

# Electoral Effects of Public Savings Banks in German Subnational Elections: The Case of Bavaria

Course: Introduction to Collaborative Social Science Data Analysis (MPP-E1180)

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# 1. Introduction<sup>1</sup>

The collapse of large the US bank Lehman Brothers in 2008 and the subsequent global financial crisis brought banks to the attention of the general public, policymakers, and scholars. By analyzing issues such as financial regulation and moral hazard implications of banks that are ‘too big to fail’, political economists predominantly approach banks and politics as closely linked, but two separate spheres. Publicly owned banks are, thus, strikingly neglected by the Political Economy literature despite the fact that public banks play an essential role in many European banking sectors. This calls for closer examination of the political economy of public banks, hence, the implications of politicians *within* banks for bank action and political outcomes.

Public banks are central players in many European countries, but are particularly important in the German banking system with more than 400 public banks. Germany’s publicly owned savings banks (*Sparkassen*) are important local employers and lenders to small- and medium-sized enterprises; overall they account for 34% of total assets and 44% of total lending in Germany (Deutsche Bundesbank 2015). Hence, public savings banks constitute an essential element of the German banking sector and are important actors for the German *Mittelstand* economy. At the same time, close links between savings banks and local politics make banks subject to potential political influence. *Sparkassen* are owned by German counties and municipalities, which grants local politicians access to key supervisions function in the bank management. Due to their public ownership, local politicians are members of savings banks’ Board of Directors (*Verwaltungsrat*) as well as the credit committee, which allows them to influence strategic decisions of savings banks (e.g. credit volume or bank consolidation) with direct implications for the municipal economy. Scholars, therefore, often speculate about the politicization of bank activities and political rent extraction by board members.

In this paper, we analyze the effect of board membership in Bavarian *Sparkassen* in Germany on politicians’ success in local elections. Board membership enables politicians to influence bank activities that might improve their reelection chances. Previous papers have shown that German savings banks’ activities indeed follow the political business cycles of elections. However, it remains unclear whether these lending activities have an effect on incumbents’ reelection chances. To do so, the paper exploits the fact that not all locally elected political leaders in Germany are board members in savings banks. We compare electoral performance of politicians that are members of a board with that of politicians without a seat at a savings bank’s board. A unique hand-collected panel dataset on the boardroom composition of Bavarian savings banks with detailed information of board member profiles is used in order to analyze the effects of board membership on electoral success in municipalities<sup>2</sup>.

The paper is structured as follows: In the next part, the institutional background is described. In Section 3, the relevant existing literature is reviewed. Section 4 outlines the main hypothesis of the paper and, subsequently, datasets and the statistical model are introduced (section 5) and in the 6th section, descriptive statistics and findings from inferential statistics are presented. Section 7 concludes.

## 2. Institutional Setting

### 2.1. German Public Banks

The German three-pillar banking system consists of a small number of large commercial banks, about 1,100 cooperative banks, and 416 publicly owned *Sparkassen*. Today, *Sparkassen* account for 34% of total assets and 44% of lending to non-financial institutions in Germany (Deutsche Bundesbank 2015) (see Appendix I). Besides their significant share in overall assets and lending, they are important actors for the local economy in Germany: German savings banks’ mandate obliges them to not maximize profits, but support regional economic and social development<sup>3</sup>. They foster local economic development by providing credit to small and

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<sup>1</sup>This paper is based on and a part of a research project by Guillermo Rosas (Washington University in St. Louis; grosas@wustl.edu) and Jonas Markgraf (Hertie School of Governance; markgraf@hertie-school.org).

<sup>2</sup>As data collection for the board composition of German savings banks is very time-consuming, we were forced to restrict our sample to only one federal state.

<sup>3</sup>*Sparkassen*, for instance, are major contributors of local initiatives and projects through generous donations.

medium-sized enterprises<sup>4</sup> as well as to local governments and subsidize the production of local public goods such as access to finance in rural areas.

*Sparkassen's* geographical areas of business are, by law, restricted, so that savings banks do not compete against one another, but have a strong regional component in their activities; in any given municipality, only a single savings bank is established (no overlapping business areas, see Appendix II [in German]).

