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Fiscal Performance and Electoral Accountability. The Case of Finance Ministers in Swiss Cantons

Buchs Aurélia

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Fiscal Performance and Electoral Accountability
The Case of Finance Ministers in Swiss Cantons

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par

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IMPRIMATUR

Le Décanat de la Faculté de droit, des sciences criminelles et d'administration publique, sur proposition d'un jury formé des professeurs Nils Soguel, Christian Thöni, Reiner Eichenberger et Pascal Sciarini, sans se prononcer sur les opinions de la candidate, autorise l'impression de la thèse de Madame Aurélia Buchs, intitulée :

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Acronyms of cantons

AG	Aargau	NW	Nidwalden
AI	Appenzell Innerrhoden	OW	Obwalden
AR	Appenzell Ausserrhoden	SG	St. Gallen
BE	Bern	SH	Schaffhausen
BL	Basel-Landschaft	SO	Solothurn
BS	Basel-Stadt	SZ	Schwyz
FR	Fribourg	TG	Thurgau
GE	Geneva	TI	Ticino
GL	Glarus	UR	Uri
GR	Graubünden	VD	Vaud
JU	Jura	VS	Valais
LU	Lucerne	ZG	Zug
NE	Neuchâtel	ZH	Zurich

Other acronyms

CHF	Swiss Francs
CVP	Christian Democratic Party
FMAP	Financial management act of parliament
FDP	Liberal Party
FE	Fixed-Effects
FM	Finance Minister
FS	Financing Statement
GPS	Green Party
HAM	Harmonized Accounting Model
SFP	Statement of Financial Performance
SM	Spending Minister
SP	Social Democratic Party
SVP	Swiss People's Party

1 Introduction

How does a politician's performance affect his or her re-election? Building on the theory and empirical findings of electoral accountability abroad, this thesis makes use of the unique institutional context of the Swiss cantons in terms of fiscal autonomy, democratic institutions, and electoral rules to analyse whether voters hold cantonal finance ministers accountable for a canton's financial situation on re-election day and under what conditions is performance-oriented voting more likely to occur. Swiss citizens can, on the cantonal (state) level, directly elect all the members of the government in multi-seat majoritarian elections, in contrast to other countries where the different members of the executive are assigned by the prime minister or president. The cantonal candidates are not elected for a specific ministry but if an incumbent minister runs for re-election, it can be expected that citizens will look at the minister's performance in the previous term to evaluate and make their electoral choice.[1]

Elections function in a principal-agent framework, where the electorate represents the principal and the incumbent is the agent. Whereas campaign promises are generally difficult to enforce, voters can still discipline and evaluate the incumbent seeking re-election based on past performance. In this way, elections create a relationship of formal accountability between voters and policymakers, which ideally provides incentives for better governance and the opportunity to select competent politicians (Ashworth 2012). Institutional settings and procedures, as well as the incentives they generate in terms of fiscal policy, have traditionally been the main area of research on the Swiss cantonal level. The subject of selecting competent people for political office and holding them accountable for their performances has, however, received less attention.

Swiss cantons have considerable autonomy in terms of fiscal policy and financial management. Each canton is free to decide whether to levy taxes and other charges, and at which rate. There is a similar autonomy for expenditure policies, although it is not as large as it is for taxation. Even if a cantonal finance minister does not have an exclusive right of instruction and is still member of a multiparty government guided by the principle of collegiality, she takes the lead over the budgeting process (Hallerberg and von Hagen 1997). This means that citizens may perceive the finance minister as mainly responsible for the fiscal performance i.e., the financial

[1] Indeed, there is no guarantee that finance ministers remain finance ministers after their re-election (Chatagny 2015). However, since 1980 there have been only three finance ministers who switched and took over a spending ministry in their next term. So traditionally a re-elected finance minister stays in charge of the finance ministry. This is less the case with spending ministers. Since 1980 there have been 36 finance ministers who were in charge of a spending ministry before their term as finance minister.

situation of a canton. In media reports the members of the cantonal governments mostly appear in connection with the policies and events specific to their own ministry. Additionally, Switzerland's direct democracy means that cantonal ministers must regularly debate the policy issues they oversee. Hence, given the fact that every member of the executive branch directs a specific ministry, citizens should also be able to better evaluate the performance of the different ministers and take that performance into account when they cast their votes. Elections by majority system are generally assumed to increase the weight of individual characteristics compared to partisan ones (von Hagen 2005, Burret and Feld 2018). According to Besley (2004: 210), models of electoral accountability and performance-oriented voting are most promising when applied in a context where there are directly individually elected executives with significant discretionary power. Eichenberger, Portmann, and Stadelmann (2018) argue that a multi-seat government elected by majority vote gives politicians an even higher incentive to move towards the median position of the political sphere than one-seat elections by majority vote. Therefore, the ideological differences between the candidates become rather small as the candidates can and generally do take on more moderate positions than their parties. And so in a multi-seat government election, individual characteristics such as competence, credibility, and personality are believed to be more important for the vote decision.[2]

The cantonal level in Switzerland thus provides several advantages for testing the effect of performance-oriented voting. First, the members of the executive are elected by the citizens through majority vote and the (re)-election results of one candidate can be compared to her previous election result.[3] Second, the fact that the finance minister is mainly responsible for balancing the budget[4] is an interesting difference compared to existing studies, which have mostly dealt with the re-election of a president, mayor, or governmental parties as a dependent

[2] The *Neue Zürcher Zeitung*, one of Switzerland's large-run high-quality newspapers, titled for example "Köpferollen bei kantonalen Wahlen" in their edition of 2 April 2007. The title illustrates the fact that cantonal government elections are mainly about individuals. Finance ministers had not been re-elected both in the canton of Ticino and Lucerne due to inconsistencies in their private life as well as in the tax office in the case of the canton of Ticino.

[3] In cross-national studies, Switzerland is often seen as an unlikely case to detect evidence for electoral accountability, i.e., economic voting (Powell and Whitten 1993) on the national level. The multiparty parliament elected by proportional vote, with no party having the majority and weak internal party cohesion, as well as the power-sharing executive elected by the parliament based on a so-called magic formula of the 4 major parties since 1959, with no party having a majority either, complicate the attribution of responsibility and political accountability at the national level. However, as described above, the cantonal electoral setting is not the same and thus much more adequate as members of the government are elected by the citizenry through majority vote.

[4] There are some cantons where the finance minister is also in charge of an additional policy (ex. education, health). This could make it more difficult to attribute performance exactly because the finance minister must also promote the interest of a spending ministry. This aspect will be considered in the empirical analysis.

variable. Indeed, re-elections of a president or a mayor might be attributable to performance in various policy areas. But the performance of a finance minister represents a direct and more objective measure as it can convincingly be based on fiscal indicators. Third, cantonal governments are made up of 5 to 7 members, so there are usually several incumbents running for re-election, providing an opportunity to compare the electoral score between each one. This can additionally give some insights regarding the attribution of responsibility. By focusing on this context, this study allows for a more subtle and precise analysis of performance-oriented voting. Furthermore, the Swiss cantonal context also provides the possibility of investigating how fiscal preferences as well as political and institutional characteristics, which vary between and within cantons and over time, condition performance-oriented voting.

Using data from the Swiss cantons over the 1980–2018 period, this dissertation analysed the effect of fiscal performance on the re-election results of finance and spending ministers. Firstly, my estimations show that balanced accounts as well as fiscal consolidation—measured by the financing statement result in the year before re-election as well as cumulatively over the whole term—significantly increase a finance minister's percentage of the obtained vote compared to her prior election result. I also found evidence for politician-specific monitoring in that compared to the spending ministers, the finance minister seems to be the sole member of government who benefits from the debt reduction in an electoral way. These results were robust even using different estimation procedures. I further investigated the influence of fiscal preferences on the electoral effect of fiscal performance by considering a constituency believed to particularly care about sound public finances: homeowners, because of the capitalization of debt into property prizes. To do this, I considered cross-cantonal as well as intra-cantonal differences in terms of homeownership rates and the results suggest that the electoral effect of fiscal performance is stronger in jurisdictions with higher homeownership rates. Lastly, I examined institutional, contextual, and political factors which might affect fiscal preferences or the clarity of responsibility and detected certain tendencies. All in all, the results suggest that citizen voting behaviour is highly sophisticated.

Overall, this thesis makes several contributions to the field. Using the unique institutional context of the Swiss cantons, it is the first to study the electoral effect of fiscal performance on elected finance ministers, providing a broader view of electoral accountability. Furthermore, the analysis also identifies conditions under which performance-oriented voting is more pronounced. In doing so, this work produces and uses a novel dataset that combines cantonal government election results at the cantonal and municipal level, financial indicators, personal characteristics of elected cantonal government members, as well as other contextual variables

over an extended time period. Finally, by utilizing interviews with cantonal finance ministers and studying cantonal financial reports, newspaper articles, as well as ballots on cantonal financial policy issues, the thesis provides an overview on cantonal public finances since 1980.

This thesis is structured as follows: Chapter 2 presents the relevant literature and debates on electoral accountability. Chapter 3 explains the theoretical intuition and hypotheses. Chapter 4 introduces the empirical context with a special focus on multi-seat majoritarian elections. Chapter 5 describes the dataset and main variables. In Chapter 6 I layout a link between the theory, the hypotheses, and the experiences of former and incumbent finance ministers. This dissertation includes interviews with sixteen finance ministers from different Swiss cantons in order to provide a critical view on the theory, the assumptions, and the data operationalization. Chapter 7 is devoted to the quantitative analysis, introduces the methodological approach, and eventually presents and discusses the results. Finally, Chapter 8 concludes.

2 Literature Review

2.1 Electoral Accountability

Electoral control and accountability are important aspects of a functioning democracy. In the context of a representative political system, where citizens delegate authority to policymakers, principal-agent problems, like moral hazard and adverse selection, can occur. The principal-agent relation thus resembles an incomplete contract, leaving politicians with residual powers (Persson and Tabellini 2000). Historically, the literature covers three generations of political agency models. The earlier models were essentially focused on moral hazard, i.e., hidden effort and actions of incumbents. In these Public-Choice models of Barro (1973) and Ferejohn (1986) only one kind of self-interested politician exists, and the basic assumption is that voters will choose a threshold in order to discipline incumbents and thereby reduce rent-extraction. The voter will vote for the incumbent only if performance meets some standard. The second type of models deal with adverse selection. In these models, politicians can be self-interested or benevolent and the aim is to select the right type of politician for office based on observations the voter can make. In this type of model, the politician cannot do anything to disguise or reveal his type via specific actions; bad politicians always extract rents whereas good politicians do not. However, there is still some uncertainty about the environmental context, for example cost shocks, which make it difficult for voters to correctly infer the type of an incumbent. It is, however, unrealistic to assume that politicians have no ability to influence the amount of rent-extraction or effort. And so the most interesting and realistic models are those which combine hidden action and different types (Besley 2006: 2167-2275). In this type of model, elections have two roles: Selecting good, competent politicians and providing incentives that will foster high efforts and a reduction of rent-seeking.

In this modern perspective of accountability, the voter acts as a principal who does not observe the effort level and the type or competence of his agent, the politician. According to Casselli and Morelli (2004), the competence of a politician is "the skill to identify the appropriate policy objectives and achieving them at minimum social costs". Politicians have private information regarding their actions and may be aware or not of their own competence (Besley 2004: 200). This means that voters use any readily available information, like previously observed policy outcomes, to evaluate an incumbent instead of the unobservable realm of effort and competence. The assumption is that past performance can provide information about future behaviour and that voters are updating their beliefs and expectations regarding an incumbent based on observed policy outcomes. Consequently, in these models, policy choices can be used

as a signalling device for politicians to differentiate themselves from others. At best, this kind of evaluation mechanism should induce an incumbent to deliver good policy outcomes (Stevenson and Duch 2013: 307). In contrast, a lack of accountability to voters could increase the policymaker's incentives for opportunistic behaviour. Elections thereby create a relationship of formal accountability between voters and policymakers, which ideally gives incentives for better governance and the opportunity to select the most competent politicians or those whose preferences and motivations are most likely in line with the public interest (Ashworth 2012, Besley 2006). Accountability should consequently increase politician responsiveness to voter preferences and thereby voter welfare. However, the link between accountability and responsiveness might also depend on whether the electorate agrees on what should be done on the issues at stake. Additionally, responsiveness should be higher when the benefits for being re-elected—salary, prestige, respect, power—are greater. There is an argument that a term-limited or retiring incumbent risks being completely unresponsive to voters (Ashworth 2012: 85). However, Besley (2004) argues theoretically and empirically that term-limited politicians are more congruent with voter preferences due to the selection effect of elections.[5]

Of course, the accountability mechanism may also generate counter-productive incentives and distortions because incumbents might be deterred from pursuing the right policy knowing that their re-election chances will not benefit from doing so. An incumbent wants to take actions that preferably signal a high level of competence to the voter. If there are two possible actions and one which signals more competence than the other, the incumbent is extra incentivized to choose the high-signalling action even if it might not be the best action for the voters.

2.1.1 Economic Voting and Political Business Cycles

Citizen voting choices are likely to be influenced by different factors like long-term party preferences, sympathy, campaign promises, and past performances in office. The well-established theory of economic voting, one of the most influential theories in voting behaviour research, assumes that voters hold incumbents accountable for the economic situation on Election Day (Key 1966). When the economy is good, voters support the government and when it is bad, they vote for someone else. The theory even argues that the condition of the business cycle is a large if not the largest determinant in voter decision toward which party to support (Foucault, Seki, and Whitten 2016: 2). Previous empirical studies have primarily concentrated on the effect of economic growth, unemployment, and inflation on electoral results in developed

[5] Because the politicians have survived previous elections, they are more likely to be competent.

countries. Thus, findings from Kramer (1971), Hibbs (1987), Lewis-Beck (1988), and Nannestad & Paldam (1994) suggest that the objective as well as a subjective perception of economic growth, low inflation, and low unemployment rates have a statistically significant positive effect on the support and re-election of an incumbent.

The work on economic voting has been an important contribution for the acceptance of rational choice models applied to voters (Besley 2006: 106).[6] However, Key (1966) and Fiorina (1981) made a distinction between retrospective and prospective voting which contrasts with the modern perspective on electoral accountability. They explained the mechanism of economic and retrospective voting as a (dis)approval or in other words as a reward or punishment of what had been done during the politician's time in office. Yet rational voters should choose to vote for a politician from whom they expect the highest payoffs. So, if voters are looking to the past to decide how to vote they do this for prospective motives, namely because it helps them make a prospective evaluation of the candidates (Ashworth 2012: 186). Retrospective voting is rational not for the sake of rewarding or punishing incumbents but because past actions can provide information about the type and future behaviour of an incumbent. So according to Besley (2006: 106), there should be no meaningful distinction between retrospective and prospective voting. Ashworth (2012) argues that rational prospective voters might even vote for an incumbent whom they know took the wrong actions in terms of citizen welfare but from whom they expect the most in the future.

On the politician side, the political business/budget cycle theory (Nordhaus 1975) assumes that incumbents try to anticipate retrospective economic voting in their choice of policies while in office in order to maximize their re-election chances. The main implication of this theory is that for this purpose, incumbents use expansionary policies to stimulate the economy that then result in deficits prior to elections and contractionary measures afterwards. Later Rogoff and Silbert (1988) identify signalling as the driving force behind the political business cycle. In their model, an incumbent tries to signal his ability and competence to voters through good macroeconomic results, i.e., economic growth, prior to an election. Yet Alesina, Roubini, and Cohen (1997) find little evidence for a political business cycle in unemployment or economic growth, both in the United States and in other developed economies.

Consequently, researchers started to look for political cycles in fiscal aggregates, so called political budget cycles. In this context, Brenden and Drazen (2008) provide additional reasons

[6] Even if at that time the authors did not model it in a political-agency framework, something which would enable an analysis of equilibrium implications.

for the electoral benefit of expansionary fiscal policy besides economic stimulation. First, targeted expenditures to specific groups may increase the number of votes an incumbent receives from this group. Second, they argue that voters may simply like low taxes and high spending and so vote for politicians who deliver these (Klomp and de Haan 2013: 248), even if this response could be seen as some sort of "fiscal illusion". Because debt is a less visible means of public finance compared to raising taxes, voters might not perceive the true cost of public service, which in turn could impact politician incentives and generate an excessive level of public spending (Buchanan 1967).

In recent years, economists as well as political scientists have turned their attention to the influence of financial indicators such as government spending, budget deficit, and debt level on electoral support, instead of the effect of economic variables originally postulated by the economic voting theory. However, not many empirical studies have simultaneously addressed the issue of the political budget cycle and its electoral effect. Exceptions are Aidt, Veiga and Veiga (2011), who presented evidence from Portuguese local governments for larger win margins after opportunistic increases in spending and for higher opportunistic spending when win margins are expected to be small. Drazen and Eslava (2010: 50) show that high capital expenditure (targeted spending) not only increased before elections in Columbia but also had a positive influence on the share of obtained votes. Other non-targeted expenditures were reduced at the same time, yet this reduction did not affect the electoral result. Klomp and de Haan (2013), on the other hand, find hardly any evidence for the use of expansionary fiscal policy for electoral purposes in a cross-country analysis. Yet when election-motivated fiscal policy is conducted, which they identified as a phenomenon of less developed countries, it seems to result in a small positive effect on the election outcome.

On the contrary Alesina, Perotti, and Tavares (1998) find that fiscal austerity measures in OECD countries have positive rather than negative political effects, yet they looked at opinion polls and not at re-election results. The findings of several studies at the local level (Peltzmann 1992; Brender 2003) go in a similar direction showing that voters behave like fiscal conservatives and punish deficits and spending growth in elections. To a certain extent these findings contrast with the voter preferences assumed by the political budget cycle theory. Brenden and Drazen (2008) suggest that the existence of political budget cycles in some countries and not in others might reflect the politician's perception of the political benefit of such measures and could be the result of varying concerns and citizen preferences between countries. However, in their cross-country analysis they find that a worsening of the fiscal balance in the election year as well as in the years before reduces the probability of an

incumbents' re-election, both in old and new democracies.

Yet there has not been much literature until recently that looks at how the additional voter preference for sound public finances could shape politician behaviour. In the best case this preference reduces rent-extraction and fosters an efficient use of tax money. Though one could for example also imagine the use of fiscal gimmicks and creative accounting in order to improve budgetary figures. Clémenceau (2014)[7] gives a good overview on the practice of and research on creative accounting in the public sector. One could also imagine the manipulation of revenue projections during the budgeting process to reduce spending desires ultimately leading to lower materialized deficits or higher surpluses. Chatagny (2015) discusses the influences of political determinants on tax revenue forecasting errors as well as their subsequent effect on the fiscal balance. Jochimsen and Nuscheler (2011) find weak evidence for inverted opportunistic political budget cycles on the level of German Länder. Their analysis shows significantly lower borrowing in pre-election years which they identify as a sign for German voters favouring fiscal discipline or at least for the incumbents believing so.

2.2 Extensions

The accountability mechanism can be compromised by informational and cognitive limits, predispositions and voter beliefs, as well as the institutional context (Anderson 2007). These contextual factors are partly seen as the reason it has been difficult to demonstrate consistent effects, especially in cross-national studies (Powell and Whitten 1993: 391). For the accountability mechanism to work, the electorate must be able to perceive and evaluate performance as well as attribute responsibility accurately. In recent years, theoretical micro-founded work as well as empirical studies have tried to clarify the accountability mechanism and analyse how individual, contextual, and institutional features affect responsiveness. Several aspects and findings will be discussed in the following subsections.

2.2.1 Information

This subsection focuses on how responsiveness and electoral accountability varies with changes in the informational environment. A change in information can affect the voter's response to policy outcomes and in turn also change the incentives of incumbents and their choice of actions. Generally, a voter only observes a noisy measure of a politician's performance. The

[7] In the case of the Swiss cantons, Clémenceau shows that creative accounting, in terms of additional depreciation charges and special funds, are mainly used to worsen the statement of financial performance and disguise surpluses in order to restrain spending desires and structurally improve the governments' financial situation. Accordingly, CHF 1 per capita of additional depreciation charges improves the balance of the coming year by CHF 0.30 to 0.50 (2014: 175).

amount of noise can be reduced and the responsiveness of the voter increased if there is more performance information available and if the incumbent's own influence on the outcome is clearer compared to other factors (Ashworth 2012: 191). Eichenberger and Serna (1996) point out that only clean information decreases random errors of rational voters whereas dirty information increases their errors. Indeed, information which is irrelevant or even wrong, increases information costs by diluting the relevant information. As positive and negative estimation errors of voters do not necessarily counterbalance each other out, they can systematically affect politics. This can be exploited by political actors who choose to target dirty or clean information at individuals.

To empirically address the problem of informational and cognitive limits regarding the perception, evaluation, and attribution of performance, studies have analysed the influence of yard-sticking, benchmarking, transparency, and media coverage. If voters possess the relevant information, the phenomena of yardstick voting and benchmarking[8] can occur in the field of fiscal policy (Besley and Case 1995). The voters can then use information about fiscal performance in neighbouring jurisdictions as a yardstick to learn more about an incumbent's competence and overcome political agency problems (Vermeir and Heyndels 2005: 2290). Kayser and Peress (2012) have shown that voters in various democracies do (not) vote for incumbents when national outcomes outperform (underperform) an international comparison. A similar phenomenon has also been identified in studies conducted in the private sector. Empirical evidence indicates that the tenure of senior managers depends on the firm's performance, often measured by financial indicators, and that they are replaced if the firm's performance falls below that of competitors or below past achievements (Brickley 2003).[9] According to the findings of Brender (2003) and James and John (2007), fiscal policy information through media coverage and better financial reporting and ratings had a positive influence on electoral accountability for local government elections in Israel and England. Snyder and Strömberg (2010) show that high congruence between newspaper markets and congressional districts in the U.S. leads to more press coverage of the local congressmen, better voter information, higher participation rates in elections as well as a congresswoman more actively pursuing their constituencies' interests.

[8] Comparing the performance of one's own jurisdiction to the performance of others.
[9] Swiss cantonal finance ministers can somehow be compared to senior managers as they are not only member of the cantonal government but also the head of the finance ministry. Furthermore, the Swiss context with its 26 cantons is particularly suited to analyse the influence of yard-sticking/ benchmarking on performance-oriented voting.

On the other hand, plenty of the literature deals with the incompetency of voters in collecting and processing information by showing that voters are either poorly informed, use the information they do have incorrectly (Levy and Razin 2015), or simply react to irrelevant factors. Various studies have thus investigated whether voters hold politicians accountable for factors outside of their control. Wolfers (2009) analyses how voters react to economic fluctuations that are unrelated to an incumbent's action. He finds evidence that even if voters evaluate state performance relative to national economic performance, the voters voting decisions in oil-producing states correlate with the international price of oil, which generally is beyond any governor's control. Hayes et al. (2015) additionally find that voters have a tendency not to vote for incumbent governments during economic recessions, regardless of whether the downturn is homemade or imported from other countries. However, more experienced, educated and informed voters seem to do better in distinguishing imported from domestic growth. A further prominent claim, that voters react to shark attacks (Achen and Bartels 2016), has recently been called into question and the empirical evidence contradicted by varying some of the initial specification choices (Fowler and Hall 2017).

Yet some suggest that voters do not need detailed information to act as if they were informed (Down 1957), that having some type of informed elite can be sufficient for establishing electoral accountability or that voters use cues and information shortcuts to arrive at informed voting decisions (Lupia 1994). Ashworth and De Mesquita (2014) argue that the sole focus on voter behaviour is misguided, as elections affect democratic performance through the interaction of politicians and voters. Aytimur & Bruns (2018), for instance, show theoretically that the sampling effect enables incumbents to form precise estimates of the median voter's opinion and that accordingly large electorates can enjoy a high level of accountability even if they cast their vote based on a vague impression of an incumbent's performance.

2.2.2 Preferences

According to Lowry et al. (1998), the effect of policy outcomes on election results depends on both voter preferences and the extent to which voters can determine whether their preferences are being satisfied. Findings by De Vries and Giger (2014) suggest that it is mainly the highly sophisticated who hold the government accountable for their past performance. However, the sophistication gap seems to narrow when the policy area is especially salient to the voters. This is in line with findings by Fournier et al. (2003) who show that an incumbent's performance regarding an issue has more importance for the vote choice of citizens who find that issue important. Therefore, if voters care enough about a particular policy area, incumbents can

expect to be held accountable for policy outcomes. This could be related to the above-mentioned postulation of Drazen and Brender (2008); that the existence and electoral effect of political budget cycles might depend on the concerns, values, and preferences of the citizen. This means that as a result of diverging ideologies, i.e., competing views on policies, voters might vote or not for an incumbent on the basis of reasons other than performance or simply because they evaluate performance differently (Besley 2006). Indeed, the electoral effect of performance probably depends on whether politicians did what voters wanted or expected. Lowry et al. (1998) present evidence that voters react differently to spending and revenue increases depending on which party controls political office. He thus argues that voters do not vote against fiscal excess in general but only when it deviates from expected performance and that expected performance might differ from one party to another. In the Swiss context, Stadelmann, Portmann and Eichenberger (2013) match roll call votes of representatives in the National Council (lower house of parliament) with the preferences of the majority of their constituents revealed in referenda. They show that politicians who better represented the preferences of their constituency in the past have a significantly and considerably higher probability of election to the Council of States (upper house of parliament).

