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# Voting for direct democratic participation: Evidence from an initiative election

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# Voting for direct democratic participation: Evidence from an initiative election

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## Abstract

We study a constitutional change in the German State of Bavaria where citizens, not politicians, granted themselves more say in politics at the local level through a state initiative election. This institutional setting allows us to observe revealed preferences for direct democracy and to identify factors which explain these preferences. Empirical evidence suggests that support for direct democracy is related to dissatisfaction with representative democracy in general rather than with an elected governing party.

**Keywords:** Direct Democracy; Voting; Initiative; Parties

**JEL Classification:** D72, H70

**Political Science Classification:** Direct Democracy; Political Behavior;  
Comparative Politics; Party Influence

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# 1 Introduction

Look at opinion surveys by leading pollsters and you will find that contemporary citizens are relatively dissatisfied with the political system and interested in more direct democratic participation, possibly even much more direct participation. The interpretation, evaluation and discussion of such survey results on representative versus direct democracy has been largely an elite affair and political consequences are rarely drawn. This is comprehensible because stated support for direct democracy in opinion surveys need not reflect actual preferences for direct democratic participation. Hypothetical situations and erroneous self-reflections combined with moral satisfaction (Who will state that she is against democratic participation?) may introduce bias and make it difficult to draw concrete policy conclusions.

Ironically, yet coherent with the prevailing view of representative democracy, citizens have seldom been allowed to directly decide themselves on extensions of direct democratic participation rights. While political scientists and political economists have explored many facets of direct democracy, no empirical investigation so far exploits revealed preferences for direct democracy by looking at a direct democratic decision to implement more extensive direct democratic rights. Obviously, analyzing such a process of extending direct democracy would be revealing and our contribution attempts to fill this literature gap.

We analyze a constitutional change in the German State of Bavaria in 1995 where citizens, not politicians, granted themselves more say in politics at the *local level* through a constitutional initiative election at the *state level*. The constitutional change was accepted by a majority of Bavarian citizens and introduced important direct democratic instruments for municipalities, including municipal initiative petitions (*Bürgerbegehren*) and municipal initiative elections (*Bürgerentscheid*) which did *not* exist prior to 1995. The governing party in the state legislature campaigned against the systematic extension of direct participation rights.<sup>2</sup> This unique institutional setting allows us to focus on revealed preferences for direct democracy instead of analyzing opinion surveys, i.e. we focus on actual behavior of citizens in a real political decision with real consequences regarding the extension of direct democracy.

Dissatisfaction with representative democracy is regularly stated as a reason for the support of more direct democracy. The institutional setting allows us to explore factors which drive revealed preferences for more direct democratic participation at the local level. Importantly, we can distinguish between dissatisfaction with representative democracy in

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<sup>2</sup>Public pressure on this matter forced the governing party to give up their general position against citizen participation and they subsequently campaigned for their own proposition of a weakened version of citizen participation.

general, and distrust in the governing political party, in particular. Empirical results for over 2,000 Bavarian municipalities show that support for direct democracy is *not* positively associated with suspicion and a lack of support of the elected governing party as common perception might suggest. Rather, stronger electoral support for the governing party at the state level is related to relatively lower levels of revealed preferences for direct democracy. We employ an instrumental variable approach to account for endogeneity and the results indicate that the causal relationship most likely runs from stronger electoral support to voting against direct democracy. Over and above the IV strategy, we also test whether potentially unobserved variables affect the robustness of our empirical results. Furthermore, a Bayesian approach highlights the importance of electoral support as a main variable of interest to explain preferences for direct democracy. The overall evidence is suggestive for the view that dissatisfaction with politics is not linked to a specific elected governing party but rather to representative democracy in general which complements the existing literature on interpretations for support of direct democracy.

This paper is structured as follows: Section 2 presents theoretical considerations and discusses the related literature. Section 3 presents the institutional setting and the initiative at the state level for the extension of direct democracy. We discuss the data and the empirical strategy in Section 4 and present results in Section 5. Section 6 offers concluding remarks.

## 2 Theoretical considerations and literature

In many countries, regions and local jurisdictions citizens rely increasingly on initiatives, referendums and other forms to direct democracy to take political matters into their own hands.<sup>3</sup> Numerous studies analyzed the effects that direct democratic participation and decisions have on policy outcomes (see, among others, Noam 1980; Frey 1994; Feld and Matsusaka 2003; or recently Matsusaka 2005, 2008, 2010 for overviews). However, empirical evidence is comparatively scarce on the support for the introduction of direct democratic instruments. In particular, revealed preferences for direct democratic participation rights are usually unobserved. Historically, the extension of direct democratic participation rights seems to be associated with discontent with politicians in general (see Piott 2003), who then grant more participation rights in an effort to appease voters. We contribute to the literature on the demand for direct democracy by analyzing a decision of voters (instead of politicians) to grant themselves more direct democratic participation rights.

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<sup>3</sup>For the chances and challenges of direct democracy, see Kirchgässner (2015).

Opinion polls in numerous countries show strong, almost overwhelming, demand of citizens for more direct influence on policy decisions (Bowler and Donovan 1994). According to surveys of the International Social Survey Program in 2004 over 60 percent of survey respondents in the United States, Canada, Great Britain, and Spain agree or strongly agree that “referendums are a good way to decide important political questions”. In Austria, Germany and Switzerland support is over 80 percent. Other national and international pollsters offer similar numbers (Leininger 2015). Due to potential bias of surveys, the literature on the public approval of direct democracy is inconclusive (see, e.g. Dalton et al. 2001; Donovan and Karp 2006; Bowler et al. 2007). Craig et al. (2001) show that survey answers for the extension of direct democracy differ markedly by the way the question is asked: If citizens make a distinction between the political elite and themselves, i.e. “Us versus Them”, large majorities agree with direct democracy while support is markedly weaker when asked about normal people’s capacity of participating. According to Dyck and Baldassare (2009) support for direct democracy varies on whether the survey questions focus on the abstract institution rather than concrete details and Collingwood (2012) shows that support is lower when respondents are initially asked questions on ballot propositions. Thus, it is, unfortunately, not clear that opinion polls for more direct democracy actually correspond to citizen preferences for it and whether they over- or understate actual preferences. Instead of focusing on hypothetical support for direct democracy in opinion polls, our contribution analyses an actual ballot proposition for more direct democracy that lead to an important real constitutional change.

Extensive literature highlights the discrepancy between outcomes of opinion surveys and true preferences for politically important topics. The absence of reflected attitudes on certain issues can lead to improvised answers in surveys and opinions may change in relatively short periods of time (Zaller and Feldman 1992; Diamond and Hausman 1994). Preceding questions, the interview manner, the context, among others, all influence the answers which may lead to different survey outcomes or seeming preference indication of survey respondents (Diamond et al. 1993; Hanemann 1994; List 2002). Proposed policies in surveys tend to be considered hypothetical and real costs and policy consequences are only partly taken into account or even unknown. Such hypothetical bias combined with moral satisfaction can cause the survey results on politically relevant topics to be widely inaccurate (Kahneman and Knetsch 1992; Diamond and Hausman 1994; Neill et al. 1994; Cummings et al. 1997; Murphy et al. 2005; Funk 2012). Regarding prevailing norms, this may be particularly true for surveys on direct democracy.

Focusing on actual initiative elections provides a way to elicit revealed voter preferences directly. Initiative elections permit citizens to judge legislative proposals, rank them

against the status quo, and they entail real policy outcomes (e.g. Schneider et al. 1981; Hersch and McDougall 1988; Frey 1994; Garrett 1999; Portmann et al. 2012; Brunner et al. 2013; Carey and Hix 2013). Voters in initiative elections put more time into thinking about a ballot decision and the incentive to state true preferences is higher as their decisions entail real consequences. Schlaepfer et al. (2004) and Schlaepfer and Hanley (2006) compared stated preferences in professional surveys which were conducted before the awareness of an upcoming referendum with the decisions in the actual referendum and find that preferences indicated in surveys are largely incompatible with referendum decisions. By analyzing an initiative election on the introduction of direct democracy, we avoid challenges of surveys and obtain a direct measure for revealed preferences of voters regarding the support for direct democracy.

Higher educated people are more aware of ballot propositions and have a stronger opinion on them (Bowler and Donovan 1994). Uninformed voters tend to abstain from voting in initiative elections. Thereby, initiative elections oversample the informed population (Osborne and Turner 2010; Stadelmann and Torgler 2013). However, informed answers are also overrepresented in surveys as ill-informed survey respondents often do not answer questions such that both, initiative elections and surveys, bias the outcome towards the opinion of informed voters (Althaus 1996). As open public debates precede an actual decision in initiative elections, information uncertainty is generally lower than for survey respondents (Frey 1994; Lupia 1994) and abstaining from a ballot is more closely associated with true indifference. Moreover, information is more easily accessible ahead of initiative elections than for surveys and voters generally tend to be better informed when they can participate more directly in political decisions (Feld and Kirchgaessner 2000; Benz and Stutzer 2004).

