unlike Boix (2003) I do not count GR, VS, and BL as pre-democratic. BL only emerge out of a secession war with BS in 1832 and had no direct democratic institutions before.

A.3 Alternative Model Specification

In section 1.4.2 I present a number of estimation results based on OLS models with fixed effects for cantons and years. An alternative way to test the argument of the paper is to rely on a more explicit dynamic model where we include the lagged dependent variable. The problem with doing so is that we create Nickel bias when including a lagged dependent variable while also including fixed effects (Nickell, 1981). The biases inversely related to the length of the time series and given the data on hand this bias should be negligible. I present here a replication of the first five models with an alternative model choice (including a lagged dependent variable). These models are just provided in addition to the main results and show that the significant positive effect found in section 1.4.2 are robust to alternative modeling choices.

All models include the main explanatory variable which is the number of parties which represent the canton in a given year in the national legislature, lagged values of the outcome variable (HDDI), and the size of the vote-eligible population. In model 1 a binary indicator is added which is 1 for the cantons which had pre-democratic forms of citizen assemblies otherwise 0. In model 2 I add another binary indicator which takes the value 1 if the canton has an aristocratic legacy and 0 otherwise. In model 3 I add the inequality measure which is based on the share of newborns which die within their first year of life. Models 4 and 5 also include canton fixed effects and hence the legacy variables are not included since they are perfectly collinear with the cantonal fixed effects. In model 5 I also add annual fixed effects.

There is a clear positive and significant effect for the number of active parties and the degree of direct democracy. Note, that the displayed coefficient is the short term effect of an increase of cleavage and that the long term effect is roughly 0.18 which is substantial.[1] The effect of inequality on the extension of direct democracy is negative and significant in model 4 but is essentially 0 when annual fixed effects are added.

Figure A.1 shows predicted and actual values for Fribourg and also a hypothetical Fribourg with an additional cleavage leading two more parties. The prediction is based on Model 4 and shows

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[1]Since the mode is dynamic, i.e. $y_{it} = \beta_0 + \beta_1 x_{it} + \gamma y_{i,t-1} + \varepsilon_{it}$ the long-term effect of an explanatory variable x is $\frac{\beta}{1-\gamma}$ (Beck and Katz, 2011). Here we have $\frac{0.008}{1-0.955} = 0.178$.

Table A.1: Alternative Model: Lagged Dependent Variable on Full Sample

	Model 1 (alt.)	Model 2 (alt.)	Model 3 (alt.)	Model 4 (alt.)	Model 5 (alt.)
Constant	0.06***	0.05***	0.04**	0.18***	0.10*
	(0.01)	(0.01)	(0.02)	(0.03)	(0.06)
Lagged HDDI	0.98***	0.98***	0.99***	0.96***	0.96***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number of Parties	0.01*	0.01*	0.01*	0.01*	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Vote-Eligible Population	0.00***	0.00***	0.00*	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Landsgemeinde Legacy	0.01	0.01	0.01		
	(0.01)	(0.01)	(0.01)		
Aristocratic Legacy		0.01	0.01		
		(0.01)	(0.01)		
Inequality			0.08*	−0.11**	−0.02
			(0.05)	(0.06)	(0.13)
FE CANTONS	×	×	×	✓	✓
FE YEARS	×	×	×	×	✓
R^2	0.98	0.98	0.98	0.98	0.98
Num. obs.	4050	4050	3675	3675	3675

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

the substantive difference in HDDI resulting from a slightly increased number of active political parties.

Figure A.1: Predicted Degree of Direct Democracy
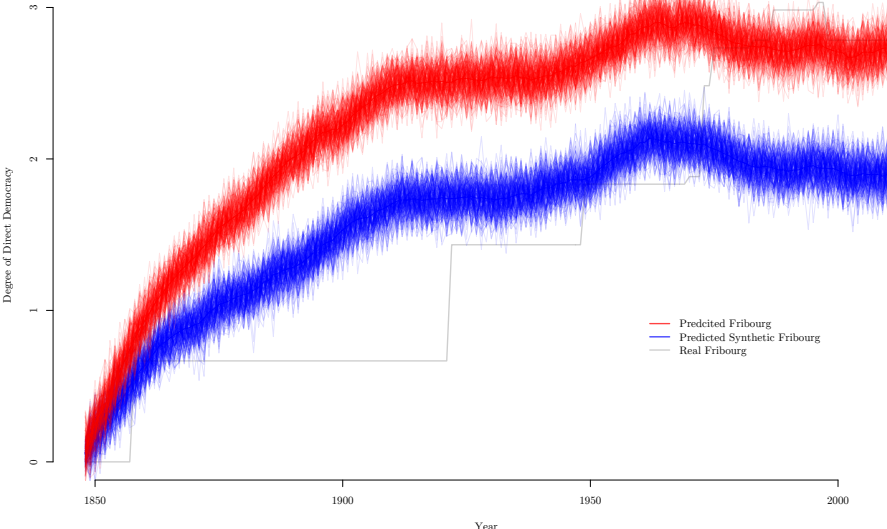
Notes: Predictions for real Fribourg and a synthetic Fribourg with more conflict.

Appendix B

Appendix for "Political Conflict and Direct Democracy"

B.1   Change Point Model of Initiative Usage

A Bayesian change point model without explanatory variables reduces to estimating the parameter of a Poisson distribution. The first model, without any structural break, can be written as:

$$p(y = y_i|\lambda) \quad = \quad \frac{e^{-\lambda}\lambda^{y_i}}{y_i!} \tag{B.1}$$

The model assuming that there is one structural break is defended as follows:

$$p(y = y_i|\lambda_*) \quad = \quad \frac{e^{-\lambda_*}\lambda_*^{y_i}}{y_i!} \tag{B.2}$$

$$\lambda_* \quad = \quad \lambda_1 \qquad i = 1, 2, 3, ..., k \tag{B.3}$$

$$\lambda_* \quad = \quad \lambda_2 \qquad i = k + 1, ..., n \tag{B.4}$$

The parameter k is estimated and its prior is a discrete uniform distribution over the range 1 to n.[1]

Like this one can also define the other models with two, three, and four structural breaks. After

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[1] The prior for any λ_* follows a gamma distribution with hyper parameters α and β, The shape parameter, α, is set to $\frac{n}{b \cdot 10}$, whereas b is the number of periods and β is set to 0.1 (see Park (2010)).

estimating the models and assuring convergence[2] one can use Bayes factor to discriminate among the different factors. Table B.1 shows the logarithm of the Bayes factor for each model comparison. Cell i, j shows the logarithm of Bayes factor for model i with respect to model j.

Table B.1: Logarithm of Bayes Factor for Empty Models

	No Break	One Break	Two Breaks	Three Breaks	Four Breaks
No Break	0.00	-34.85	-34.99	-32.83	-30.77
One Break	34.85	0.00	-0.14	2.03	4.08
Two Breaks	**34.99**	**0.14**	**0.00**	**2.16**	**4.22**
Three Breaks	32.83	-2.03	-2.16	0.00	2.06
Four Breaks	30.77	-4.08	-4.22	-2.06	0.00

The third line, corresponding to the model with two structural breaks, is preferred over all other presented models. Positive values indicate that a model is preferred over an alternative one. While there is no general rule on what constitutes significance one can follow Jeffreys (1998) recommendation. The difference between the one-break and the two-break model is small. The difference to all other models is between *positive* and *very strong*. The model with two structural breaks provides us with three distinct periods. One can also inspect the model with one break (Figure B.1). The less complex model, the one with one break, has a slightly weaker fit with the data.

B.2 Alternative Count of Initiatives

In Table 2.1 seven different specifications of a negative binomial model are presented. One potential concern is that by counting all submitted initiatives (also the ones which eventually get pulled back) one inflates the outcome variable artificially. The reason for this could be that due to the increased number of laws the legislature passes, the number of initiatives increases as they may be used to pressure the legislature. It is difficult to know ex post what the motivations were. One thing one can do nevertheless is to exclude all submitted initiatives which were eventually not put on a ballot.

In Table B.2 a all seven models are replicated based on this alternative measure of submitted

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[2]Burn-in and total number of iterations vary by model. All results are based on models which both pass the Heidelberg and the Geweke test for convergence for every single parameter (Jackman, 2009).