With respect to voter preferences on fiscal performance, economic theory provides ambiguous expectations. Ricardian equivalence theory states that voters should be indifferent between debt and tax financing of public expenditures if they discount the future at the same rate as financial markets. Knowing that debts must be repaid through an equivalent rising of taxes in the future (Barro 1973). However, assuming that the utility of the future generations enters the utility function of the voters, the present generation cannot and does not want to shift the debt burden to future generations. Myopic and self-interested voters with no descendants, on the other hand, might not punish incumbents who run deficits. As, even if they might not like deficits, they do not want to suffer from specific measures to reduce them and thereby impose the costs of current benefits, low taxes, and increased expenditures, on future generations (Alesina and Perotti 1995). Song et al. (2012) thus argue that in a non-Ricardian world an intergenerational conflict arises and theoretically shows that the presence of young voters and strong preference for public goods in the present as well as in the future strengthens the fiscal discipline and keeps the government debt as well as taxes low.

Stadelmann and Eichenberger (2008) present another mechanism of correspondence between future taxes and public debts, namely the capitalization of jurisdictional assets and debts into property prices. Higher jurisdictional debts lead to higher future taxes thereby reducing the

property values today. They provide evidence of debt capitalization on the municipal level in the Canton of Zurich. In a further analysis, Eichenberger and Stadelmann (2012) additionally show that higher homeownerships rates in the municipalities of the canton of Zurich tend to lead to tax-rather than debt-financed expenditures.

Furthermore, decentralization and transfers from central to sub-national governments may lead to strategic behaviour by politicians and changing preferences in voters, as transfers detach local expenditures from local taxes (Eichengreen and Von Hagen 1996). Carreaga and Weingast (2000) show that vertical transfers distort local decisions towards too much spending. If voters do not face the full cost of local public services, they might be less likely to remove inefficient politicians (Brender 2003). Jones et al. (2012) argue that it is not the voter preferences in terms of fiscal policy which are the main driver for the vote choice, but it depends on who is actually paying for public spending. They provide micro-founded as well as empirical evidence that the structure of fiscal federalism of some countries like Argentina causes voters to reward public spending when they can pass on the cost to someone else, for example the central government, and punish it otherwise.

2.2.3 Institutions

Not only cognitive and informational constraints on the individual level can compromise the accountability mechanism but also the institutional design. In this context, recent findings suggest that divided/coalition governments or federalist systems hinder the attribution of responsibility. Therefore, according to Whitten and Powell (1993), when clarity of responsibility is low, the effect of the economic factors on re-election is weaker or even vanishes. The components taken into account by Whitten and Powell (1993) to measure clarity of responsibility were coalition government, minority government, bicameralism, lack of voting cohesion in the government, and participatory committee. It is on these grounds that Switzerland with its coalition government(s) has been identified as an unlikely case for electoral accountability by the general literature.

Recently, for example, Hobolt et al. (2013) have fine-tuned the concept of clarity of responsibility, distinguishing between institutional clarity and government clarity. Whereas institutional clarity tends to stay constant within each country, government clarity has the potential to change after each election depending on the political setup. Dassonneville and Lewis-Beck (2017) went even further by differentiating between institutional rules and power rules and considering additional components as for example the electoral system. The authors argue that majoritarian electoral rules should increase the clarity of responsibility as they

generate clear majorities in the parliament and government. But this might not be the only reason. The combination of small district magnitude, majority rule, and votes cast for individual candidates focuses the election on the personal performance of the individual candidates, thus maximising personal accountability (von Hagen 2005). According to Besley (2004: 210), models of electoral accountability and performance-oriented voting are most promising when applied in a context where there are directly individually elected chief executives with significant discretionary power. This should be the case for cantonal government members who are in charge of a specific ministry and often identified as such in media reports and direct democratic ballots. So when the government members are elected individually by majority vote, as is the case on the cantonal (state) level in Switzerland, the attribution of responsibility could still be possible, even in a coalition government. Generally, there is less competition under majority rule as it sets a high barrier for small parties, potentially leading to a lack of real choice. Carey and Sanders (2002), for instance, assert that clarity of responsibility only matters if voters face an actual choice or perceive an alternative to the incumbents. However, multi-seat majoritarian elections may be less marginalising small parties as there are several candidates elected at the same time. Chapter 4.2 will discuss the literature on multi-seat majoritarian elections as well as the specific Swiss cantonal context in more detail.

On a theoretical level, Ashworth and Bueno de Mesquita (2016) address the implication of unified vs. divided political authority for electoral accountability and voter welfare. They differentiate between a model in which a politician is responsible for managing two tasks/policy areas (bundling) and a model in which two separate politicians are responsible for one task each. They show that the institutional design has different effects in terms of incentives and selection. Accordingly, unified authority leads to a higher total effort by a politician although the effort may be less aligned to voter preferences compared to under a divided political authority. Furthermore, in case of a unified authority, a voter has more information about an incumbent's competences but loses flexibility in her choice compared to a context of divided authority. The cantonal governments can be seen as a case of divided authority as every member is responsible for a specific ministry/task. However, within the cantonal governments there also exists an institutional difference as some finance ministers are simultaneously also responsible for a spending ministry.

In terms of public finance, important and interesting institutional arrangements are fiscal rules or direct democratic instruments. While elections should help in reducing agency problems, there might be cases where they do not achieve improved discipline or better selection of

politicians. According to public choice, additional extra-electoral restraints should limit the size of government, increase the discipline of incumbents, and reduce rent-extractions. However, a greater discipline due to fiscal rules can hamper the selection effect of elections as it makes it more difficult to identify the "bad" politicians (Besley 2006: 2363). So, if fiscal rules reduce deficits and debts it could be that this happens by driving out public spending that voters like and not by reducing rent-seeking. Von Hagen (2002: 266) further identifies different ways to circumvent fiscal rules, such as shifts of expenditures from current to investment accounts or delegating expenditures to lower-level localities. In the end, fiscal rules might constrain the targeted variable perfectly, while no substantial improvement of the overall fiscal position prevails (Burret and Feld 2018). Chatagny (2015) argues to the contrary that voters may attribute a reduction in deficits to fiscal rules rather than to the competence of an incumbent, making fiscal performance a less informative signal of a finance minister's competence. Fiscal rules curb the financial appetite of spending ministers which makes the work of finance ministers in the budgeting process less demanding. In this sense, a finance minister would have to engage in other, more informative signalling activities than reducing deficits to prove her competence.[10]

Le Bihan (2018) analyses how the possibility of voters calling for a popular referendum affects electoral accountability on a theoretical level. He argues that in the absence of direct democratic instruments, incumbents who do not share the preferences of voters may enact their preferred policies even at the cost of decreasing their re-election chances. Direct democracy reduces the benefit of doing so, as voters could overturn some of the policy decisions. He shows that incumbents are thus induced to implement the policies preferred by the voters, and this even in policy dimensions not subject to popular referenda. The smaller a representative's residual power, the smaller the divergence between voter preferences and actual policies (von Hagen 2005). Studies comparing public finances under representative and direct democracy, which provides voters with more opportunities to express their preferences and more direct control over politicians, have confirmed this claim (Feld and Matsusaka 2003).

Besides institutional arrangements, the provision of (better) information can also be a good means to control the government as was already discussed in subsection 2.2.1. Yet it should be noted that the positive effect of some institutional features like federalism and direct democracy

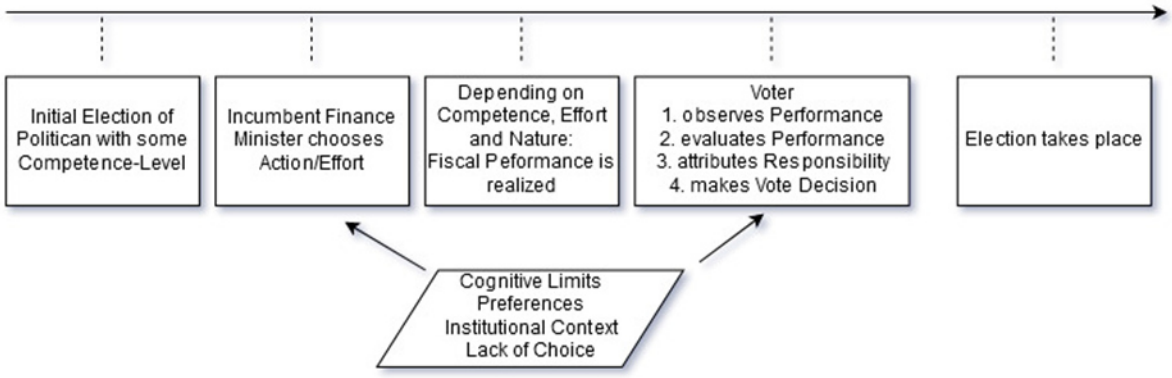
[10] Chatagny (2015) finds evidence for a lower amount of tax projections errors in cantons with more stringent fiscal rules. Previously Chatagny and Soguel (2012) showed that higher tax projection errors lead to better financial results.

to restrain the government partly works through the mechanism of increasing the information supply that voters have about policy issues (Besley 2006: 155).

2.3 Key Takeaways from the Literature

Since 1970 a great amount of research on the accountability relationship in elections has been conducted, both on theoretical as well as empirical grounds. The functioning of the accountability mechanism has been developed and clarified over the years, further taking into account individual, environmental and institutional features. Figure 1 summarizes the main assumptions and contributions on the electoral accountability mechanism and the sequence of events graphically. Elections do create incentives for politicians to exert effort, thus disciplining bad performance, but they also serve as a selection device by identifying low-quality politicians. Voters rely on past performance as they cannot observe effort and competence directly and update their beliefs and expectation about an incumbent based on the observed policy outcomes (Ashworth 2012, Besley 2006). Different factors can influence voter perception, evaluation, and attribution of performance and thus his vote choice: examples include the amount of information, his predisposition and preferences, as well as the institutional context. These factors, on the other hand, are likely to influence the incumbent in his choice of actions. At the same time, elections can also induce politicians to pander to voters with policies that improve their re-election chances even if they are socially not beneficial (Aruoba et al. 2015).

Figure 1. Sequence of Events



Notes: *The order could be changed between 2. evaluation of performance and 3. attribution of responsibility as depending on the attribution of responsibility the evaluation of the performance might turn out differently.*
Source: *own illustration*

The development of research on the existence of pre-electoral policy patterns, i.e., policy-cycles, as well as their electoral effect might to a certain extent also reflect different policy paradigms caused by citizens' changing concerns and preferences over time or between

countries (Drazen and Brender 2008). Thus, questions regarding what constitutes the vote-relevant policy-area, which performance is expected or preferred by the voters in this area and whether they are able to specifically attribute responsibility and make a difference through their election decision are important for the identification of electoral accountability. With the empirical analysis of Swiss data for the period of 1980-2018, this thesis contributes to the debate on electoral accountability as well as on the political economy of public finance, making use of a unique institutional context. The Swiss cantonal context seems particularly suited to study the electoral accountability mechanism because of its multi-seat majoritarian electoral system and extensive fiscal autonomy. It also provides the possibility of addressing different aspects raised in the extension part of the literature review as yard-sticking, different preferences in terms of fiscal policies between and within cantons and through time, fiscal rules and direct democracy, as well as the question of unified vs. divided authority as some finance ministers are simultaneously also in charge of a spending ministry. Thereby allowing me to identify under which conditions performance-oriented voting is more likely to take place.

3 Theoretical Considerations and Testing Hypotheses

Based on models of electoral accountability and public finance (Persson and Tabellini 2000) as well as the political economy of budget processes (von Hagen and Harden 1995), this chapter discusses the theoretical intuition and hypotheses that will guide this work's empirical analysis.

As discussed in the previous chapter, voters cannot directly observe a politician's effort and competence. This means they will evaluate an incumbent based on observed policy outcomes and in this way update their beliefs regarding the incumbent's type in order to cast their vote (Ashworth 2012, Besley 2006). Depending on the office, performance might be evaluated differently, or other policy outcomes may be considered important. It is generally assumed that spending ministers can improve their reputation with new and extensive expenditure programs, while the finance minister's sole interest is to balance the budget (Jochimsen and Thomasius: 2014). Prudence, caution, and sound public finance are thus said to be important for a finance minister's reputation (van der Ploeg 2010). Fiscal performance, like public spending, taxation, and borrowing are all results of the government's budget process (Harden and von Hagen 1995: 772). In the politico-economic literature, the budget process is often viewed as a mechanism through which political interest groups try to acquire financial resources in order to improve their status (Stigler 1971). Buchanan and Tullock (1962) emphasize the common pool characteristics of the public budget. Since politicians behave strategically and need the support

of their electorate for re-election, they will be especially committed to the interests of their constituencies. Individual interest groups especially benefit from certain public policies, but the costs of these are imposed on taxpayers in general. Since the marginal costs of each project are lower than the marginal benefits for the individuals of the targeted groups, these interest groups and the politicians representing them tend to demand higher expenditures than would be socially optimal. Thus, the common pool problem leads government activity to be expanded further than what would actually be efficient (Feld and Schaltegger 2010: 507). Spending ministers are more likely to be sensitive to special interest pressures than a finance minister; the latter being more sensitive to the overall size and financing of the budget and the common welfare (Alesina and Perotti 1995). Thus, only finance ministers without a portfolio and responsible for the full budget are believed to internalize the full costs and thus the common pool externality (von Hagen and Harden 1995). In some sense, the finance minister represents the interests of the taxpayers in the government. She does not like to increase taxes and will therefore foster an efficient use of tax money and be cautious towards new expenditures as she derives prestige from sound public finances. Consequently, a finance minister's preferences regarding borrowing should also be more in line with those of the average taxpayer (Jochimsen & Thomasius 2014: 393). A war of attrition and power struggle may be played within the government between spending and finance ministers at the budget formulation stage; this is most likely to happen in coalition governments where different ministers belong to different parties (Alesina and Perotti 1995). Fragmentation in the government and society in general is assumed to increase the tendency of people on one side to neglect the tax burden falling on the other side, making the common pool problem more severe (Hallerberg et al. 2009). The common view is that strong finance ministers might resolve the common pool problem by disciplining their minister colleagues. Thus, the strength and quality of a finance minister are assumed to have an influence on fiscal performance (Jochimsen and Thomasius 2014). Hence a finance minister's competence and quality might reflect her level of expertise and ideas in the area of public finance, her leadership skills and relationship with the bureaucracy, or her charisma, strength, and strategic ability to earn the trust of the spending ministers and the parliament as well as restrain any appetites for too much spending and persuade everyone involved to approve a balanced budget.

Additionally, a finance minister can choose the level of effort she devotes to managing the budget process and budget implementation, or the level of effort devoted to rent appropriation

for herself.[11] The budgeting process is time and effort intensive, as it requires the examination of all the activities and projects from the other ministries, a lot of discussions with the different spending ministries and the parliament, as well as estimations of the various sources of receipts and expenditure. If the finance minister wants her budget to be accepted by the other governmental members and by the parliament, which should be one of her main objectives, she will be well advised to present a politically balanced and well-adjusted proposal otherwise risking a conspiracy of the other government members or parties in the parliament. This means that rent-appropriation in terms of money, staff time, and effort for the pursuit of her own and/or special interests can come at the cost of successfully achieving a balanced budget.

Asymmetric information creates incentives for spending ministers to misrepresent targets and technologies to gain more funds in the budget process. Spending ministers who specialise in the politics of their individual domains and the management of their administration are likely to be better informed about the public's demand for the activities they deliver as well as their administrative technologies compared to their colleagues and the finance minister (von Hagen and Harden 1995: 778). Finance ministers may in turn strategically use fiscal projections to rein in spending ministers and legislatures. They have an incentive to produce pessimistic forecasts to discourage excessive spending bids by the other government members and the parliament. Indeed, von Hagen (2010: 489) argues that only the minister of finance has the resources and administrative capacity to produce the economic and fiscal forecasts published by the government giving her a considerable informational and strategic advantage to pursue her political agenda.

Therefore, both the competence and the effort level of the finance minister as well as of the spending ministers affect the financial situation of a canton.[12] Due to the different roles in the budgeting process it seems very likely that finance and spending ministers will be held accountable differently for a government's fiscal performance by citizens.[13]

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[11] One could imagine a finance minister giving preferential treatment to rich influential taxpayers or firms in exchange for personal benefits and to enhance future career opportunities or taking advantage from administrative board memberships where she is supposed to represent the canton (https://www.aargauerzeitung.ch/aargau/kanton-aargau/honorare-aus-mandaten-aargauer-regierungsraete-geben-fast-alles-ab-127501193).

[12] Of course, the financial situation does not only depend on the effort and quality of the ministers but also on economic fluctuations and extraordinary events which are not under the incumbent's control. Yet the quality of a finance minister could also be determined by how well she anticipates or deals with such factors.

[13] Alternatively, the model could also be seen as one of ideological policy choice (Ashworth and De Mesquita 2014: 568). The scenario would then be thought of in terms of politician ideology instead of competence and policy choice instead of effort. Politicians could hence differ in their preferences for sound public finances and choose between restrictive or expansive fiscal policy.

Policymakers wish to be re-elected and remain in office as long as possible because they get some benefit from the re-election. This benefit involves, for example, the salary and perks of being in office, the opportunity to pursue partisan ideology,[14] or simply the value of improving policy. Incentives for the incumbent come from a desire to adjust her effort in order to increase the probability of re-election, and thus of getting those benefits. Yet as an incumbent's payoff depends on the benefit of holding office and any personal rent appropriation, she has no incentive to exert a costly effort before retiring as there is no election coming up again. This means that in her last term, she will exert only a low effort while trying to extract a maximum possible rent. As the financial situation of a canton depends, at least partially, on the effort and competence of the finance minister, voters will be better off with an incumbent having a higher level of competence thus leading to a better financial situation in the last term. So, a voter's electoral decision depends only on his expectation about the politician's competence (Ashworth et al. 2016). Hence the voter will observe the financial situation $\boldsymbol{s}$ of the canton in the current term and then form expectations about the competence $\boldsymbol{\theta}$ of each candidate. Voters will re-elect the incumbent if her estimated competence exceeds the expected competence of the challenger. A voter's electoral choice might further be influenced by other factors, denoted by $\boldsymbol{\nu}$, which do not depend on the incumbent's action, like partisan or personality-specific preferences or aversions, for example. In this case a voter will choose for whom to vote by comparing the expectations on competence to the threshold $\boldsymbol{\nu}$ (Ashworth 2012: 187).

Re-elect incumbent if and only if $\mathbb{E}(\theta_{Incumbent}\,|s) - \mathbb{E}(\theta_{Challenger}) \geq \nu$

A better financial situation $\boldsymbol{s}$ should strengthen the belief of voters that a finance minister is highly competent and thus lead to a higher electoral score. The evaluation of the financial situation and the electoral result might however also depend on the preferences for sound public finances as argued by Drazen and Brender (2008). As was discussed in the literature review, economic theory provides ambiguous expectations about voter preferences in terms of fiscal performance. From an economic point of view, deficits and debt are neither bad nor good per se as well as there is no optimal defined level of debt. Indeed, according to the tax smoothing theory (Barro 1979), budget deficits and surpluses can be used as a buffer to minimize the distortionary effects of taxation given a certain spending path or to deal with tax revenue fluctuation over the business cycle (Alesina and Perotti 1995: 6). This means that incurring deficits to finance important infrastructure projects or to tackle a recession, explicitly or

[14] Yet the generally sharp legal framework on financial management leaves not much space for party politics in the finance ministry.

implicitly using automatic stabilizers, is commonly seen as justifiable and beneficial, especially if growth effects can be achieved. Yet voters expect elected officials to be competent, so deficits can be interpreted by voters as a signal of incompetence and fiscal mismanagement of the finance minister, above all if voters doubt whether or not deficits have been incurred for useful and justifiable matters or because the finance minister is of low quality and could not prevail against the spending ministers and parliament in the budget process. Further empirical findings (Peltzman 1992, Brender 2003, Brender and Drazen 2008) suggest that voters do not like loose fiscal policy as well as high deficits and high debt level and prefer fiscal prudence and responsibility. This assumption is in line with financial referenda votes in Switzerland (Feld and Matsusaka 2003). Even if the budget deficit hardly has a direct impact on the average voter, according to Kirchgässner (2016: 7), one can assume it to be a rather salient topic in Switzerland. This assumption is corroborated by the referendum on the introduction of a federal debt brake in 2001 which was approved by 84.7% of the population as well as from the introduction of cantonal fiscal rules in 25 cantons. A survey from Avenir Suisse and Sotomo (Salvi und Schnell: 2016) additionally demonstrates that Swiss citizens prefer avoiding deficits through spending cuts rather than indebtedness or tax increases. Moreover this survey reports that surpluses should mainly be used to reduce the debt level. Therefore, the Swiss median voter can reasonably be assumed to favour a balanced financing statement as well as to vote for a politician whom he expects to deliver that. Furthermore, through the publication of budgets (beginning-of-the year) and financial statements (end-of-the year) there is some objective information available to the voters concerning fiscal performance. On the cantonal level, fiscal policy issues are often debated in popular votes because of the possibility of financial referenda, the obligation to vote on tax law changes in some cantons, and the initiative instrument. Political participation in ballots motivates citizens to discuss the relevant issues, which helps improve political awareness. In turn, knowing that citizens are discussing and monitoring their behaviour gives incumbents an incentive to govern more effectively and in line with citizen preferences (Schaltegger and Torgler 2007). The main hypothesis underlying the empirical analysis is:

Hypothesis 1: Fiscal performance affects a finance minister's re-election result.
More specifically: Balanced financial accounts and surpluses have a positive effect on a finance minister's re-election result.

Will a finance minister be electorally rewarded for surpluses of any size or are there limits? The aim of this study is thus also to investigate whether the effect of fiscal performance is uniform. Advocates of a linear effect may argue that fiscal consolidation, i.e., reducing the debt stock,

could simply be seen as something positive and that surpluses are a highly informative signal for the competence, strength, and fiscal preference of a finance minister. Indeed, according to Ashworth (2012), the voter's choice in the election is not guided by his evaluation of the specific actions taken by an incumbent. It is instead based on the information that all his observations involved regarding the incumbent's type. After all, voters can only affect future outcomes, so rationality demands that voters select the best candidate going forward especially if voters anticipate that effort will be low in the last term and competence all the more important. On the other hand, big surpluses could also be perceived as a sign of too little public service provision or too high taxes or simply financial mismanagement (Lowry et al. 1998). In such a case one could expect diminishing marginal returns for high surpluses.

The effect might also depend on the size of various interest groups and constituencies. If voters do not care about debt-financing or even benefit from it, they might respond less to the financial situation as a signal of an incumbent's competence. Respectively, if one thinks of politician ideology/ preferences instead of competence, they might vote less for an incumbent which they believe is rather fiscally conservative. Further contextual factors might influence the informativeness of government outcomes and how well citizens are able to evaluate politicians as well as attribute responsibility. Hence the empirical analysis in this work will also consider heterogeneous effects. The two additional hypotheses which will be tested are:

Hypothesis 2: The effect of fiscal performance on a finance minister's re-election result varies with the voter's fiscal preferences.
More specifically: stronger preferences for fiscal discipline increase the effect of fiscal performance on a finance minister's re-election result.

Hypothesis 3: The effect of fiscal performance on a finance minister's re-election result varies with the clarity of responsibility.
More specifically: political and institutional factors which decrease clarity of responsibility lower the effect of fiscal performance on a finance minister's re-election result.

4 Swiss Context

The previous chapters have discussed the literature on electoral accountability and the political economy of the budget process from a more general perspective. This chapter presents the Swiss context and discusses the scientific literature that is especially relevant to the institutional setting in Switzerland as well as the empirical analysis. My aim here is to show why the Swiss cantons are well suited as a framework for analysing the formulated research question and hypotheses.

4.1 Financial Management and Fiscal Policy on the Cantonal Level

The Swiss cantons have considerable autonomy in terms of fiscal policy and financial management. Each canton is free to decide whether to levy taxes and other charges, and at which rate. There is a similar autonomy for expenditure policies, although this is not as large as it is for taxation as a significant amount of expenditures are prescribed through their relationship to national legislation. The cantons are responsible for more than 40% of total public spending and revenue when taking into account all three levels of government in Switzerland. The biggest shares of the cantonal budgets are spent on education (1990: 26.6%; 2017: 28.1%), social security (1990: 12.2%; 2017: 21.9%) and health (1990: 17.6%; 2017: 15.3%). Cantons finance their activities mainly through taxes and transfers, yet the share of the respective revenues varies considerably across cantons and through time.