As in any political process, particular groups may try to influence referendum decisions through campaigning (Lupia 1994). Bohnet and Frey (1994) and Frey (1994) argue that referendums fulfill individual preferences and are able to break the cartel of politicians directed against voters. Nevertheless, governments and politicians may influence how citizens vote in referendums. Bowler and Donovan (1994) suggest that endorsements by political parties and politicians serve as a channel of information and that they have an influence at the ballot (see also Lupia 1994; Nalebuff and Shachar 1999; Stadelmann and Torgler 2013). Moreover, partisanship increases the probability of forming opinions by statements of the political elite (Eichenberger and Serna 1996). Results by Trechsel and Sciarini (1998) suggest an impact of political elites on voting outcomes in referendums and Smith and Tolbert (2001) argue that political party affiliation is the most important influence on voting decisions. For initiative elections, parties tend to become involved

when the issue affects the party's ideology and parties attract voters by taking a side to withdraw voter support from another party (Smith and Tolbert 2001). Jenssen and Listhaug (2001) note that voters in initiative elections may take positions on an issue based on party cues. Our setting allows us to contribute to this literature by taking account of party positions with respect to an extension of direct democracy and we can analyze the influence of parties on revealed preferences for direct democracy. Thereby, we extend the literature on the reasons for support of direct democracy by investigating whether suspicion of elected governing party explains actual support for direct democracy (see, e.g., Gerber 1999 or Dalton et al. 2001) or rather dissatisfaction with representative democracy in general.

### 3 Institutional setting

#### 3.1 Direct democracy at the state level and political parties

Germany implemented a party-centered representative democracy at the national level after 1945. Direct democratic participation rights such as initiative petitions or initiative elections have been included in some State (*Länder*) constitutions. In particular, the State of Bavaria grants comparatively extended direct democratic participation rights to its citizens. In 1946, a two-stage legislation with initiative petitions and elections had been implemented for decisions at the state level. An initiative petition (*Volksbegehren*) constitutes an attempt of citizens to change or adapt a law or a constitutional amendment. It is addressed to the State Parliament (*Landtag*). Before the initiative petition gets submitted to voters for a decision in an initiative election (*Volksentscheid*), two signature requirements need to be fulfilled: In a first step, 25,000 signatures of eligible voters are required to have the legal admissibility of the initiative formally tested. In a second step, 10 percent of the electorate have to sign the initiative petition up to 14 days before it is submitted to the State Parliament. The State Parliament has the right to formulate a counterproposal to the initiative. If the State Parliament rejects the initiative or submits a counterproposal, a popular vote in an initiative election is necessary. The proposal with the relative majority is accepted and becomes law.<sup>4</sup> Constitutional amendments need to fulfill an approval quorum of 25 percent of eligible voters. Until 2014, 19 referendums were held in Bavaria at the state level.

The political party landscape in Bavaria is influenced by the conservative Christian Social

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<sup>4</sup>In 2000, the Bavarian state election law (*Landeswahlgesetz*) was changed due to a decision of the Bavarian Constitutional Court. If a referendum and a counterproposal are submitted, voters have now more than one vote and in case more than one option wins a majority of the votes, a tie-break vote is necessary (Bayerisches Gesetz- und Verordnungsblatt Nr. 15/2000, p. 365).

Union (CSU) which held an absolute majority in the State Parliament and Government from 1962 until 2008 and regained an absolute majority of seats in 2013. The party only competes in the State of Bavaria. Its spectrum of supporters is broad and ranges through all strata of society (Pappi 2011). The Social Democrats (SPD) represent the party for the working class at the federal level in Germany, however, the working class votes in the same proportions for the SPD and the CSU in Bavaria. The Greens and the Liberals (FDP) enjoy electoral support at the state and municipal level in Bavaria. In state level elections their vote shares lie between approximately 2 to 8 percent.<sup>5</sup> Since 1998 the Free Voters (Freie Wähler), a conservative party next to the CSU gained between 4 and 10 percent in state elections.

### 3.2 Introducing direct democracy at the local level

While the Bavarian constitution grants extended direct democratic participation rights at the state level, the situation at the local level has been entirely different until 1995. In 1951, the incorporation of local level initiative petitions (*Bürgerbegehren*) and local level initiative elections (*Bürgerentscheid*) was not ratified by the state legislature (see Bierl 1995 and Bayerischer Landtag 1995c, p. 308 for details). In the following 40 years, multiple motions to implement direct democracy at the local level by smaller parties were all inhibited by the governing party, i.e. the CSU.<sup>6</sup> At the time, the CSU advanced numerous arguments against direct democratic participation at the local level against the Greens and other supporters of direct democracy, e.g. that a minority might overrule a majority and that municipalities would lose their ability to govern. CSU officials expressed concern that direct democracy at the local level would not match with the system of representative democracy (CSU Parteitag 1982) and that local direct democratic decisions would be “hijacked by demagogues and pied pipers” (Bayerischer Landtag 1995b p.893).<sup>7</sup> The CSU won an outright majority in both state elections of 1994 and 1998, with 52.8 percent and 52.9 percent, respectively. Between the two state elections, in 1995, direct democracy at the local level was introduced through an initiative election at the state level.

In 1995, a year after the election, the citizen’s association for “More Democracy” (*Mehr Demokratie in Bayern e.V.*) formulated an initiative to introduce direct democracy at

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<sup>5</sup>After a term in the State government the Liberals did not manage to win any seats in the 2013 election.

<sup>6</sup>Famous but failed attempts to expand direct democracy include proposals in 1981, 1985, 1987, and 1991 (Bayerischer Landtag 1991 pp. 400)

<sup>7</sup>The protocol of the plenary session in 1995 states: “Der Bürgerentscheid ist eine Spielwiese für Volksverführer und Demagogen. Die vom Volk gewählten Vertreter in den kommunalen Parlamenten sollen entmachtet und die Mehrheiten von aktionistischen Minderheiten terrorisiert werden.”



the local level through a constitutional amendment at the state level, i.e. the state constitution needed to be changed to allow direct democracy at the local level. At the state level such an initiative was possible according to the existing state constitution as outlined above. The initiative petition passed the signature requirement with 13.7 percent of the electorate and was submitted to the State Parliament. The proposition was considered citizen-friendly with extensive participatory and decisive rights as well as low hurdles (see Bayerischer Landtag 1994a; Bayerischer Landtag 1994b). Parliamentary criticism towards the initiative was intense and it was particularly targeted at missing quora of approval, the non-exclusion of certain policy areas from an initiative election, and certain politicians argued that “all this would serve special interests” (Bayerischer Landtag 1995c, p. 311).

As the initiative petition passed the state signature requirement, the governing party CSU formulated a counterproposal (see Bayerischer Landtag 1995a). This alternative proposal would have introduced important steps against the extension of direct democratic rights and instruments at the local level. In particular, it included a quorum requirement and subject exclusions within a legislative instead of a constitutional framework (Bayerischer Landtag 1995b, 889-895) which would have made it prone to arbitrary changes ex-post. A rigorous debate in parliament followed and the counterproposal was accused as a “bluff package” (Bayerischer Landtag 1995d p. 893). With the majority CSU voting for its own measure while the opposition voted for the initiative in the State Parliament, the initiative was not directly ratified (64 votes for the initiative, 89 against it) and the counterproposal as well as the initiative had to be put to the polls. In the intense public debate ahead of the initiative election, opposition parties, in particular the Greens, supported the initiative of *More Democracy* as did some other 50 small associations.<sup>8</sup> However, CSU dominated large municipal head organizations “*Landkreistag*”, “*Städtetag*”, and “*Gemeindetag*” for counties, cities and municipalities all rejected the initiative in favor of the counterproposal. The referendum took place on October 1, 1995. The CSU counterproposal was rejected by the voters with only 38.7 percent supporting it. A majority of 57.8 percent of voters supported the original initiative. 3.4 percent rejected both amendments. The new constitutional amendment was implemented directly afterwards on November 1, giving Bavarian municipalities the most extensive direct participation rights in Germany.<sup>9</sup> In 2010, 15 years after the implementation, Bavaria counted over 1700 local initiative

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<sup>8</sup>The Social Democrats officially supported the initiative. Informal interviews and personal conversations with former social democratic mayors, however, make us believe that this position was rather taken in opposition to the governing CSU than out of support for more local direct democracy.

<sup>9</sup>In 1999, the Bavarian Constitutional Court decided upon the introduction of a quorum. Since then, local initiative elections are only successful when they achieve a quorum of approval which depends on the population size of the municipality.

petitions and 900 local initiative elections making it the German State with the most vivid direct democratic activity at the local level.<sup>10</sup> Anecdotal evidence also suggests that other German states modeled extensions of direct democratic participation rights from Bavaria.

This unique institutional setting permits us to analyze the extension of direct democracy through a direct democratic process. Citizens themselves initiated a constitutional reform through an initiative petition at the state level to extend direct democratic participation rights at the local level. Past attempts to extend direct democracy through representative democracy all failed as the governing party blocked them. We can, thus, analyze how support for the governing party and other factors drive citizens to vote for more or less direct democratic participation, i.e. instead of relying on opinion polls to measure potential support of direct democracy, we analyze revealed preferences for a real constitutional proposal.