Figure B.1: Estimating Different Regimes

Model 1 Break: 2 Regimes

Model 2 Breaks: 3 Regimes
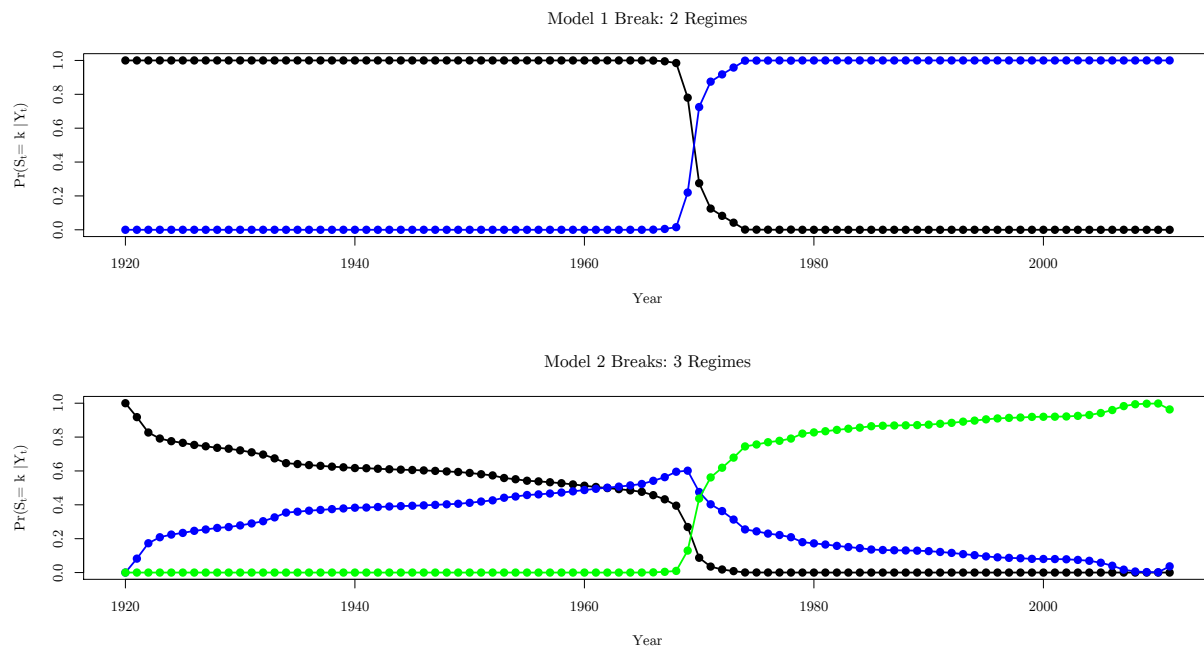
initiatives. There are small differences between these results and the ones reported in Table 2.1. First, in the replication of Model 6 the coefficient for `election year` is not significantly different from zero. Second, the coefficient for `electoral competition` almost doubles when we estimate the models with this alternative measure for the outcome. If there is any change in our results at all then it is that the correlation between electoral competition and initiative frequency appears to be stronger than in the original model (see Table 2.1). An additional test uses an alternative measure for electoral competition. Instead of relying on the cantonal vote return for the national elections and summing up over all cantons, we can also just look at national totals. Unlike the other measure, this will just provide an veralp picture and not display as much variation and change. At the same time there is no reason to expect that this measure would not be a proxy for electoral competition. Finally it may be somewhat closer to more standard measures of electoral volatility. Table B.3 present the replication of the seven models.

Unlike in the main results presented in Table 2.1 there is no significant effect for the election or pre-election years. The coefficient for `electoral competition` is over all seven models about

Table B.2: Alternative Measure of Outcome Variable

	Model 1	Model 2	Model 3	Model 4	Model 5
Electoral Competition	0.55***		0.31***	0.31***	0.32***
	(0.11)		(0.11)	(0.11)	(0.11)
Signature Requirements		−0.62***	−0.45***	−0.44***	−0.45***
		(0.10)	(0.12)	(0.11)	(0.11)
Election Year				0.34*	0.41**
				(0.19)	(0.20)
Pre-Election Year					0.20
					(0.22)
Constant	0.50***	0.47***	0.44***	0.34***	0.27*
	(0.10)	(0.10)	(0.10)	(0.12)	(0.14)
McFadden R^2	0.21	0.26	0.31	0.33	0.34
N	92	92	92	92	92
$\ell\ell$-test	27.87	39.53	50.00	55.38	56.17
p	0.00	0.00	0.00	0.00	0.00

Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; Negative binomial model. All variables (except dummies) are standardized. $\ell\ell$ Test is likelihood ratio test.

Table B.3: Alternative Measure of Electoral Competition

	Model 1	Model 2	Model 3	Model 4	Model 5
Electoral Competition	0.32***		0.23***	0.23***	0.23***
(national)	(0.10)		(0.09)	(0.08)	(0.08)
Signature Requirements		−0.62***	−0.57***	−0.57***	−0.57***
		(0.10)	(0.10)	(0.10)	(0.10)
Election Year				0.32*	0.39**
				(0.18)	(0.20)
Pre-Election Year					0.19
					(0.21)
Constant	0.59***	0.47***	0.44***	0.35***	0.28**
	(0.11)	(0.10)	(0.10)	(0.11)	(0.14)
McFadden R^2	0.08	0.26	0.31	0.33	0.34
N	92	92	92	92	92
$\ell\ell$-test	9.47	39.53	51.56	57.75	58.50
p	0.00	0.00	0.00	0.00	0.00

Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; Negative binomial model. All variables (except dummies) are standardized. $\ell\ell$ Test is likelihood ratio test.

identical to what was estimated in Table 2.1. These two replications illustrate that the strong and positive relationship between electoral competition and initiative frequency is robust over alternative model specifications, alternative measures of the explanatory variable, and also alternative measures of the outcome variable.

B.3 Model with Lagged Values for Competition

Table B.4: Lagged Competition

	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	1.07***	0.91***	0.93***	0.84***	0.73***
	(0.09)	(0.09)	(0.08)	(0.10)	(0.12)
Electoral Competition	0.44***		0.17*	0.18*	0.18*
	(0.10)		(0.10)	(0.10)	(0.10)
Signature Requirements		−0.61***	−0.51***	−0.51***	−0.51***
		(0.09)	(0.10)	(0.10)	(0.10)
Election Year				0.31**	0.41**
				(0.16)	(0.17)
Pre-Election Year					0.27
					(0.18)
McFadden R^2	0.17	0.32	0.34	0.37	0.38
N	88	88	88	88	88
$\ell\ell$-test	20.89	48.27	53.94	60.43	63.17
p	0.00	0.00	0.00	0.00	0.00

Standard errors in parentheses; * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$; Negative binomial model. All variables (except dummies) are standardized. $\ell\ell$ Test is likelihood ratio test.

B.4 Bayesian Change Point Model for Parametrized Model

The following two equations describe the parametrized Poisson model with one break. The data matrix, $\mathbf{x}_i$, consists of three variables (being the *signature requirement*, *electoral comeptition*, and a dummy for *election years*) and a constant. For each period the coefficient vector, $\boldsymbol{\beta}_j$, changes.

$$p(y = y_i | \lambda_{*i}) = \frac{e^{-\lambda_{*i}} \lambda_{*i}^{y_i}}{y_i!} \tag{B.5}$$

$$\lambda_{*i} = e^{(\mathbf{x}_i \boldsymbol{\beta}_1)} \qquad i = 1, 2, 3, ..., k \tag{B.6}$$

$$\lambda_{*i} = e^{(\mathbf{x}_i \boldsymbol{\beta}_2)} \qquad i = k+1, ..., n \tag{B.7}$$

To assure that the individual models have converged the Heidelberg and the Geweke statistic were inspected. Burn-in and thinning was adapted until all models passed both tests Jackman (2009). Table B.5 present the logarithm of the Bayes factor (lBf) where a positive lBf in row i and column j indicates that model i outperforms model j:

According to Jeffreys (1998) values between 2 and 5 indicate positive support, 5 to 10 strong

Table B.5: Logarithm of Bayes Factor

	No Break	One Break	Two Breaks	Three Breaks	Four Breaks
No Break	0.00	-200.97	-2.78	-0.57	4.13
One Break	**200.97**	**0.00**	**198.19**	**200.40**	**205.09**
Two Breaks	2.78	-198.19	0.00	2.21	6.91
Three Breaks	0.57	-200.40	-2.21	0.00	4.69
Four Breaks	-4.13	-205.09	-6.91	-4.69	0.00

support, and values larger than 10 very strong support for a model. The results are clear and show that – once we take into account that partisan competition varies and that initiatives are more frequent when there is a lower signature threshold – there is one structural break. The structural break is most likely in 1925 and not in the 1970s.[3] The first couple of years in the 1920's there are unusually many initiatives, but after that the three variables explain over the entire period the number of submitted initiatives.