The legal framework on financial management is provided by the cantonal constitution and the financial management act of parliament FMAP and varies between cantons. Since 1980 there has however been a considerable conversion between the financial management procedures and manners of the different cantons. Notably in the financial reporting through the introduction of two generations of the Harmonized Accounting Model (HAM1, HAM2). Indeed, several public accounting systems coexisted on the cantonal level until the late 70s when the Conference of Cantonal Finance Ministers pushed for harmonization and published recommendations for the Swiss cantons and municipalities. However, it took some cantons until the end of the 90's to introduce HAM1. The HAM2 standards were approved in 2008 by the Conference of Cantonal Finance Ministers, yet its implementation is still on-going in some cantons. This harmonization project lead to more comparable data between cantons; yet the cantons still have some scope for variation in their accounting practices. The Handbook on the Harmonized Accounting Model for the Cantons and Communes (HAM2) requires the cantonal statements to be split into two parts: the investment statement and the statement of financial performance (also called the

income statement, current budget; “Erfolgsrechnung” or “compte de résultats”). The statement of financial performance records revenue and expenses related to consumption but is also influenced by pure accounting charges and revenues (depreciation, withdrawals or deposits from or into funds and special financing). Values are allocated to the period in which they are created or consumed (accrual accounting and budgeting). Profit (loss) in the statement of financial performance affects the canton’s equity. The investment statement records receipts and expenditures related to investments. Investment expenditures account for less than 10% of total expenditures across all cantons. Investment receipts consist mainly of investment contributions from the federal government. The investment statement and the statement of financial performance are interrelated because investment depreciations enter the statement of financial performance and a positive cash flow (statement of financial performance profit corrected for non-cash transactions) can be used to finance investments. Opposing the cash flow to the net investments constitutes the financing statement (total budget; “Finanzierungsrechnung”; “compte de financement”). If the cash flow is too small to cover the net investments, the canton has to borrow and the debt increases (Burret and Feld 2018). Figure 24 in the Appendix presents the cantonal accounting scheme.

In order to restrict cantonal finances, the Conference of Cantonal Finance Ministers further passed a model law for cantonal budgeting in 1981 which has been amended several times since. The law requires a balanced statement of financial performance in the medium term and a self-financing ratio for net investments of at least 80% if net debt exceeds fiscal revenue by more than 200%.

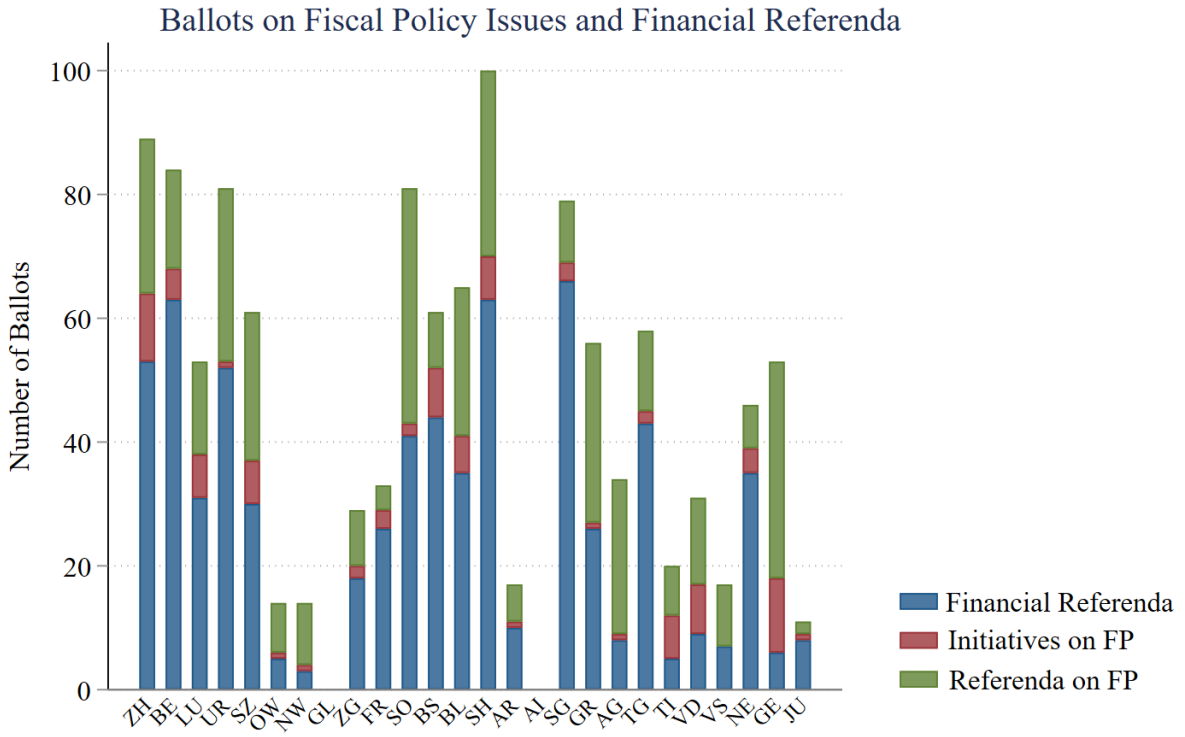
The finance minister is mainly responsible for the annual budgeting process, which usually takes place between September and December at the cantonal level. He starts by forecasting the amount of tax revenues whereas spending ministers provide their spending requests for the next year. The finance ministers are usually very cautious in their tax revenue forecasts, often underestimating them in an attempt to restrain the appetites of the spending ministers for new or more expenditures (Chatagny & Soguel 2012). This gives them an informational and strategic advantage over the spending ministers (von Hagen 2010: 489). Based on the requests and the revenue forecasting, the finance ministry lead by the finance minister elaborates a budget proposal. The budget proposal is then discussed and negotiated with the spending ministers as the total expenditures usually exceed the guidelines or the expected revenues. The finance ministers take a conservative position, hoping to assure a balanced budget proposal, contrary to the spending ministers who will fight for their projects and requests. After the

bargaining phase, the budget proposal is submitted to and voted on by the parliament. The debate and amendment possibilities for the parliamentarians can differ between cantons. While some parliamentarians only have the right to changes of content in some cantons,[15] new spending decisions that exceed a certain threshold require a (qualified) parliamentary majority in several other cantons (Burret and Feld 2018: 169). For a detailed discussion of the financial procedure see Soguel (2018). Often ministries have projects which require a contingent appropriation before they can be considered for inclusion in the budget. For such projects, a ministry has to produce a report justifying the project and planning for its finances. The report is then submitted to all the ministries which are potentially affected, inviting them to express their views. The ministry of finance is almost always consulted as most projects have financial consequences. In its report, the finance ministry evaluates whether the project meets the budgetary principles. Depending on the expenditure level, the government, parliament, or even the citizens must weigh in on the project and the contingent appropriation. Indeed, a majority of the cantons can avail themselves of the democratic instrument of a financial referendum, whether optional or mandatory. It applies if a one-time or recurring expenditure passes a defined threshold. The threshold is defined by each canton individually: it varies from 250'000 to 25 million Swiss francs for non-recurring expenditures and from 50'000 to 400'000 for recurring expenditures. In the case of optional financial referenda, citizens first have to collect a certain number of signatures in order to be allowed to vote on the expenditure. Depending on the canton, citizens need 100 to 10'000 signatures (Soguel 2018). Empirical evidence shows that where financial referenda exist, expenditures are significantly lower and budgetary figures improved (Feld and Matsusaka 2003, Martin 2008, Funk and Gathmann 2011). The possibility of financial referenda, the obligation to vote on tax law changes in some cantons and the initiative instrument enhances both the public discourse and media coverage concerning fiscal policy issues on the cantonal level. Figure 2 presents the number of cantonal initiatives and referenda on fiscal policy issues as well as the number of financial referenda for the time period of 1980-2018. The distribution of ballots varies considerably between cantons as well as over time and thus also the exposure of citizens to financial issues. This might be because of the cantonal legislation for mandatory and optional (financial) referenda as well as the political

[15] In Fribourg, for example, a member of parliament can only propose additional expenditures when he can convince a majority of the parliamentarians to save the same amount of money somewhere else in the budget.

culture. Yet looking at the number of cantonal ballots over the almost 40-year period,[16] most cantons hold on average more than one ballot per year regarding financial issues. This shows that public finances are rather salient at the cantonal level and regularly debated at the ballot box. Through the broad public discussion which precedes ballots, direct democracy creates incentives for citizens to inform themselves about political issues and for politicians to participate constructively in these public discussions (Eichenberger 1999: 267-268).

Figure 2. Ballots on Fiscal Policy Issues and Financial Referenda per Canton since 1980



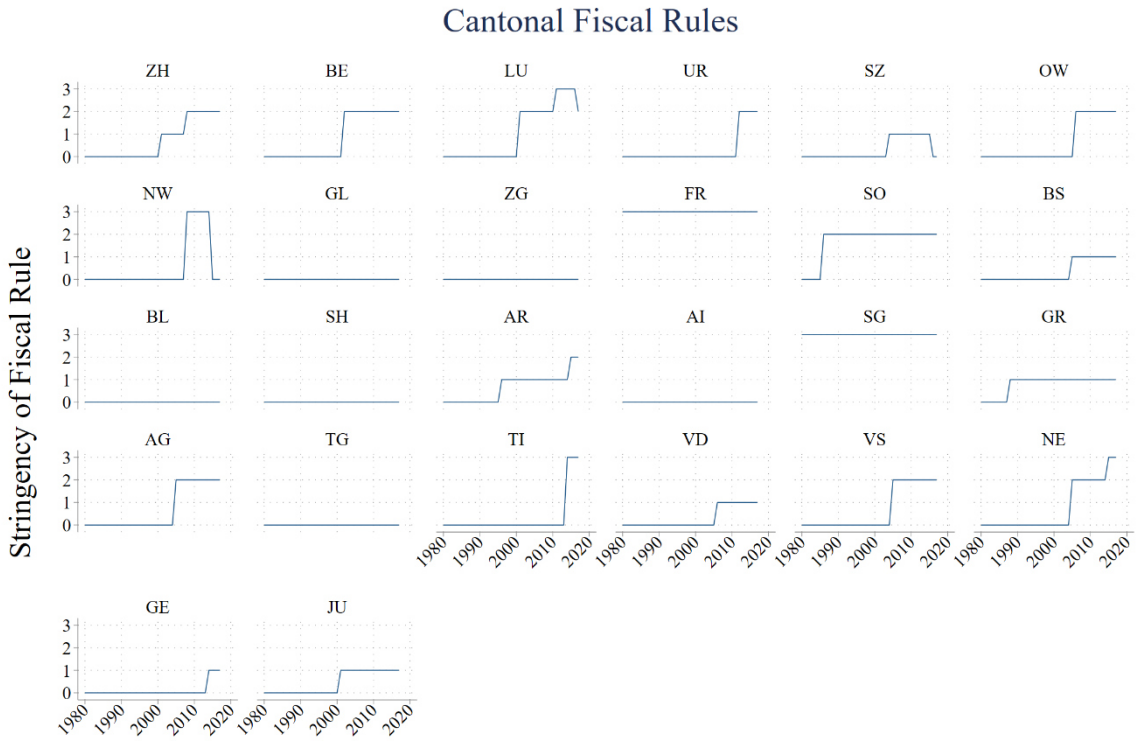
Notes: *The number of financial referenda are displayed separately as most of the time it is not the finance minister which presents and defends them towards the citizens but the spending minister in charge of the project. The number of initiatives and referenda in the figure contain votes on financial issues as tax law changes, the introduction of fiscal rules, cantonal fiscal equalization systems etc..*
Source: *own illustration based on data from cantonal websites and C2D database (https://c2d.ch/)*

The cantons also differ with respect to fiscal rules both in terms of design and stringency. In some cantons they are defined on the constitutional level where they are harder to modify, in others only in their FMAP. The rule can apply to the budget (beginning-of-the-year), to the

[16] As Appenzell Innerrhoden and Glarus use the citizens' assembly "Landsgemeinde", the system is different and the ballots are not reported in the figure. All eligible citizens meet annually in cantonal meetings to vote on issues regarding constitutional and legislative matters among other things. The citizens' assembly was abolished in Nidwalden (1996), Appenzell Ausserrhoden (1997) and Obwalden (1998). Therefore ballots are only reported for the subsequent years for those cantons in Figure 2. The cantonal meetings also elected the government in these cantons and still elect it in Appenzell Innerrhoden.

annual account (end-of-the-year), or to both. Rules either require balancing operating expenditures and receipts or sometimes also consider investments. In some cantons, a time period by which a fiscal balance must be obtained is explicitly required, as well as a sanction mechanism (automatic tax increase) in case of missed targets (Yerly, 2014). Figure 3 displays the introduction and stringency of credible fiscal rules over the time period of 1980-2018. The figure shows that since 2000 the majority of the cantons have introduced a fiscal rule which suggests a preference for sound public finances and balanced financial accounts.

Figure 3. Cantonal Fiscal Rules



Notes: *The Fiscal Rule Index makes use of three criteria (y-axis): 1. Is the budget planning strongly connected to actual budget execution? 2. Are there strong numerical constraints? 3. Are there effective sanctions whenever the numerical constraint is not respected (for example, automatic tax adjustments)? The index thus measures the stringency of fiscal rules and equals 0 whenever no criteria is fulfilled or when no fiscal rule is in place.*
Source: *own illustration based on Feld & Kirchgässner (2008)*

Feld and Kirchgässner (2008) as well as Luechinger and Schaltegger (2013) present evidence that fiscal rules have significantly enabled the Swiss cantons to curb the occurrence of public deficits and reduce debt levels. According to Burret and Feld (2018) this effect is stronger, the better the analysed budget position corresponds with the variable targeted by the rule. The differentiated effect on different deficit variables emphasizes the importance of choosing the proper budget variable and distinguishing between the direct and indirect effects of fiscal rules. However, Luechinger and Schaltegger (2013) also mention the possibility that, at least in some

cases, deficits have been reduced through creative accounting or window-dressing operations. Burret and Feld (2018) find some evidence for these types of unintended effects as politicians may evade their debt brake by flying into the investment statement when rules only cover the statement of financial performance. However, there is less/no evidence for evading into funds and special financing as well as shifting deficits to the local level.

4.2 Cantonal Governments & Multi-Seat Majoritarian Elections

The executives at the cantonal level consist of 5-7 members elected by the citizens.[17] Each member of the executive supervises a specific ministry: education, health, environment, security, justice, economy or finance. Depending on the canton and/or the number of ministers (5 or 7), the ministries may be organized differently or bear different names. In some cantons, the finance ministry is even pooled with a spending ministry, for example health or economy. The political importance of the different ministries also varies from canton to canton, however, the finance ministry is always a key department in every canton.

When the newly constituted government meets for the first time, the ministries are distributed immediately. Each canton has its own procedure, but there are no binding rules nor criteria. Generally, the members can choose their ministry via seniority or depending on their electoral score for those who are entering their office at the same time. However, most often the divvying up of ministries is decided through a joint discussion that considers the professional background, experience, as well as personal interest of the government members followed by a general consensus or a vote to legitimize the decisions. Government members are also allowed to change their ministry after elections or by-elections. As previously mentioned, finance ministers rarely swap over to a spending ministry after a re-election while there have been several cases of spending ministers who have become a finance minister later in their cantonal government career.[18] In the period of 1980-2018 there were three former finance ministers who took over a spending ministry and more than 36 finance ministers who were previously in

[17] At the beginning of the 1980's, the canton of Bern had even 9 government members.

[18] Between 1980 and 2018 only 3 finance ministers switched to another ministry: Sylvie Perrinjacquet (NE, liberal party) switched after 4 years in the finance ministry to education; this was, however, instigated by the political context (left majority) and not a personal choice; Serge dal Busco (GE, Christian democratic party) switched after 4 years in the finance ministry to transport & mobility. The reasons are unknown, but one possibility is that he did not succeed in passing his budget in the parliament in 2016; Hans Hollenstein (ZH, Christian Democratic) switched after 2 years in the finance ministry to security & social affairs.
Several finance ministers were former spending ministers: Dittli (UR), Widmer (GL), Wallimann (OW), Mörikofer (AG), Brunschwig-Graf (GE), Stucki (ZH), Honegger (ZH), Gut-Winterberger (ZH), Stocker (ZH), Stadler (UR), Reichmuth (SZ), Hess (SZ), Kayser (NW), Meier (GL), Kamm (GL), Kohler (ZG), Tännler (ZG), Schwaller (FR), Laesser (FR), Godel (FR), Jenny (BS), Nyffeler (BL), Fünfschilling (BL), Keller (SH), Albicker (SH), Widmer-Gysel (SH), Würth (SG), Mengiardi (GR), Maissen (GR), Schmid (GR), Janom-Steiner (GR), Eberle (TG), Koch (TG), Stark (TG), Fournier (VS), Guinand (NE).

charge of a spending ministry.

Elections for the government members take place every 4 or 5 years depending on the canton. The electoral cycles differ between the cantons, meaning that all cantonal government elections do not take place in the same year. Usually the cantonal government and parliament are elected the same day, yet this has not been the case for all cantons over time. Some cantons choose to organize their election during one of the 4 dates reserved for national ballots; other cantons have an additional date. At roughly 40%, the average participation rate is quite low, but it does vary considerably between the cantons and over time from 17% to 72% in the period studied here.

Most cantons elect the government members by majority vote, except Ticino and Zug (only until 2010) which have a proportional voting system. The system of majority vote for the government election has been under attack, demonstrated by the number of ballots held in several cantons for changing the electoral rule to proportional voting.[19] Until now, these ballots have been unsuccessful. To be elected in the first round under majority vote, a candidate has to obtain the absolute majority and be ranked not less than fifth or seventh. If a second round is needed, politicians must achieve the plurality of votes to be elected. To calculate the absolute majority, most cantons divide the total of delivered or valid ballots by two and add 1. However, until the beginning of the 21th century in the Canton of Geneva, a candidate had only to obtain one vote more than a third of the total of all valid ballots in order to be elected. The calculation of valid ballots also differs between canton and years, as the empty ballot papers are sometimes included in the valid ballots and sometimes not. Some cantons also distinguish between the delivered ballots and the delivered votes in order to calculate the absolute majority. Because on every ballot there can be one vote for 5 (7) candidates, they calculate the total valid candidate votes, divide this by 5 (7) and then again by two to obtain the absolute majority.[20] In these types of moderate majoritarian procedures, the chances of achieving the absolute majority are considerably higher than in those that also consider the blank lines of the delivered ballot papers in the absolute majority calculation. In the latter, a candidate must stand on at least 50 percent plus 1 of the (valid) ballot papers in order to achieve the required absolute majority. In the moderate majority procedure, this percentage is usually lower (Milic et al. 2012: 11).

[19] For example, in the canton of Valais 30.11.1980; Schwyz 28.03.1982; Zurich 01.04.1990; Lucerne 22.09.2002; Solothurn 05.06.2005 (list non-exhaustive).

[20] The organization of cantonal governments & elections are legislated by the cantonal constitutions & laws/ decrees concerning the government and cantonal administration as well as laws on political rights, i.e., popular votes and elections.

Not only do the legislation and organization in terms of government elections differ between the cantons, but also the political culture of elections. There are some cantons where it is customary to have a lot of candidates in the first round whereas in other cantons the number of candidates rarely amounts to more than 10. This means that in some cantons, mostly those in the French-speaking region, even incumbents seeking re-election are usually not elected in the first round. In contrast, other cantons tend to see all government seats assigned already in the first round. Not only are the registered candidates eligible, but so are all cantonal citizens with the right to vote. This implies that a small proportion of votes usually go to non-official candidates (Lachat and Kriesi 2015). The information voters receive concerning the official candidates also differs between cantons, making elections more or less demanding from a cognitive point of view (Milic et al. 2012: 13). There are broadly three to four categories of vote material for multi-seat majoritarian elections. Some cantons deliver a blank ballot paper with 5 to 7 empty lines, either without providing any official information regarding the candidates up for election in their vote material or with a separate information sheet regarding the registered candidates, other cantons send pre-printed ballots with a list of candidates to only tick off. Finally, there are cantons which use party lists.[21]

The electoral system and constellation of the cantonal governments is also interesting from a scientific point of view. Multi-seat district elections by majority rule are commonly assumed to be quite restrictive as voters of the majority group should vote homogenously and thereby only elect members of their political party or bloc (Niemi et al. 1985: 443). However, cantonal governments seem to be an exception as they resemble all-party coalitions (Bochsler & Sciarini 2006). Neidhart (1970) explains the inclusion of all parties in the government as a consequence of the referendum democracy since political minorities and opposition parties can use referenda to block proposals of the government. As a result, the political elites voluntarily agreed to include the different political forces in the government and form all-party coalitions. Kriesi and Lachat (2015), as well as Bochsler and Bousbah (2015), analyse the phenomena of so called voluntary-proportionality in majoritarian government elections.[22] While the former find evidence for voluntary PR voting by the citizens in the government elections of the cantons of Zurich and Lucerne in 2011, as voters tended to cast their votes across partisan lines, the latter warns that the principle of voluntary proportionality is in decline on the side of the political

[21] Milic et al. (2012: 7) provide an overview on the vote material for cantonal government elections during the 48th legislative period.
[22] The Swiss tradition of including all relevant political parties in the government based on an elite agreement has often been seen as a typical case of a consensus democracy (Lijphart 1999).

parties. Accordingly, the self-restriction of the number of candidates as a consequence of an elite compromise is becoming rare. They conclude that in line with an increasing polarization, cantonal government elections have become more competitive since 1990. The governments have, however, still remained inclusive but rather because of a split in the centre-right bloc which benefitted the left than because of a voluntary consensus.

Eichenberger, Portmann, and Stadelmann (2018) explain the number of candidates in multi-seat elections through the idea of endogeneity. If people only voted according to party-ideological preferences, the strongest party should propose as many candidates as there are seats and would then win all the seats. However, the rationale changes when citizens are not only voting according to party-ideological preferences but also based on other characteristics. The party then has the problem that the votes cast based on ideology are distributed across all their candidates. In this case, every candidate gets less votes than he would have, had the party or bloc proposed less candidates. The government election of 2006 in the canton of Bern provides some anecdotal evidence. The Swiss People's party, both the strongest party in Switzerland and in the canton of Bern, and the centre-right bloc proposed more candidates than in prior elections (SVP 4 instead of 3 candidates, bourgeois bloc overall 7 instead of 5 candidates) and ultimately lost a seat compared to the previous term as well as the right-wing majority they had held with the Liberal party. This indicates that a party is incentivized to propose less candidates than there are seats, in order to increase the probability of their candidates being elected. For those voters principally voting on party-ideological bases, this means having to vote for politicians of other parties in order to cast all possible votes. This again provides incentives for a politician to move towards the median of the political sphere to remain politically attractive for many voters. Consequently, politicians become ideologically quite similar what this finally increases the importance of other characteristics like competence, performance, and sympathy.

In the case of cantonal government elections, voters have as many votes as there are seats, yet they do not need to make use of all their votes. Laslier and von der Straten (2016: 14-15) assume that in this context, which is called Restricted Approval Voting, a strategic voter considers her ordinal preferences about candidates and forms expectations about a candidate's score in order to cast her vote. After identifying expected winners and losers, a voter is supposed to define each candidate's main contender and rank them according to their distance, in number of expected votes, to their main contender. A strategic voter would then consider all the candidates in turn and only vote for a candidate if her own utility for this candidate is higher than for its

main contender. Based on a survey[23] conducted in the context of the government election of the canton of Zurich in 2011, Laslier and von der Straten (2016: 17-20) tested their model predictions. The strategic model performed quite well by explaining the electoral scores observed in the survey sample as well as the number of approvals per ballot, yet the model underestimated the number of voters who reported casting a full ballot with 7 candidates. At the individual level, the percentage of correct vote prediction based on respondent preferences regarding candidates was quite high with 69%, yet the reliability of the strategic model differed from one candidate to the other.

Moser (2019) analysed the combination of candidates written on the ballot papers for the cantonal government election of the canton of Zurich in 2019. Concretely, voters were able to vote for 1, 2, …, 7 candidates on a blank ballot paper and to combine the names in various ways. Overall, there were 5811 possibilities[24] for filling out the ballot paper, of which 4337 combinations were used. On average, 5.1 candidate names were written per ballot, whereas fully completed ballot papers with 7 names accounted for 37% of the results. Only a minority of the electorate opted for candidatures from a single party (11%) or a single political bloc (26%). Moser (2019: 15-16) identifies several reasons for voting across ideological blocs: first is the choice set with a limited number of candidates per party and bloc, second is candidates being positioned less ideologically, and third is the incumbency advantage. Kriesi and Lachat (2015) show that the tendency to vote across ideological camps is further related to partisan preferences, strategic consideration, political knowledge, and the level of satisfaction with the government performance.