## 4 Data and empirical strategy

### 4.1 Descriptive statistics

The state of Bavaria consists of 2056 municipalities, including 25 county-free cities. We obtained official results of the *More Democracy* initiative election (*Volksentscheid*) from the Bavarian State Office for Statistics (*Bayerisches Landesamt für Statistik und Datenverarbeitung*). On the level of the individual municipality, we observe revealed preferences for direct democracy by approval rates of the initiative election as well as approval rates for the counterproposal advanced by the State Parliament.

As our main variable of interest, we analyze the governing party vote shares (CSU) in the prior state election of 1994,  $VS^{CSUState}$ . The temporal closeness of the 1994 state election and the 1995 state-wide initiative election contributes to ruling out changes in party loyalty over time. Moreover, the CSU obtained virtually the same state-wide support in 1998 as in 1994 and the support levels in municipalities are highly correlated for the two elections. We also gathered CSU vote shares in the last municipal elections in 1990,  $VS^{CSULocal}$ . Since the CSU does not run in all municipal elections, we code a dummy indicating whether the CSU appeared on the ballot. Furthermore, we collected information on voter turnout in the state election, the preceding municipal election and the initiative election which allows us to measure general interest in politics, political culture, and citizen engagement. Turnout for the state level initiative election measures

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<sup>10</sup>Today, at the national level CSU politicians often argue for more direct democratic participation.

the effect of voter mobilization on revealed preferences for direct democracy at the local level. The effect of a municipality’s support for the opposition party The Greens – which was the main political advocate for more direct citizen engagement – is captured by the Green vote share in the state election. Moreover, we have information on the number of parties running in the municipal election and whether the directly elected mayor is a member of the CSU or not.

We capture demographic, socio-economic and other differences among municipalities by the following variables: *Log(Population)* size distinguishes between urban municipalities and rural ones. The age distribution is captured by the variables *Share young* (under 18 years) and *Share elderly* (over 65 years). The strength of the economy is proxied by the rate of *Employment* and the municipal financial situation is reflected by the level of *Per Capita Debt*. We include the share of *Catholics* which stems from the 1987 census to measure conservatism and control whether a municipality is a *University Town*. Interest heterogeneity within the municipality is accounted for by the amount of *In-migration* from East Germany and neighboring states between 1987 and 1995. With the *Share of Agricultural Soil Surface* we have a variable to proxy preferences for conservative parties.

Table 1 shows descriptive statistics for all variables used in the analysis. Average approval for the initiative by More Democracy is greater than 50 percent, reflecting the fact that the initiative was successful.<sup>11</sup> The CSU is the dominant party on the state level, garnering on average almost 60 percent of the vote in the 1994 election. At the municipal level, the CSU faces stronger competition by local parties and conservative citizen groups<sup>12</sup> and it is less successful with an average vote share of 22.4 percent. As the party stands for election in just 56 percent of the municipalities, this implies an average vote share of about 40 percent conditional on running. Osborne and Turner (2010) suggest that in common value environments referendums lead to higher welfare than a social planner because indifferent voters do not participate in the ballot. Turnout for the initiative by *More Democracy* was at 37.9 percent on average. This corresponds to other referendums in Bavaria<sup>13</sup> and similar participation rates are observed in countries with extensive direct participation rights such as Switzerland (Stadelmann et al. 2013). Turnout is highest in local elections (roughly 80 percent) and about 10 percentage points lower in state elections.

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<sup>11</sup>Note that the average weighs all municipalities equally, i.e. independent of population size. We therefore observe a small difference between average approval in our sample (54.2 percent) and the official result of the initiative (57.8 percent).

<sup>12</sup>Some local groups affiliate with the state CSU such that there is only no registered list bearing the term “CSU” in local elections

<sup>13</sup>Total turnout was 43.8 percent for a change in the waste disposal law in 1991 and 39.9 percent for a constitutional reform and abolishment of the Senate in 1998. Recent turnout for referendums in 2013 was higher because state elections were held the same day.

Table 1: Summary Statistics

Variable	Mean	Std. Dev.	Min.	Max.	N
Share Yes for Direct Democracy	0.541	0.089	0.239	0.764	2031
Governing Party Vote Share (State Election)	0.585	0.090	0.255	0.832	2031
Governing Party Vote Share (Municipal Election)	0.222	0.214	0	0.806	2031
CSU Runs	0.556	0.497	0	1	2031
Green Party Vote Share (State Election)	0.052	0.023	0.008	0.211	2031
CSU Mayor	0.471	0.499	0	1	2031
Number of Parties	3.569	1.554	1	13	2031
Turnout Initiative	0.380	0.068	0.150	0.798	2031
Turnout (State Election)	0.690	0.055	0.426	0.907	2031
Turnout (Municipal Election)	0.812	0.057	0.600	0.995	2026
Log(Population in 1000)	1.052	0.828	-1.565	3.933	2031
Per Capita Debt	581.7	466.0	0	8889	2031
Share Employed	0.200	0.147	0.008	1.383	2028
Share Young	0.222	0.025	0.118	0.294	2031
Share Elderly	0.142	0.028	0.057	0.385	2031
In-Migration 1987-1995	0.123	0.082	-0.206	0.729	2031
Share Catholic	0.746	0.264	0.035	0.988	2031
University	0.003	0.059	0	1	2031
Share Of Agricultural Soil Surface	0.565	0.161	0.025	0.921	2031

*Notes:* Descriptive statistics for all 2031 Bavarian municipalities. The 25 county-free cities are excluded from the sample. The share of employed people can be larger than one due to commuting workers from neighboring municipalities. Source: Own calculations.

## 4.2 Empirical strategy and expected effects

To estimate ceteris-paribus effects of CSU strength and other factors on the revealed preference for direct democracy in the initiative election, we employ a regression control framework. Hence, we estimate the following model:

$$PreferencesDD_i = \alpha + \beta_1 \cdot VS_i^{CSUState} + \beta_2 \cdot VS_i^{CSULocal} + X_i' \gamma + \theta_k + \epsilon_i \quad (1)$$

where  $PreferencesDD_i$  is the approval rate for the initiative which reflects revealed preferences for direct democracy,  $\alpha$  is a constant.  $\beta_1$  is the central coefficient of interest capturing the effect of  $VS_i^{CSUState}$ , i.e. the vote share of the governing CSU in the state election.  $\beta_2$  captures the influence of the CSU strength in a municipality.  $X_i'$  is a vector of control variables,  $\theta_k$  is a fixed effect for administrative region  $k$  and  $\epsilon_i$  is an error term. Administrative region fixed effects capture economic, demographic, social and cultural differences between the seven regions (e.g. Upper Franconia vs. Swabia). The unit of observation is the individual municipality, indexed by  $i$  ( $i = 1, 2, \dots, 2031$ ). We always estimate robust standard errors.

The governing CSU campaigned for its own counterproposal and it was the only party

campaigning against the initiative. Support for direct democracy depends on trust in politicians. If citizens generally trust the governing party’s performance and its cues, and if dissatisfaction with government is low, we expect  $\beta_1 < 0$  (and also  $\beta_2 < 0$ ), i.e. CSU strength should then have, ceteris paribus, a negative influence on approval for the initiative. If, on the other hand, the electorate is dissatisfied and suspicious of the governing party (Bowler et al. 2007), they may demand more direct control, i.e. the influence of the CSU vote share would then be positive.<sup>14</sup> Traditionally, elections at the municipal level are less influenced by trust to a specific party compared to state elections where parties matter relatively more than individual politicians. Thus, we expect the (absolute) municipal CSU vote share to have a smaller influence on the initiative election for direct democracy than the (absolute) state CSU vote share, i.e.  $|\beta_1| > |\beta_2|$ .

Turnout at the state level initiative measures the effect of mobilization within municipalities for direct democracy. The effect of overall mobilization on support for direct democracy is theoretically ambiguous as it is unclear whether supporters or opponents of direct democracy are easier to mobilize with campaigning, such that support for direct democracy and turnout for the initiative are jointly determined. However, low turnout in the previous state election can be interpreted as sign of dissatisfaction with politics in general, such that we expect a negative relationship between turnout in the state election and support for direct democracy. The same expectation holds for turnout in the preceding municipal election, though, the absolute effect should be lower as individual politicians matter more than parties at the local level.

When analyzing approval for direct democracy and interpreting the effects of party strength, we need to control for a number of other variables which may influence preferences for direct democracy and support for the governing party at the same time. The strength of the opposition Green which supported the initiative should have a positive influence on voting for the initiative of *More Democracy*. The “New Politics” theory (Inglehart 1990, 1999) suggests that support for direct democracy should be more common among the younger, more urban, better educated and less conservative population. Therefore, we expect *Share young*, *Log Population*, *University* to have a positive influence on the dependent variable and *Share elderly* and *Share Catholic* to have a negative effect on revealed preferences for direct democracy. Economic factors such as debt levels and

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<sup>14</sup>It could be argued that the electorate may vote for the initiative because voters might have an interest in setting the political agenda. However, this argument leaves open the question why a higher strength of the CSU (or other parties) should be associated with more demand for direct democracy if not because of discontent with the governing party. Importantly, discontent with the governing party does not need to result in lower support for it in elections as electoral support depends on the alternatives offered by other parties.

employment opportunities as well as in-migration may affect support for the governing party and for direct democracy but the sign of their effect is theoretically ambiguous.