Figure B.2: Probability of DGP being State 1 or State2
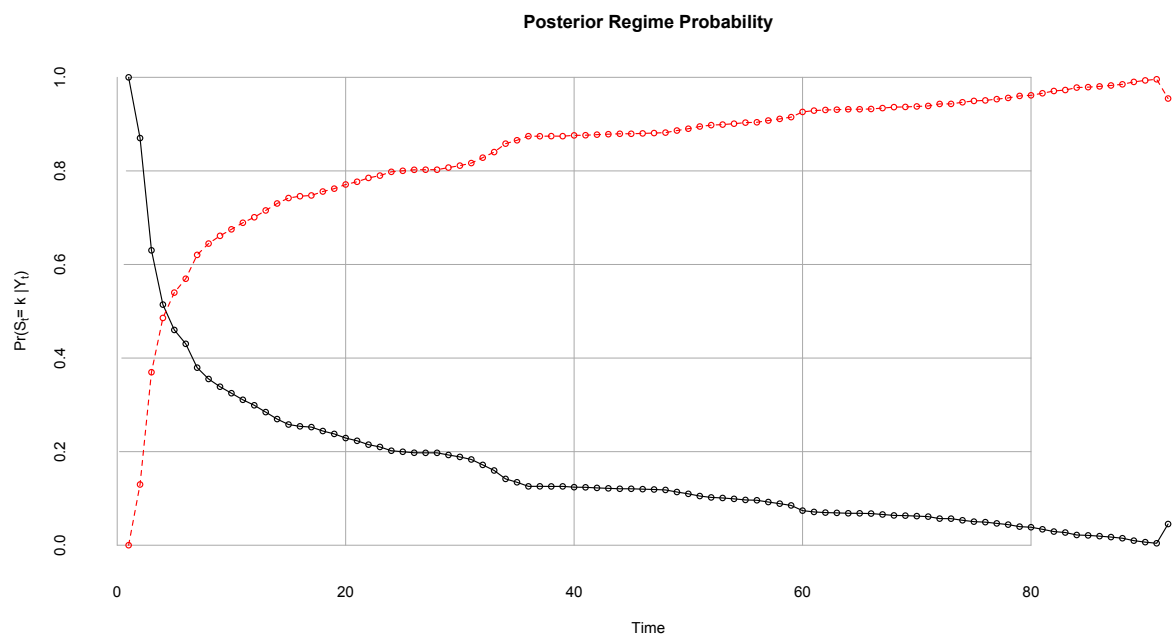
Notes: Structural break is around 1925 (five years after the start of the time series).

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[3]Note, that the exact break point is itself an estimate and hence the structural break is most likely in 1925.

B.5 Institutional Questions?

Figure B.3: Primary, Secondary, and Institutional Conflict in National Initiatives 1920-2012
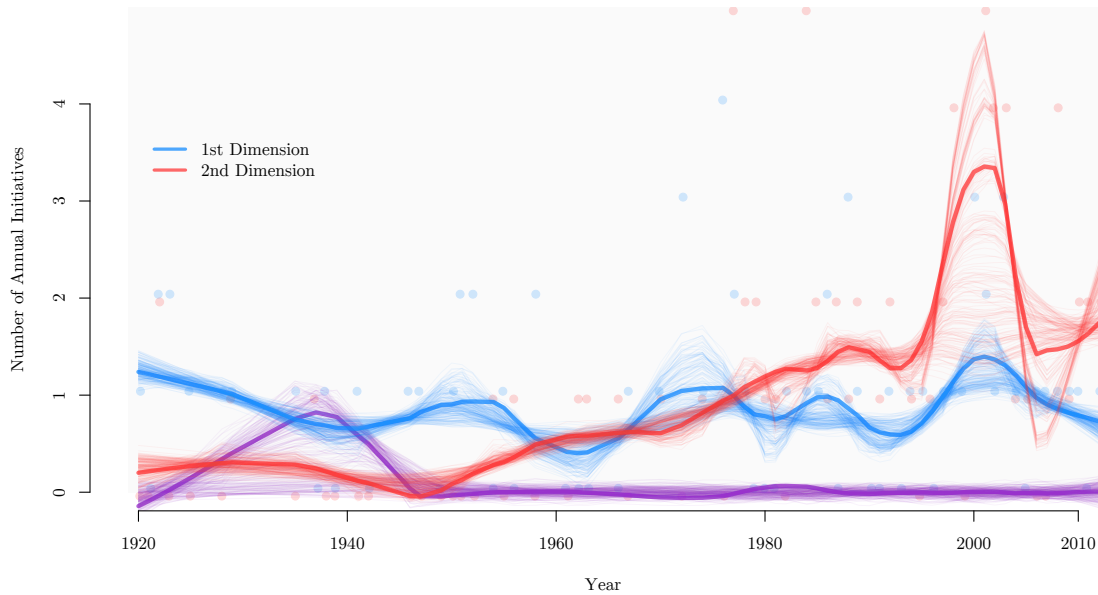
Notes: Over time development of 1st and 2nd dimension issues submitted as initiatives. Thin lines represent alternative weighted polynomial regression lines.

B.6   Example of Bundesblatt Report

Sammelfrist bis 28. Oktober 1993

Eidgenössische Volksinitiative
"für eine Schweiz ohne neue Kampfflugzeuge"

Vorprüfung

Die Schweizerische Bundeskanzlei,

nach Prüfung der am 9. April 1992 eingereichten
Unterschriftenliste zu einer eidgenössischen Volksinitiative 'für
eine Schweiz ohne neue Kampfflugzeuge',
gestützt auf die Artikel 68 und 69 des Bundesgesetzes vom 17.
Dezember 1976[1] über die politischen Rechte,

verfügt:

1. Die am 9. April 1992 eingereichte Unterschriftenliste zu
   einer eidgenössischen Volksinitiative 'für eine Schweiz ohne
   neue Kampfflugzeuge" entspricht den gesetzlichen Formen: Sie
   enthält eine Rubrik für Kanton und politische Gemeinde, in der
   die Unterzeichner stimmberechtigt sind, sowie für das Datum
   der Veröffentlichung des Initiativtexts im Bundesblatt, ferner
   Titel und Wortlaut der Initiative, eine vorbehaltlose
   Rückzugsklausel, den Hinweis, dass sich strafbar macht, wer
   das Ergebnis einer Unterschriftensammlung für eine
   Volksinitiative fälscht, sowie Namen und Adressen von
   mindestens sieben Urheberinnen und Urhebern der Initiative.
   Die Gültigkeit der Initiative wird erst nach ihrem
   Zustandekommen durch die Bundesversammlung geprüft.

2. Folgende Urheberinnen und Urheber sind ermächtigt, die
   Volksinitiative vorbehaltlos mit einfacher Mehrheit
   zurückzuziehen:

   1. Adrian Schmid, Sekretär MieterInnenverband, Grossstadtrat,
      Wesemlinstrasse 23, 6006 Luzern
   2. Andreas Gross, Politikwissenschafter, Nationalrat,
      Waserstrasse 12, 8032 Zürich
   3. Peter Sigerist, Redaktor, Könizstrasse 33, 3008 Bern
   4. Renate Schoch, Sekretärin GSoA, Heinrichstrasse 133, 8005
      Zürich
   5. Ursula Baumgartner, Journalistin, Lorraine 12e, 3400
      Burgdorf
   6. Jürg Wiedemann, Mathematiklehrer, Fröschenweg 2, 4127
      Birsfelden

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[1] SR *161.1*

1992-224   1419

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7. Susanne Leutenegger Oberholzer, Oekonomin,
   a. Nationalrätin, Parkallee 30, 4123 Allschwil
8. Odile Montavon, pharmacienne, rue des Romains 4, 2800
   Delémont
9. Michel Sauvain, juriste, Bocages 1, 2800 Delémont
10. Michael Walther, Musiker, Waid, 9055 Bühler
11. Luc Gilly, jardinier d'enfants, 19 rue des Paquis,
    1201 Genève
12. Paolo Gilardi, enseignant, rue Jacques Grosselin 6,
    1227 Carouge
13. Jean-Michel Dolivo, avocat, avenue Vinet 14, 1004 Lausanne
14. Pierre-Yves Oppikofer, mécanicien, avenue Vinet 22, 1004
    Lausanne
15. Astrid Astolfi, Keramikerin, rue de Bâle 17, 1201 Genève
16. Andreas Weissen, Umweltsekretär/Stadtrat, Termerweg 22,
    3900 Brig
17. Ruedi Winet, Gewerkschaftssekretär, Am Bach 2, 7015 Tamins
18. Christian Bertin, Publizist, Dornacherstrasse 195, 4053
    Basel
19. Patrick Bachmann, Typograph, "Chamäleon", Baselmattweg
    205, 4123 Allschwil
20. Tobia Schnebli, Operaio, Via Seminario 1, 6900 Lugano
21. Mathias Scheller, Schüler, Bellevueweg 3, 2564 Bellmund
22. Jürgen Schulz, Journalist, Sichelweg 51, 3098 Schliern
23. Ronald Wiedemann, dipl. math., Schützenstrasse 8, 4127
    Birsfelden
24. Leo Boos, Krankenpfleger, Hardstrasse 29, 8004 Zürich
25. Markus Braun, Psychologe, rue de l'Hôpital 3, 1700
    Fribourg
26. Walter Stalder, Korrektor, Amerbachstrasse 53, 4057 Basel
27. Georg Lutz, Koch/Schüler, Polygonstrasse 65, 3014 Bern
28. Josef Lang, Redaktor/Gemeinderat, Haldenstrasse 1, 6300
    Zug
29. Urs Thrier, Bauarbeiter, Aliothstrasse 44, 4142
    Münchenstein
30. Sascha Buchbinder, Student, Schwandenholzstrasse 234, 8046
    Zürich
31. Marcel Hänggi, Student, Altmoosstrasse 62, 8157 Dielsdorf
32. Niklaus Lutz, Student, Polygonstrasse 65, 3014 Bern
33. Hansueli Trüb, Puppenspieler, Sennhüslen, 9030 Abtwil
34. Michael von Felten, EDV-Fachmann/Gemeinderat,
    Speiserstrasse 24, 4600 Olten
35. Federico Cathieni, étudiant, 6984 Pura
36. Ursula Abt, Physiotherapeutin, Seminarstrasse 45, 8057
    Zürich
37. Christophe Barbey, écrivain, case postale 6, 1783
    Cormagens
38. Cornelia Jans Zürcher, Sekretärin/Grossrätin,
    Falkensteinerstrasse 50, 4053 Basel
39. Daniel Künzi, technicien, 16 avenue Henri-Dunant, 1205
    Genève