Milic (2014) addressed the question of incumbency advantage. He presents evidence for an incumbency advantage of 17 percentage points when analysing cantonal government election data for the time period of 2000-2012. This incumbency advantage is higher than most of the similar studies conducted abroad. Milic explains this primarily with the design of the cantonal electoral system, which might be cognitively more demanding. Recognition and status quo heuristics are possibly more important if one has to vote for 5 to 7 candidates by name. This can again be connected to the findings of Kriesi and Lachat (2015) showing that voters seem mostly to vote across blocs/ parties in the case of non-contested seats or incumbent candidates. However, the question remains why some incumbents, even from the same party, gain more

[23] Respondents were asked which candidates they had elected as well as to evaluate all the candidates on a scale from 0-10.

[24] As the order does not matter, the formula is $\sum_{k}^{7} = 1(\binom{13}{k})$

votes than others in their first re-election and continue to increase their electoral score term after term while others do not.

5 Data and Variable Description

To estimate the effect of fiscal performance on the re-election results of incumbents and specifically on finance ministers, this thesis analyses data from 220 cantonal government elections[25] covering the period of 1980-2018. This corresponds to 544 incumbents, including 97 finance ministers, who have at least sought re-election once.[26] Overall, the sample consists of 1006 incumbent re-election cases with 175 cases belonging to finance ministers. However, because I only consider competitive election settings and do not take into account incumbents initially elected in by-elections[27] the sample is restricted to 705 suitable re-election cases, and only 122 from finance ministers. The election specific data come from the official cantonal registers, the financial data for the independent variable from the cantonal financial statements and the federal finance administration, the economic and political control variables from the federal statistical office, and, finally, incumbent characteristics were collected via questionnaire, the politician's websites, or the historical encyclopaedia of Switzerland.

5.1 Electoral Success

Electoral success can be measured in different ways. The most obvious way, of course, is whether someone is elected or not. Amongst cantonal executives the re-election rate of finance ministers is quite high; there have been only five cases of non-re-elected finance ministers since 1980 (2.9%). In contrast, 52 spending ministers (6.3%) who sought re-election since 1980 did not succeed. Table 1 reports the percentage of successful re-elections as well as the percentage of best re-election results by ministry. If an incumbent wants to be re-elected, she has to pass the absolute majority and be ranked in the top 5 (or 7). Which means there is always some uncertainty about how many votes a single candidate needs to be elected depending on the number and quality of the other candidates. Yet a politician presumably not only wants to be

[25] The canton of Appenzell Innerrhoden is not part of the sample as the members of the executive are elected on the citizens' assembly "Landsgemeinde" and exact votes and election results are thus not available. For the cantons of Nidwalden, Obwalden, and Appenzell Ausserrhoden only the ballot box-elections (after 1998) are included in the sample,

[26] 450 incumbents participated in one re-election, 341 in two re-elections, 152 in three re-elections, 45 in four re-elections, 13 in five and 2 in six re-elections. For 3 incumbents I was not able to identify the re-election number.

[27] As the context of by-elections is very different from regular elections, in terms of competitiveness and number of candidates, it is not reasonable to compare the vote share obtained in the initial by-election and the first re-election. However, the subsequent re-election (2nd, 3th…) of these incumbents are nevertheless considered in the analysis.

re-elected but would also prefer to be re-elected during the first ballot, as a second ballot usually requires additional time and effort for campaigning which the incumbent intends to minimize. Further, a good re-election result is often celebrated as a confirmation of the pursued policy whereas a bad re-election can be seen as an object lesson from dissatisfied citizens (Milic 2014: 437). A good re-election might give an incumbent some political and agenda setting-power as well as credibility towards the other ministers and the parliament. Additionally, a greater popularity might also be useful for a future political office on the national level. A multi-seat government election also gives the opportunity to compare re-election results. On average, finance ministers had the highest score in 34.3% of the re-elections compared to 17.1% for the different spending ministers.

Table 1. Electoral Results by Ministry

Ministry	Elected (not)	Percentage	First Rank	Percentage
Finance	170 (5)	2.9	60	34.3
Security	152 (13)	7.9	26	15.8
Health	118 (10)	7.8	16	12.5
Education	141 (12)	7.8	25	16.3
Economy	150 (5)	3.2	24	15.4
Environment	173 (9)	5.0	38	20.9

Notes: *Depending on the canton and the years, governments consist of either 5, 7 or 9 ministries which are neither named nor organized the same, and so I roughly regrouped the incumbents into 6 different ministries: security, health, education, environment & infrastructure, economy and finance. The classification is not perfect but it still offers a more detailed insight concerning an incumbent's re-election success. It was not possible to determine the office some of the incumbents were in charge of, thus only 958 re-election cases are reported in Table 1 instead of the 1006.*
Source: *own calculation based on data from official cantonal registers*

Because the rankings depend on the obtained vote share, electoral success can also be measured by the percentage of vote obtained by a candidate in relation to the total votes cast. This is the measure that will be used in my analysis, precisely because the interest lays in what makes more or fewer people vote for a politician.[28] More precisely, the change in the obtained vote percentage compared to the previous election[29] will be exploited. What is usually considered in the research on incumbency advantage is the difference between the result of the initial election

[28] The total votes instead of the valid votes as divisor will be considered for the sake of comparison, as the valid votes are not defined the same in all the cantons and through time.
[29] It is possible to include the absolute obtained vote percentage or the change in obtained vote percentage compared to the prior election as dependent variable. If the obtained vote percentage in the prior election is also included as a control variable in the two approaches, they become virtually identical according to Powell and Whitten (2003: 394). Of course, the coefficient for the obtained vote percentage in the prior election would differ between the two regressions but the coefficients for all other independent variables will be the same. The "difference" variable—change in obtained vote share compared to prior election—will be used as dependent variable as it is more common in the literature.

and the first re-election. The difference is called the sophomore surge (Gelman 1990). This thesis, however, is not only interested in the difference between the initial election and first re-election but also between the subsequent re-elections. Indeed, performance might be a reason why some politicians gain votes or lose votes from one to another election, besides election-specific characteristics and the incumbency advantage. Additionally, the context of cantonal government elections in Switzerland also makes it possible to compare election scores between members of the same party in the same election and thus to hold cantonal, partisan, as well as election-specific characteristics constant focusing solely on individual differences. To exclude incumbency effects, only the scores from incumbent members of the same party are compared for this "distance" measure and novice candidates of the same party running in the same election[30] are not considered.

Table 2. Vote % and Difference in Vote %

Vote % or Δ in Vote %	**Obs**$_{\text{all incumb.}}$	**Mean**$_{\text{all}}$	**Mean**$_{\text{Finance}}$	**Mean**$_{\text{Spending}}$	**Min**$_{\text{all}}$	**Max**$_{\text{all}}$
Initial Election[a]	294	44.8	46.0	44.7	16.1	85.4
All Re-elections[b]	899	53.5	56.3	52.9	10.1	92.9
Δ to prior election result	705	1.5	1.5	1.5	-59.9	39.2
Δ to incumbent from same party in same election	471	-1.4	1.3	-2.1	-42.5	28.7
1. Re-election	418	52.3	52.9	52.2	10.1	90.1
Δ to prior election result	293	6.5	6.8	6.4	-39.7	36.1
2. Re-election	298	53.1	56.5	52.4	20.4	92.9
Δ to prior election result	272	-2.3	-0.1	-2.7	-59.9	37.9
3. Re-election	138	57.2	60.9	55.8	27.6	89.3
Δ to prior election result	111	-1.8	-2.2	-1.7	-31.2	39.2
4. Re-election	31	56.0	59.8	54.6	29.3	79.9
Δ to prior election result	26	-0.6	-1.6	-0.2	-19.6	11.8
5. Re-election	10	55.4	-	55.4	22.1	86.6
Δ to prior election result	6	-7.1	-	-7.1	-34.6	9.3
6. Re-election	2	57.1	-	57.1	48.4	65.7
Δ to prior election result	1	-4.1	-	-4.1	-4.1	-4.1

Notes: *[a] Without incumbents initially elected in a by-election or in non-competitive elections. Moreover initial regular elections of politicians before 1976 are not taken into account in this description.*
[b] Only competitive election & re-election-settings are taken into account and reported in this whole table.
Source: *own calculation based on data from official cantonal registers*

Table 2 shows the distribution of the dependent variable for the sample of incumbents between 1980 and 2018. Considering all re-elections, an incumbent's average electoral score amounts

[30] Milic (2014) compares election scores from incumbents and novice candidates of the same party running in the same election to quantify the retirement slump (a measure of incumbency advantage). It lies between 13.3 and 14.3 percentage points depending on the operationalization.

to 53.5 % and increases by 1.5 percentage points between two elections. Looking only at the first re-election shows an increase of 6.5 percentage points for an incumbent initially elected in a regular election. The biggest loss in the sample amounts to 59.9 percentage points[31] if the change to results obtained in by-elections are not taken into account and only competitive elections are considered, whereas the highest gain equals 39.2 percentage points.[32] Column 4 and 5 presents the average scores separately for incumbent finance ministers and incumbent spending ministers. Overall, finance minister tend to have higher re-electoral scores (56.3%) than spending ministers (52.9%). They already have a slightly higher average score in their initial election, but they also tend to increase more than spending ministers in their first re-election, or decrease less in their second re-election. From the third re-election on, spending ministers lose less than finance ministers. The electoral scores are, however, influenced by who is running how many times for re-election and are thus subject to selection effects. The fourth row of Table 2 indicates the difference between incumbent candidates from the same party running in the same election. On average, finance ministers have a 1.3 percentage point advance over their fellow incumbent party member, whereas spending ministers are 2.1 percentage points behind their incumbent party colleague.[33]

Mean comparisons between re-election results of finance and spending ministers in Table 2 revealed several tendencies. In addition, Figure 4 displays the distribution of different electoral measurements for finance and spending ministers, their mean values as well as t-test results. The diagram in the top corner left indicates the distribution for the initial election score as well as the t-test statistic of the mean comparison regarding first election scores. The initial election scores of finance and spending minister do not seem to statistically differ from one another, even if on average finance ministers have a slightly higher initial election score.[34]

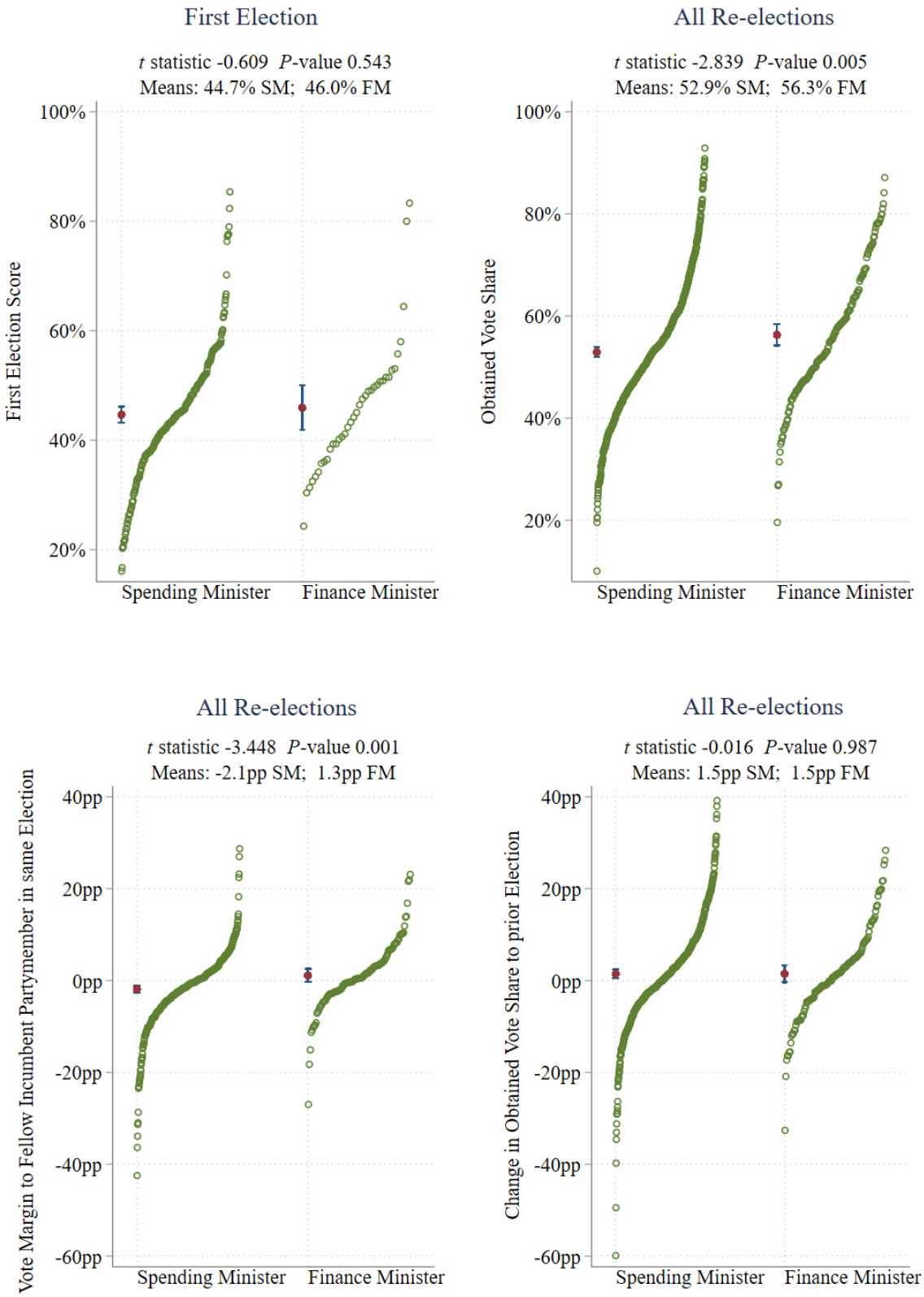
[31] This result belongs to Hans-Ernst Balsiger in the 1983 government election of the canton of Lucerne. Balsiger was a member of the SP and head of the ministry of justice. None of the candidates achieved the absolute majority in the first ballot of this election except for the incumbents of the CVP. There was a higher number of candidates than in the prior election.

[32] This result belongs to Robert Bühler in the 1987 government election of the canton of Lucerne. Bühler was member of the FDP and head of the military & police ministry (incl. environment). There was a higher number of candidates than in the prior election. Robert Bühler got elected to the Council of States in 1989.

[33] If there are more than two incumbent party members running for re-election, the value for the best ranked party member equals the difference between his score and the score of the second best party member, the value of the second ranked party member equals the difference between his score and the score of the best ranked party member, the value of the third ranked party member equals the difference between his score and the score of the best ranked party member and so on.

[34] Finance ministers are statistically significantly more often elected in by-elections than spending ministers. However, this mean comparison of first election scores does not include by-election results.

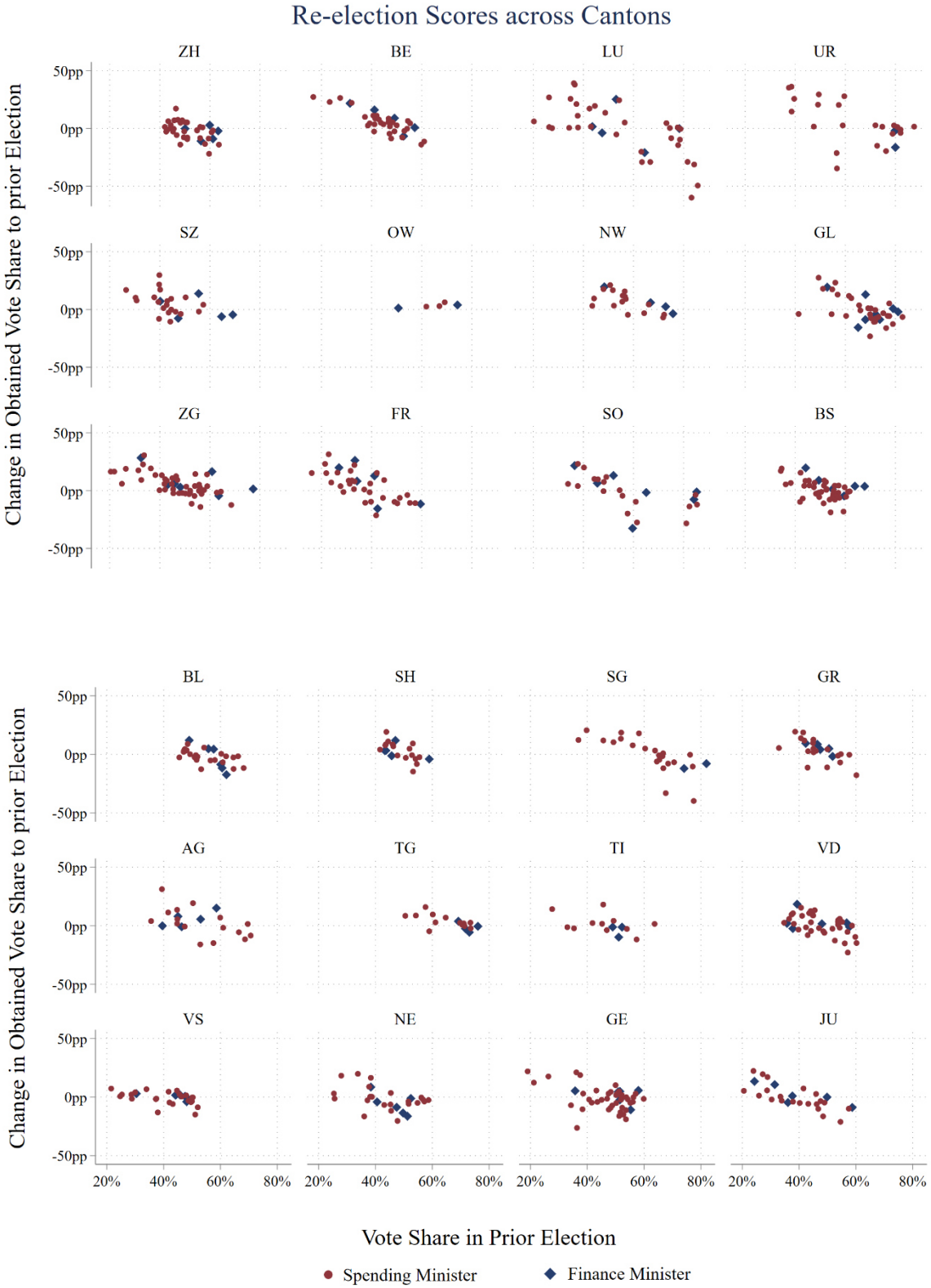
Figure 4. T-Tests between Finance and Spending Ministers



Notes: *The y-axis varies depending on the graph (from left to right): 1. Obtained vote percentage in initial election 2. Obtained vote percentage in re-elections. 3. Difference in obtained vote percentage between one's own re-election and the re-election result of a fellow incumbent party member running in the same election. 4. Difference in obtained vote percentage between one's own re-election and own prior election.*
Source*: own illustration*

The top right corner of Figure 4 presents the distribution of all re-election scores. Finance ministers have statistically significant higher absolute re-election results. The bottom right corner displays the distribution for the distance in terms of vote share to a fellow incumbent party member in the same election. Again, a finance minister seems to have a statistically significant higher vote margin of 1.3 percentage points compared to her fellow incumbent party member running in the same election. Finally, the bottom right corner indicates the distribution of changes in obtained vote share from one election to another. Finance and spending ministers do not statistically significantly differ from one another in terms of decreases or increases of vote share between elections when all re-election scores are considered. Overall, there are some indications for a statistically significant difference between spending and finance ministers with respect to re-election results. The empirical analysis in the following chapters will investigate whether these differences can be explained by fiscal performance or even remain when holding various control variables constant, such as prior election scores or the number of re-elections. Figure 5, for example, suggests that the higher the previous electoral score, the more difficult it becomes to gain additional votes in a re-election. This might be related to a mean-reversion process, which would imply that popularity is always drifting towards fifty percent. Thus following an extremely high electoral score the score in an incumbent's next re-election is more likely to be less high and more near average. The greater the extent this extremely high electoral score was due to luck (for example low quantity and quality of competitors) and not to competence, the more likely the next election score will be lower. In a democratic system, it may become especially difficult to gain additional votes at the upper boundary of the popularity scale. There might always be certain voter groups who have large ideological or personal differences with an incumbent and will probably never give their vote to this incumbent. However, note that mean reversion should probably concern spending or finance ministers to the same extent. Figure 5 further illustrates a considerable variation between cantons as well as within cantons between the different incumbents running for re-election, again highlighting the interest of an in-depth empirical analysis to locate the various possible explanations for increases or decreases of vote share between elections.

Figure 5. Difference in Vote % by Canton



Notes: *The x-axis displays the obtained vote percentage in an incumbent's prior election and the y-axis displays the change in obtained vote percentage between an incumbent's re-election and prior election. The cantons of Appenzell Innerrhoden and Ausserrhoden are not included in this figure. In Appenzell Innerrhoden, the cantonal government is elected through the citizen assembly "Landsgemeinde" and so there are no exact numbers regarding the obtained votes reported. In Appenzell Ausserrhoden, the government members have been elected at the ballot box since 1998, however during the considered time period there was no setting where the prior election as well as the re-election were both competitive (i.e, more candidates as seats).*

Source: *own illustration*

5.2 Fiscal Performance

The concept of fiscal performance is broad and different indicators can be used to measure it, including: a canton's debt level, the tax rate, i.e., variation in tax pressure, the progressivity of a tax system, government spending (growth), the financial resource power of a canton, the percentage of expenditures that are self-financed and probably many others. This analysis will concentrate on how well a canton is able to balance its financial accounts. Indeed, budget balancing is usually the main indicator used to assess a finance minister's effectiveness. It may reasonably be argued that "his prestige and hence his personal benefits depend on the effectiveness of his ministry" (Hallerberg and Von Hagen 1997). Consequently, a finance minister's political success should be tightly linked to sound public finances. So, to measure the explanatory variable of fiscal performance, I will use the balance of the financing statement in the year before the re-election,[35] either measured as a dummy variable (deficit vs. surplus) or as a continuous variable. The financing statement includes revenues and expenses with a financing effect, investment expenditures and receipts, as well as extraordinary operations. In a way this corresponds to the reduction or increase of the debt level and is therefore important for the overall political steering (Federal Finance Administration 2018).[36] On the contrary, taking the debt level or its growth rate as an explanatory variable would implicitly relate the performance of a finance minister to his predecessors within a canton. Indeed, the same achieved deficit or surplus in absolute terms would take on a lower relative number in more indebted cantons (Jochimsen and Thomasius 2014: 395). This means that voters might not react to the absolute level of the debt or its growth rate but rather to the budget balance since debt levels are historically inherited and not under the full control of the finance minister.[37] Surpluses (deficits) should, according to the formulated hypotheses, have a positive (negative) effect on the re-election result of a finance minister. The financing statement is measured in real terms

[35] Financial statements are usually published in springtime of the following year.

[36] On the cantonal level, the application of the debt brakes and fiscal rules differ. Some refer to the financing statement but most of them to the statement of financial performance. The statement of financial performance is not directly linked to a cantons' debt but to a cantons' equity. However, at the cantonal level the statement of financial performance takes on a more important role as on the national level and also a more important role than the financing statement. Nowadays, the balance of the statement of financial performance is also the cantonal financial indicator most often reported. Yet the statement of financial performance is also influenced by pure accounting transactions and by financial choices made in the past (for example depreciation of past investments) and therefore not under a finance ministers full control. The statement of financial performance will be used as a robustness check to measure an incumbent finance minister's performance.

[37] As debt is itself an outcome of the financing statement result, controlling for debt might be a mistake which could bias the estimation results. In this case, debt could be called a "bad control" according to Angrist and Pischke (2009: 65-68).

and per capita in units of CHF 1000. Even if for the dependent variable the change in obtained vote percentage compared to the prior election is considered, the absolute value of the financing statement will be used for the independent variable rather than the difference of the financing statement in the year before re-election compared the financing statement in the pre-electoral year of the prior term. The financing statement can already be considered a "difference-variable" per se as its result changes the debt level. Moreover, fiscal consolidation would not be measured correctly as the difference between a smaller surplus and a bigger surplus would result in a negative performance value even if finance ministers were able to reduce the debt level.

Looking at the history of cantonal fiscal policy and performance since 1980, the 80's was a decade characterised by tax reductions in many cantons, a favourable economic situation with growth, moderate inflation and revenue surpluses as well as the introduction of the new harmonized accounting model HAM1. At the end of the 80's and beginning of the 90's, cantonal government spending was growing fast and deficits were accumulated. A worsening economic situation and tax shortfalls lead to high debt levels in the 90's. Due to higher levels of unemployment, the expenditures for unemployment benefits and social spending increased as well as investment expenditures meant to stimulate the economy. Several cantons also had to deal with the financial problems of their cantonal banks, something which additionally deteriorated the financial situation of these cantons. In 1995, the total deficit of all cantons amounted to 1.5 billion,[38] whereas the three cantons of Geneva, Vaud and Bern alone accounted for more than two thirds of the total deficit. Yet this was no exception for this decade, in 1997 only one canton out of 26 had a positive financing statement and the cumulated deficit of all cantons even amounted to 2.8 billion.[39] The increase of the debt servicing costs was an additional issue. The canton of Lucerne, for instance, had to spend more than 20 percent of its annual tax revenue on debt servicing.[40] In some years during the 90's the canton of Bern as well as the canton of Geneva even paid around 1 million interest per day, i.e., above 365 million debt interest per year.