Most of the 416 *Sparkassen* are owned by the counties or municipalities in which they operate<sup>5</sup>; for this reason, many local politicians of counties and municipalities, in particular county commissioners (*Landräte*) and mayors, are members of the Board of Directors (*Verwaltungsrat*) as well as at the credit committee of their local *Sparkasse*. The boardseat provides politicians with statutory leverage over strategic decisions of banks and opens the door for political tinkering and rent-seeking behaviour of politicians with a boardseat in their local savings bank.

## 2.2. German Political System: Municipalities and Mayors in Germany

The German federal political system consists of four government layers: the federal state (federal level), 16 states (state level), 399 counties and 107 county-free cities (county level), and 11,192 municipalities (municipal level). Each municipality has its own municipal council and is jointly governed by the municipal council and its directly elected mayor<sup>6</sup>. Election rules depend on federal law and the mayoral tenure vary across federal states between five and eight years; also, mayors' power and relationship to the municipal council is defined by federal law and has changed over time. In most federal states, mayors stand out in local politics as the only full-time politician at the municipal level<sup>7</sup> with a strong and independent position (Freier 2015).

German municipalities provide a variety of local public goods and services: They are responsible for administrating spending received from higher government tiers, oversee local public firms, and provide a variety of direct responsibilities such as cultural expenditures, childcare provision, or local infrastructure. While most tasks provided by municipalities are determined by law, local politicians have some room for manoeuvre as they can take on additional responsibilities and deliver voluntary services. Moreover, municipalities have a some degree of freedom in designing tax policy by determining municipal taxes (local business tax and property tax) (Fritz and Feld 2015). At the same time, local politicians enjoy several benefits from their political position: Although most politicians at the local level are non-professional, they receive a considerable financial compensation for their work. More importantly, some get formal or informal access to influential positions, such as the board of their local *Sparkasse*. Hence, municipal elections are of importance for the population in the voting district<sup>8</sup> as well as for the elected politicians.

## 3. Literature review

Academic scholars often speculate about the political use of banks, for instance arguing that banking crises occur because governments build banking systems that are 'fragile by design': Governments regulate banks, but also use them as a source of finance; they bailout banks, while requesting votes from taxpayers that foot the bailout bill (Calomiris and Haber 2014).

Recent academic research confirms the existence of *electoral cycles* in public bank's lending and other business activities, such as bank consolidation. Interestingly, this effect is ubiquitous: Scholars find it in developing as

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<sup>4</sup>SMEs are the backbone of the German economy. Usually, smaller companies have less access to credit. The specific nature of the German banking system with the prominent role of *Sparkassen*, however, facilitates access to credit for smaller enterprises.

<sup>5</sup>Only five savings banks are politically independent and not owned by a political entity.

<sup>6</sup>While municipal mayors in Bavaria and Baden Wurttemberg are elected directly by voters since World War II, most German federal states introduced direct elections on the municipal level only in the 1990s.

<sup>7</sup>Not all mayors are full-time politicians. By law, municipalities with more than 5,000 inhabitants should have a full-time mayor; however, this threshold is fuzzy in reality (for pitfalls with population thresholds in Regression Discontinuity Designs, see Eggers et al. (2016)). Generally, full-time mayors govern larger municipalities than part-time mayors.

<sup>8</sup>The perceived importance of municipal elections in Germany is reflected in the comparatively high voter turnout. In Bavaria, for instance, the average voter turnout in municipal elections was 55% in 2014, which is significantly higher than for European or county elections.

well as in advanced market economies. It occurs in countries known for their close ties between politicians and banks, such as Southern and Eastern European countries (Baum, Caglayan, and Talavera 2010; Dinc 2005; Sapienza 2004; Illueca and Lavezzolo 2016; Jackowicz, Kowalewski, and Kozlowski 2012; La Porta, Lopez-de-Silanes, and Shleifer 2002), but was observed in advanced market economies with strong institutional checks and balances like Germany too, where one would expect to see less politicization of bank activity.