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40. Hanspeter Uster, Regierungsrat, Albisstrasse 13, 6340 Baar
41. Eric Decarro, statisticien, 51 route de Frontenex, 1207
    Genève
42. Pia Hollenstein, Lehrerin für Krankenpflege,
    Nationalrätin, Rorschacherstrasse 189b, 9000 St. Gallen
43. Anton Bernet, Journalist, Neptunstrasse 61, 8032 Zürich
44. Reto Lienhard, Sekretär, Ochsengasse, 4800 Zofingen
45. Erika Paneth, Ofra-Sekretärin, Grossrätin, Kandererstrasse
    35, 4057 Basel
46. Michel Ducommun, enseignant, chemin des Murailles 19,
    1233 Sezenove
47. Markus Bischoff, Rechtsanwalt, Hardturmstrasse 308, 8005
    Zürich
48. Jean-Nils de Dardel, avocat, chemin de la montagne 110,
    1224 Chêne-Bougeries
49. Matteo Pronzini, Gewerkschaftssekretär, 6533 Lumino
50. Marc Spescha, Rechtsanwalt, Luisenstrasse 35, 8005 Zürich
51. Françoise Pitteloud, éducatrice, a. conseillère nationale,
    rue du Vallon 10, 1005 Lausanne
52. Marina Carobbio, Ärztin, 6533 Lumino
53. Ruedi Lehmann, Gemeinderat, Luzernstrasse 16, 4552
    Derendingen
54. Gérard Forster, secrétaire syndical, chemin des Rosiers 5,
    1004 Lausanne
55. Christoph Baier, Heimleiter, Baumgartenweg 6, 4402
    Frenkendorf
56. Marco Feistmann, Student, Via ai monti 79, 6600 Locarno.

3. Der Titel der eidgenössischen Volksinitiative "für eine
   Schweiz ohne neue Kampfflugzeuge" entspricht den gesetzlichen
   Erfordernissen von Artikel 69 Absatz 2 des Bundesgesetzes vom
   17. Dezember 1976 über die politischen Rechte.

4. Mitteilung an das Initiativkomitee: Gruppe für eine Schweiz
   ohne Armee (GSoA), Sekretariat: Postfach 103, 8031 Zürich, und
   Veröffentlichung im Bundesblatt vom 28. April 1992.

14. April 1992   SCHWEIZERISCHE BUNDESKANZLEI
                          Der Bundeskanzler:

                          F. Couchepin

1421

Eidgenössische Volksinitiative
"für eine Schweiz ohne neue Kampfflugzeuge"

Die Volksinitiative lautet:

Die Uebergangsbestimmungen der Bundesverfassung werden wie
folgt ergänzt:

Uebergangsbestimmungen Art. 20 (neu)

[1]Der Bund beschafft bis zum Jahre 2000 keine neuen
Kampfflugzeuge.

[2]Als neu gelten Kampfflugzeuge, deren Beschaffung die
Bundesversammlung zwischen dem 1. Juni 1992 und dem
31. Dezember 1999 beschliesst.

5376

1422

Notes: Initiative against new fighter aircrafts for the air force. This entry in the *Bundesblatt* announces that the Federal Chancellery has formally approved the initiative and the list of submitted signatures. It also reports the names of all members of the proposing committee. This is done because these members have the right to withdraw the initiative even after the necessary signatures have been collected.

B.7 Full Lists of all Votes

ID	Outcome	Date	Title (German)	Origin	Main Conflict
82.1	1	21-Mar-1920	Volksinitiative für ein Verbot der Errichtung von Spielbanken	Members of Gov. Party	1st dimension
85	2	30-Jan-1921	Volksinitiative für die Unterstellung von unbefristeten oder für eine Dauer von mehr als 15 Jahren abgeschlossenen Staatsverträgen unter das Referendum (Staatsvertragsreferendum)	civil society	institutional question
86	2	30-Jan-1921	Volksinitiative für die Aufhebung der Militärjustiz	Political Party not in Government	institutional question
89	2	11-Jun-1922	Volksinitiative betreffend die Erlangung des Schweizerbürgerrechts, Teil I	Political Party not in Government	2nd dimension
90	2	11-Jun-1922	Volksinitiative betreffend die Ausweisung von Ausländern, Teil II	Political Party not in Government	2nd dimension
91	2	11-Jun-1922	Volksinitiative betreffend die Wählbarkeit der Bundesbeamten in den Nationalrat	civil society	1st dimension
93	2	3-Dec-1922	Volksinitiative für die Einmalige Vermögensabgabe	Political Party not in Government	1st dimension
94	2	18-Feb-1923	Volksinitiative Schutzhaft	civil society	1st dimension
96	2	15-Apr-1923	Volksinitiative zur Wahrung der Volksrechte in der Zollfrage	Political Party not in Government	1st dimension
99	2	24-May-1925	Volksinitiative für eine Invaliditäts-, Alters- und Hinterlassenenversicherung (AHV)	Political Party not in Government	1st dimension
106	1	2-Dec-1928	Volksinitiative Kursaalspiele (Spielbanken)	civil society	1st dimension
107.1	2	3-Mar-1929	Volksinitiative Getreideversorgung	civil society	1st dimension
109	2	12-May-1929	Volksinitiative betreffend die Gesetzgebung über den Strassenverkehr	civil society	institutional question
110	2	12-May-1929	Volksinitiative für ein Branntweinverbot	civil society	2nd dimension
121	2	2-Jun-1935	Volksinitiative zur Bekämpfung der Wirtschaftskrise	civil society	1st dimension
122	2	8-Sep-1935	Volksinitiative für eine Totalrevision der Bundesverfassung	civil society	institutional question
123	2	28-Nov-1937	Volksinitiative für ein Verbot der Freimaurerei	civil society	2nd dimension
125	2	20-Feb-1938	Volksinitiative betreffend die dringlichen Bundesbeschlüsse und die Wahrung der demokratischen Volksrechte	Political Party not in Government	institutional question
126.1	2	20-Feb-1938	Volksinitiative Private Rüstungsindustrie	civil society	1st dimension
129	2	22-Jan-1939	Volksinitiative zur Wahrung der verfassungsmässigen Rechte der Bürger (Erweiterung der Verfassungsgerichtsbarkeit)	civil society	institutional question
134	2	9-Mar-1941	Volksinitiative zur Neuordnung des Alkoholwesens	civil society	1st dimension
135	2	25-Jan-1942	Volksinitiative für die Wahl des Bundesrates durch das Volk und die Erhöhung der Mitgliederzahl	Political Party not in Government	institutional question
136	2	3-May-1942	Volksinitiative für die Reorganisation des Nationalrates	Political Party not in Government	institutional question
141	2	8-Dec-1946	Volksinitiative Recht auf Arbeit	Political Party not in Government	1st dimension
142	2	18-May-1947	Volksinitiative Wirtschaftsreform und Rechte der Arbeit	Political Party not in Government	1st dimension
148	1	11-Sep-1949	Volksinitiative für die Rückkehr zur direkten Demokratie	Political Party not in Government	institutional question
152	2	1-Oct-1950	Volksinitiative zum Schutz des Bodens und der Arbeit durch Verhinderung der Spekulation	Political Party not in Government	1st dimension
156.1	2	15-Apr-1951	Volksinitiative zur Sicherstellung der Kaufkraft und Vollbeschäftigung (Freigeldinitiative)	Political Party not in Government	1st dimension
157	2	8-Jul-1951	Volksinitiative zur Heranziehung der öffentlichen Unternehmungen zu einem Beitrag an die Kosten der Landesverteidigung	civil society	1st dimension
160	2	20-Apr-1952	Volksinitiative Warenumsatzsteuer	Political Party not in Government	1st dimension
161	2	18-May-1952	Volksinitiative zur Rüstungsfinanzierung und zum Schutz der sozialen Errungenschaften	Members of Gov. Party	1st dimension
173	2	5-Dec-1954	Volksinitiative Schutz der Stromlandschaft und Verleihung Rheinau	civil society	2nd dimension
174.1	2	13-Mar-1955	Volksinitiative zum Schutz der Mieter und Konsumenten (Weiterführung der Preiskontrolle)	civil society	1st dimension
176	2	13-May-1956	Volksinitiative zur Erteilung von Wasserrechtskonzessionen	civil society	2nd dimension
184	2	26-Jan-1958	Volksinitiative gegen den Missbrauch wirtschaftlicher Macht	Political Party not in Government	1st dimension
188	2	26-Oct-1958	Volksinitiative zur Einführung der 44-Stunden-Woche	Political Party not in Government	1st dimension