Around the turn of the decade, the economy began to slowly recover, tax revenues increased again and the cantons were able to profit from the benefit of the national central bank. In 2000,

[38] Neue Zürcher Zeitung (1996): Finanzlage der Kantone leicht gebessert. Gesamtdefizit von 1,5 Milliarden. Kein Grund zur Euphorie. 04.06.1996, p. 14.
[39] Neue Zürcher Zeitung (1998): Finanzsituation der Kantone erneut schlechter. Stagnierende Einnahmen. 18.06.1998, p. 15.
[40] Neue Zürcher Zeitung (1997): Trostlose Finanzperspektiven im Kanton Luzern. Bis 2002 Defizite zwischen 50 und 100 Millionen Franken. 11.09.1997, p. 17.

nineteen cantons were able to generate a surplus.[41] Topics on fiscal policy and spending discipline shaped a big part of the political discourse around 2000 and citizens had the opportunity to express their opinion in various cantonal and national ballots concerning the introduction of debt brakes and fiscal rules.[42] Further fiscal equalization schemes were reformed on both the national and cantonal level. In 2005, the national central bank again distributed a great value of gold to the cantons, 14 billion, which the cantons mostly used to reduce their debt level or postponed in a fund for later investment projects or difficult times.[43] Between 2000 and 2010, the financial situation in many cantons also improved through a good economic situation, relief programmes and efficiency gains. Several cantons introduced new financial management tools as well as fiscal rules and debt brakes.[44] More than anything, several small cantons and/or located in central Switzerland worked to increase their attractiveness and resource power by reducing tax pressure for individuals and businesses (FFA 2013).

However, cantonal public finances have again been under pressure starting from 2010 because of necessary pension fund reforms and recapitalization, economic turmoil, additional costs imposed or passed on by new national legislation, increasing health and social expenditures, the absence of distributed benefit from the national central bank and increasing fiscal equalization payments. Several cantons have had to use equity to cover current expenses and meet the criteria of their fiscal rules or have had to vote[45] and implement austerity measures in the last years.[46]

Figure 6 presents the financing statement result per capita in CHF 1000 for each canton in the period of 1980-2017. The financial situation differs a lot between cantons and over time. While the financial statement of some cantons fluctuates near equilibrium, other cantons have experienced huge deficits and or surpluses. Moreover, the abovementioned financial difficulties in the 90's are also graphically observable.

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[41] Neue Zürcher Zeitung (2001): 19 Kantone schreiben schwarze Zahlen. Budgets mehrheitlich zu pessimistisch. 10.05.2001, p.14.

[42] Ballots on debt brakes and fiscal rules: CH 02.12.2001; ZH: 12.03.2000; LU 26.11.2000; BE 03.03.2002 & 24.02.2008; TI 18.05.2014; BL 24.02.2008; GE 20.02.194 & 21.05.2006; VD 29.11.1998; VS 22.09.2002; AG 26.09.2004; NE 05.05.2005; JU 17.05.2009 (list non-exhaustive)

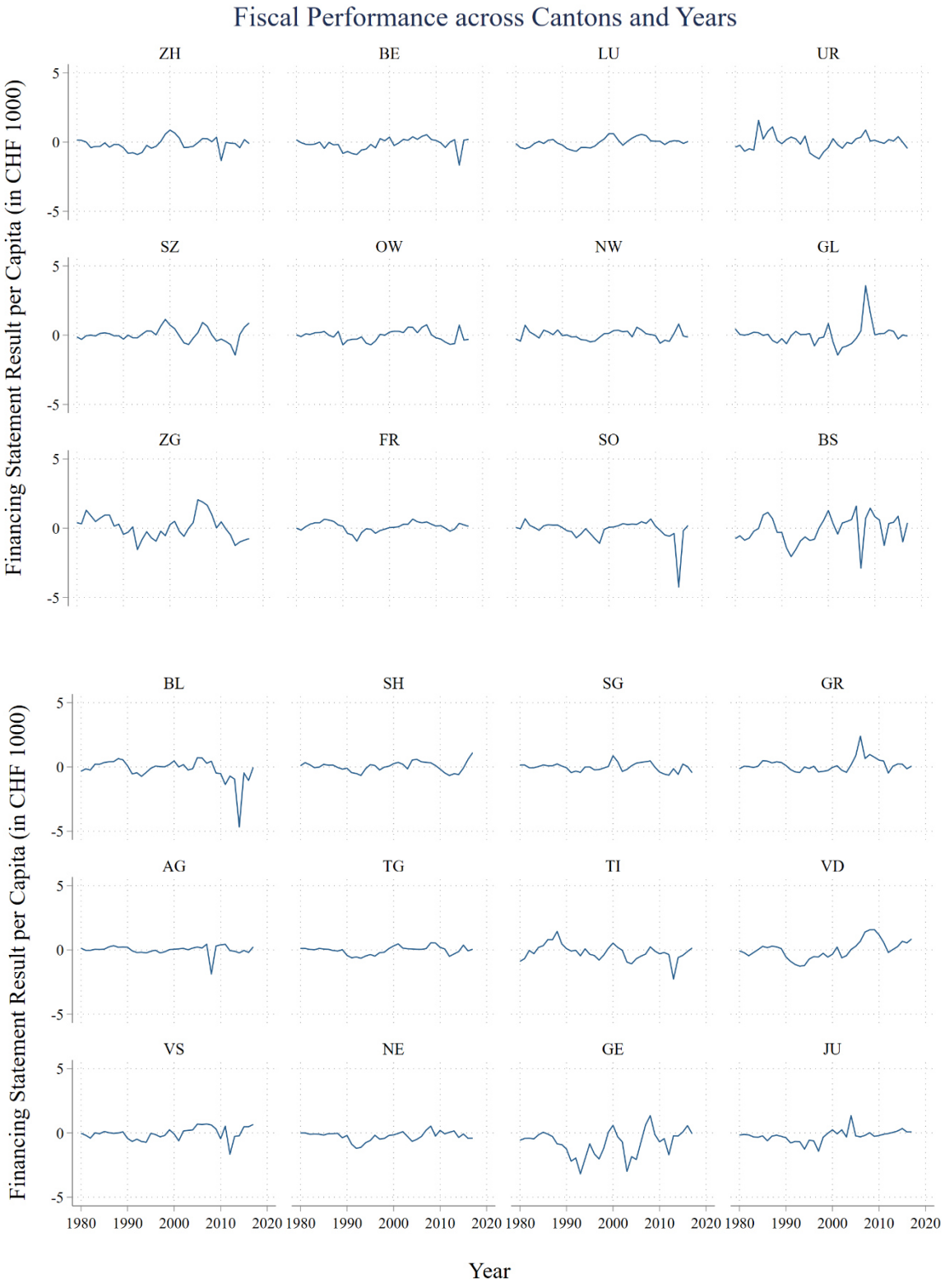
[43] Neue Zürcher Zeitung (2006): Das Ringen der Gemeinden um die Goldmillionen. 09.01.2006, https://www.nzz.ch/articleDH0VV-1.2173.

[44] This can be observed in Figure 3, section 4.1 of this thesis.

[45] Ballots on austerity measures: SZ 17.06.2012, ZH 03.03.2013, TI 18.05.2014; NW 29.11.2015; SO 08.03.2015, AG 08.03.2015; ZG 27.11.2.016; SH 07.03.2016 (list non-exhaustive).

[46] Information for this narrative stems from *Année Politique Suisse*, newspaper reports, as well as cantonal financial reports.

Figure 6. Fiscal Performance 1980-2017



Notes: *The y-axis displays the financing statement result in real terms, per capita in CHF 1000. The x-axis shows the years. As the cantons of Appenzell Innerrhoden and Appenzell Ausserrhoden cannot be considered in the analysis with respect to the main dependent variable—change in obtained vote share compared to prior election in a competitive setting—the figure above does not display the fiscal performance variable for those cantons either.*
Source*: own illustration*

5.3 Control Variables

The analysis includes several individual and election-specific control variables. It is highly probable that in addition to fiscal performance, voters are looking out for additional signals to confirm the competence of a finance minister. This, because elections are not only about incentives and increasing discipline but also an opportunity to select the best type. Personal characteristics such as gender, education, time in office, and political experience do give voters a cue to see whether the incumbent has similar policy preferences and is sufficiently skilled (Fearon 1999: 59, 68). Furthermore, Jochsimen and Thomasius (2014) found evidence that both professional and political experience have a positive effect on the finance ministers' ability to ensure sound public finance. Feld and Schaltegger (2010) test whether political stability, measured by the number of years a federal finance minister remains in office, impacts fiscal policy by running a time series analysis relying on the Swiss federal government between 1849 and 2007. They provide strong evidence that the more experienced a finance minister is, the better the fiscal soundness. The time in office as well as former political experience in the legislative on the national level can also measure the prominence of the politician, as incumbents who are longer in office or who have experience at a higher federal level are expected to benefit from a name recognition bonus and should therefore obtain more votes (Milic 2013). Additional controls are party-membership as well as a variable for the strength of an incumbent's own party in parliament. Even if party affiliation may be less important in executive elections than in legislative ones, the party strength constitutes a base of core voters (Milic 2013) and it is well known that party strength varies between the cantons (Selb 2006: 51).

On the election-level, I will include the number of candidates, the number of free seats available in the election, i.e., number of seats not sought by an incumbent, and the participation rate. The number of candidates as well as the number of incumbents running for election should measure the competitiveness of the election both quantitatively and qualitatively. High competitiveness can result in a lower number of votes. The Appendix includes the descriptive statistics of the dependent, independent, and control variables.

6 Qualitative Analysis

The work for this thesis involved 16 interviews with former or incumbent finance ministers from different cantons. The cases were selected in order to have hypotheses-confirming as well as hypotheses-contradicting cases and a variety of personal, political, and contextual characteristics in line with the control variables mentioned in the previous chapter. The aim of the interviews was not to make an in-depth qualitative analysis and to draw a causal relationship based on a most similar or most different system design. Instead the idea was to discuss the theoretical assumptions with finance ministers and compare this with their own experiences by considering the changing contextual factors between them. Table 3 presents an overview of the interviewed finance ministers. A summary as well as descriptive statistics regarding all cantonal finance ministers since 1980 can be found in Soguel and Buchs (2018).

Table 3. Overview of Interviewed Finance Ministers

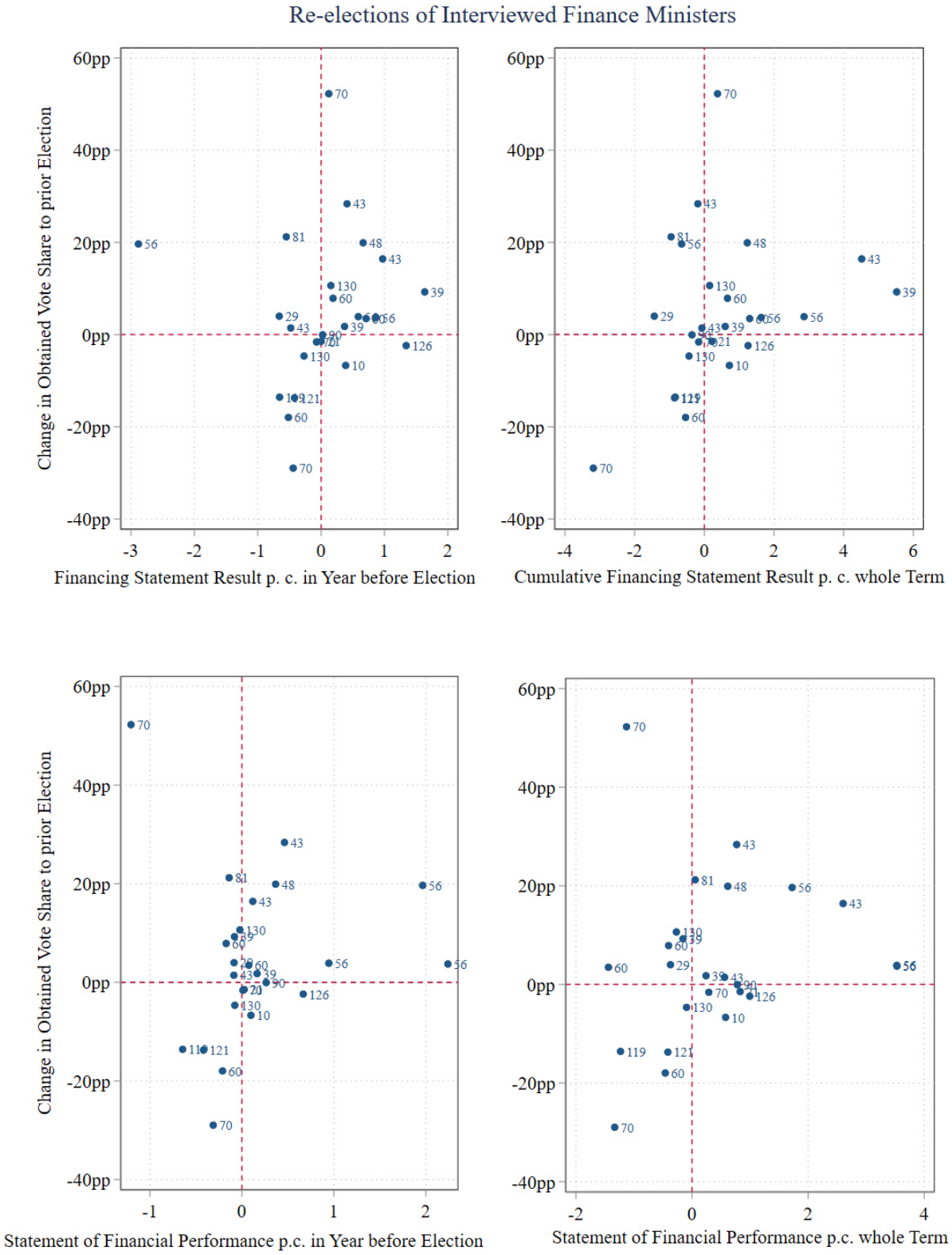
Variable	**Observations**
Finance Ministers	16
Before/ After Spending Minister	8
Finance & Spending Minister (Pooled-Ministry)	4
Gender	4 women, 12 men
Party	2 SVP/BDP, 5 CVP, 6 FDP/Liberals, 2 SP, 1 Green
Canton	AR, NE, GE, FR, JU, ZG, OW, BE, BS. SG, BL, AG, UR, GL
Education	12 with university degree
Years in Office as a Finance Minister	2-15 years
Year of Birth	1943-1971
Re-election Ranks	1st rank: 17 times (10 different finance ministers) 2nd rank: 4 times 4th rank: 2 times 5th rank: 3 times 6th rank: once 7th rank: 2 times One of the interviewed finance ministers was not re-elected.

Source: *own calculation based on data from Soguel & Buchs (2018) and official cantonal registers*

Figure 7 displays the distribution of the interviewed finance ministers with respect to fiscal performance and their electoral score. The first row considers the financing statement in the pre-electoral year and cumulatively over the whole term whereas the second row considers the statement of financial performance in the pre-electoral year and cumulatively over the whole

term. I will discuss the few numerical differences between the two statements when considering individual cases, and Figure 24 in the Appendix presents the accounting differences between the two statements. Observations in the top-right and bottom-left corner of the individual graphs, separated by a dotted line, are hypotheses-confirming while observations in the top-left and bottom-right corner of the individual graphs are hypotheses-contradicting. The numbers report the finance ministers' identification number in the sample, making it possible to compare the different electoral gains & losses and fiscal performance measures of a single finance minister as well as across all the finance ministers. Looking at the graph that refers to the financing statement result in the pre-electoral year, there are several hypotheses-confirming cases, like ID 70, 60, 119, and 121 where deficits lead to electoral losses and ID cases 43, 48, and 56 where surpluses lead to electoral success. In contrast, there are also two interesting hypotheses-contradicting cases in the bottom-right corner, ID 10 and 126. These two finance ministers achieved good financial results in the year before their re-election and cumulatively over the term in the financing statement as well as in the statement of financial performance, yet still lost in terms of vote share. ID cases 56, 29, 70 and 81, seen in the top-left corner and also hypotheses-contradicting, are worth noting. However, their position differs depending on which graphs one looks at (the financing statement result vs. the statement of financial performance) and whether the result in the year before re-election or the performance over the whole term is considered. The aim of the following sections is also to provide the reader with some anecdotal evidence and explanation about these cases based on the interviews and other collected background information.

Figure 7. Change in obtained Vote % and Fiscal Performance of Interviewed FM



Notes: *The x-axis varies depending on the graph (from left to right): 1. Financing statement result in year before re-election 2. Sum of financing statement results in the 3 years before re-election. 3. Statement of financial performance result in year before re-election 4. Sum of the statement of financial performance results in the 3 years before re-election. The variables are always measured in real terms, per capita and CHF 1000 units. The y-axis is the difference in obtained vote percentage between an incumbent's re-election and prior election.*
Source*: own illustration*

6.1 Interview Summary

The interviews with the former and incumbent finance ministers lasted between 45min and 1h45min and were always conducted by the same person, in French or in German, on the base of a pre-structured interview guide (attached in the Appendix A.8).[47] The interview guide mostly consisted of open questions as is usually the case when interviewing elites (Harvey 2010). Depending on the answers and the flow of the interview, not all the questions were always asked. In order to be able to address the individual situations, fact sheets on every finance minister were prepared in advance based on media coverage, cantonal financial reports, and personal websites (Berry 2002). This gave the interviewer the opportunity to adapt the questions individually and put some of the answers into context. The topics covered were: choice of the finance ministry, objectives, successes and failures, perceived liberty and strength as finance minister in the government and parliament, the role of (re)election during the time in office, factors influencing (re)elections, the decision to retire, contact with citizens as well as citizen's perception and preferences in terms of fiscal policy. The following subsections give an overview on the answers concerning the different topics and some quotations, in the original language, are included in the footnotes for illustrative purposes.

6.1.1 Choice of Finance Ministry

Most of the finance ministers justified their choice for the finance ministry with their education and/or professional and political experience. Several had, for example, been a member of the commission on public finance in the parliament. The ones who were in charge of a spending ministry before taking over the finance ministry also highlighted the importance of their prior experience in the executive. An additional reason mentioned was also that their party had traditionally been in charge of the finance ministry in their canton. Five of the interviewed politicians had already claimed the finance ministry before being elected and did their campaign on public finance issues.[48] There were only a few cases where there was more than one executive member interested in taking the lead over the finance ministry. No one interviewed was ever forced to take over the finance ministry; it was always a desired ministry for them.

[47] The interviews mostly took place in the office or the home of the respective interview partners. Except for the few interviews taking place in public places, the conversations were always recorded and transcribed afterwards.

[48] In Appenzell Innerrhoden, a politician is directly elected by the citizen assembly "Landsgemeinde" to become finance minister "Säckelmeister". There is no finance ministry allocation by the members of the government. Nevertheless, this canton is not included in my sample because the "Landsgemeinde" electoral system is not comparable and does not provide exact vote numbers. In other cantons, the ministries are divvied up during the government's first meeting after the election (mechanism is described in section 4.2).

The advantages of the finance ministry most-often cited are the cross-sectional view and the additional insights, influence, or weight one has as a finance minister compared to the other ministers. However, there were differences mentioned in terms of how the finance minister's role is perceived. While some finance ministers did not care on which issues the spending ministers spent or saved money, others were interested in setting priorities regarding spending or cost-saving measures.[49] Some of the negatives mentioned were the repetitive tasks and discussions, as well as a lack of one's own projects. The most creative task mentioned was usually the conception of austerity measures.

The general impression was that finance ministers must care more about the overall welfare of the canton, which is in line with the literature on the political economy of the budget process.[50] They do not have to fight too much for their own projects, but instead enable as many projects as possible from the other ministries, given the financial leeway. As the legal framework is rather tight, party politics is less present in the finance ministries.[51] They also tended to believe that citizens are more trusting of the finance minister compared to the spending ministers. This feeling was especially experienced by the politicians who had been previously in charge of another spending ministry. In their estimation, this may have been because the finance minister deals with more abstract and less emotional or political issues than a spending minister. And if the government must save money in certain areas, it is generally the spending ministers concerned who must deal with this in practice and not the finance ministers.

[49] Some quotes :
«Ich habe bei einer Budgetdiskussion mit einer Direktion nie gesagt, das dünkt mich eine wichtigere Aufgabe als jene, deshalb müssen wir bei dieser eher mehr Geld sprechen und bei letzterer eher sparen. Aber ich habe auch schon mit Finanzdirektoren gesprochen, welche gesagt haben, das Schöne an unserem Amt sei ja, dass wir bei den Direktionsbudgets etwas Akzente setzen können. Mir war es hingegen egal wo die Direktionen kürzten, es musste einfach rechtmässig und nachhaltig sein.»
«In unserem Kanton ist es traditionell ein starkes Departement, alle Geschäfte gehen durchs Finanzdepartement oder zumindest kann es der Finanzdirektor einfordern. Das gibt dem Finanzdirektor einfach eine grosse Dossiersicherheit und -kenntnis. Man nimmt überall Einfluss und das hat mir gepasst.»

[50] Quote: «Der Finanzdirektor muss sich schon mehr um das Gesamtwohl kümmern als die anderen Regierungsräte. Die Anderen wollen ihre Projekte durchbringen, aber alle Projekte haben finanzielle Folgen und der Finanzdirektor muss dann schauen, dass es aufgeht.»

[51] Quote: «Ich denke, das Finanzdepartement kann man nicht wirklich aus einer parteipolitischen Sicht führen. Natürlich hat es Aspekte, die reinkommen: man ist je nach Partei beispielsweise weniger geneigt grosse Ausgaben zu machen. Die Rahmenbedingungen sind aber derart klar, dass die Partei eine untergeordnete Rolle spielt.»

6.1.2 Objectives, Success and Failures

Most of the finance ministers had the objective to reduce the debt level and to consolidate the financial situation of the canton. This was mainly because the financial situation of several cantons was in bad shape at the end of the 90's and early 00s when most of the interviewed finance ministers came into office.

The finance ministers mostly saw the austerity measures that were put into place as a success. They also did not expect or experience any punishment from the citizens for that. Other successes mentioned were the reform of the pension fund, the improvement of the fiscal attractiveness of the canton, and the improvement of the resource power. Failures and disappointments mentioned included lost popular votes, mainly on taxation issues.

They all agreed that it was easier to be finance minister when the financial situation was bad as there was generally a consensus on taking measures to improve the situation. Yet when times were good and the canton generated surpluses, the various political parties increased their spending desires.[52] Which meant that the role of the finance minister at that point was perceived as having to be cautious since the sum of several minor decisions with small financial implications would, in the long-term, lead to a high deficit. This awareness even engendered some strategic behaviour on the part of the finance ministers. One finance minister, for example, explained that he conducted additional depreciations in order to have a deficit because he thought it would be easier to begin his first term with a deficit. This is in line with findings on creative accounting and the manipulation of tax revenue projections in the Swiss cantonal context (Clémenceau 2014; Chatagny & Soguel 2012).

In terms of positive factors influencing their work as finance minister but outside their sphere of influence, they mentioned the distribution of gold from the Swiss national bank, a positive economic climate, and a benevolent media coverage. Negative factors were: new legislation decided at the national level with financial implications for the cantons, an increase in polarization, as well as changes in the contributions or revenues from the fiscal equalization system.

[52] Some quotes:
«Da mein Einstieg in einer schwierigen Phase stattfand und die 5 Bisherigen sich gewohnt waren, dass man nicht viel ausgeben kann, konnte ich mich schon durchsetzen. Als wir dann später strukturelle Überschüsse hatten, war es schon schwieriger, da kamen deutlich mehr Wünsche und Anfragen.»
«Kaspar Villiger hat einmal gesagt, für den Finanzdirektor gibt es zwei schwierige Situationen. Erstens rote Zahlen, dann muss man Sparmassnahmen ergreifen. Zweitens schwarze Zahlen, dann will die Politik nämlich immer mehr ausgeben und es ist schwieriger sich als Finanzdirektor dagegen zu wehren. Die grössten Dummheiten werden gemacht in Zeiten von schwarzen Zahlen.»

Most of the finance ministers experienced a high degree of freedom in their work and were able to pass most of their proposals or goals. Yet there were also a few who felt relatively constrained either by the other members/parties in the government, by a small financial leeway, or by national legislation. One finance minister also mentioned that sometimes spending ministers behaved strategically during the budget process either by proposing options/solutions they knew would not pass in parliament so they could finally have it the way they wanted, or by reintroducing proposals which failed in the government deliberation trough parliamentarians in the parliamentary debate. Centre-right finance ministers with a centre-right majority in the government and parliament did not experienced much opposition. The rating of the perceived freedom and assertiveness varied between 30% and 90% depending on the finance minister.[53] One finance minister implicitly made a link between the budget process and game theory. Accordingly, the budget proposal as well as austerity measures are based on a compromise. This compromise succeeds until somebody begins to publicly call into question the compromise or deviates from the consensual position. If somebody begins to call it into question the others will follow. So, this can be a deliberate strategy of some political groups.