German savings banks have been shown to lend more in years in which elections take place at the county level (Englmaier and Stowasser 2016; Gropp and Saadi 2015); moreover, it has been demonstrated that *Sparkassen* are less likely to lay off employees and to merge with neighbouring savings banks in the year preceeding county elections (Vins 2008). Thus, the existence of *electoral lending cycles* is well established in the literature. The Public Economics literature on public banks, however, largely focuses on the behaviour of banks and its detrimental effect to banks' performance, thereby ignoring an important aspect: The political implications of politicized bank behaviour. This paper contributes to this strand of literature by examining the electoral effect of politicians' board membership in German *Sparkassen*, hence, analyzing whether political tinkering with savings banks actually increases incumbents' chances for reelection.

This paper, furthermore, contributes to the broad Political Science literature on the *incumbency advantage* in established democracies<sup>9</sup>. Incumbent parties and candidates seem to derive an advantage from holding political office during reelection campaigns, an effect first identified by Erikson (1971) for US Congressional Elections. Previous research has demonstrated that also German politicians at the state, federal, and municipal political level enjoy incumbency advantages (Ade, Freier, and Odendahl 2014; Freier 2015; Hainmueller and Kern 2008). These studies, however, have not provided exhaustive explanations for the causal relation and the mediating factors between incumbency and reelection chance for politicians. By analyzing the electoral effect of board membership for incumbent mayors in Germany, this paper analyzes a potential causal mechanism for the incumbency advantage. The paper, thus, links the Public Economics literature on *political lending cycles* of banks and the Political Science literature on the *incumbency advantage* - two debates that, so far, have not talked to each other.

## 4. Hypotheses and Predictions

This paper examines the hypothesis that mayors with a board seat in their local *Sparkasse* are more likely to be reelected compared to mayors without a board seat. To estimate the effect of board membership on election outcomes, we exploit the fact that not all locally elected political leaders in Germany are board members in a savings bank and compare the electoral performance of politicians with and without board representation in their local savings bank.

There are multiple channels through which board membership might affect incumbents' electoral performance: Board membership might signal competence to the mayor's constituency. Recent studies have demonstrated that German voters prefer better qualified mayoral candidates (Freier and Thomasius 2016). Board membership provides mayors with visibility in their municipality and signals financial competence; thus, voters might perceive a mayor chairing the local savings banks as more competent.

Secondly and more important, mayors with a board seat have access to supervisory tasks and strategic decision-making of the *Sparkasse*; the chairmen of the savings bank, usually mayors or county commissioners, even have access to the credit committee. In this way, board representatives can directly channel credit to certain enterprises, projects, or industries, and increase credit volume in the run-up of an election. Furthermore, board members can delay consolidation or mergers with other savings banks until after the election in order to avoid bad news about lay offs or closed branches until after the election. Finally, the Board of Directors decides on the payout of profits by the savings bank and donations by the savings banks. For these reasons, we hypothesize that mayors with a board seat in their local savings bank are able to extract political rents from the savings banks making reelection more likely. The *incumbency advantage* of mayors partly operates through board membership in local savings banks.

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<sup>9</sup>Interestingly, in young democracies, such as Mexico, scholars find the opposite effect (*incumbency curse*), i.e. incumbents seem to get punished in the following election (e.g. Lucardi and Rosas 2016).

To estimate the effect of board membership on electoral success of mayors in Germany, we focus on mayors who won their mandate in a contested election (more than one candidate); the reelection probability of mayors with a board seat is compared to the that of mayors without board representation. Thus, our sample consists of mayors that participated in at least two consecutive contested elections.

Two aspects require particular attention in this research design as they might confound the estimated effect: The determinants of assignment of board posts and alternative factors affecting the reelection chance of incumbent mayors. Answering the research question requires a profound knowledge of the assignment process of board members in German savings banks. At this stage, we do not sufficiently understand the assignment procedure of mayoral board posts, but clear-cut assignment rules that would enable a Regression Discontinuity Design (RDD) do not exist. For some obvious potential determinants, such as size of the municipality, we control (see section **YYY**). However, without a clear grasp of the assignment determinants, our estimates will be suspect. In order to strengthen our causal narrative, we intend to conduct a number of expert interviews with members of *Sparkassen* associations to understand this process.