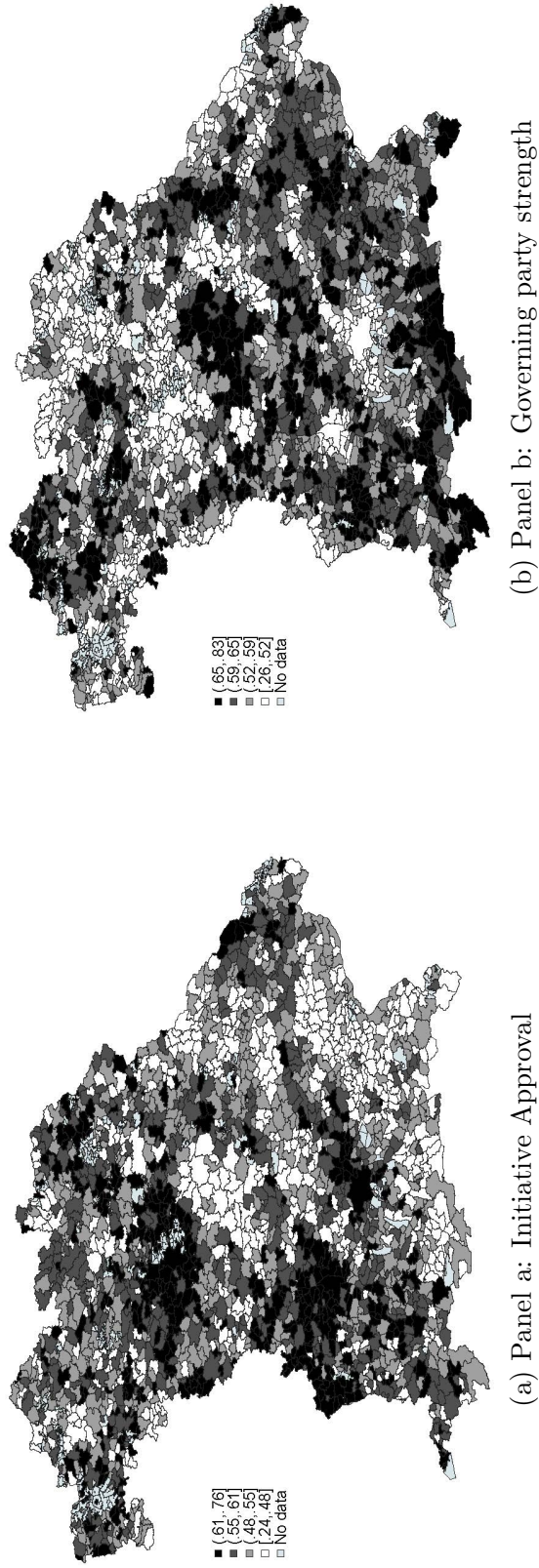
## 5 Results

### 5.1 Baseline results

Figure 1 and 2 highlight the motivation and a central result of our contribution. Panel (a) in Figure 1 shows the revealed preferences for more direct democracy at the local level and panel (b) contrasts it with the CSU strength across the municipalities in Bavaria. A negative relationship between CSU strength and approval for direct democracy is directly discernible. Municipalities with higher support for the CSU typically had substantially lower approval rates for direct democracy. As the CSU was and still is the governing party and campaigned actively against the extension of direct democracy, we interpret this as first evidence against the dissatisfaction hypothesis regarding governing parties, i.e. municipalities with higher support for the governing CSU trusted their representatives and voted relatively more against the extension of direct democracy. The relationship becomes more apparent when looking at the scatterplot in Figure 2 which visualizes the negative correlation between the CSU vote share and approval for direct democracy in the referendum. Although the overall level of support for direct democracy is high throughout, we detect a strong negative correlation ( $\rho = -0.6208$  and  $p - Value = 0.000$ ) between the strength of the governing party and the revealed preference for direct democracy.

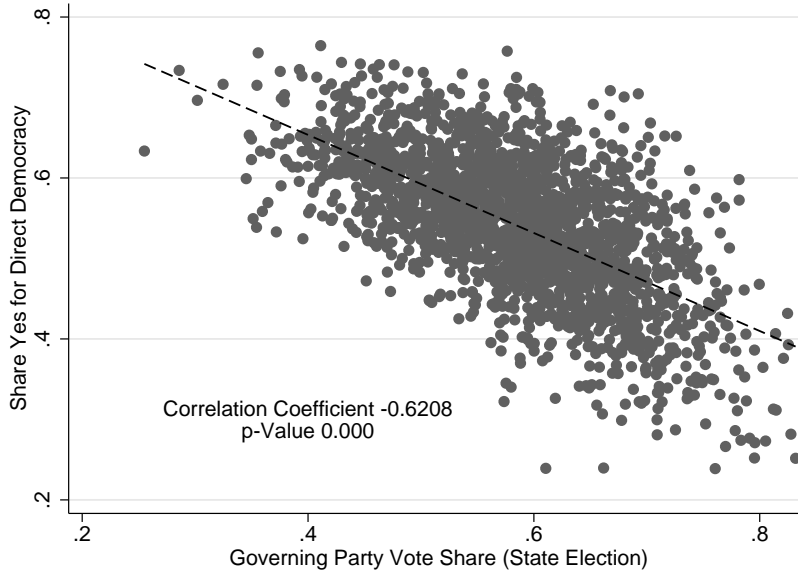
Table 2 presents econometric evidence. Specification (1) gives the baseline model with the yes share for the *Direct Democracy* initiative,  $PreferencesDD_i$  as dependent variable and the governing party vote share in the preceding state level election,  $VS_i^{CSUState}$ , as the single explanatory variable. Ceteris paribus, the CSU strength in a municipality has a negative effect on the approval for direct democracy in the referendum. The point estimate suggests that for each percentage point increase in the CSU vote share in the state election, approval for the initiative by *More Democracy* goes down by 0.61 percentage points. This is a substantial association when taken at face value: Although the initiative was with 57.8 percent clearly accepted, a difference in only approximately 1.437 standard deviations in the CSU vote strength would have sufficed to prevent the extension of direct democratic participation in Bavarian municipalities. We will show that the sign and the magnitude of the estimated relationship is highly robust, it stems from a change in the CSU strength, it can most likely be interpreted causally and unobservables are unlikely to explain the effect.

Figure 1: Initiative election outcome and the governing party strength: Graphical evidence



Notes: The approval for the initiative is depicted in panel a. Each shade of grey depicts a different quartile of the vote distribution. Similarly, the map on the right shows the strength of the CSU in the 1994 state election. Source: Own calculation.

Figure 2: Revealed preferences for direct democracy and the strength of governing party



*Notes:* The figure shows a scatterplot of CSU strength against the approval rate in the state initiative election. Each dot represents a municipality. The dashed line is a linear fit. Source: Own calculation.

To ensure that these results are not driven by demographic or socio-economic differences between municipalities which affect CSU strength and preferences for direct democracy at the same time, we add control variables in specification (2). We observe that the literature’s expectation regarding the control variables broadly tend to hold: a higher share of elderly and Catholics is negatively associated with approval of more direct democracy at the local level. More urban municipalities show higher levels of support for direct democracy. A municipality’s financial situation, having a university and the share of employed are not significantly related to support levels. Importantly, qualitative and quantitative results for the CSU strength at the state election a year prior to the initiative remain virtually identical when compared to specification (1).

Specification (3) adds the CSU vote share at the previous municipal election,  $VS_i^{CSU Local}$  and whether it runs as a party while specification (4) controls for political variables related to parties and support for the initiative. CSU strength at both levels (state and local) has a negative influence on support for direct democracy. A ceteris paribus increase in the CSU vote share in the state election of one percentage point is associated with a 0.594 percentage points lower support for direct democracy and for each percentage point increase in the CSU vote share in the municipal election, approval declines by 0.082 percentage points. As expected,  $|\beta_1| > |\beta_2|$ , i.e. the influence of the CSU strength at the state level is larger than at the municipal level. The null hypothesis of equality of the



two coefficients is rejected with a p-value of 0.000.

In specification (4) the vote share of the Green Party is a positive predictor of voting for direct democracy. The Greens were the strongest advocates among state parties of more direct citizen participation at the local level in Bavaria. As mayors are directly elected in Bavaria, it could be expected that they do not have any significant influence on support for direct democracy which is fully consistent with our findings. Mayors are already under direct control independent of their parties.<sup>15</sup> However, the number of competing parties in a municipal election proxies dissatisfaction with the political system in general and is, consequently, positively related to support for direct democracy. Turnout for the initiative has a negative impact on approval rates for the initiative election.<sup>16</sup> As expected, turnout in the state election and in the municipal election are both negatively correlated with approval for direct democracy but only turnout at the state level has a statistically significant effect. Again, the inclusion of these political control variables does not affect the statistical significance of our main variable of interest, the magnitude of the effect remains unchanged and CSU strength in state election has an absolutely higher effect than CSU strength in municipal election, i.e.  $|\beta_1| > |\beta_2|$  (p-value = 0.000). Dissatisfaction rather seems to be related to the political system in general than with the elected governing party.