6.1.3 Re-election

In general, the politicians did not invest much time or money for their re-election. The general conviction was that their work and performance while in office should be enough. If asked to list the most important factors for explaining re-election results, they mentioned personal characteristics, reputation and track record, media coverage, and in some cantons, party strength as well as election alliances/lists. In their view, a good track record mainly helps to earn votes outside the party base and the track record might be easier to evaluate for a finance minister than for spending ministers.[54] They also highlighted the fact that people working in the administration as well as parliamentarians can contribute to the good or bad reputation of a minister by talking to acquaintances and journalists about their experiences.

[53] Quote: « Vue que j'étais totalement minorisé au Conseil d'Etat, je dirais que j'avais une marge de manœuvre d'environ 30%. Exemple: j'étais à la Conférence des directrices et directeurs cantonaux des finances. J'ai demandé à un collègue comment il faisait pour économiser. Il m'a répondu qu'il arrivait à la séance, disait qu'il faillait économiser et les membres du gouvernement trouvaient une solution ensemble. C'était le jour et la nuit, il pouvait faire passer tous ces dossiers, ces collègues votaient toujours avec lui.»

[54] Quote: «Le ministre des finances est différent des autres ministres, il a un statut spécial et il touche les gens moins du point de vue émotionnel, c'est plus abstrait. Si les chiffres sont bons on le garde sinon il doit partir».

The re-election objectives as well as the importance of re-election results varied between finance ministers and cantons.[55] While certain finance ministers wanted to be re-elected as the best one, others only wanted to be re-elected and preferably in the first round. Even if the majority of the ministers were aware that one should be able to leave office at any time, their goal was to be re-elected in order to continue the work and projects they had initiated. Most had no real doubt about their re-election, yet some acknowledged an inner insecurity that something might come in between.

They all agreed that they had never taken specific actions to improve their re-election chances. However, a few mentioned having observed this type of behaviour from certain spending ministers. The impression was that the finance ministry is less suitable for such tactical considerations and campaign promises.

The decision to seek re-election was mainly due to personal and career considerations and not to the financial situation of the canton or the political vibe in the government and parliament. However, some did mention that they lost the energy, patience, and desire to discuss, negotiate, and fight for long hours. This could partly be due to the technical and repetitive nature of the tasks in the finance ministry. As mentioned above, the most creative task of a finance minister was perceived to be the design of austerity packages.

With respect to the election score, all except two felt that a good electoral score had no consequences for their standing or work in the parliament and government.[56] However, two finance ministers presented their electoral score as a sign of approval and legitimacy for their pursued fiscal policy and used that argument during negotiations.[57]

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[55] Some quotes:
«Es ist natürlich eine Standortbestimmung. Es war mir schon wichtig, dass ich ein gutes Resultat mache, ob es nun das Beste oder das Zweitbeste ist, war eher weniger wichtig. Es gibt einem natürlich eine sehr gute Legitimation und eine gute Rückmeldung. Es heisst, man hat gute Arbeit gemacht. Ein Öffentlichkeitsarbeiter kann nur durch Wahl- und Abstimmungsresultate wissen, ob man mit seiner Arbeit zufrieden ist.»
«Man ist einfach froh, wenn man wiedergewählt wird. Der Rang spielt nur eine sekundäre Rolle. Es ist wie früher in der Schule, Hauptsache bestehen und die Note ist subsidiär.»
«Ich habe mich schlicht nicht darum gekümmert. Das war jetzt nicht etwas, das mir am Morgen beim Aufstehen als Erstes und vor dem zu Bett gehen als Letztes in den Sinn gekommen wäre. Und dies war sicherlich ein Fehler.»
«Mein Ziel war es als Bester wiedergewählt zu werden und wenn ich das nicht geworden wäre, wäre ich ziemlich enttäuscht gewesen.»

[56] Quote: «Natürlich ist es schön, wenn man mit dem besten oder zweitbesten Resultat gewählt wird und das freut einem auch sehr. Aber letztendlich nützt es einem dann nichts in den nächsten 4 Jahren.»

[57] Quote: «Das gibt sicher Rückenwind. Ein starkes Wahlresultat macht es einfacher politische Geschäfte durchzubringen, man hat eine höhere Glaubwürdigkeit und Akzeptanz. Die Ausgangslage ist sicher einfacher als wenn man schlechte Wahlresultate hat.»

Several finance ministers said that they were some sort of flagship of their own cantonal party and that the party liked to boast of their good track record and electoral score.[58] This relates to literature on the phenomena of coattail-voting and electoral accountability. The assumption is that improved performance increases a politician's own re-election probability, while increasing (decreasing) the re-election probability of that politician's partisan ally (rival) for other offices, for instance in parliament. Politicians therefore have an extra incentive to perform better, for the sake of their party as well as for themselves (Zudenkova 2011: 1653).

6.1.4 Preferences and Perception of Citizens

The finance ministers more or less all agreed on the fact that citizens attach an importance to sound public finances. This preference was partly seen as being a consequence of the accumulation of debt in the 90's and again to the debt crisis in Europe in recent years. Even if they do not expect citizens to know the details and the numbers, they have the feeling that citizens are aware of the general situation, whether the situation is improving or getting worse, and if the tax load and debt level is rather high compared to other cantons.

In the parliament and in the political sphere, finance ministers often experienced personal blame when the financial situation was bad. When the financial situation was good, on the other hand, the entire government received praise. However, in their point of view, citizens attributed responsibility for the canton's financial situation primarily to the finance minister personally and held them accountable for the numbers. This impression was fostered by interactions they had had with citizens who, for example, congratulated them on taking such good care of their tax money. However, the interviewed finance minister did not experience too much blame from citizens when the financial situation was bad as citizens seemed to be aware that it was difficult and certain factors were not under a finance minister's own control.

[58] Quote: «Ja klar, man ist das Aushängeschild. Eindeutig. Wenn die Partei gute Aushängeschilder als Regierungsräte hat, dann profitiert sie davon.»

6.2 Case Examples

Figure 7 highlights seven cases which were rather hypotheses-confirming and will be discussed hereafter also with respect to the control variables selected in Section 5.3. The corner of good fiscal performance (surpluses) and electoral success includes the cases with ID 43, 48 and 56. The finance ministers with ID 43 and 56 managed to generate surpluses during most of their years in office. This led to an increase in vote percentage of more than 30 percentage points between their first and last re-election, approval rates of above 70% and steady first ranks. Both finance minister saw the improvement of the financial situation of their canton as the main reason for their electoral success and how they gained votes outside their political camp. Due to personal characteristics of these finance ministers some people doubted their ability to run the finance ministry in the first place and the finance ministers supposed that they would probably not have had such good electoral results if they had generated deficits instead of surpluses. The finance minister with ID 48 was in charge of a spending ministry previously and was also able to reduce the debt level during his time in the finance ministry. Besides good performance and the finance minister bonus, an alliance with another party was also perceived as an important reason for the increase in vote percentage compared to the prior election.

The corner of bad fiscal performance (deficits) and electoral losses highlights the ID cases of 60, 70, 119 and 121. The finance minister with ID 60 had good electoral results in his prior two re-elections and was considered to be a strong member of the government. Deficits gradually accumulated, the relationship with his own party worsened, and a few weeks before the re-election in question, a newspaper even ran a headline claiming the canton could not pay its bills anymore. The finance minister not only lost a lot in terms of vote share, he was also barely re-elected and ranked 5th for a 5-seat government even behind new candidates. In the case of the finance minister with ID 70, deficits may have been secondary reasons for electoral losses besides a scandal concerning much too high fees of other administrative board members while he and another member of the government were representing the canton on this administrative board. This scandal even brought various citizens and a few parties to call for the finance minister not to be re-elected. The additional fact that the previous election was a non-competitive one may also explain the huge loss in terms of vote share. In the case of ID 119, the canton's financial situation was not good yet the finance minister had difficulties asserting himself within the government and imposing fiscal consolidation. The finance minister lost votes in terms of vote share but still ranked second compared to the only other incumbent running, who ranked fourth. Compared to the previous election there were 17 more candidates

running in the first round, something which may also explain the lower vote share. However, the number of candidates running for re-election might also be caused by a general dissatisfaction with government performance. After re-election, the incumbent was thrown out of the finance ministry and replaced by a new powerful candidate who belonged to the political majority of the government. Finally, the finance minister with case ID 121 was not only in charge of the finance ministry but simultaneously a spending ministry as well. Besides the increasing debt of the canton it was above all a project of his spending ministry who damaged his popularity.

Section 6.1 highlights six somewhat hypotheses-contradicting cases worth paying more attention to. The corner of good fiscal performance (surpluses) yet a decrease in vote percentage displays the cases of the finance ministers with ID 10 and 126. Both finance ministers had a good electoral score in this specific election, as they were ranked 1 and 2, yet they both lost votes compared to their previous election because of partisan politics. In the case of the finance minister ID 10, there were not only 5 additional candidates running for election, his political bloc also presented more candidates than in the earlier election. The centre-right wing proposed 7 candidates compared to 5 in the previous election. This situation likely split the votes between the candidates in his own bloc and maybe also led to fewer votes from the other bloc as the ideological competition was higher and strategic considerations may have played a role. This election even resulted in a change of majority party in the government. Finance minister ID 126's election involved a situation in which more radical/populist parties presented several candidates and possibly absorbed certain votes or mobilized new voters who were not interested in the «established elite», i.e., the incumbents. Indeed, the participation rate was higher in the re-election than in the prior election. So, if the additionally mobilized voters did not vote for ID 126, the result was a decrease in obtained vote percentage.

The corner of bad fiscal performance (deficits) yet an increase in vote percentage includes the cases of the finance ministers with ID 56, 29, 70 & 81. First, in the case of ID 56, only the financing statement was negative in the year before the election and not the statement of financial performance. The debt increase came from high extraordinary expenditures; for this canton it was a financial injection for the pension fund, which voters either did not evaluate negatively or did not attribute to the finance minister. In case of ID 29, while the financial results were negative, the canton's fiscal attractiveness had very much improved during his time in office which also led to a decrease of fiscal equalization revenue. In the case of ID 70, there was no competition as there were only 7 candidates for seven seats. This meant there was a

clear lack of choice, and so the only choice was to vote blank for one or several seats, which apparently some of the voters did, as the finance minister was ranked in the last place. However, it was mostly the statement of financial performance which was negative, and this was only due to an increased depreciation of administrative assets compared to other years. Finally, in the case of finance minister ID 81, the financing statement was negative but the statement of financial performance was approximatively balanced.[59] Voters during this election may have been aware that the situation was mainly a structural carryover from the past, enhanced by bad economic conditions, and heading toward recovery as the finance minister, i.e., the government, had elaborated different austerity measures. In this particular case, the finance minister always had good media coverage and was generally believed to be competent due to earlier political mandates.

6.3 Key Takeaways from the Qualitative Analysis

I conducted interviews with sixteen former and incumbent finance ministers from different cantons. The interviews covered such topics as: the choice of the finance ministry, objectives, successes, and failures, perceived liberty and strength as finance minister in the government and parliament, the role of (re)election during the time in office, factors influencing (re)elections, the decision to retire, contact with citizens as well as their perception and preferences regarding fiscal policy. I have kept in mind that the interviewed politicians could choose what to tell and how, meaning that there was no guarantee as to the reliability and validity of the answers. As Berry (2002: 680) reports, "it is not the obligation of a subject to be objective or tell us the truth". At the same time, the goal of the interviews was not the truth but to learn more about the finance minister's motivation, perceptions, and experiences, and in doing so both contextualise and enrich my discussion of the theoretical assumptions.

One key takeaway from these conversations was that balanced financial accounts as well as debt reduction seem, indeed, to be a cantonal finance minister's main objectives. However, some cases revealed that concerns for fiscal attractiveness sometimes received more weight, even at the cost of a balanced budget in the short-/medium-term. Interestingly, the finance ministers tended to assume that citizens cared about sound public finance and that they had a general knowledge as well as some impression of their canton's financial situation. Longchamp (2008, 2010, 2013) has shown through opinion surveys on fiscal policy issues that only about 15% of respondents can approximately indicate the Confederation's debt level while 35%

[59] However, the balance of the statement of financial performance was mainly achieved by equity capital and not by current revenues in order to comply with the fiscal rule.

underestimate it, 21% overestimate it, and 29% claim not to know and so do not dare answer. Even within this context, finance ministers believed that citizens would know whether a financial situation was improving or worsening. Another key point was that finance ministers with particularly good financial results seemed to think that fiscal performance was more important for explaining their electoral scores than the other finance ministers. Thus, with respect to the discussion in Chapters 2 and 3, their assumptions concerning the fiscal preferences of their constituencies might have had an influence on their objectives and performance while in office.

One of the factors that was often cited as an important explanation of re-election results was media coverage, which will actually be missing in the successive empirical analysis of this thesis. Cantonal issues are mostly reported and discussed in regional newspapers and it would be quite time- and labour-intensive to construct an objective and valid measure of media coverage for the different finance ministers for each election. One possibility would have been to select only a few big national/regional newspapers but it is highly likely that only the politicians and finance ministers from larger cantons would regularly appear in these newspapers. Additionally, I would have had to differentiate between positive and negative media coverage, even if some of the interviewed finance ministers had the impression that "any press is good press".

Lastly, there was a general consensus among the interviewed politicians that finance ministers are more trusted and so have generally better electoral scores than spending ministers.[60] Also, the finance ministers mostly did not have clearly stated re-election objectives, did not campaign much, or take any specific political measures to improve their re-election chances. They were all convinced that their work and track record should speak for them and mainly wanted to stay in office to pursue the work and projects they had initiated.

Finally, Chapter 6 also included a discussion of several hypotheses-confirming as well as hypotheses-contradicting cases with respect to the control variables defined in this study, as well as other contextual circumstances. This highlights the need for the multivariate quantitative analysis which follows.

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[60]Some quotes:
« Depuis 1985 on a seulement été deux ministres de la santé à avoir été réélus. Cependant les ministres des finances ne sont rarement pas réélus. C'est aussi ce que les autres directeurs cantonaux des finances m'ont dit lors d'une réunion de la Conférence des directrices et directeurs cantonaux des finances pour me donner du courage. Je pense que c'est cette double casquette qui m'a aidé. »
« Im 2008 wurde ich schon als Sicherheitsdirektor als Bester wiedergewählt, die Marge war damals aber ziemlich klein. Im 2012 habe ich dann zusätzlich noch vom Bonus als Finanzdirektor profitiert.»
«Die Finanzdirektoren sind meist sehr gut wiedergewählt. Ich glaube die Aufgabe ist dafür prädestiniert.»

7 Quantitative Analysis

This chapter first introduces methodological aspects in Section 7.1 and then presents the main estimation of fiscal performance on the electoral score of incumbents, differentiating between finance and spending ministers, in Section 7.2. I applied selection corrections and performed robustness-checks in order to assess the reliability of the results. Sections 7.3 and 7.4 investigate the heterogeneous effects regarding fiscal preferences as well as political and institutional factors. The following Section 7.5 discusses endogeneity issues and the strategic behaviour of finance ministers. Finally, Section 7.6 concludes the quantitative analysis chapter.

7.1 Methodology

Before I go over the results, I will first discuss the estimation strategy and some methodological issues related to the dataset. I estimated the econometric models using pooled time-series cross-section data. However, the dataset has a rather unusual structure. It contains cantonal executive elections held during the period of 1980–2018 across 24 cantons.[61] In every year of this time period at least one cantonal election took place and the highest number of elections held in a single year was six. Additionally, the number of incumbents running for re-election varies from 1 to 7 across elections. Furthermore, as discussed in Section 5.1, the number of times an incumbent runs for re-election also varies between one and six. This means that the data set contains non-continuous time series that are unbalanced and overlap infrequently. However, the structure of the data enables me to compare the effect of fiscal performance on incumbent re-election results for two types of ministers i) spending vs. finance minister in two types of financial situations ii) surplus vs. deficit.

Because the error terms may be correlated and have a non-constant variance due to the data structure, there may be groupwise heteroscedasticity at the cantonal-, party-, election- and candidate-level to deal with. Cameron and Miller (2015) suggest clustering at the highest level when there are clusters nested within clusters. While clusters related to candidates and cantons are nested, this is not the case for candidates and elections nor parties and cantons.[62] Therefore I applied a methodology for multi-way non-nested clustering. However, with only 24 unbalanced clusters at the cantonal level, test-statistic could over-reject and the confidence

[61] There are no election results for Appenzell Innerrhoden and no competitive election and re-election settings for Appenzell Ausserrhoden in the sample. However, for robustness checks the non-competitive elections / re-elections of Appenzell Ausserrhoden will be considered.

[62] Indeed, while most candidates belong to one party and always run in the same canton, parties are represented in most elections as well as cantons by various candidates. Furthermore, candidates run in multiple elections competing against different competitors.

intervals could get too narrow (Cameron and Miller 2015: 3). The number of parties is also too low for clustering. The standard errors will therefore be clustered at both the election and the individual level as the observations of different candidates within an election and of a candidate over different elections may not be independent. These might also be the two dimensions on which observations are the most likely to be correlated, or in other words uniformly affected by an unobserved phenomenon.

As the dataset consists of incongruent time-series meaning that the moment, frequency, and time between re-elections differs from canton to canton, contemporaneous correlation (correlation among error terms for different cantons) and specific year effects should not be too much of a concern. Additionally, the analysis reduces possible serial correlation issues because it is based on changes rather than level values. However, one should be concerned about the problem of cantonal fixed-effects. Government election (constellations) differ considerably between cantons, as discussed in Chapter 4.2, and it is highly likely that the political culture and preferences significantly affect citizen voting behaviour and tendency to vote for incumbents. I therefore did introduce cantonal fixed effects into the model. Also, there may be some party-specific effects besides party strength which could affect incumbents of the same parties within and across elections and cantons.

$$\Delta\, \boldsymbol{incumbent\ vote\ share}_{ipct} =$$

$$\boldsymbol{\alpha} + \boldsymbol{\beta finance\ ministry}_{ipct} + \boldsymbol{\lambda performance}_{ct} + \boldsymbol{\mu}(\boldsymbol{fm} * \boldsymbol{perf})_{ipct} + \boldsymbol{\delta vote\ share}_{ipct-1} + \boldsymbol{\varphi X}_{ipct} + \boldsymbol{\gamma W}_{ct} + \boldsymbol{\theta}_{c} + \boldsymbol{\tau}_{p} + \boldsymbol{\varepsilon}_{ipct}$$

The dependent variable measures the change of the obtained vote percentage of an incumbent minister i, member of party p, from canton c, running in the re-election (year) t compared to his previous election. Parameter β refers to the dummy variable regarding the ministry of an incumbent taking the value 1 for the finance minister and 0 for the spending ministers. The parameter λ indicates whether the financial situation of a canton before re-election, i.e., fiscal performance, matters for spending ministers. If citizens, due to the principles of consensus and collegiality that characterise the Swiss governmental systems, not only attribute fiscal performance to the finance minister but to the whole government, the coefficient will take on a positive value. On the other hand is the possibility of a negative coefficient indicating that citizens might see surpluses as a sign of weakness of the spending ministers compared to

finance ministers[63] or a zero effect if citizens, when casting their vote for spending ministers, do not take the fiscal balance into account but only specific spending categories. The interaction coefficient μ represents the effect of fiscal performance on a finance minister's vote share; this is the primary quantity of interest. According to my hypothesis 1 in Chapter 3, I expect a positive sign. X_{ipct} is a matrix of important individual control variables and φ is the associated vector of parameters. W_{ct} are relevant election control variables which vary over time and γ is the associated vector of parameters. θ_c are unobserved time-invariant cantonal-effects. τ_p are party fixed effects. A new canton and party identifier was created for every 10 years to allow for changes in the political culture, preferences, and for changes in normal partisanship over time (Fowler and Hall 2017). This means that the canton and party fixed effects are actually canton-period / party-period fixed effects, where 2-3 election cycles are nested into 10 year periods.[64] This takes the fact into account that political power alternates. The share of seats in the cantonal governments held by the CVP decreased notably over the last few decades in some cantons, while the SVP and the GPS gained popularity (Burret and Feld 2018). The subscripts i=1,…,I, p=0,…,P, c=1,…,24 and t=1,..., T indicate the incumbent, party, canton and election, respectively. ε_{ipct} is the error term. Singleton groups (groups with only one observation) are common in regressions with multiple levels of fixed effects. Yet maintaining them where fixed effects are nested within clusters can overstate statistical significance and lead to an incorrect inference (Correia 2015). Thus, singletons will be dropped iteratively in the estimation, potentially resulting in a lower number of observations than initially presented in chapter 5.

Including the previous election score δ is theoretically justified since, as presented and discussed in Figure 5 of Chapter 5, it seems easier / more difficult to gain votes depending on the level of the score in the earlier election. However, it poses some methodological difficulties. Indeed, the previous election score is probably correlated with a politician's individual characteristics as well as with cantonal fixed effects. This may render the estimators inconsistent (Angrist & Pischke 2009). Therefore, I also performed estimations without fixed effects to check the robustness of the results. Additionally, I estimated the effect of fiscal performance on the absolute obtained vote share instead of the difference in obtained vote share

[63] If the public budget is seen as a common pool which spending ministers try to exploit by targeting spending to their constituency whereas the finance minister tries to prevent spending ministers from over-using the public budget, a surplus might indicate a higher strategic strength/ competence of a finance minister compared to spending ministers (see discussion Chapter 3).

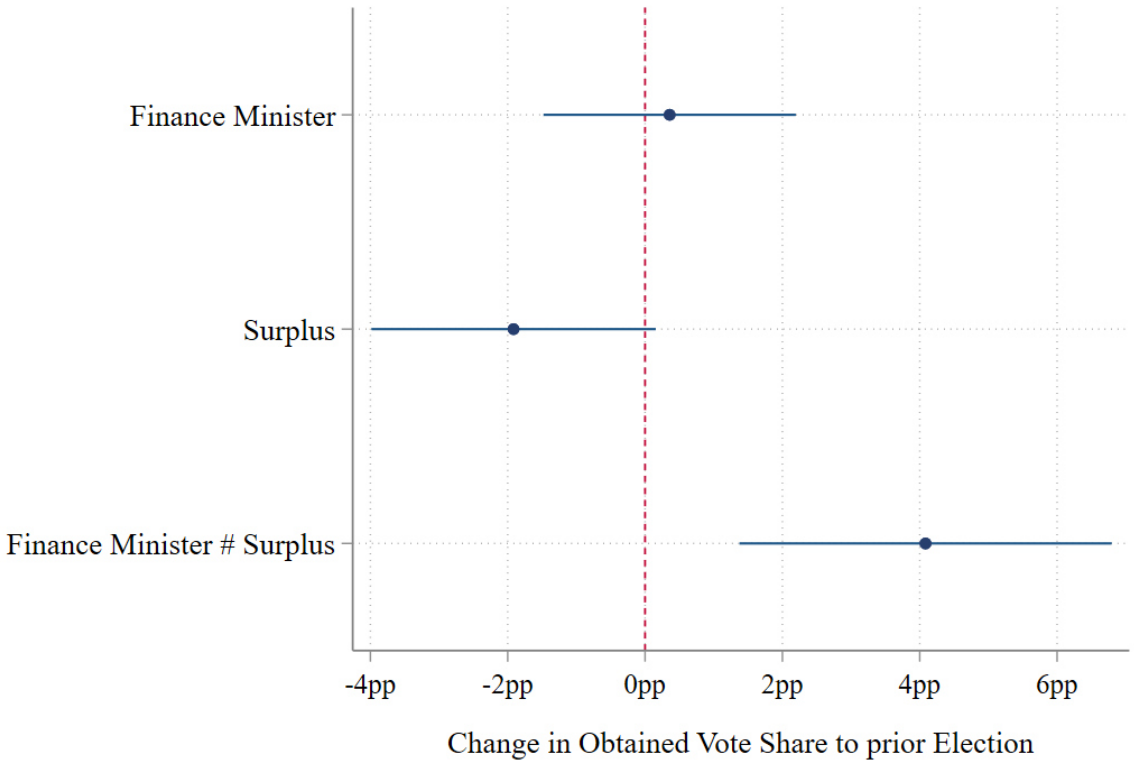
[64] Alternatively, one possibility would be to include cantonal-election fixed effects. Yet due to collinearity they would subsume the main effect of fiscal performance which does not vary between incumbents running in the same re-election. Yet, it is still possible to estimate the interaction effect (Giesselmann und Windzio 2012: 44). Hence, for robustness checks the model will be re-estimated once with election fixed effects.

without including the prior election score as a control variable. It is possible, of course, that the difference in obtained vote share between two elections might be caused by unusual circumstances in prior elections (Fowler and Hall 2017: 11). Nonetheless, this is unlikely to be a systematic problem because I analysed various elections happening in different years and cantons.