Furthermore, the paper will control for alternative factors that affect the probability of mayors to regain office<sup>10</sup>. The size of the municipality might affect the reelection chances of mayors as incumbents in larger municipalities have access to larger resources that can be used to regain the mayor’s post (Levitt and Wolfram 1997). In addition, personal characteristics of the mayor might affect his reelection chance, independent of the board membership of the mayor: Therefore, we control for vote share of the incumbent in the previous election assuming that candidates with higher vote shares enjoy more popularity and are thus more likely to get reelected in the next election. Moreover, we control for the gender of the incumbent.

## 5. Data and Statistical Model

### 5.1. Data

A unique, largely hand-collected dataset is compiled that combines information from various sources. The unit of analysis are mayoral elections in Bavaria. Data on mayors’ electoral performance is matched with data on board compositions of German savings banks. Overall, the working sample includes 2,099 municipalities and 79 savings banks in Bavaria over the years 2006 to 2015.

#### 5.1.1. Bank Board Data

We hand-collect a unique panel dataset on the composition of Boards of Directors in Bavaria’s *Sparkassen*. This dataset includes detailed information on board member profiles which enables us to identify mayors on bank boards:

- name and gender of board members;
- occupation of board members (identifier for mayors on board);
- position within board: normal board member, chairman, or vice chairman.

Annual information on Board of Directors is hand-collected from savings banks’ annual reports available in PDF format on *Bundesanzeiger* for the years from 2006 to 2015; the database can be extended back to 1998 with micro-fiche versions of annual reports from Bureau van Dijk’s *Bankscope* database. The dataset on boardroom composition constitutes the first comprehensive and systematic investigation of Bavarian savings banks’ corporate governance as information on German public banks’ boards has not been systematically collected yet.

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<sup>10</sup>Due to time constraints, we had to limit our control variables to those that were readily available from the existing datasets. Hence, we could not include important controls such as the economic situation in the municipality (economic voting hypothesis) and competence measures of the mayor.

### 5.1.2. Election Data

A database on mayoral elections in Bavaria is available from the state statistical office upon request (administration fee of 70 EUR). It contains data on direct municipal elections between 1948 and 2014. With this database we are covering 79 of the 416 German *Sparkassen* (19%) and 2,099 municipalities (19% of all municipalities in Germany). The data for mayoral elections contains the following variables:

- election date;
- name of election winner and (at least) the first loser;
- party affiliation of candidates;
- vote shares of candidates;
- dummy for contested elections (at least two candidates);
- number of eligible voters in voting district (size of municipality).

Matching the dataset for board composition and for mayoral elections allows to distinguish between mayors with and without board seats in their local savings bank and to analyze the electoral success of those mayors in subsequent elections. Hence, the dataset enables us to estimate the electoral effect of board membership for German mayors.

## 5.2. Subset Selection and Restrictions

Before conducting our analysis, we subsetting the data along different criteria in order to causally isolate the effect of *Sparkassen* board membership from other confounding factors which could not be controlled for otherwise.

The municipal election data set was subsetting to only include the time period for which we have data on *Sparkassen* board membership, which is from 2006 to 2016. We excluded elections which required run-offs, as leading candidate in those elections does not have to be the one winning the run-off. Moreover, elections where no candidate besides the incumbent mayor ran for office were excluded. As an earlier model we ran showed a negative correlation between votes shares a mayor had obtained during the previous election and her probability of becoming reelected in the subsequent election, a clear contradiction of previous research on the incumbency advantage. We supposed that this was due to popular mayors retiring while they enjoyed considerable public support still. To alleviate this problem, we restricted the data set to include only those elections where the last period's mayor was among the candidates. This whittled down our data set considerably, but was necessary to avoid bias. In the end the study data set contained 1341 observations across two municipal election rounds (held in 2008 and 2014).

## 5.3. Statistical Model

Given the research question, setting up the dependent variable as binary offers the best theoretical fit between the construct under study and the data available to us. Therefore, the analysis will employ a logistic regression model using reelection / no reelection of incumbent mayors as the dependent variable; the logistic model will give the probability of the incumbent to be reelected. This will allow for a very close fit of the model and the data, intuitive visualisations of patterns in the data using predictive probabilities and also keeps model complexity in check. The primary independent variable of the model is board membership in the local *Sparkasse*. In order to cleanly estimate the effect of board membership on reelection chances, it is important to get a good grasp on the determinants of appointment to board positions. We therefore control for obvious potential drivers such as mayors' vote share during the previous election, which serves as a measure of the incumbency advantage. Further control are candidates' sex and municipality size (measured by number of eligible voters) as larger municipalities might offer more resources to retain the mayor's office.