Not only the magnitude of the CSU vote share is important but also its explanatory power. This can best be seen by comparing the  $R^2$  of the regressions in columns (1)-(4). CSU strength at the state level generates an  $R^2$  of already 39 percent in column (1). More importantly, while the  $R^2$  rises to 0.58 when including further a full set of control variables (i.e. the regional fixed effects), the strength of the governing party is still the single best predictor of voting in the initiative for an extension of direct democracy. This result suggests that party cues are an important predictor even in a direct democratic decision.

State and municipal elections took place before the vote on the initiative. To address potential endogeneity concerns, we implement an instrumental variable approach in specifications (5) and (6) of Table 2. We instrument the CSU vote share in the state election with the share of agricultural soil surface in the municipality. Historically, the CSU has been a party strongly present in rural areas. Thus, the identification idea relies on the assumption that the conservative CSU was traditionally strong in areas with more agriculture. This is confirmed by the first stage regressions with an F-Test value of more than

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<sup>15</sup>An alternative explanation is that the effect of the CSU mayor is already captured by her/his party.

<sup>16</sup>We are aware of the endogeneity of this variable. Still, we think that reporting this interesting correlation is of value to the reader. Reassuringly, results remain entirely stable when dropping turnout for the initiative from the model.

Table 2: Explaining the initiative outcome

Specification	(1)	(2)	(3)	(4)	(5)	(6)
	Share Yes	Share Yes	Share Yes	Share Yes	Share Yes	Share Yes
	OLS	OLS	OLS	OLS	IV	IV
Governing Party Vote Share (State Election)	-0.609*** (0.018)	-0.607*** (0.021)	-0.594*** (0.021)	-0.570*** (0.022)	-0.791*** (0.159)	-0.809*** (0.167)
Governing Party Vote Share (Municipal Election)			-0.082*** (0.017)	-0.057*** (0.020)		-0.025 (0.031)
CSU Runs			0.031*** (0.008)	0.023*** (0.009)		0.007 (0.015)
Green Party Vote Share (State Election)				0.203*** (0.078)	0.001 (0.169)	-0.024 (0.175)
CSU Mayor				0.002 (0.003)	0.001 (0.003)	0.002 (0.003)
Number of Parties				0.003** (0.001)	0.005*** (0.001)	0.004*** (0.002)
Turnout Initiative				-0.104*** (0.029)	-0.090*** (0.032)	-0.086*** (0.032)
Turnout (State Election)				-0.169*** (0.039)	-0.163*** (0.041)	-0.160*** (0.041)
Turnout (Municipal Election)				-0.035 (0.033)	-0.050 (0.036)	-0.053 (0.036)
Log(Population)		0.011*** (0.002)	0.012*** (0.002)	0.005* (0.003)	-0.001 (0.005)	-0.000 (0.005)
Per Capita Debt		-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Share Employed		-0.023** (0.010)	-0.021** (0.011)	-0.021* (0.011)	-0.017 (0.011)	-0.017 (0.012)
Share Young		0.045 (0.090)	0.037 (0.090)	0.035 (0.090)	0.277 (0.201)	0.294 (0.202)
Share Elderly		-0.375*** (0.067)	-0.376*** (0.067)	-0.409*** (0.064)	-0.276** (0.118)	-0.264** (0.119)
In-Migration 1987-1995		0.009 (0.021)	0.008 (0.021)	-0.008 (0.021)	-0.022 (0.025)	-0.025 (0.024)
Share Catholic		-0.022** (0.009)	-0.018** (0.009)	-0.018** (0.009)	0.013 (0.026)	0.018 (0.026)
University		-0.002 (0.019)	-0.000 (0.017)	-0.002 (0.016)	-0.001 (0.018)	-0.002 (0.017)
Constant	0.897*** (0.010)	0.925*** (0.024)	0.916*** (0.024)	1.079*** (0.036)	1.136*** (0.051)	1.140*** (0.053)
Administrative Region Fixed Effects	no	yes	yes	yes	yes	yes
First Stage F-Test (p-Value)	-	-	-	-	30.60	29.45
N	2031	2028	2028	2023	2023	2023
R <sup>2</sup>	0.39	0.55	0.55	0.58	0.55	0.55

Notes: Heteroscedasticity-robust standard errors in parentheses. Significance Levels: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

30. The identifying assumption for the second stage to work is that the share of agricultural soil surface influences approval for direct democracy through no other channel than CSU strength. If one accepts this assumption, then instrumental variable estimates are consistent and have a causal interpretation, i.e. we can exploit the exogenous variation in CSU strength due to differences in agricultural soil use to explain preferences for direct democracy. We always include socio-economic and demographic control variables to control for the potentially omitted channels of influence. The results are reassuring: Coefficients of the CSU vote share are estimated precisely, quantitatively in the same

ballpark but slightly larger (in absolute value) than in the OLS approach. With the IV specification, it is estimated that a one percentage point increase in CSU strength leads to an approval rate of the initiative election that is approximately 0.80 percentage points lower.

## 5.2 Robustness checks

The baseline results are robust to a variety of alternative specifications as shown in Tables 3 to 6. Robustness tests include the full set of control variables as well as administrative region fixed effects.

### Weighting and analyses of subsamples

As municipalities have different population sizes, regressions where each observation has the same impact on the estimated coefficient can be misleading. We therefore replicate our main results from columns (4) and (6) of Table 2 using population weights. This implies that a municipality with 1000 inhabitants will have twice the effect on the coefficient of interest than a municipality with only 500 inhabitants. The results can be found in columns (1) and (2) of Table 3. It becomes evident that population weighting does not affect our quantitative or qualitative results. If anything, the OLS and IV coefficient are now closer together.

Specification (3) looks at the subsample of 775 municipalities with fewer than 2000 inhabitants to ensure that results are not driven by small municipalities. Specification (4) includes county-free cities into the sample.<sup>17</sup> In both specifications the influence of CSU strength at the state and the municipal level remains statistically significant, the absolute magnitude remains comparable and the influence of strength at the state level is higher ( $|\beta_1| > |\beta_2|$ ).<sup>18</sup>

Analyzing municipal samples with differential strength of the CSU at the state level does not affect the statistical significance nor the magnitude of the CSU strength on support for direct democracy (specifications 5 and 6). In particular, for municipalities where the CSU was close to the 50 percent benchmark (column 6), its effect remains quantitatively

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<sup>17</sup>For these 25 cities, we are lacking mayoral election results as well as the number of parties running for the municipal council, which is why we excluded them in the baseline specification. Here, we include them to show that they do not bias the general results.

<sup>18</sup>As we use only one cross-section, we do not have a natural level to cluster the observations. Given that the municipalities are organized in counties, we tried to cluster the standard error by county (71 clusters) to allow for cross-dependencies on this level (results not reported). The results remain entirely robust.

similar to other specifications which lends support to the hypothesis that dissatisfaction with the political system is not directly related to the governing party.

It is interesting to note that when only estimating the influence of the CSU strength at the local level (specification 7), i.e. without including the CSU vote share in the state election, the coefficient  $\beta_2$  remains negative and statistically significant, it increases slightly in absolute size but remains comparable to specifications where  $VS_i^{CSUState}$  is also included.

### Selection on unobservables and Bayesian Model Averaging

To further demonstrate the robustness of our results to potential endogeneity issues due to omitted variables, we conduct robustness tests in the spirit of Oster (2014) in Table 4. The basic idea of this test is that we can learn something about potential bias from unobservables by looking at coefficient movements after including observed control variables into the regression. Intuitively the logic behind the approach is the following: If the inclusion of *observed* covariates increases the explanatory power of the model substantially, i.e. the  $R^2$  goes up, but leaves the coefficient of interest almost unaltered, i.e.  $\beta_1$  remains stable, then one may assume that potential *unobserved* variables would not affect the coefficient either, since the included controls are already the ones the researcher deemed most important in terms of reducing endogeneity issues. We apply this approach and calculate the so-called *identified set* under a proportional selection assumption and a given maximum potential value of  $R^2$ . If this set excludes zero, the coefficient estimates reach a level of robustness “in the range of what would be seen if the treatment was randomized” (Oster 2014), i.e. the results are likely not to suffer from endogeneity due to unobservables. As required by the literature, we compare movements in the coefficient of  $VS^{CSUState}$  and the  $R^2$  from the most parsimonious specification (without controls) to the full model (with all observed covariates) and then calculate the bias adjusted coefficient  $\beta_1^{*'} = \tilde{\beta}_1 - \tilde{\delta} \frac{(\hat{\beta}_1 - \tilde{\beta}_1)(R_{max} - \tilde{R})}{(\tilde{R} - \hat{R})}$  that constitutes the bound of the identified set. The results are very reassuring: We find that the identified set always excludes zero, independent of the degree of selection on unobservables (the choice of  $\tilde{\delta} = \{0.5, 0.75, 1\}$ ). Hence, even under the most conservative assumptions ( $\tilde{\delta} = 1$ ) and  $R_{max} = 1$ , our results are robust to potential omitted variable bias.<sup>19</sup>

Employing Bayesian Model Averaging (BMA, see Hoeting et al. 1999; Raftery 1995; Raftery et al. 1997) we show in Table 5 that the governing party vote share,  $VS^{CSUState}$ ,

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<sup>19</sup>Reasoning the other way around, one can also ask which value of  $\delta$  would be needed to make the identified set include zero. We find that this maximum possible value of  $\delta$  is 6.49, implying that selection on unobservables would need to be more than six times as large as selection on observables to bias our coefficient in a way that the sign would change.