ID	Outcome	Date	Title (German)	Origin	Main Conflict
197	2	22-Oct-1961	Volksinitiative zur Einführung der Gesetzesinitiative im Bunde	Members of Gov. Party	institutional question
199	2	1-Apr-1962	Volksinitiative für ein Verbot der Atomwaffen	Members of Gov. Party	2nd dimension
203	2	26-May-1963	Volksinitiative Entscheidungsrecht des Volkes über die Ausrüstung der schweizerischen Armee mit Atomwaffen	Members of Gov. Party	2nd dimension
213	2	16-Oct-1966	Volksinitiative zur Bekämpfung des Alkoholismus	Political Party not in Government	2nd dimension
214	2	2-Jul-1967	Volksinitiative gegen die Bodenspekulation	Members of Gov. Party	1st dimension
220	2	7-Jun-1970	Volksinitiative gegen die Ueberfremdung	Political Party not in Government	2nd dimension
222	2	27-Sep-1970	Volksinitiative Recht auf Wohnung und Ausbau des Familienschutzes	civil society	1st dimension
227.1	2	5-Mar-1972	Volksinitiative zur Förderung des Wohnungsbaues	civil society	1st dimension
231	2	24-Sep-1972	Volksinitiative für eine vermehrte Rüstungskontrolle und ein Waffenausfuhrverbot	civil society	1st dimension
232.1	2	3-Dec-1972	Volksinitiative zur Einführung einer Volkspension	Political Party not in Government	1st dimension
242	2	20-Oct-1974	Volksinitiative gegen die Ueberfremdung und Ueberbevölkerung der Schweiz	Political Party not in Government	2nd dimension
245.1	2	8-Dec-1974	Volksinitiative Soziale Krankenversicherung	Members of Gov. Party	1st dimension
255.1	2	21-Mar-1976	Volksinitiative für die Mitbestimmung der Arbeitnehmer	civil society	1st dimension
256	2	21-Mar-1976	Volksinitiative für eine Reform des Steuerwesens (Gerechtere Besteuerung und Abschaffung der Steuerprivilegien)	Political Party not in Government	1st dimension
261	2	26-Sep-1976	Volksinitiative für eine Haftpflichtversicherung durch den Bund für Motorfahrzeuge und Fahrräder	civil society	1st dimension
264	2	5-Dec-1976	Volksinitiative zur Einführung der 40-Stunden-Woche	Political Party not in Government	1st dimension
265	2	13-Mar-1977	Volksinitiative IV. Ueberfremdungsinitiative	Political Party not in Government	2nd dimension
266	2	13-Mar-1977	Volksinitiative für eine Beschränkung der Einbürgerungen	Political Party not in Government	2nd dimension
267.1	2	13-Mar-1977	Volksinitiative über die Neuordnung des Staatsvertragsreferendums	Political Party not in Government	2nd dimension
270.1	2	25-Sep-1977	Volksinitiative für einen wirksamen Mieterschutz	civil society	1st dimension
271	2	25-Sep-1977	Volksinitiative gegen die Luftverschmutzung durch Motorfahrzeuge	civil society	2nd dimension
274	2	25-Sep-1977	Volksinitiative für die Fristenlösung	Members of Gov. Party	2nd dimension
275	2	4-Dec-1977	Volksinitiative für eine Reichtumssteuer	Members of Gov. Party	1st dimension
279	2	26-Feb-1978	Volksinitiative für die vermehrte Mitbestimmung der Bundesversammlung und des Schweizervolkes im Nationalstrassenbau	civil society	2nd dimension
281	2	26-Feb-1978	Volksinitiative zur Herabsetzung des AHV-Alters	Political Party not in Government	1st dimension
287	2	28-May-1978	Volksinitiative für 12 motorfahrzeugfreie Sonntage pro Jahr	civil society	2nd dimension
295	2	18-Feb-1979	Volksinitiative gegen Suchtmittelreklame	civil society	2nd dimension
296	2	18-Feb-1979	Volksinitiative zur Wahrung der Volksrechte und der Sicherheit beim Bau und Betrieb von Atomanlagen	Members of Gov. Party	2nd dimension
299	2	2-Mar-1980	Volksinitiative betreffend die vollständige Trennung von Kirche und Staat	civil society	2nd dimension
305	2	5-Apr-1981	Volksinitiative Mitenand-Initiative für eine neue Ausländerpolitik	civil society	2nd dimension
311.1	1	28-Nov-1982	Volksinitiative zur Verhinderung missbräuchlicher Preise	civil society	1st dimension
318	2	26-Feb-1984	Volksinitiative für einen echten Zivildienst auf der Grundlage des Tatbeweises	civil society	2nd dimension
319	2	20-May-1984	Volksinitiative gegen den Missbrauch des Bankgeheimnisses und der Bankenmacht	Members of Gov. Party	1st dimension
320	2	20-May-1984	Volksinitiative gegen den Ausverkauf der Heimat	Political Party not in Government	2nd dimension
321	2	23-Sep-1984	Volksinitiative für eine Zukunft ohne weitere Atomkraftwerke	civil society	2nd dimension
322	2	23-Sep-1984	Volksinitiative für eine sichere, sparsame und umweltgerechte Energieversorgung	civil society	2nd dimension
323	2	2-Dec-1984	Volksinitiative für einen wirksamen Schutz der Mutterschaft	Members of Gov. Party	2nd dimension
329	2	10-May-1985	Volksinitiative für eine Verlängerung der bezahlten Ferien	Members of Gov. Party	1st dimension
330	2	9-Jun-1985	Volksinitiative Recht auf Leben	civil society	2nd dimension
337	2	1-Dec-1985	Volksinitiative für die Abschaffung der Vivisektion	civil society	2nd dimension
339.1	2	28-Sep-1986	Volksinitiative Eidgenössische Kulturinitiative	civil society	1st dimension
340	2	28-Sep-1986	Volksinitiative für eine gesicherte Berufsbildung und Umschulung	Political Party not in Government	1st dimension
343	2	7-Dec-1986	Volksinitiative für eine gerechte Besteuerung des Schwerverkehrs (Schwerverkehrsabgabe)	civil society	2nd dimension
346	2	5-Apr-1987	Volksinitiative für die Mitsprache des Volkes bei Militärausgaben (Rüstungsreferendum)	Members of Gov. Party	2nd dimension