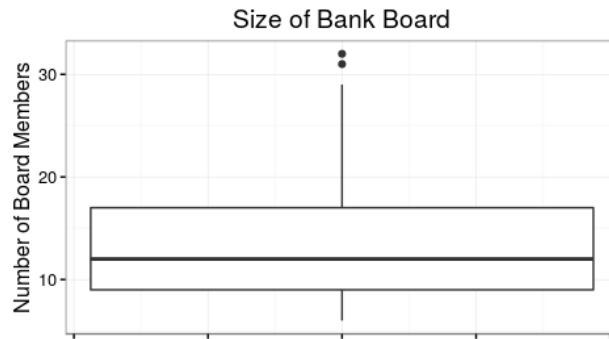
## 6. Findings

### 6.1. Descriptive Statistics

#### 6.1.1. Sparkassen Dataset

As outlined above, the *Sparkassen* dataset contains information on names, political position (no full-time politician; mayor; county commissioner) and position within the board (top position; non-top position). This allows us to estimate the degree of politicization of boards and the patterns of politicization.

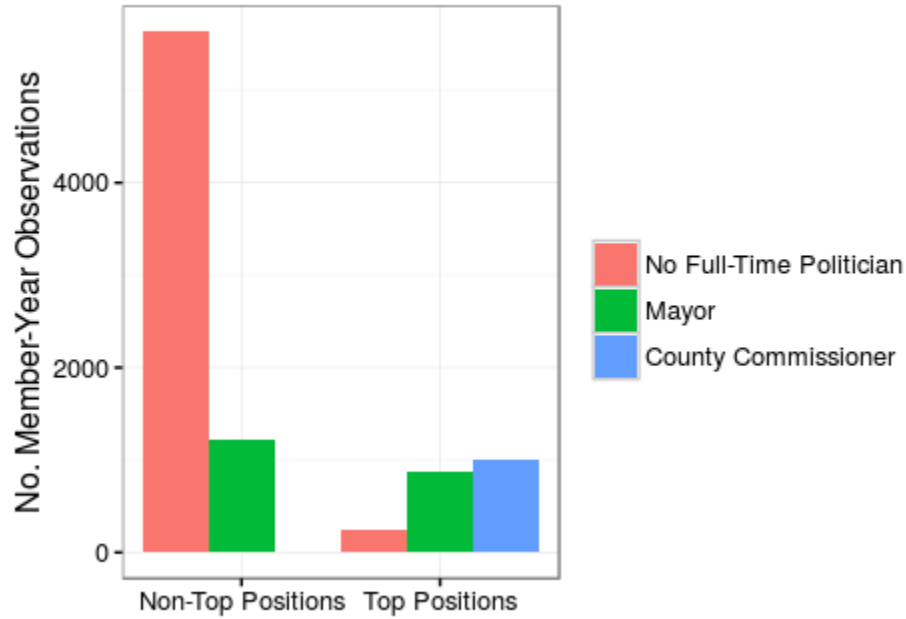
The Board Membership dataset contains 79 banks. Board size varies between a maximum of 32 board seats and a minimum of six seats; on average (median), Bavarian savings banks have 12 persons on the supervisory board.



For those 79 banks, we have overall almost 9,000 board member-year observations, about 1,600 unique board member profiles of which 410 are mayors (23%) and 175 are county commissioners (11%).

Of the 9,000 board member-year observations, about one-fourth (2,115 observations) are member-year observations for board members in top positions. Of those 2,115 observations, 875 are mayors and 1,006 are county commissioners; only 238 top-position observations belong to persons that are not full-time politicians.

### Political Board Representation in Top Positions and Non-Top Positions



Overall, this shows that a considerable share of bank boards is hold by full-time politicians (34%). Moreover, political representation is pronounced in top positions of banks' boards (county commissioners are only in top positions); as board seat holders of top positions have much higher influence on banks' strategic decisions (e.g. as the chairman is always member of the credit committee), this finding confirms our suspicion that German *Sparkassen* are subject to potentially high political control and shows that politicization of public savings banks mainly works through top positions.