Table 3: Robustness: Initiative Outcome

Sample / Specification	(1) Share Yes	(2) Share Yes	(3) Share Yes	(4) Share Yes	(5) Share Yes	(6) Share Yes	(7) Share Yes
	OLS PW	IV PW	Pop < 2000	County Free	$V^{CSU} > Mean$	$0.45 < V^{CSU} < 0.55$	CSU Local
Governing Party Vote Share (State Election)	-0.539*** (0.025)	-0.691*** (0.248)	-0.594*** (0.035)	-0.565*** (0.021)	-0.609*** (0.046)	-0.553*** (0.081)	
Governing Party Vote Share (Municipal Election)	-0.071*** (0.019)	-0.044 (0.050)	-0.049 (0.040)	-0.072*** (0.017)	-0.074** (0.029)	-0.091** (0.039)	-0.132*** (0.023)
CSU Runs	0.027*** (0.008)	0.015 (0.023)	0.018 (0.018)	0.031*** (0.007)	0.032** (0.013)	0.037** (0.017)	0.063*** (0.010)
Green Vote Share (State Election)	0.124 (0.076)	0.012 (0.188)	0.228 (0.150)	0.220*** (0.077)	0.324*** (0.124)	0.077 (0.134)	0.745*** (0.094)
CSU Mayor	0.004 (0.003)	0.004 (0.003)	0.001 (0.005)		0.001 (0.004)	0.005 (0.005)	0.002 (0.003)
Number of Parties	0.001 (0.001)	0.002 (0.003)	0.005* (0.003)		0.003* (0.002)	0.002 (0.002)	0.000 (0.001)
Turnout Initiative	-0.036 (0.032)	-0.032 (0.034)	-0.184*** (0.050)	-0.095*** (0.029)	-0.198*** (0.048)	-0.033 (0.048)	-0.147*** (0.036)
Turnout (State Election)	-0.207*** (0.045)	-0.201*** (0.048)	-0.102* (0.061)	-0.177*** (0.038)	-0.243*** (0.059)	-0.043 (0.059)	-0.192*** (0.045)
Turnout (Municipal Election)	-0.022 (0.037)	-0.035 (0.044)	-0.107** (0.054)	-0.019 (0.032)	0.010 (0.052)	-0.139** (0.055)	0.006 (0.038)
Administrative Region Fixed Effects	yes	yes	yes	yes	yes	yes	yes
Baseline Controls	yes	yes	yes	yes	yes	yes	yes
N	2023	2023	775	2048	1045	554	2023
R <sup>2</sup>	0.64	0.63	0.55	0.58	0.47	0.39	0.41

Notes: Baseline controls include all other variables employed in Table 2 and an intercept. Heteroscedasticity-robust standard errors in parentheses. Significance levels: \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

Table 4: Oster (2014) tests: Potential bias from unobservables

Proportional Selection Assumption	$\tilde{\delta} = 0.5$	$\tilde{\delta} = 0.75$	$\tilde{\delta} = 1$
Uncontrolled $\dot{\beta}_1$	-0.61	-0.61	-0.61
Controlled $\tilde{\beta}_1$	-0.57	-0.57	-0.57
Uncontrolled $\dot{R}^2$	0.39	0.39	0.39
Controlled $\tilde{R}^2$	0.58	0.58	0.58
Identified set $[\tilde{\beta}_1, \beta_1^{*'}]$	[-0.57, -0.53]	[-0.57, -0.50]	[-0.57, -0.48]
Zero excluded from identified set?	yes	yes	yes

*Notes:* This procedure of assessing potential bias from unobserved variables by looking at movements in coefficients and  $R^2$  when including observed covariates has been developed by Oster (2014). It is based on previous work by Altonji et al. (2005, 2008). The uncontrolled  $\dot{\beta}_1$  comes from column (1) in Table 2, while the controlled  $\tilde{\beta}_1$  can be found in column (4).  $\beta_1^{*'}$  is calculated with an assumed value of  $R^{max} = 1$ .

is highly relevant for explaining preferences for direct democracy when evaluated over different combinations of independent variables. The central idea behind Bayesian Model Averaging is to estimate the distribution of an unknown parameter of interest across a large number of different models (model space). This allows us to calculate conditional means and standard deviations which can be interpreted similarly to common regression coefficients and standard errors. More importantly, we can calculate a posterior inclusion probability for every variable which can be interpreted as the probability that a specific variable is included in a model. Thereby, it serves as an indicator for the importance of the specific variables over the whole model space for a prior inclusion probability of 1/2. The estimated posterior probability of inclusion also reflects how often the respective variables turn out to be of explanatory importance when testing all models in the model space. Empirical results show that the CSU vote share has the maximal posterior inclusion probability (99.9 percent). The posterior conditional mean over all estimates performed in BMA suggest that the mass of coefficients for the  $VS^{CSUState}$  is concentrated around -0.549 which closely corresponds to our previous results. The CSU vote share at the previous municipal election has also a high posterior inclusion probability and its posterior conditional mean is negative and statistically significant. As before, the (absolute) municipal CSU vote share has a smaller influence on preferences for direct democracy than the (absolute) state CSU vote share, i.e.  $|\beta_1| > |\beta_2|$ . Thus, the Bayesian Model Averaging approach suggests that our results are robust when evaluated over a large model space of different combinations of independent variables.

### Exploiting turnout and vote shares

Our results suggest a negative causal effect of the governing party vote share on support for direct democracy. To ensure that the effect stems from higher individual levels of sup-

Table 5: Bayesian Model Averaging

	Inclusion probability	Conditional coefficient	Conditional SE
Governing Party Vote Share (State Election)	99.9	-0.549	0.021
Governing Party Vote Share (Municipal Election)	77.4	-0.057	0.033
CSU Runs	49.4	0.027	0.011
Green Party Vote Share (State Election)	99.9	0.448	0.073
CSU Mayor	1.3	-0.001	0.003
Number of Parties	74.6	0.004	0.001
Turnout Initiative	2.1	0.024	0.029
Turnout State Election	99.9	-0.303	0.033
Turnout Municipal Election	83.9	-0.104	0.031
Log(Population)	13.5	0.006	0.003
Per Capita Debt	1.4	1.59E-06	3.11E-06
Share Employed	1.2	-0.004	0.011
Share Young	99.9	0.355	0.083
Share Elderly	99.9	-0.303	0.073
In-Migration 1987 - 1995	28.6	-0.051	0.021
Share Catholic	99.9	-0.041	0.006
University	1.4	-0.012	0.024

*Notes:* The posterior inclusion probability represents the likelihood that a variable is included in the model. The conditional coefficient and the conditional SE are conditional on inclusion of the variable in the model and represent the posterior mean of coefficients and the posterior standard deviations. BMA results were obtained using the software of the R Project for Statistical Computing with the BMA package.

port instead of different compositions of the electorate (ecological fallacy), we control for opposition parties and turnout in the initiative election. Table 6 provides additional support for our interpretation: We estimate the relationship for four subsamples of high/low CSU vote shares and high/low turnout in municipalities. Changes in the  $VS^{CSUState}$  are likely to stem from higher individual levels of support in municipalities where the CSU vote share is high and where turnout in the initiative election is high (first quadrant), as the voting population in these municipalities is composed of individual CSU supporters. We observe that the coefficient of the variable  $VS^{CSUState}$  for this subsample is -0.66 which closely resembles previous estimates. If individual voters from the opposition would drive our result or low turnout rates would drive our effect, we should expect a high absolute coefficient for municipalities with low CSU vote shares and low turnout in the initiative. This is not the case as shown in the fourth quadrant: Increasing  $VS^{CSUState}$  decreases the support for direct democracy in this subsample too, but the effect is with 0.46 percentage points slightly lower than in the first quadrant. This suggests that individual levels of support for the governing party matter. The second and the third quadrant provide results for municipalities where the CSU vote share is high but turnout is low and where the CSU vote share is low but turnout is high, respectively. All effects are qualitatively and quantitatively similar to earlier estimates, confirming once more the robustness of our baseline results.

Table 6: Ecological Fallacy: Governing Party Vote Share Coefficients

	<i>High Initiative Turnout</i>	<i>Low Initiative Turnout</i>
<i>CSU Vote Share High</i>	-0.656*** (0.059)	-0.555*** (0.078)
<i>CSU Vote Share Low</i>	-0.619*** (0.070)	-0.463*** (0.053)

*Notes:* Heteroscedasticity-robust standard errors in parentheses. Significance Levels: \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Each cell reports the coefficient of the governing party vote share on voting for direct democracy from a separate regression. We estimate the same models as in Table 2, column (4). The columns divide the sample into municipalities below and above the median turnout at the initiative. The rows divide the sample into municipalities where the governing party is stronger or weaker than the median municipality in terms of CSU vote share.