7.2 Main Effect of Fiscal Performance

Table 4 presents the main results regarding hypothesis 1. I base my discussion and the figures on estimations with the full set of control variables. For comparison, Table 4 also presents estimations without control variables. The first model presents the effect of a surplus/deficit in the year before re-election on the change in obtained vote percentage compared to the previous election for finance and spending ministers. Figure 8 illustrates the effect.

*Figure 8. Coefficient Plot of Finance Minister*Fiscal Performance*



Notes: *The independent variables (y-axis) are both dichotomous: the variable finance minister takes the value 1 for incumbents in charge of the finance ministry and 0 for incumbents in charge of a spending ministry. The variable surplus takes the value 1 for a financing statement in equilibrium or with a surplus and the value 0 for a deficit in the financing statement in the year before re-election. The graph displays the estimated effect of the independent variables on the change in obtained vote percentage between the re-election and the prior election of incumbents with 95% confidence intervals on the x-axis.*
Source*: own illustration*

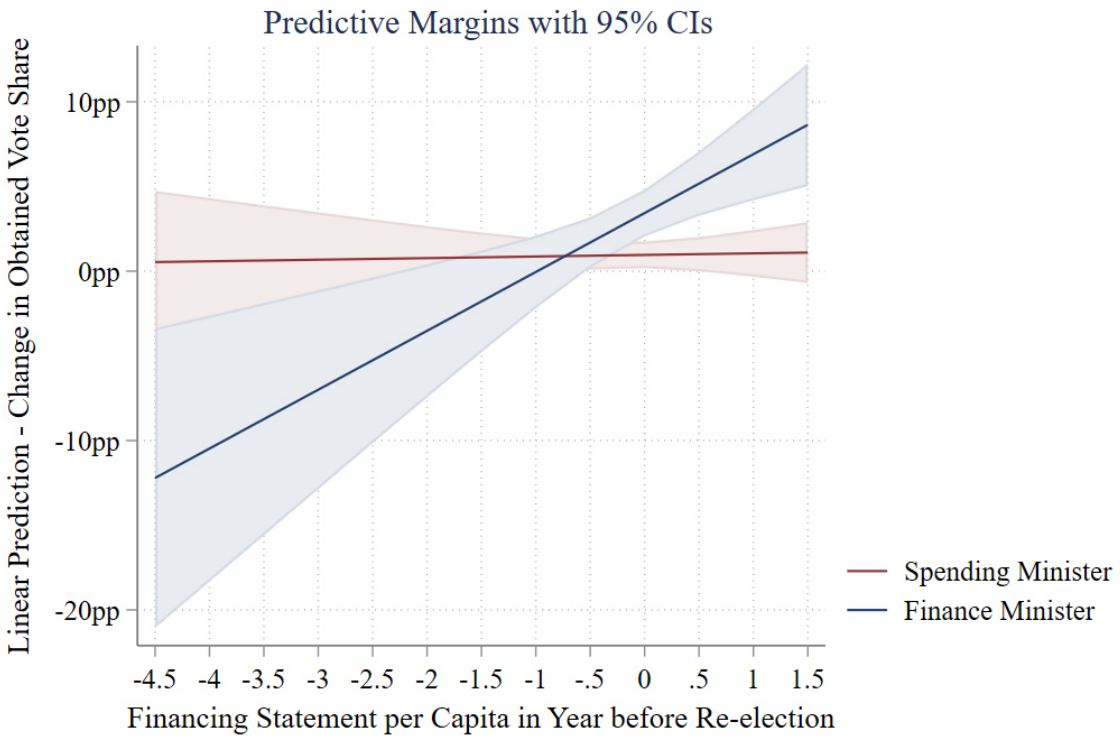
The individual effects of finance minister and surplus are not statistically significant in the estimation with the full set of control variables whereas the interaction coefficient is positive and statistically significant at the 1%-level. Once the interaction term is added, the coefficients of the constitutive terms must be interpreted as if the other constitutive term is zero (Brambor et al. 2006). Hence, the base effect of finance minister measures the difference in the increase of obtained vote share between spending and finance ministers when there is a deficit. The base effect of surplus measures the difference in the obtained vote share between deficit and surplus for spending ministers. Finally, the interaction effect, the coefficient of interest, measures the effect of a surplus for finance ministers. Finance ministers running a balanced financing statement or a surplus enjoy a statistically significant 4 percentage point increase in obtained vote share, with the confidence interval going from 1.3 to 6.6 percentage points. On the contrary, a spending minister's result seems to be negatively affected by a surplus. However, the effect is only statistically significant for spending ministers in the estimation without controls. Additionally, there seems to be no systematic difference in the change of obtained vote share between spending and finance ministers in times of deficits.

In a second step, the independent variable of interest measures the financing statement result per capita in the year before re-election. In column 6 of Table 4 the interaction effect is again positive and statistically significant at the 1%-level, meaning that a one unit increase of the financing statement, i.e., CHF 1000 per cantonal citizen, correlates with a 3.4 percentage point gain for the finance minister compared to her prior election score. The confidence interval ranges from a 1.4 to 5.4 percentage point change in the obtained vote share of a finance minister per one unit increase of the financing statement. The base effect of finance minister, measuring the difference between finance and spending minister when the financing statement equals 0, is also statistically significant at the 1%-level. This means that being in charge of the finance ministry increases the change in electoral score by 2.5 percentage point compared to spending ministers when the financing statement is in equilibrium.[65] As theoretically assumed the base effect of the financing statement is not statistically significant, meaning that spending ministers seem not to be electorally affected by changes in the financing statement. In such estimations

[65] A big outlier is excluded, the 2008 re-election in the canton of Basel-Stadt, otherwise the effect in the full sample would only be significant at the 5%-level and amount to 2.4 percentage points for the interaction effect yet still at 1%-level for the base effect of finance minister. Indeed, there was a big deficit in the 2007 financing statement because of an extraordinary pension fund recapitalization which nonetheless did not seem to harm the electoral fortune of the finance minister as the financing statement results in the other years as well as the statement of fiscal performance otherwise always resulted in a surplus.

the graphical inspection of the margins, displayed in Figure 9, provides additional insights.[66] Indeed, the slope is pretty steep for finance ministers and flat for spending ministers. Neither a good nor a bad cantonal financial situation seems to significantly influence the electoral fortune of spending ministers. In contrast finance ministers seem to lose votes when incurring huge deficits and win votes by generating surpluses. Yet the difference in obtained vote percentage between spending and finance ministers is only statistically significant when the budget is in equilibrium or surpluses are generated. This suggests a politician-specific monitoring and attribution of responsibility by the citizens.

Figure 9. Margins Plot of Fiscal Performance for Finance and Spending Ministers



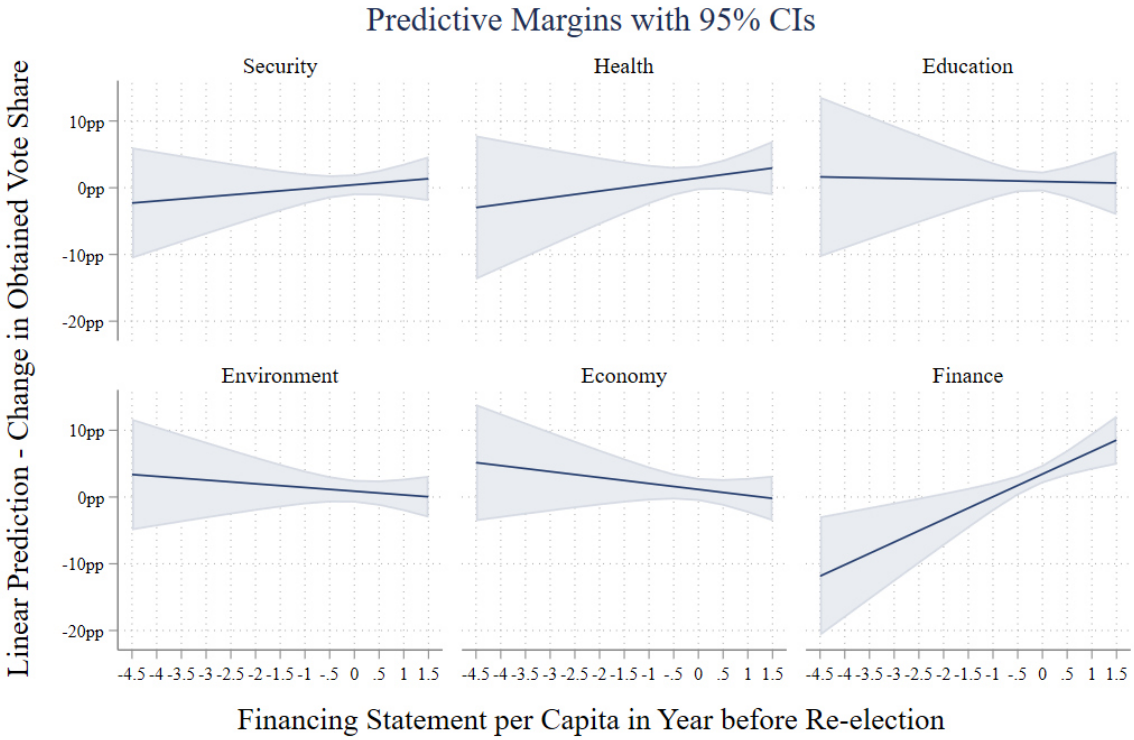
Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The graph displays the predictive margins of the different values of the financing statement result on the change in obtained vote percentage between the re-election and the prior election of finance and spending ministers separately with 95% confidence intervals (y-axis).*
Source: *own illustration*

Figure 10 also shows the effect by ministry. Depending on the canton and/or the year, governments consist of 5, 7 or 9 ministries which are neither named nor organized the same, and so I have roughly regrouped the incumbents into 6 different ministries: security, health,

[66] Sample values for fiscal performance in the year before re-election go from about -4.5 to 1.5. This equals CHF -4500 per capita deficits to CHF 1500 per capita surpluses in the financing statement. However, when taking into account all years in the period 1980-2017 and not only pre-electoral years, the financing statement result is distributed between CHF -4500 per capita and CHF 3500 per capita.

education, environment & infrastructure, economy and finance. This classification is not perfect but it still offers a more detailed insight into the effect of fiscal performance on the re-election score of different types of incumbents. As shown in Figure 10, fiscal performance seems not to positively or negatively affect any type of spending minister but only the finance ministers. The predictive margins for the change in obtained vote share compared to the prior election fluctuate around 0 percentage points independent of the level of the financing statement for any kind of spending ministry.

Figure 10. Margins Plot of Fiscal Performance by Ministry



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The graph displays the predictive margins of the different values of the financing statement result on the change in obtained vote percentage between the re-election and the prior election of the different types of ministers separately with 95% confidence intervals (y-axis).*
Source: *own illustration*

Looking at the control variables in Table 4, a higher electoral score in the previous election, the number of re-elections, a higher number of candidates compared to the prior election, and a higher participation rate tend to make it more difficult to gain votes from one election to another. On the other hand, a higher party vote share correlates positively with the change in obtained

vote percentage. Yet the estimation is subject to a multicollinearity problem[67] as the earlier election scores correlate with individual characteristics. This might explain why there are only few statistically significant individual variables besides the prior election score. The effect of these individual characteristics might already be captured by the prior election score. However, it is clear that the effect of the variables of interest, namely fiscal performance and finance minister, do not change much between the estimation with and without the full set of control variables. The robustness section includes an estimation of alternative specifications without including the previous election score.

Columns 3, 4, 7 and 8 of Table 4 consider only finance ministers running for re-election. This reduces the sample to around 115 re-election cases and this subsample also confirms the expected effect of fiscal performance. When only considering the finance minister, an increase of 1000 Swiss francs per capita in the financing statement engenders an increase of more than 5 percentage points in obtained vote share compared to the prior election. I did also estimate the effect of fiscal performance on the subsample of spending ministers only as well as on all the incumbents but without the interaction effect differentiating between spending and finance ministers. The results are presented in Table 14 in the Appendix. If I had failed to differentiate between finance and spending ministers and instead run solely the fiscal performance variable on the full sample of incumbents, I may have falsely concluded that fiscal performance does not matter for the re-election of cantonal government members. This is because the fiscal performance variable is not statistically significant for the full sample of incumbents when no interaction effect regarding the finance ministry is considered as well as not statistically significant in the subsample that only includes spending ministers.

The next sections consider the following aspects: selection effects, historical and geographical reference points, robustness checks, various functional forms and heterogeneous effects, in order for me to provide a more in-depth analysis of the effect of fiscal performance on the re-election results of finance ministers.

[67] The VIF-Value for prior election score is 10.57 when all controls are included, the average VIF is 2.66. However, when no individual and electoral controls are included, the average VIF is 1.29 and no variable has a VIF of more than 1.25.

Table 4. Main Estimation

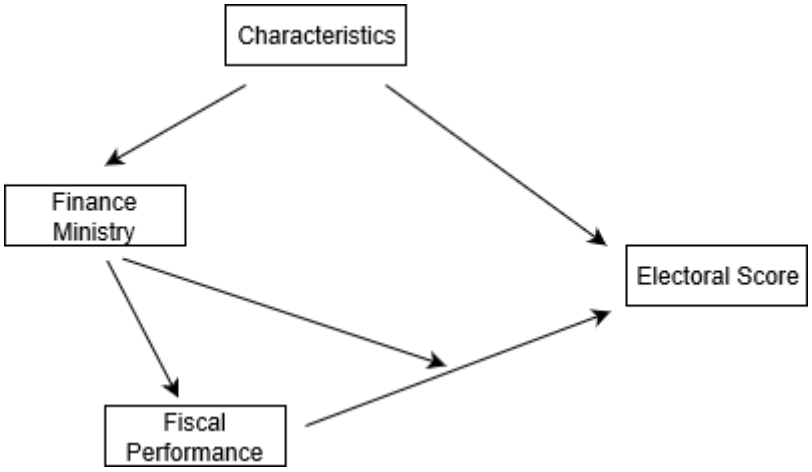
Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Δ in Obtained Vote % compared to prior Election	All Incumbents	All Incumbents	Finance Min.	Finance Min.	All Incumbents	All Incumbents	Finance Min.	Finance Min.
	Fiscal Performance = dummy variable (1=surplus, 0=deficit)				Fiscal Performance= continuous variable (financing statement p. ca.)			
Finance Minister	0.009	0.005			0.027***	0.025***		
	(0.012)	(0.009)			(0.008)	(0.007)		
Fiscal Performance	-0.027***	-0.019*	**0.034**	**0.062****	-0.000	0.001	**0.039****	**0.053****
	(0.011)	(0.010)	**(0.026)**	**(0.026)**	(0.006)	(0.005)	**(0.018)**	**(0.021)**
FM * Fiscal Performance	**0.038****	**0.040*****			**0.029****	**0.034*****		
	(0.016)	**(0.013)**			**(0.011)**	**(0.010)**		
Vote Share in Prior Election	-0.762***	-0.722***	-0.585***	-0.584***	-0.751***	-0.714***	-0.576***	-0.555***
	(0.059)	(0.099)	(0.103)	(0.124)	(0.058)	(0.098)	(0.103)	(0.124)
Number of Re-election		-0.013***		-0.014		-0.013***		-0.019
		(0.005)		(0.012)		(0.005)		(0.013)
Law Degree		0.001		-0.019		0.001		-0.025
		(0.007)		(0.021)		(0.007)		(0.023)
Economics Degree		-0.015		0.040		-0.017*		0.022
		(0.010)		(0.028)		(0.010)		(0.028)
Female		-0.008		-0.041		-0.009		-0.050
		(0.009)		(0.035)		(0.009)		(0.032)
National Experience		0.013		-0.083*		0.012		-0.092*
		(0.011)		(0.047)		(0.011)		(0.048)
Party Strength		0.229***		0.360		0.231***		0.340
		(0.063)		(0.294)		(0.063)		(0.284)
Δ Candidates		-0.005***		-0.004*		-0.005***		-0.004**
		(0.001)		(0.002)		(0.001)		(0.002)
Δ Participation		-0.261***		-0.398**		-0.253***		-0.304**
		(0.094)		(0.136)		(0.092)		(0.139)
Δ Free Seats		0.002		0.004		0.002		0.004
		(0.002)		(0.004)		(0.002)		(0.004)
Constant	0.410***	0.355***	0.316***	0.247***	0.391***	0.341***	0.327***	0.288***
	(0.032)	(0.040)	(0.061)	(0.084)	(0.030)	(0.040)	(0.058)	(0.079)
Canton Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Observations	693	674	117	116	692	673	116	115
R^2	0.572	0.625	0.552	0.655	0.568	0.624	0.550	0.655

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*
The dependent variable is the change in obtained vote percentage between an incumbent's re-election and prior election. Fiscal performance is based on the financing statement: either measured with a dichotomous variable (Model 1-4) or a continuous variable (Model 5-8). Canton and party-FE are actually canton-period and party-period FE for the full sample (all incumbents). For the sample only considering finance ministers, the canton FE are not differentiated by decade as this would lead to too many singleton observations. Indeed, there are several cantons with only one re-election case of a FM per decade.

7.2.1 Selection Bias

Even if the allocation of ministries on the cantonal level offers a quasi-experimental setting according to Chatagny (2015), there might still be a selection bias, as certain personal characteristics influencing a politician's preference for the finance ministry might on the one hand also affect her fiscal policy choices while in office and on the other hand her electoral score.

Figure 11. Selection Bias



Source: *own illustration*

There may indeed be a misbalance of some personal characteristics between finance ministers and spending ministers. One example would be the self-selection of a specific type of incumbent into the finance ministry with particularly strong views and preferences regarding fiscal policy. This might especially be the case in cantons having experienced financial distress in the past (Freier and Thomasius 2016: 886).[68] Jochimsen and Thomasius (2014) as well as Hayo and Neumeier (2014) present empirical evidence for the influence of a finance minister's personal characteristics, like experience and socio-economic background, on fiscal performance. Freier and Thomasius (2016) additionally show that experience and education are the main drivers of electoral success but that only experience and not education affects fiscal performance. Also, the fiscal preferences of citizens may correlate with preferences concerning ideology as well as a politician's type and bias the results if certain characteristics differ systematically between finance and spending ministers. And so I estimated the propensity score for an incumbent taking the lead over the finance ministry in her first term using personal and political characteristics like a university degree in economics or law, being a member of a

[68] In the interviews some cantonal finance ministers cited the canton's financial distress and the aim for fiscal consolidation as their main motivation for taking over the finance ministry.

centrist party like the Christian democratic party or the Liberals, the party strength as well as the political experience.[69] Indeed, the choice of ministry in the subsequent terms is heavily influenced by the initial choice when entering office. The finance ministry could be rather intimidating for people without proper knowledge in public finance and accounting. Which means that it makes sense for politicians with knowledge in economics or financial law and more political experience to select this ministry. The finance ministry is often seen as an important key ministry, thus strong parties are expected to be particularly eager to have this ministry in their hands. It can also be easier for a centrist or liberal politician to lead the finance ministry and elaborate politically well-balanced budget proposals. Moreover, those parties are also assumed to have an advantage in majority elections. Additionally, in Switzerland right-wing parties are also believed to be more credible when it comes to fiscal policy issues according to conducted opinion surveys (Longchamp 2008, 2010, 2013). Despite empirically mixed findings, the hypotheses that left-wing governments generate higher deficits is still dominant in the literature and the general public. However, Müller et al. (2015) show empirically that a shift to the left is associated with a fall in government debt, but also with an increase in taxation, and an increase in government expenditures. On the other hand, they also show that left-leaning governments engage in more debt accumulation during recessions. Chatagny (2015: 186) argues that left-wing politicians and finance ministers may *a priori* be seen as less competent in balancing the budget and thus feel compelled to avoid deficits even more.

Table 5. Standarized Differences

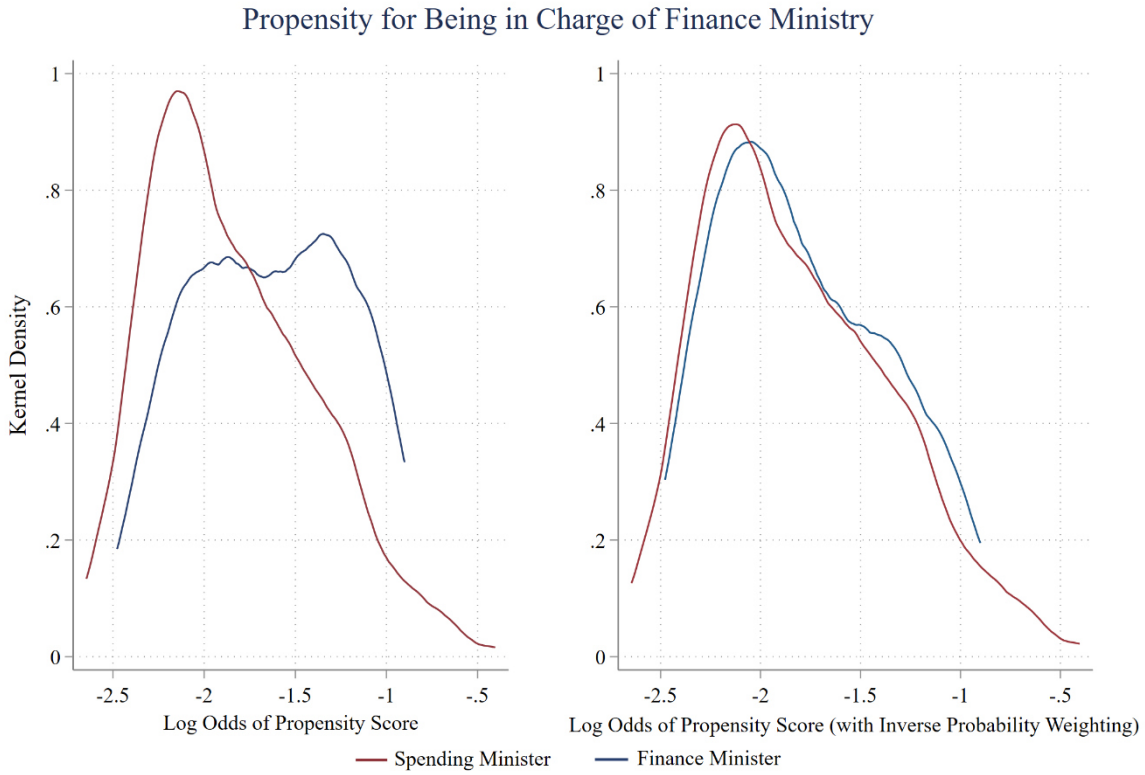
Variable	**Finance Minister$_{mean}$**	**Spending Minister$_{mean}$**	**Std. Difference**
Liberals	0.313	0.324	-0.027
Christian Democratic P.	0.359	0.254	0.207*
Law	0.375	0.313	0.160
Economics	0.188	0.109	0.221*
Party Strength	0.271	0.239	0.285**
Political Experience	2.419	2.500	-0.092

Notes: ** $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*
The following variables are dichotomous: Liberals, Christian Democratic P., Law, and Economics. The variable party strength is measured in decimals between 0 and 1 and the variable political experience is an index between 0 and 5.

[69] These factors were selected based on the literature, the responses of the interviewed finance ministers regarding their choice of the finance ministry as well as to descriptive statistics on finance ministers for the period 1980-2018.

Table 5 presents the standardized differences between finance ministers and spending ministers with respect to those characteristics. Finance and spending ministers differ by 0.285 standard deviation statistically significantly from each other with respect to their party strength. Their differences regarding the other characteristics are smaller and not statistically significant. I used these variables to estimate the probability of being in charge of the finance ministry. The left graph of Figure 12 shows the log of the odds of the propensity score for being in charge of a finance ministry in the first term both for politicians who are finance ministers and for spending ministers. Based on the chosen criteria, spending ministers tend to have higher densities for low propensity scores compared to finance ministers. Yet finance ministers as well as spending ministers do not have high densities in the high probability region of being a finance minister.

Figure 12. Log Odds of Propensity Score for Finance Ministry



Notes: *Kernel density plot with comparison between finance and spending ministers in the propensity of being in charge of the finance ministry. The right graph shows that inverse probability weighting on the estimated propensity score balanced the covariates between finance and spending ministers.*
Source: *own illustration*

However, there is no way to check whether an important confounder is missing. It is possible that ambition might play a role, knowing that it is a key ministry and that several cantonal finance ministers have become a member of the national parliament and even national government afterwards. People without an economic or accounting background might perceive

the domain of (public) finance as something complicated and abstract whereas a politician wanting to signal a lot of competence might be attracted by the finance ministry. There is, though, no objective way to measure how a politician's ambition level besides education and political experience. One reason for the low densities in the high probability regions might also be that the allocation of ministries is often influenced by contextual factors and the government constellation.