#### 6.1.2. Election Data Set

Out of all the mayors elected the time period under study, 7.308% of the mayors who were elected were female.

Party	Frequency	Share
CSU:	563	42%
Others:	519	39%
SPD:	259	19%
<i>Total</i>	<i>1341</i>	<i>100%</i>

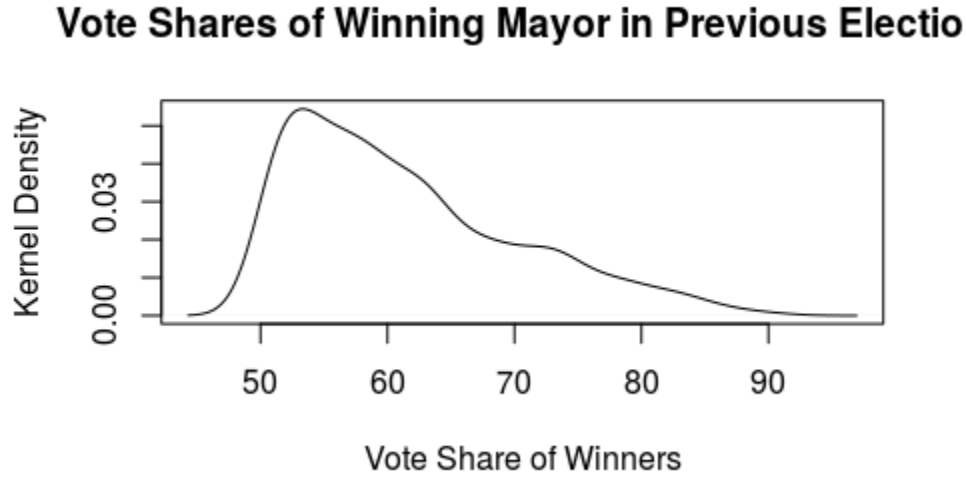
The biggest share of mayors are affiliated with the CSU, the second largest belong to other parties, which include independent voter lists. The SPD, a popular party in the entirety of Germany does worse than in the remainder of Germany. Out of 1341 mayors which were elected over the study period, only 259 mayors were affiliated with the SPD. When looking at the vote share obtained by other parties, it is important to note that

Comparing the chances of reelection for mayors of different parties, we find that mayors from all parties have relatively high chances of being reelected. The probabilities are as follows:



Party	reelection share
CSU:	85%
SPD:	84%
Others:	81%

The number of eligible voters per municipality, which we intend to use to control variable for municipality size is severely right-skewed, as expected, so we will log it in our analysis.



Likewise, the distribution of previous vote shares seen just above is heavily right-skewed, which is unsurprising given that mayors need to obtain at least 50% of the vote shares in order to become elected, thus this serves as a lower bound in the distribution.

## 6.2. Regression Results

Four models with different specifications were run during the analysis. The estimation results are reported as odds ratios in Table 1 below. P-values of the point estimates which are based on the underlying beta-coefficients and standard errors are reported along with the odds ratios. We find a positive effect of *Sparkassen* board membership in the model excluding controls (1) and the model controlling for previous vote share only (2). While this effect goes into the right direction, it is not statistically significant which could be attributed to the limited number of observations under study ( $N = 1,341$ ).

After including additional control variables in models (3) and (4), the effect of board membership on the odds of becoming reelected as compared to non-board members turns negative. However, as with the previous two models, these estimates are not statistically significant. Moreover, the instability of the estimates across different models is worrisome, given that the inclusion of sex, a statistically insignificant covariate, results in a reversal of the estimated effect of *Sparkassen* board membership. Another surprising finding is the direction of the effect of sex on the odds of getting reelected. The estimation suggests that female mayors could have higher odds of becoming reelected. Yet, this result is not statistically significant so we cannot make any inferences on effect of sex on the probability of reelection.