### 5.3 Refinements

Empirical evidence so far suggests that political dissatisfaction is rather related to the political system than to the governing elected party. In Table 7 we investigate further differential hypotheses to support this interpretation.

Mobilization for and approval of the initiative for an extension of direct democracy are jointly determined. If the governing party was able to cast doubt on the benefits of direct democracy and if it mobilized people against the initiative, we would expect that in municipalities with a relatively high turnout, CSU strength should play a relatively higher role compared to municipalities with a relatively lower turnout for the initiative. Specifications (1) and (2) provide support for this view and specification (3) estimates an interaction effect between turnout and ruling party strength. Lower levels of turnout moderates the effect that CSU strength has on revealed preferences for direct democracy. At average turnout levels an increase of 1 percentage point in the governing party vote share reduces support for direct democracy by  $(0.235 + 0.874 \cdot 0.690 =) 0.838$  percentage points in the approval rate. As a reduced turnout rate of 0.580 (two standard deviations reductions) the effect is reduced to 0.742 percentage points.

Having a mayor of the ruling CSU party in a municipality has, *ceteris paribus*, no effect on support for direct democracy as mayors are already directly elected. Consequently, we would also expect that CSU mayors should not moderate the influence of CSU strength in the state level on revealed preferences for direct democracy. Specification (4) shows that this is the case. The interaction effect of the CSU Mayor and the vote share is insignificant and negligible regarding its magnitude while the baseline effect of the vote share in the state election remains statistically significant and similar in size compared to earlier specifications.

Political competition at the local level expressed by the number of parties should, however, have the moderating effect (specification 5). *Ceteris paribus*, more parties at the



Table 7: Refinements: Initiative Outcome

Sample / Specification	(1)	(2)	(3)	(4)	(5)
	Share Yes	Share Yes	Share Yes	Share Yes	Share Yes
	Turnout > Mean	Turnout $\leq$ Mean	Interaction	Interaction	Interaction
Governing Party Vote Share (State Election)	-0.612*** (0.029)	-0.545*** (0.032)	-0.235** (0.100)	-0.558*** (0.025)	-0.663*** (0.041)
Governing Party Vote Share (Municipal Election)	-0.047* (0.026)	-0.086*** (0.032)	-0.054*** (0.020)	-0.057*** (0.020)	-0.060*** (0.020)
CSU Runs	0.014 (0.011)	0.037*** (0.014)	0.021** (0.009)	0.023*** (0.009)	0.024*** (0.009)
Green Vote Share (State Election)	0.110 (0.096)	0.220* (0.125)	0.204*** (0.078)	0.203*** (0.078)	0.203*** (0.078)
CSU Mayor	0.002 (0.004)	0.003 (0.004)	0.002 (0.003)	0.019 (0.018)	0.002 (0.003)
Number of Parties	0.006*** (0.002)	0.001 (0.002)	0.003** (0.001)	0.003** (0.001)	-0.014** (0.006)
Turnout (State Election)	-0.260*** (0.056)	-0.215*** (0.045)	-0.158*** (0.039)	-0.167*** (0.039)	-0.164*** (0.039)
Turnout (Municipal Election)	-0.036 (0.051)	-0.022 (0.044)	-0.028 (0.033)	-0.035 (0.033)	-0.042 (0.033)
Turnout Initiative			0.394*** (0.147)	-0.105*** (0.029)	-0.104*** (0.029)
Interaction Turnout * CSU Vote Share			-0.874*** (0.252)		
Interaction CSU Mayor * CSU Vote Share				-0.029 (0.031)	
Interaction Number of Parties * CSU Vote Share					0.028*** (0.010)
Constant	1.159*** (0.053)	1.008*** (0.054)	0.867*** (0.070)	1.071*** (0.037)	1.141*** (0.041)
Administrative Region Fixed Effects	yes	yes	yes	yes	yes
Baseline Controls	yes	yes	yes	yes	yes
N	1023	1000	2023	2023	2023
R <sup>2</sup>	0.63	0.53	0.58	0.58	0.58

Notes: Heteroscedasticity-robust standard errors in parentheses. Significance Levels: \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

municipal level are a sign for general political discontent and are associated with support for more direct democracy. More local political competition in interaction with support for the CSU at the state level has a positive influence on voting for the initiative. This finding is consistent with the control function of direct democracy at the local level: While people may trust the ruling party at the state level, relatively more distrust of politics in general is associated with more demand for direct democratic participation as strength of the governing party increases (positive interaction term with negative baseline effect of governing party vote share).

## 6 Conclusions

Direct democratic participation is a relevant policy issue in many countries around the world and citizens seem to be interested in more direct democracy when looking at opinion surveys on the subject. Nowadays, almost no politician argues openly against more citizen participation prior to elections but promises for direct democracy are seldom fulfilled after

elections.

Voters in Bavaria decided in a constitutional initiative election at the state level in 1995 to grant themselves more direct democratic participation rights at the local level. This unique setting allows us to directly analyze revealed preferences for direct democracy instead of relying on opinions surveys. Employing revealed preferences complements other analyses which employ opinion surveys and questions regarding the extension of direct democracy. It allows new and different insights because the decision we analyze is binding and has been implemented after the successful initiative election. In particular, the institutional setting allows us to explore factors which drive revealed preferences for more direct democratic participation at the local level and we can explore whether dissatisfaction with representative democracy or rather dissatisfaction with the governing party at the state level (and often at the local level too) is related to actual voter support for direct democracy.

Empirical results show that support for direct democracy at the local level is negatively associated with support for the elected governing party. In fact, electoral support for the governing party at the local level in the previous state election is the strongest single predictor for the actual extension of direct democracy. Instrumental variable results point to a causal interpretation of this finding. Numerous robustness analyses and testing differential hypotheses lead to the same conclusion. Alternatively to the IV, we also account for potential endogeneity issues and find that the effect of the strength of the governing party is most likely not affected by unobservables. Thus, our results provide tentative support to the view that dissatisfaction with politics is not linked to a specific elected governing party. Rather it seems to be the case that dissatisfaction with representative democracy in general is a driving factor for voting for direct democracy.

## References

- Althaus, S. L. (1996). Opinion polls, information effects and political equality: Exploring ideological biases in collective opinion. *Political Communication* 13, 3–21.
- Altonji, J. G., T. E. Elder, and C. R. Taber (2005). Selection on observed and unobserved variables: Assessing the effectiveness of catholic schools. *Journal of Political Economy* 113(1), 151–184.
- Altonji, J. G., T. E. Elder, and C. R. Taber (2008). Using selection on observed variables to assess bias from unobservables when evaluating swan-ganz catheterization. *American Economic Review* 98(2), 345–50.
- Bayerischer Landtag (1991, February). Plenarprotokoll 12/9. 12. Wahlperiode, 9. Sitzung, 21.02.1991, Muenchen.
- Bayerischer Landtag (1994a). Gesetzentwurf Sechstes Gesetz zur Aenderung der Verfassung des Freistaates Bayern. Drucksache 13/208, 13. Wahlperiode, Gesetzentwurf SPD und BUENDNIS 90 DIE GRUENEN, Schmidt et al., 15.12.1994, Muenchen.
- Bayerischer Landtag (1994b). Gesetzentwurf zur Aenderung der Gemeindeordnung und der Landkreisordnung. Drucksache 13/209, 13. Wahlperiode, Gesetzentwurf SPD und BUENDNIS 90 DIE GRUENEN, Schmidt et al., 15.12.1994, Muenchen.
- Bayerischer Landtag (1995a, April). Gesetzentwurf zur Einfuehrung von Buergerantrag, Buergerbegehren und Buergerentscheid in Gemeinden und Landkreisen. Drucksache 13/1333, 13. Wahlperiode, Gesetzentwurf CSU, Glueck et al., 26.04.1995, Muenchen.
- Bayerischer Landtag (1995b, April). Plenarprotokoll 13/16. 13. Wahlperiode, 16. Sitzung, 27.04.1995, Muenchen.
- Bayerischer Landtag (1995c, July). Plenarprotokoll 13/23. 13. Wahlperiode, 23. Sitzung, 04.07.1995, Muenchen.
- Bayerischer Landtag (1995d, January). Plenarprotokoll 13/8. 13. Wahlperiode, 8. Sitzung, 24.01.1995, Muenchen.
- Benz, M. and A. Stutzer (2004). Are voters better informed when they have a larger say in politics? Evidence for the European Union and Switzerland? *Public Choice* 119, 31–59.
- Bierl, P. (1995). Die Schadensgrenze fest im Auge. *Sueddeutsche Zeitung Landkreis Fuerstenfeldbruck* 19.09.1995, 2.
- Bohnet, I. and B. S. Frey (1994). Direct-democratic rules: The role of discussion. *Kyklos* 47, 341–54.
- Bowler, S. and T. Donovan (1994). Information and opinion change on ballot propositions. *Political Behavior* 16(4), 411–435.
- Bowler, S., T. Donovan, and J. A. Karp (2007). Enraged or engaged? Preferences for direct citizen participation in affluent democracies. *Political Research Quarterly* 60, 351–362.
- Brunner, E., S. L. Ross, and E. Washington (2013). Does less income mean less representation? *American Economic Journal: Economic Policy* 5(2), 53–76.
- Carey, J. M. and S. Hix (2013). District magnitude and representation of the majority’s preferences: A comment and reinterpretation. *Public Choice* 154(1-2), 139–148.
- Collingwood, L. (2012). Levels of education and support for direct democracy. *American Politics Research* 40(4), 571–602.