ID	Outcome	Date	Title (German)	Origin	Main Conflict
350	2	6-Dec-1987	Volksinitiative zum Schutz der Moore - Rothenthurm-Initiative	civil society	2nd dimension
352	2	12-Jun-1988	Volksinitiative zur Herabsetzung des AHV-Rentenalters auf 62 Jahre für Männer und 60 Jahre für Frauen	Political Party not in Government	1st dimension
353	2	4-Dec-1988	Volksinitiative Stadt-Land-Initiative gegen die Bodenspekulation	civil society	1st dimension
354	2	4-Dec-1988	Volksinitiative zur Herabsetzung der Arbeitszeit	civil society	1st dimension
355	2	4-Dec-1988	Volksinitiative für die Begrenzung der Einwanderung	Political Party not in Government	1st dimension
356	2	4-Jun-1989	Volksinitiative für ein naturnahes Bauern - gegen Tierfabriken (Kleinbauern-Initiative)	civil society	1st dimension
357	2	26-Nov-1989	Volksinitiative für eine Schweiz ohne Armee und für eine umfassende Friedenspolitik	civil society	2nd dimension
358	2	26-Nov-1989	Volksinitiative pro Tempo 130/100	civil society	2nd dimension
359	2	1-Apr-1990	Volksinitiative Stopp dem Beton - für eine Begrenzung des Strassenbaus!	Political Party not in Government	2nd dimension
360	2	1-Apr-1990	Volksinitiative für eine autobahnfreie Landschaft zwischen Murten und Yverdon	civil society	2nd dimension
361	2	1-Apr-1990	Volksinitiative für ein autobahnfreies Knonauer Amt	civil society	2nd dimension
362	2	1-Apr-1990	Volksinitiative für eine freie Aarelandschaft zwischen Biel und Solothurn/Zuchwil	civil society	2nd dimension
365	2	23-Sep-1990	Volksinitiative für den Ausstieg aus der Atomenergie	Members of Gov. Party	2nd dimension
366	1	23-Sep-1990	Volksinitiative Stopp dem Atomkraftwerkbau (Moratorium)	civil society	2nd dimension
370	2	3-Mar-1991	Volksinitiative zur Förderung des öffentlichen Verkehrs	Political Party not in Government	2nd dimension
373	2	16-Feb-1992	Volksinitiative für eine finanziell tragbare Krankenversicherung (Krankenkasseninitiative)	civil society	1st dimension
374	2	16-Feb-1992	Volksinitiative zur drastischen und schrittweisen Einschränkung der Tierversuche (Weg vom Tierversuch!)	civil society	2nd dimension
378	2	17-May-1992	Volksinitiative zur Rettung unserer Gewässer	civil society	2nd dimension
391	2	7-Mar-1993	Volksinitiative zur Abschaffung der Tierversuche	civil society	2nd dimension
392	2	6-Jun-1993	Volksinitiative 40 Waffenplätze sind genug - Umweltschutz auch beim Militär	civil society	2nd dimension
393	2	6-Jun-1993	Volksinitiative für eine Schweiz ohne neue Kampfflugzeuge	civil society	2nd dimension
396	1	26-Sep-1993	Volksinitiative für einen arbeitsfreien Bundesfeiertag (1. August-Initiative)	Political Party not in Government	2nd dimension
403	2	28-Nov-1993	Volksinitiative zur Verminderung der Alkoholprobleme	civil society	2nd dimension
404	2	28-Nov-1993	Volksinitiative zur Verminderung der Tabakprobleme	civil society	2nd dimension
408	1	20-Feb-1994	Volksinitiative zum Schutze des Alpengebietes vor dem Transitverkehr	civil society	2nd dimension
416	2	4-Feb-1994	Volksinitiative für eine gesunde Krankenversicherung	Members of Gov. Party	1st dimension
423	2	25-Jun-1995	Volksinitiative zum Ausbau von AHV und IV	Members of Gov. Party	1st dimension
432	2	1-Dec-1996	Volksinitiative gegen die illegale Einwanderung	Members of Gov. Party	2nd dimension
434	2	8-Jun-1997	Volksinitiative EU-Beitrittsverhandlungen vors Volk!	Political Party not in Government	2nd dimension
435	2	8-Jun-1997	Volksinitiative für ein Verbot der Kriegsmaterialausfuhr	Members of Gov. Party	1st dimension
438	2	28-Sep-1997	Volksinitiative Jugend ohne Drogen	civil society	2nd dimension
440	2	7-Jun-1998	Volksinitiative zum Schutz von Leben und Umwelt vor Genmanipulation (Gen-Schutz-Initiative)	civil society	2nd dimension
441	2	7-Jun-1998	Volksinitiative S.o.S. - Schweiz ohne Schnüffelpolizei	Members of Gov. Party	2nd dimension
443	2	27-Sep-1998	Volksinitiative für preisgünstige Nahrungsmittel und ökologische Bauernhöfe	civil society	2nd dimension
444	2	27-Sep-1998	Volksinitiative für die 10. AHV-Revision ohne Erhöhung des Rentenalters	Members of Gov. Party	1st dimension
447	2	29-Nov-1998	Volksinitiative für eine vernünftige Drogenpolitik	Members of Gov. Party	2nd dimension
451	2	7-Feb-1999	Volksinitiative Wohneigentum für alle	civil society	1st dimension
460	2	12-Mar-2000	Volksinitiative für Beschleunigung der direkten Demokratie (Behandlungsfristen für Volksinitiativen in Form eines ausgearbeiteten Entwurfs)	civil society	institutional question
461	2	12-Mar-2000	Volksinitiative für eine gerechte Vertretung der Frauen in den Bundesbehörden (Initiative 3. März)	civil society	2nd dimension
462	2	12-Mar-2000	Volksinitiative zum Schutze des Menschen vor Manipulationen in der Fortpflanzungstechnologie (Initiative für menschenwürdige Fortpflanzung [FMF])	civil society	2nd dimension
463	2	12-Mar-2000	Volksinitiative für die Halbierung des motorisierten Strassenverkehrs zur Erhaltung und Verbesserung von Lebensräumen (Verkehrshalbierungs-Initiative)	civil society	2nd dimension
465.1	2	24-Sep-2000	Volksinitiative für einen Solarrappen	Members of Gov. Party	2nd dimension
467	2	24-Sep-2000	Volksinitiative für eine Regelung der Zuwanderung	Members of Gov. Party	2nd dimension
468	2	24-Sep-2000	Volksinitiative Mehr Rechte für das Volk dank dem Referendum mit Gegenvorschlag	Members of Gov. Party	institutional question

to be continued on next page...

ID	Outcome	Date	Title (German)	Origin	Main Conflict
469	2	26-Nov-2000	Volksinitiative für eine Flexibilisierung der AHV - gegen die Erhöhung des Rentenalters für Frauen	civil society	1st dimension
470	2	26-Nov-2000	Volksinitiative für ein flexibles Rentenalter ab 62 für Frau und Mann	Political Party not in Government	1st dimension
471	2	26-Nov-2000	Volksinitiative Sparen beim Militär und der Gesamtverteidigung - für mehr Frieden und zukunftsgerichtete Arbeitsplätze	Members of Gov. Party	2nd dimension
472	2	26-Nov-2000	Volksinitiative für tiefere Spitalkosten	civil society	1st dimension
474	2	4-Mar-2001	Volksinitiative Ja zu Europa!	civil society	2nd dimension
475	2	4-Mar-2001	Volksinitiative für tiefere Arzneimittelpreise	civil society	1st dimension
476	2	4-Mar-2001	Volksinitiative für mehr Verkehrssicherheit durch Tempo 30 innerorts mit Ausnahmen (Strassen für alle)	civil society	2nd dimension
481	2	2-Dec-2001	Volksinitiative für eine gesicherte AHV - Energie statt Arbeit besteuern!	Political Party not in Government	2nd dimension
482	2	2-Dec-2001	Volksinitiative für eine glaubwürdige Sicherheitspolitik und eine Schweiz ohne Armee	civil society	2nd dimension
483	2	2-Dec-2001	Volksinitiative Solidarität schafft Sicherheit: Für einen freiwilligen zivilen Friedensdienst (ZFD)	civil society	2nd dimension
484	2	2-Dec-2001	Volksinitiative für eine Kapitalgewinnsteuer	civil society	1st dimension
485	1	3-Mar-2002	Volksinitiative für den Beitritt der Schweiz zur Organisation der Vereinten Nationen (UNO)	Members of Gov. Party	2nd dimension
486	2	3-Mar-2002	Volksinitiative für eine kürzere Arbeitszeit	civil society	1st dimension
488	2	2-Jun-2002	Volksinitiative für Mutter und Kind - für den Schutz des ungeborenen Kindes und für die Hilfe an seine Mutter in Not	civil society	2nd dimension
489.1	2	22-Sep-2002	Volksinitiative ?berschüssige Goldreserven in den AHV-Fonds	Members of Gov. Party	2nd dimension
491	1	24-Nov-2002	Volksinitiative gegen Asylrechtsmissbrauch	Members of Gov. Party	2nd dimension
497	2	18-May-2003	Volksinitiative Ja zu fairen Mieten	civil society	1st dimension
498	2	18-May-2003	Volksinitiative für einen autofreien Sonntag pro Jahreszeit - ein Versuch für vier Jahre	civil society	2nd dimension
499	2	18-May-2003	Volksinitiative Gesundheit muss bezahlbar bleiben	Members of Gov. Party	1st dimension
500	2	18-May-2003	Volksinitiative Gleiche Rechte für Behinderte	civil society	2nd dimension
501	2	18-May-2003	Volksinitiative Strom ohne Atom - Für eine Energiewende und die schrittweise Stilllegung der Atomkraftwerke	Members of Gov. Party	2nd dimension
502	2	18-May-2003	Volksinitiative MoratoriumPlus - Für die Verlängerung des Atomkraftwerk-Baustopps und die Begrenzung des Atomrisikos	Members of Gov. Party	2nd dimension
503	2	18-May-2003	Volksinitiative für ein ausreichendes Berufsbildungsangebot	civil society	1st dimension
506	1	8-Feb-2004	Volksinitiative Lebenslange Verwahrung für nicht therapierbare, extrem gefährliche Sexual- und Gewaltstraftäter	civil society	2nd dimension
512	2	26-Sep-2004	Volksinitiative 'Postdienst für alle'	civil society	1st dimension
520	1	27-Nov-2005	Volksinitiative für Lebensmittel aus gentechnikfreier Landwirtschaft	civil society	2nd dimension
523	2	24-Sep-2006	Volksinitiative Nationalbankgewinne für die AHV	Members of Gov. Party	1st dimension
528	2	11-Mar-2007	Volksinitiative Für eine soziale Einheitskrankenkasse	civil society	1st dimension
530	2	24-Feb-2008	Volksinitiative vom 03.11.2005 'Gegen Kampfjetlärm in Tourismusgebieten'	civil society	2nd dimension
532	2	1-Jun-2008	Volksinitiative 'für demokratische Einbürgerungen'	Members of Gov. Party	2nd dimension
533	2	1-Jun-2008	Volksinitiative 'Volkssouveränität statt Behördenpropaganda'	civil society	institutional question
535	1	30-Nov-2008	Volksinitiative "Für die Unverjährbarkeit pornographischer Straftaten an Kindern"	civil society	2nd dimension
536	2	30-Nov-2008	Volksinitiative " Für ein flexibles AHV-Alter"	civil society	1st dimension
537	2	30-Nov-2008	Volksinitiative "Verbandsbeschwerderecht: Schluss mit der Verhinderungspolitik - Mehr Wachstum für die Schweiz"	Members of Gov. Party	institutional question
538	2	30-Nov-2008	Volksinitiative "Für eine vernünftige Hanf-Politik mit wirksamem Jugendschutz"	Members of Gov. Party	2nd dimension
543	1	29-Nov-2009	Volksinitiative "Gegen den Bau von Minaretten"	Members of Gov. Party	2nd dimension
544	2	29-Nov-2009	Volksinitiative "Für ein Verbot von Kriegsmaterial-Exporten"	civil society	1st dimension
549	2	7-Mar-2010	Volksinitiative "Gegen Tierquälerei und für einen besseren Rechtsschutz der Tiere'	civil society	2nd dimension
552	1	28-Nov-2010	Volksinitiative "Für die Ausschaffung krimineller Ausländer (Ausschaffungsinitiative)"	Members of Gov. Party	2nd dimension
553	2	28-Nov-2010	Volksinitiative "Für faire Steuern - Stopp dem Missbrauch beim Steuerwettbewerb (Steuergerechtigkeits-Initiative)"	Members of Gov. Party	1st dimension
554	2	13-Feb-2011	Volksinitiative "Für den Schutz vor Waffengewalt"	Members of Gov. Party	2nd dimension