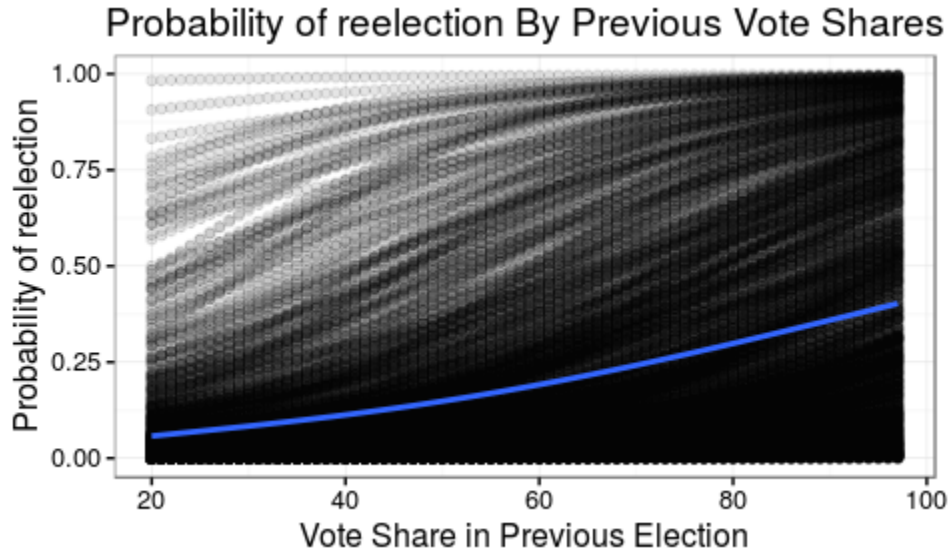
The size of the municipality, as measured by the number of eligible voters in that municipality seems to reduce the probability of reelection going by the estimated odds ratio, but fails to achieve statistical significance. Hence, we cannot make any causal inference about the effect of the municipality size on the odds of becoming reelected.

Table 1: Logistic regression results w/ odds ratios

	<i>Dependent variable:</i>			
	reelection of mayor			
	(1)	(2)	(3)	(4)
Sparkassen board member	1.03	1.04	0.97	0.97
	p = 0.86	p = 0.82	p = 0.89	p = 0.90
Previous vote share		1.05	1.05	1.05
		p = 0.0000***	p = 0.0000***	p = 0.0000***
Female			1.07	1.08
			p = 0.45	p = 0.41
Number eligible voters				0.66
				p = 0.11
Constant	4.98	0.25	0.15	0.16
	p = 0.00***	p = 0.02**	p = 0.04**	p = 0.05**
Observations	1,341	1,341	1,341	1,341
Log Likelihood	-603.38	-588.79	-588.50	-587.26

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01



As expected, the success of a mayor in the preceding election has a strong effect on the probability of reelection in the following election. This is indicated by the highly statistically significant estimates associated with the previous vote share. To strengthen our claim and to assess the probabilities of reelection across all possible values of the previous vote share variable, we carried out a simulation. To that end, predicted values were generated using simulated point estimates for the coefficient of previous votes shares while keeping all other covariates at their means. The resulting probabilities are marked as individual dots in the graph above, with a fitted line drawn through them. A clear upward trend in the probability is visible with increases in the previous vote share obtained.

Table 2: Logistic regression results w/ odds ratios without deleting possibly retired mayors

	<i>Dependent variable:</i>			
	reelection of mayor			
	(1)	(2)	(3)	(4)
Sparkassen board member	1.53	1.52	1.23	1.23
	p = 0.0001***	p = 0.0001***	p = 0.07*	p = 0.07*
Previous vote share		1.00	1.00	1.00
		p = 0.32	p = 0.38	p = 0.43
Female			1.23	1.23
			p = 0.0001***	p = 0.0001***
Number eligible voters				1.15
				p = 0.44
Constant	0.73	0.96	0.18	0.18
	p = 0.00***	p = 0.88	p = 0.0004***	p = 0.0004***
Observations	2,537	2,534	2,534	2,534
Log Likelihood	-1,731.93	-1,729.79	-1,720.57	-1,720.26

Note:

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01

## 7. Conclusion

The paper purports to estimate the effect of board membership in German public savings banks (*Sparkassen*) on mayors' electoral success. It compares electoral performance of mayors with and without a board seat in in Bavaria using a logistic regression model. To answer the research question, we compiled a novel hand-collected dataset on the boardroom composition of German public banks with detailed information on board member profiles, which we combined with an existing data set on Bavarian municipal elections.

The statistical analysis

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