- Craig, S. C., A. Kreppel, and J. G. Kane (2001). Public opinion and support for direct democracy: A grassroots perspective. In M. Mendelsohn and A. Perkin (Eds.), *Referendum Democracy: Citizens, Elites and Deliberation in Referendum Campaigns*, pp. 25–46. New York: Palgrave Macmillan.
- CSU Parteitag (1982). *Wir in Bayern CSU 82' Kraftvoll in die Zukunft: Programm zur Landtagswahl '82*. Abteilung Öffentlichkeitsarbeit der CSU-Landesleitung.
- Cummings, R. G., S. Elliott, and G. W. Harrison (1997). Are hypothetical referenda incentive compatible? *Journal of Political Economy* 105(3), 609–621.
- Dalton, R. J., W. Bürklin, and A. Drummond (2001). Public opinion and direct democracy. *Journal of Democracy* 12(4), 141–153.
- Diamond, P., J. A. Hausman, G. K. Leonard, and M. A. Denning (1993). Does contingent valuation measure preferences? Experimental evidence. In J. A. Hausman (Ed.), *Contingent Valuation. A Critical Assessment*, pp. 41–89. Amsterdam: Elsevier Science Publishers B.V.
- Diamond, P. A. and J. A. Hausman (1994). Contingent valuation: Is some number better than no number? *Journal of Economic Perspectives* 8(4), 45–64.
- Donovan, T. and J. A. Karp (2006). Popular support for direct democracy. *Party Politics* 12(5), 671–688.
- Dyck, J. J. and M. Baldassare (2009). Process preferences and voting in direct democratic elections. *Public Opinion Quarterly* 73(3), 551–565.
- Eichenberger, R. and A. Serna (1996). Random errors, dirty information, and politics. *Public Choice* 86, 137–156.
- Feld, L. P. and G. Kirchgaessner (2000). Direct democracy, political culture, and the outcome of economic policy: A report on the swiss experience. *European Journal of Political Economy* 16, 287–306.
- Feld, L. P. and J. G. Matsusaka (2003). Budget referendums and government spending: evidence from Swiss cantons. *Journal of Public Economics* 87(12), 2703–2724.
- Frey, B. S. (1994). Direct democracy: Politico-economic lessons from Swiss experience. *The American Economic Review* 84(2), 338–342.
- Funk, P. (2012). How accurate are surveyed preferences for public policies? Evidence from a unique institutional setup. Technical report, Department of Economics and Business, Universitat Pompeu Fabra.
- Garrett, T. A. (1999). A test of shirking under legislative and citizen vote: The case of state lottery adoption. *The Journal of Law and Economics* 42(1), 189–208.
- Gerber, E. R. (1999). *The Populist Paradox: Interest Group Influence and the Promise of Direct Legislation*. Princeton NJ: Princeton University Press.
- Hanemann, W. M. (1994). Valuing the environment through contingent valuation. *The Journal of Political Perspectives* 8(4), 19–43.
- Hersch, P. L. and G. S. McDougall (1988). Voting for 'Sin' in Kansas. *Public Choice* 57, 127–139.
- Hoeting, J. A., D. Madigan, A. E. Raftery, and C. T. Volinsky (1999). Bayesian Model Averaging: A tutorial (with discussion). *Statistical Science* 14(4), 382–417.
- Inglehart, R. (1990). *Culture shift in advanced industrial society*. Princeton University Press, Princeton.
- Inglehart, R. (1999). Postmodernization brings declining respect for authority but rising support for democracy. In P. Norris (Ed.), *Critical Citizens: Global Support for Democratic Government*. Oxford University Press, Oxford.

- Jenssen, A. T. and O. Listhaug (2001). Voters' decisions in the Nordic EU referendums of 1994: the importance of party cues. In M. Mendelsohn and A. Perkin (Eds.), *Referendum Democracy: Citizens, Elites and Deliberation in Referendum Campaigns*, pp. 169–190. New York: Palgrave.
- Kahneman, D. and J. L. Knetsch (1992). Valuing public goods: The purchase of moral satisfaction. *Journal of Environmental Economics and Management* 22(1), 57–70.
- Kirchgässner, G. (2015). Direct democracy: Chances and challenges. Technical report, CESifo Group Munich.
- Leininger, A. (2015). Popular support for direct democracy in europe. Paper presented at the ECPR Joint Sessions 2015, What citizens want from democracy: Popular Attitudes to Existing Political Processes and their Alternatives, Warsaw.
- List, J. A. (2002). Preference reversals of a different kind: The "more is less" phenomenon. *American Economic Review* 92(5), 1636–1643.
- Lupia, A. (1994). Shortcuts versus encyclopedias: Information and voting behavior in California insurance reform elections. *The American Political Science Review* 88(1), 63–67.
- Matsusaka, J. G. (2005). Direct democracy works. *Journal of Economic Perspectives* 19(2), 185–206.
- Matsusaka, J. G. (2008). *For the Many or the Few: The Initiative, Public Policy, and American Democracy*. American Politics and Political Economy Series. University of Chicago Press.
- Matsusaka, J. G. (2010). Popular control of public policy: A quantitative approach. *Quarterly Journal of Political Science* 5(2), 133–167.
- Murphy, J. J., P. G. Allen, T. H. Stevens, and D. Weatherhead (2005). A meta-analysis of hypothetical bias in stated preference valuation. *Environmental and Resource Economics* 30(3), 313–325.
- Nalebuff, B. J. and R. Shachar (1999). Follow the leader: Theory and evidence on political participation. *American Economic Review* 89(3), 525–547.
- Neill, H. R., R. G. Cummings, P. T. Ganderton, G. W. Harrison, and T. McGuckin (1994). Hypothetical surveys and real economic commitments. *Land Economics* 70(2), 145.
- Noam, E. M. (1980). The efficiency of direct democracy. *Journal of Political Economy* 88(4), 803–810.
- Osborne, M. and M. Turner (2010). Cost benefit analyses versus referenda. *Journal of Political Economy* 118(1), 156–187.
- Oster, E. (2014). Unobservable selection and coefficient stability: Theory and evidence. *University of Chicago Booth School of Business Working Paper*.
- Pappi, F. U. (2011). CSU- und CDU-Wählerschaften im sozialstrukturellen Vergleich. *Hanns-Seidel-Stiftung Akademie fuer Politik und Zeitgeschehen Aktuelle Analysen*(57).
- Piott, S. L. (2003). *Giving voters a voice : the origins of the initiative and referendum in America*. Columbia: University of Missouri Press.
- Portmann, M., D. Stadelmann, and R. Eichenberger (2012). District magnitude and representation of the majority's preferences: Evidence from popular and parliamentary votes. *Public Choice* 151(3-4), 585–610.
- Raftery, A. E. (1995). Bayesian model selection in social research. *Sociological Methodology* 25, 111–163.
- Raftery, A. E., D. Madigan, and J. A. Hoeting (1997). Bayesian Model Averaging for linear regression models. *Journal of the American Statistical Association* 92(437), 179–191.

- Schlaepfer, F. and N. Hanley (2006). Contingent valuation and collective choice. *Kyklos* 59(1), 115–135.
- Schlaepfer, F., A. Roschewitz, and N. Hanley (2004). Validation of stated preferences for public goods: a comparison of contingent valuation survey response and voting behaviour. *Ecological Economics* 51(1–2), 1–16.
- Schneider, F., W. W. Pommerehne, and B. S. Frey (1981). Politico-economic interdependence in a direct democracy : The case of Switzerland. In D. A. Hibbs, H. Fassbender, and R. D. Rivers (Eds.), *Contemporary Political Economy: Studies on the Interdependence of Politics and Economics*, Number 135 in Contributions to Economic Analysis, pp. 231–248. Amsterdam: North-Holland Publ. Comp.
- Smith, D. A. and C. J. Tolbert (2001). The initiative to party partisanship and ballot initiatives in California. *Party Politics* 7(6), 739–757.
- Stadelmann, D., M. Portmann, and R. Eichenberger (2013). Quantifying parliamentary representation of constituents’ preferences with quasi-experimental data. *Journal of Comparative Economics* 41(1), 170–180.
- Stadelmann, D. and B. Torgler (2013). Bounded rationality and voting decisions over 160 years: Voter behavior and increasing complexity in decision-making. *PLoS ONE* 8(12), e84078.
- Trechsel, A. H. and P. Sciarini (1998). Direct democracy in Switzerland: Do elites matter? *European Journal of Political Research* 33(1), 99–124.
- Zaller, J. and S. Feldman (1992). A simple theory of the survey response: Answering questions versus revealing preferences. *American Journal of Political Science* 36(3), 579.