Appendix C

# Appendix for "Direct Democracy, Representation, and Policy Congruence"

C.1 Formal Model

In section 3.1 we derived the equilibrium for cases where the status quo was no law. We show here that if the status quo is the law we find a mirror equilibrium; which is often the case for spatial models (see, e.g., Hug, 2004).

As in the main part we start with the last node and find the optimal response. This allows us to find the conditions for a Bayesian Nash equilibrium. First, we assume that the government does not change the status quo and the people can either accept the law or launch an initiative to abolish the law. The people will use direct democracy if the following holds (condition 4):

$$
\begin{aligned}
U_P(\underline{L}|DD) &\geq U_P(L|\underline{DD}) \\
-|0 - x_P| - c_P &\geq -|1 - x_P| \qquad \text{Note: } 0 \leq x_G, x_P \leq 1 \\
-x_P - c_P &\geq x_P - 1 \\
x_P &\leq \frac{1 - c_P}{2}
\end{aligned}
\tag{C.1}
$$

Figure C.1: Theoretical Model: Extensive Form
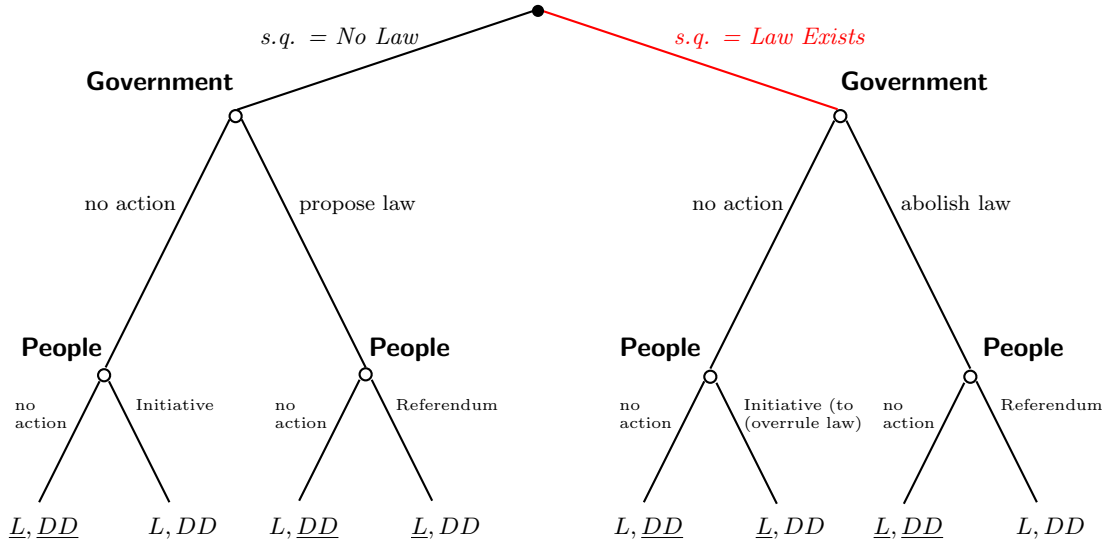
Notes: L denotes that a law is present, $\underline{L}$ denotes that there is no law. DD If an initiative or a referendum is used, $\underline{DD}$ if there is no use of direct democratic institutions, $s.q.$ = status quo.

If people dislike the law sufficiently they will use an initiative and force the government via the ballot to change the law. This is the equivalent to condition 2. In case the government would decide to abolish the law, the people will use direct democracy if (condition 5):

$$
\begin{aligned}
U_P(L|DD) &\geq U_P(\underline{L}|\underline{DD}) \\
-|1 - x_P| - c_P &\geq -|0 - x_P| \qquad \text{Note: } 0 \leq x_G, x_P \leq 1 \\
x_P - 1 - c_P &\geq -x_P \\
x_P &\geq \frac{1 + c_P}{2}
\end{aligned}
\tag{C.2}
$$

Condition 5 is equivalent to condition 1 in the main part. If the people favor the law strongly enough they will use direct democracy to get it. As before, the decision of the government is decisive. The government can decide to propose a change (abolish the law) or to not change the status quo.

The government is uncertain about the exact position of the people's ideal point and hence can

only form expected utilities. If the government abolishes the law it has to account for the possibility that the people will try to keep the law (use referendum) or not. If the government does not act, it has to take into account the possibility that the people use the initiative to force a change or that they do not take action. Since the people have full knowledge, the government knows that as soon as a referendum or an initiative is used, the people will get their way. Hence, the decision can be described with this inequality (condition 6):

$$
\begin{aligned}
E\big[U_G(\text{keeping } L)\big] &\geq E\big[U_G(\text{abolishing } L)\big] \\
p_{\text{ini}} \cdot U_G(\underline{L}|DD) + (1 - p_{\text{init}}) \cdot U_G(L|\underline{DD}) &\geq p_{\text{ref}} \cdot U_G(L|DD) + (1 - p_{\text{ref}}) \cdot U_G(\underline{L}|\underline{DD}) \\
p_{\text{ini}} \cdot (-|0 - x_G| - c_G) + (1 - p_{\text{ini}}) \cdot (-|1 - x_G|) &\geq p_{\text{ref}} \cdot (-|1 - x_G| - c_G) + (1 - p_{\text{ref}}) \cdot (-|0 - x_G|) \\
x_G &\geq \frac{p_{\text{ini}} \cdot (c_G - 1) - p_{\text{ref}} \cdot (c_G + 1) + 1}{2(1 - p_{\text{ref}} - p_{\text{init}})} \quad (\text{C.3})
\end{aligned}
$$

Conditions 1&2 and 4&5 have allowed to derive the government's decision (conditions 3&6) and for both possible cases we find the threshold for the government's decision and this allows us to show that these are mirror solutions.

C.2 Comparative Statics

Figure C.2 shows some comparative statics based on the theoretical model and how the costs of direct democratic action affect the player's decisions. Let us start with the left plot. The $y-$axis shows the government's support for a new law and the $x-$axis voters' costs to launch a campaign. The curve shows how the government's decision to propose a new law is a function of its own support of the reform and the costs for the voter of using direct democratic rights. When the electorate can easily call for a referendum (i.e., the costs of using direct democratic rights for voters (c_P) is small), the government will only enact new laws that are strongly supported within the government. But as the costs for the voters go up, and with that the risk of being defeated at the ballot box decreases, the government will already propose a law that has only lukewarm support within the government. Another way to illustrate the effect of direct democratic institutions is shown in the right plot. The $y-$axis shows again the government support for a new law and the

$x-$axis the median voter's preference. The more the electorate supports a bill (although overall still rejecting it, $x_P < 0.5$), the more inclined is the government to pass the law. The comparison between the solid and the dashed line shows that the government is much more responsive to the median voter's preference, if the costs for the usage of direct democracy (c_P) are lower, which is represented by the solid line.

Figure C.2: Comparative Statics
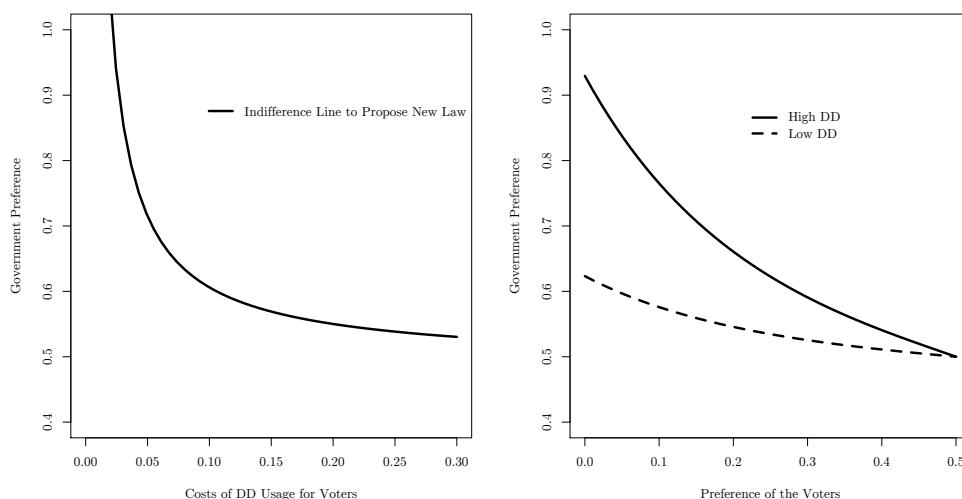
Notes: Values for parameters: Left: $x_P = 0.1$, $c_G = 0.02$. Right: $c_P = 0.1/0.3$, $c_G = 0.05$.

C.3 Policy Items and Responses

Tax Policies

Policy 1 "Do you support or oppose special tax rules for foreigners?" (German: In den meisten Kantonen profitieren vermögende Ausländerinnen und Ausländer von vorteilhaften Steuerkonditionen in der Form der Pauschalbesteuerung. Sind Sie für oder gegen die Pauschalbesteuerung von Ausländern?)

Policy 2 "Do you prefer living in a canton with above- or below-average tax progressivity?", (German: Personen mit hohem Einkommen versteuern einen höheren Anteil des Einkommens als

Personen mit tieferen Einkommen. Die Steuerprogression zwischen den Kantonen ist dabei sehr unterschiedlich. Möchten Sie persönlich in einem Kanton leben mit überdurchschnittlich starker Steuerprogression oder lieber in einem Kanton mit vergleichsweise schwacher Steuerprogression?)

Policy 3 "Do you think that a single person with a gross annual income of CHF 100k should be paying more or less than 12% sub-national income taxes?", (German: Finden Sie eine ledige Person mit einem Bruttoeinkommen von 100'000 Schweizer Franken, sollte mehr oder weniger als 12% Einkommenssteuer an den Kanton und die Gemeinde bezahlen?)

Immigration and Foreigners

Policy 4 "Do you think that foreigners should have the right to vote on municipal referendums?", (German: Sollten Ausländerinnen und Ausländer an Abstimmungen auf Gemeindeebene teilnehmen dürfen?)

Policy 5 "Do you think that votes at town hall meetings or in the municipal governments should decide about naturalization?", (German: Sind Sie der Meinung das Einbürgerungsverfahren an Gemeindeversammlungen entschieden werden sollen oder sollen Fachgremien beziehungsweise der Gemeinderat über Einbürgerungen entscheiden.)

Education and Family Policies

Policy 6 "Do you think that a tax credit for children of CHF 5k is too high or too low?", (German: Familien können pro Kind einen fixen Betrag vom steuerbaren Einkommen abziehen. Finden Sie 5'000 Schweizer Franken als Kinderabzug zu viel oder zu wenig?)

Policy 7 "What is the best point in time to start teaching a second foreign language – fifth grade or later?", (German: Wann finden Sie, ist der richtige Zeitpunkt eine zweite Fremdsprache zu unterrichten? Im 5. Schuljahr oder später?)

Health Care Policies

Policy 8 "Do you think that the administration should contact people which are eligible for health care subsidies by themself?", (German: Finden Sie es richtig, wenn die Verwaltung automatisch all jene kontaktiert, die gemäss Steuererklärung berechtigt sind Prämienverbilligungen zu erhalten?)

Policy 9 "Do you think that a family with two children and an annual income of CHF 90k should receive health care subsidies?", (German: Finden Sie eine Familie mit zwei Kindern und einem Jahreseinkommen von 90'000 Schweizer Franken, soll Prämienverbilligung erhalten?)

Policy 10 "Should physicians be allowed to sell medication (or only pharmacists)?", (German: Wie stehen Sie zur Medikamentenabgabe? Sind Sie dafür dass Ärztinnen und Ärzte in ihrer Praxis Medikamente abgeben dürfen?)

C.4 Multilevel Regression with Post-Stratification

In this section of the appendix we show first the models used to estimate the preferences and also inspect the elite preference measures. A potential critique is that the elite measure is not really based on a sincere answer but rather legislators and politicians responding to questions in such a fashion to please their constituency. If the elite preferences is dependent on the constituency's preference the estimation results and the conclusions based on them might be invalid. We show that the elite responses are best predicted by partisan affiliation of the respondent and not by geographic location.

C.4.1 Response

Each response model has a number of fixed and random effects. The models used to estimate the people's preference have six random effects: sex, education, domicile type, age group, canton, and region. The response models for the elite have three random effects (party, canton, region). The difference is due to the post-stratification step. For the individual responses there are a number

of individual variables (such as age, gender, etc) which are in the survey and also know thanks to the census data. For the elite measure, the population (for which we post-stratify) is the political structure of the elite. We use both the measures based on party strength in the legislature and in government. For the fixed effects we relied on six principle explanatory variables which vary by canton: share of German speakers (BfS, 2012), share of Roman-Catholics (BfS, 2012), GDP per capita (BAK Basel Economics), share of people with a university degree (BfS, 2012), share of votes for left parties in the 2011 national elections (BfS, 2013), and share of votes for right parties in the 2011 election (BfS, 2013).

C.4.2 Model Selection

We selected models based on data fit as determined by AIC and BIC. Relying on AIC or BIC is motivated by the fact that these measure allow to make trade-off between data fit and model complexity. Since we are using them for predictions the danger from over complex models is over fitting (Babyak, 2004).[1] Relying on a model quality measure which punishes complexity provides a possible remedy for over fitting. The following overview shows which variables were used for which survey question.

- $x2.1$ = share of German speakers

- $x2.2$ = share of Roman-Catholics

- $x2.3$ = GDP per capita

- $x2.4$ = share of population with a university degree

- $x2.5$ = share of votes for left parties in 2011 national election

- $x2.6$ = share of votes for right parties in 2011 national election

Selected Models for People's Response Model

1. $y_1 \sim x2.1 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$
2. $y_2 \sim x2.5 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$
3. $y_3 \sim x2.4 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

---

[1]For an in-depth treatment of model selection for response models in MrP see Leemann and Wasserfallen (2013).

4. $y_4 \sim x2.1 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

5. $y_5 \sim x2.5 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

6. $y_6 \sim \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

7. $y_7 \sim x2.1 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

8. $y_8 \sim x2.1 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

9. $y_9 \sim x2.4 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

10. $y_{10} \sim x2.1 + \alpha_{sex} + \alpha_{education} + \alpha_{age} + \alpha_{domicile} + \alpha_{canton} + \alpha_{region}$

α_R

Selected Models for Elite's Response Model

1. $y_1 \sim x2.2 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

2. $y_2 \sim x2.4 + x2.6 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

3. $y_3 \sim x2.6 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

4. $y_4 \sim x2.6 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

5. $y_5 \sim x2.1 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

6. $y_6 \sim x2.1 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

7. $y_7 \sim x2.1 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

8. $y_8 \sim x2.1 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

9. $y_9 \sim x2.2 + x2.4 + \alpha_{party} + \alpha_{canton} + \alpha_{region}$

10. $y_10 \sim x2.1 + x2.5\alpha_{party} + \alpha_{canton} + \alpha_{region}$

C.4.3   Exogeneity of Elite Responses

One concern that could arise is that the elite does not answer the questions sincerely but rather gives the answers they believe to be in line with their constituency. If that were the case, the model estimates lose their clear interpretation and the validity is questioned. We show here that this is most likely not the case. To do so, we compare the estimates with respect to their constituency and their party. We argue that the a response is essentially a function of which party a politicians represents. We show that the almost the entire variance is explained by the party position and not by the position of the constituency. We show here the results for policy question 1 but can produce identical results for all ten policy questions.

Table C.1: Exogenous Elite Preferences!

	Model 1	Model 2	Model 3
Constant	0.86***	0.30***	0.60***
	(0.03)	(0.10)	(0.07)
FE PARTIES	✓	X	✓
FE CANTONS	X	X	✓
R^2	0.63	0.10	0.67
BIC	257.7	740.3	357.8

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

The results clearly show that politicians' responses are explained by their party affiliation and not by their constituency (canton). If these answers were to a certain degree endogenous, they should vary by constituency and not by party. We find the opposite; the model with best BIC value is a model which only includes the party indicators (Model 1).

Finally, these results are in line with newer research which shows that politicians might be ill-equipped to estimate their constituency's preference. Broockman and Skovron (2013) show with a large survey of 2,000 legislative candidates that "[...] actual district opinion explains only a modest share of the variation in politicians' perceptions of their districts' views.". We also show that the cantonal opinion is not an important predictor for the politicians response but rather his or her party affiliation.