Based on the estimated propensity score, I applied inverse probability weighting to the observations which lead to a similar distribution of the individual and political covariates for finance and spending ministers presented in the right graph of Figure 12. Note that I only took the first re-election of all incumbents into account to be sure that the results were not driven by individual effects of some incumbents running several times for office. Indeed, if an incumbent is running for re-election for the second time or more, the prior election score might already be affected by performance in the previous terms which thereby influences the change in obtained vote % in the subsequent re-election. The decision to run for re-election a second time or more might also depend on performance, the earlier win margin, or outside options and is thus also subject to a selection effect. Additionally, the baseline estimation in Table 4 shows that the number of re-elections correlates with a decrease in obtained vote percentage compared to prior election results. Thus, to have a more comparable set of finance and spending ministers and a cleaner picture of the electoral effect of fiscal performance, my model estimated first re-elections only and the observations are weighted by the inverse probability of taking over the finance ministry.

Table 6 presents the result for first re-elections either with or without weighting.[70] In the first 4 columns, the variable fiscal performance is again measured by a dummy variable taking the value 1 for surpluses and 0 for deficits. In columns 5-8 the variable fiscal performance is measured by the financing statement result per capita. Results of the estimation in Table 6 confirm the main estimated results of Table 4 before and show that the electoral effect of fiscal performance for finance ministers remains statistically significant as well, when only first re-

[70] I have not only excluded the case of Basel-City in 2008 but also the case of Geneva in 1993 from this subsample when taking into account the continuous variable of the financing statement to measure fiscal performance. Indeed the canton of Geneva incurred huge deficits in the nineties (https://www.tdg.ch/geneve/actu-genevoise/30-ans-six-magistrats-veille-recettes-fiscales/story/31434564). Olivier Vodoz entered office when the real estate bubble burst, deficits were huge and debt-servicing costs too. Yet the finance minister was still able to increase his re-electoral score by 4 percentage points. Perhaps voters did not credit him with responsibility for the financial consequences of the real estate crisis. Yet due to the lower number of observations per canton and overall when only considering first re-elections, this outlier has an even bigger influence on the estimation in this subsample and was thus dropped.

elections are taken into account. Furthermore, the estimate of the finance ministry effect as well as its interaction with fiscal performance stays statistically significant and tends to be even stronger in size and in terms of statistical significance in the estimation with inverse probability weighting. This suggests that the finance minister's electoral advantage and the performance effect may not be caused by a selection bias but rather by the office itself.[71] Except for the number of candidates, no other control variables are statistically significant in either of the estimations taking only the first re-election into account. This might be due to the lower number of observations as well as to the fact that the prior election score already captures a lot of the variance. Interestingly, when fiscal performance is measured as a dummy variable it has a statistically significant negative effect throughout on the electoral score of spending ministers in the estimation with and without control variables as well as in the weighted models.

[71] For robustness checks, the regression was additionally re-estimated with trimming at the 1th percentile. The effect resists this procedure.

Table 6. Selection Bias

Dependent Variable: **Δ in Obtained Vote % compared to prior Election**	(1) 1. Re-election	(2) 1. Re-election	(3) Selection Bias	(4) Selection Bias	(5) 1. Re-election	(6) 1. Re-election	(7) Selection Bias	(8) Selection Bias.
	Fiscal Performance = dummy variable (1=surplus, 0=deficit)				Fiscal Performance= continuous variable (financing statement p. ca.)			
Finance Minister	0.014	0.010	0.017	0.016	0.047***	0.035**	0.050***	0.042***
	(0.016)	(0.016)	(0.016)	(0.015)	(0.016)	(0.016)	(0.014)	(0.016)
Fiscal Performance	-0.053***	-0.041**	-0.054***	-0.044***	0.001	0.001	0.004	0.001
	(0.019)	(0.016)	(0.020)	(0.017)	(0.012)	(0.009)	(0.012)	(0.010)
FM * Fiscal Performance	**0.061****	**0.049****	**0.061****	**0.054****	**0.040***	**0.036****	**0.042****	**0.038*****
	(0.029)	**(0.024)**	**(0.026)**	**(0.022)**	**(0.021)**	**(0.017)**	**(0.020)**	**(0.016)**
Vote Share in Prior Election	-0.604***	-0.555***	-0.610***	-0.564***	-0.605***	-0.544***	-0.609***	-0.555***
	(0.121)	(0.124)	(0.120)	(0.123)	(0.124)	(0.126)	(0.125)	(0.126)
Law Degree		0.008		0.009		0.006		0.007
		(0.018)		(0.018)		(0.019)		(0.019)
Economics Degree		-0.025		-0.027		-0.029		-0.031
		(0.020)		(0.020)		(0.020)		(0.021)
Female		-0.021		-0.021		-0.018		-0.018
		(0.015)		(0.015)		(0.016)		(0.016)
National Experience		0.013		0.011		0.008		0.006
		(0.019)		(0.018)		(0.020)		(0.020)
Party Strength		0.123		0.115		0.125		0.121
		(0.098)		(0.098)		(0.101)		(0.102)
Δ Candidates		-0.006***		-0.006***		-0.006***		-0.006***
		(0.002)		(0.002)		(0.002)		(0.002)
Δ Participation		-0.153		-0.139		-0.165		-0.157
		(0.165)		(0.170)		(0.175)		(0.179)
Δ Free Seats		0.002		0.002		-0.000		-0.001
		(0.004)		(0.004)		(0.004)		(0.005)
Constant	0.353***	0.300***	0.355***	0.308***	0.325***	0.274***	0.327***	0.279***
	(0.052)	(0.063)	(0.052)	(0.064)	(0.053)	(0.062)	(0.053)	(0.063)
Canton Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Observations	266	260	259	260	266	258	259	258
R^2	0.643	0.681	0.639	0.679	0.625	0.670	0.622	0.666

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*
The dependent variable is the change in obtained vote percentage between an incumbent's re-election and prior election. Fiscal performance is based on the financing statement and measured with a dichotomous variable for Model 1-4 and a continuous variable for Model 5-8. Models 3, 4, 7 & 8 weight observations by the inverse probability of being in charge of the finance ministry.

7.2.2 Historical and Geographical Comparisons

In order to assess how voters weight the performance of the different years during the term, the financing statement result of the years t-1, t-2, and t-3 are included simultaneously in the estimation. If voters are perfectly rational, they should react to the performance in all three years, yet several studies have presented empirical evidence that voters tend to be myopic (Haley and Lenz 2014, Wlezien 2015). Voters may also discount the performance by reacting to the financing statement result of the different years with different weights. Column two of Table 8 presents the results. Ceteris paribus only the financing statement result of the year before re-election seems to have a statistically significant and positive effect on a finance ministers' re-election result. When holding the financing statement results in t-2 and t-3 constant, an increase of one unit in the financing statement result in the year before re-election correlates with an increase of 3.9 percentage points in obtained vote share compared to a finance minister's previous election. In contrast, holding the performance of the other respective years constant, a better financing statement result in t-2 or t-3 does not increase the obtained vote share of a finance minister. A second estimation includes a linear combination of the financing statement result in the year t-1, t-2, and t-3, corresponding to the cumulative deficits/ surpluses over the whole term. This measures the performance of a finance minister over his whole term. Fiscal consolidation, i.e., debt decrease of CHF 1000 per capita during a term, leads to a 0.9 percentage point increase in obtained vote share compared to a finance minister's prior election.[72]

Voters might also consider a historical or geographic reference point to evaluate fiscal performance. My initial articulation of this thesis states that voter support for a finance minister increases with surpluses and decreases with deficits. However, as Whitten and Powell (1993) argue, it seems reasonable to assume that voters react more when their government, i.e., finance minister outperforms (underperforms) other governments, i.e., finance ministers. Hence the same financing statement result could lead to different levels of support depending on voter reference points.[73]

To take into account temporal or cyclical effects and a possible geographical benchmarking phenomenon, I considered the financing statement variable relative to the Swiss cantonal average in the year before re-election as well as the financing statement variable relative to the

[72] The cumulative financing statement of the three years before re-election varies from roughly CHF -6500 per capita to CHF 5500 per capita for the analysed time period.
[73] For a good graphical illustration see Arel-Bundock et al. (2019: 3).

average of the cantons from the same language region. A cantonal comparative framework may help voters distinguish incumbent competence from exogenous shocks to the economy. Alternatively, to evaluate the canton-specific public finance context and a possible historical benchmarking phenomenon, I measured the financing statement result relative to previous years in the same term as well as in the prior term. By comparing the cantonal financial situation during the current finance minister's term to recent past outcomes in the canton, voters can put the incumbent's performance into the proper cantonal context (Aytac 2018). Table 7 below presents the formula for the different comparative measures.

Table 7. Comparative Measures and Reference Points

Reference Point	**Formula**[a]
Prior Years	$fiscal\ performance_{ct-1} - fiscal\ performance_{c}^{mean\ (t-2,\ t-3,\ t-4)}$
Prior Term t-1[b]	$fiscal\ performance_{ct-1} - fiscal\ performance_{ct-5}$
Prior Term cumulative	$fiscal\ performance_{c}^{sum(t-1+\ t-2,+t-3)} - fiscal\ performance_{c}^{sum(t-5\ +\ t-6+t-7)}$
Cantons	$fiscal\ performance_{ct-1} - fiscal\ performance_{t-1}^{mean\ other\ cantons}$
Language Region	$fiscal\ performance_{ct-1} - fiscal\ performance_{t-1}^{mean\ other\ cantons\ from\ same\ langugae\ region}$

Notes: [a] *For the sake of simplicity, the subscript t refers to years in these formulas above and not as in previous notations of section 7.1 to the election identifier. The subscript c refers to the canton-identifier.*

[b] *This measure is computed in two different ways. 1. Measure: Fiscal performance$_{ct-5}$ corresponds always to the financing statement result in the pre-electoral year of the prior election. 2. Measure: Fiscal performance $_{ct-5}$ corresponds only to the fiscal performance in the pre-electoral year of the prior election if the finance minister was already in office in the prior term and otherwise equals zero, meaning that in such cases the finance minister has no comparable performance and only fiscal performance in t-1 is considered. In this way, the second measure captures the difference in a finance minister's own performance between elections; if the finance minister was not in office he has no individual performance as benchmark.*

In the literature, scholars have used different models to test the benchmarking phenomenon (Arel-Bundock et al. 2019). Whitten and Powell (1993) and Chappell and Veiga (2000) used the difference between the performance measure and the reference point as a main explanatory variable (see formulas in Table 7). Yet Kayser and Perress (2012) as well as Arel-Bundock et al. (2019) argue that this kind of estimation suffers from an omitted variable bias because the composite comparative measure is usually highly correlated to the performance measure and it is not possible to differentiate between conventional performance-oriented voting and benchmarking. Instead, this type of estimation measures the total effect of performance and benchmarking on voting behaviour (Arel-Bundock et al. 2019: 4). Yet by using different reference points for the comparative measure this kind of total effect estimation can still provide valuable insights. Columns 4-9 of Table 8 present the coefficients of the different comparative measures. The sample size varies depending on the operationalization of the reference point since there is no information on financing statement results for years and terms before 1980 with which to construct historical benchmarks for early re-elections of the sample. In order to

make the estimations a little more comparable to each other, the sample for all regression is restricted to the same 581 observations including the one with the original operationalization of fiscal performance in column 1 of Table 8. In column 4, the historical reference point for the comparative measure is the mean of the financing statement results in the three years prior. In column 5, the comparative measure is the difference between the financing statement in the pre-electoral year and the financing statement in the pre-electoral year of the previous term. In column 6, the financing statement in the pre-electoral year of the previous term is only used as comparison if the finance minister was already in office in the prior term. In column 7, the comparative measure is the difference between the cumulative financing statement of the current term and the previous term. In column 8 and 9 the reference points for the comparative measures are geographical. Column 8 shows the comparison between a finance minister's performance and the average of the other cantonal finance ministers' performances in the same year and in column 9 to the average of the cantonal finance minister's performances from the same language region in the same year. Looking at the coefficients, the comparative measure with respect to the geographical reference points seems to be more relevant for evaluating a finance minister compared to those with respect to historical reference points. An increase of CHF 1000 per capita in the geographical comparative measures correlates with an increase of roughly 4 percentage points in the obtained vote share compared to the prior election whereas it is about 0.6 to 1.9 percentage points for the various historical comparative measures. Yet this does not necessarily mean that the coefficients are significantly different from each other.[74] Moreover, as mentioned above, the geographical comparative measures are very highly correlated with the actual performance measure. The correlation between the actual performance variable and the geographic comparative measures is about 0.9 whereas the correlation goes from 0.65 to 0.75 for the various historical comparative measures and the actual performance measure. As argued by Arel-Bundock et al. (2019), it is not possible to distinguish between performance-oriented voting and benchmarking with such a specification.

To contrast and compare performance-oriented voting and benchmarking, Kayser and Perress (2012) recommend including the benchmark as a control in the regression in addition to the deviation of the benchmark. Accordingly, benchmarking only exists when voters react more to

[74] Clogg et al. (1995) and Paternoster et al. (1998) present statistical methods for comparing regression coefficients across models.

$$z = \frac{\beta_1 - \beta_2}{\sqrt{SE\beta_1{}^2 + SE\beta_2{}^2}}$$

the deviation of the benchmark (comparative measure) than to the reference point itself. In this type of estimation model, the reference point variable itself should have no effect if all voters benchmark fully (Kayser & Peress 2012: 665). However, Arel-Bundock et al. (2019: 5) criticise this approach and propose a more direct test of benchmarking by simply including the original performance variable as well as the reference point variable in the model without any comparative measure. In the case of benchmarking, the reference point variable should have a negative marginal effect (holding the performance variable constant) on votes for an incumbent in such a specification while the marginal effect of the performance variable (holding the reference point constant) should be positive. To test this benchmarking hypothesis, I used the same reference points as in Table 8 column 4 to 9 but considered the performance variable as well as the reference point variable instead of the comparative measure in the estimation. The results are presented in the Appendix in Table 15. However, while the reference points have the expected negative marginal effect none is statistically significant, suggesting no clear evidence for benchmarking neither historically nor geographically. Of course, with respect to geographical benchmarking the reference category could have been further sharpened by only considering cantons from the same major region or neighbour cantons.

Table 8. Estimation with Historical and Geographical Comparative Measures

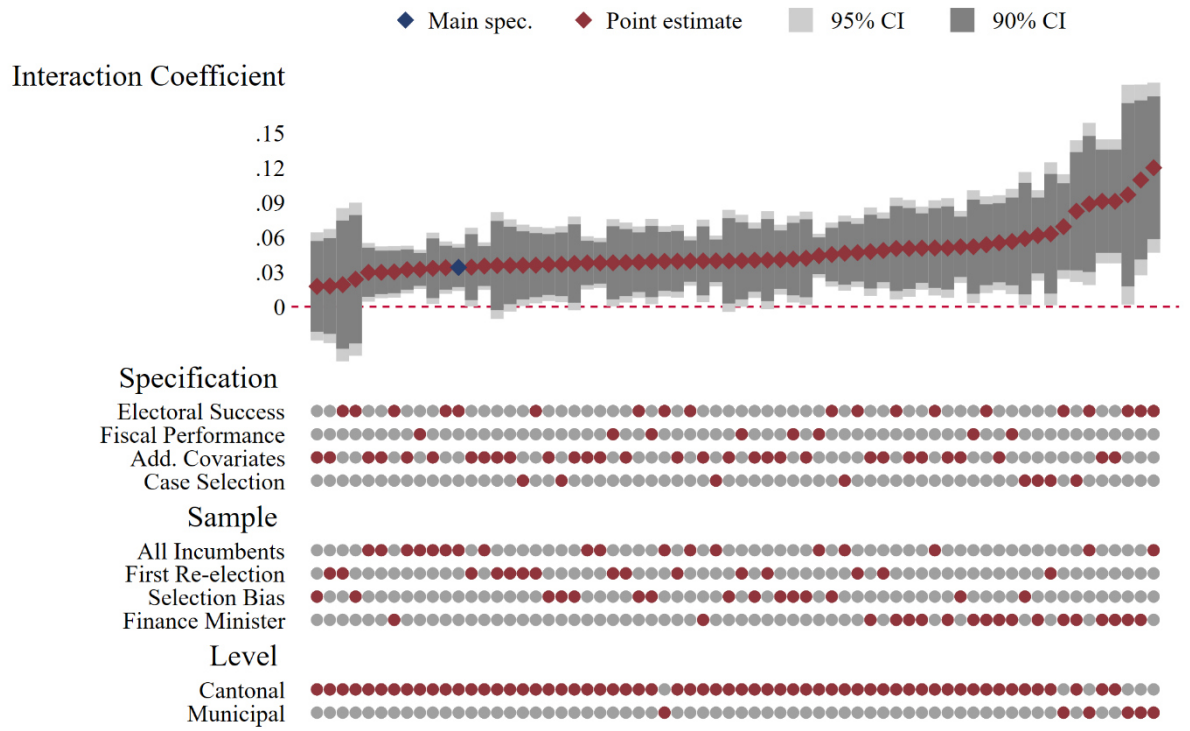
Dependent Variable: **Δ in Obtained Vote % compared to prior Election**	(1) t-1	(2) +t-2 & t-3	(3) Whole Term	(4) Prior Years	(5 & 6) Prior Term t-1		(7) Prior Term cum.	(8) Cantons	(9) Lang. Region.
	Original	Discounting		Historical Comparative Measure				Geographical Comparative Measure	
Finance Minister	0.022***	0.022***	0.023***	0.020***	0.019***	0.021***	0.021***	0.021***	0.020***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
Fiscal Performance t-1	0.001	-0.001	0.002	-0.005	0.000	-0.003	0.000	-0.000	0.001
	(0.005)	(0.006)	(0.003)	(0.005)	(0.003)	(0.004)	(0.002)	(0.006)	(0.006)
FM * Fiscal Performance t-1	**0.035*** **	**0.039*** **	**0.009*** **	**0.019***	**0.015****	**0.019****	**0.006***	**0.039*** **	**0.041*** **
	(0.011)	**(0.012)**	**(0.004)**	**(0.010)**	**(0.007)**	**(0.008)**	**(0.003)**	**(0.013)**	**(0.013)**
Fiscal Performance t-2		-0.001							
		(0.006)							
FM * Fiscal Performance t-2		-0.004							
		(0.005)							
Fiscal Performance t-3		0.013							
		(0.010)							
FM * Fiscal Performance t-3		-0.001							
		(0.011)							
Constant	0.307***	0.303***	0.305***	0.306***	0.305***	0.306***	0.304***	0.306***	0.305***
	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)	(0.031)	(0.030)	(0.030)
Canton Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓	✓
Control Variables	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	581	581	581	581	581	581	581	581	581
R^2	0.649	0.650	0.647	0.645	0.646	0.646	0.646	0.648	0.649

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.*
The dependent variable is the change in obtained vote percentage between an incumbent's re-election and prior election. Fiscal performance is based on the financing statement, measured with a continuous variable. Table 7 explains how the different comparative measures of fiscal performance from Column 4 to 9 are computed. The sample is restricted to 581 in order to keep the same observations in the different estimations.

7.2.3 Robustness

To evaluate the robustness of my results, I performed a large number of control exercises. Indeed, the main estimated model was based on several data analytic decisions. And so here I present possible alternatives to those decisions by successively varying the operationalization of the dependent variable as well as the fiscal performance variable and the functional form. I also include additional control variables and expand or restrict the cases selection. Finally, I conducted some placebo tests. Figure 13 represents a specification curve of most robustness checks. It displays the point estimate for the coefficient of interest as well as the confidence intervals for the various estimations. The coefficient is predominantly statistically significant and more or less constant in size. Only in a few estimations, on the subsample which only considers the incumbents' first re-election, the interaction coefficient is not robust and not statistically different from zero. The following pages describe the various estimations while the Appendix presents the corresponding regression tables 17 to 32 as well as an overview of the original and alternative specifications in Table 16.

Figure 13. Robustness Checks



Notes: *The point estimates and 95% CIs are displayed for the coefficient of the interaction effect finance ministry*fiscal performance when the sample consists of all incumbents (spending and finance ministers) or for the coefficient of fiscal performance when the sample only consists of finance ministers.*
Source: *own illustration*

Alternative Operationalization of Electoral Success

My main model operationalizes the dependent variable as the change in vote share compared to the prior election result. However, it could be that an incumbent increases his vote share compared to the prior election but is nevertheless not re-elected. An increase in vote share could hardly be seen as a success in such a case. On the other hand, an incumbent could lose in terms of vote share compared to his previous election but still be ranked first. Finally, as already mentioned in the methodological section, the difference in obtained vote share between two elections might also be caused by unusual circumstances in prior elections (Fowler and Hall 2017: 11). Therefore, to relativise this problem, I conducted four different estimations. The first model is similar to the main model in terms of the dependent variable and control variables but it introduces election fixed effects which means that the variation between incumbents running in the same election is specifically exploited thereby holding the electoral and prior electoral context constant. In this estimation it is not possible to include the variable of fiscal performance on its own because its main effect is subsumed by the election fixed effects. The interaction effect between fiscal performance and finance ministry however can still be estimated and is statistically significant at the 1%-level and equals 3.9 percentage point in the full sample. Table 17 in the Appendix displays the results.

In the second estimation alternative, presented in Table 18 in the Appendix, the absolute value of obtained vote percentage in election t constitutes the dependent variable instead of the difference in the obtained vote percentage. The previous election score is not included but candidate fixed effects are applied instead. This means that what is being exploited is the within-candidate variation. The base effect of finance ministry is not statistically significant in this estimation, probably because there are not many candidates who change ministry and this variable is rather candidate-invariant. The interaction effect however is statistically significant at the 1%-level, also indicating a 3.4 percentage point increase in vote percentage for finance ministers for a one unit increase in the financing statement result.

In the third model, Table 19, the dependent variable measures the distance in terms of vote share between an incumbent and his fellow incumbent party member running in the same election. If voters voted only according to ideology and incumbency, all ministers from the same party would have the same election result. Yet again the main effect for finance ministry with a balanced financing statement as well as the interaction effect between fiscal performance and finance ministry are statistically and electorally significant. An increase in the financing statement result correlates with a 5.1 percentage point electoral advantage for the finance

minister compared to his fellow incumbent party member in the same re-election.
In the last model, the dependent variable represents a dummy variable taking the value 1 for an incumbent being ranked first and 0 for being ranked any other place. The model is estimated with a logistic regression and the effects are represented in odds ratios. Being in charge of the finance ministry with a balanced financing statement leads to 2 times higher odds of being ranked first compared to spending ministers while an increase in the financing statement of CHF 1000 per capita increases the odds of being ranked first by more than 3 for finance ministers. This is in line with the impression on the achieved ranks of spending and finance ministers discussed in Section 5.1. Results are presented in Table 20 in the Appendix

Alternative Operationalization of Fiscal Performance

My main model measured fiscal performance as the financing statement per capita in the year before re-election. As an alternative, extraordinary operations are excluded and the ordinary financing statement constitutes the explanatory variable. Indeed, extraordinary operations are caused by special unexpected circumstances and can be considered not fully under a finance minister's control. This can, in turn, affect a citizen's evaluation and vote decision. Looking at the estimated coefficient in Table 21, the result remains statistically significant with this operationalization of fiscal performance too.
Furthermore, here I used the financing statement result relative to a canton's receipts instead of the previous per capita measure. This ensures that the effect is not only driven by my operationalization choice of fiscal performance. Some cantons, for example Geneva and Basel-City, have a higher revenue per capita than others, meaning that an identical financing statement deficit per capita could be interpreted as more bearable for these economically strong cantons. The variable is distributed between deficits amounting up to -54% of cantonal receipts and surpluses of up to 17% of receipts. The parameter of interests, the interaction effect between finance ministry and fiscal performance, stays statistically significant with this operationalization and indicates an increase of 0.3 percentage points in vote share for an increase of 1 percent surplus in term of cantonal receipts in Table 22.
Finally, in model four, the statement of financial performance, also called the income statement, constitutes the explanatory variable. At the cantonal level, the statement of financial performance takes on a more important role compared to the national level and also a more important role than the financing statement. Nowadays, the balance of the statement of financial performance is also the cantonal financial indicator most often reported. However, the statement of financial performance has no direct link to the debt level, only to a canton's equity (FFA

2018). Nevertheless, on the cantonal level, fiscal rules are mostly applied to the statement of financial performance. The estimation shows that the coefficient of interest is statistically significant and strong. For the full sample, an increase in the statement of financial performance, i.e., an increase in profit, by CHF 1000 per capita brings a 4.4 percentage point increase in obtained vote share compared to a finance minister's prior election score (Table 23).

Additional Controls

I completed the robustness checks by consecutively introducing additional control variables regarding financial, economic, political, electoral, and cantonal characteristics. In terms of financial indicators, I considered tax rate changes, debt level and investment level. According to Foucault, Seki and Whitten (2017), taxes are a very salient topic to voters and changes in the tax pressure could impact their vote decision. Tax policies may also influence the financial situation of a canton and thereby affect how finance ministers are held accountable by their electorates. The variable tax cut is a dummy variable taking the value one when there was a decrease in the income tax rate in any income bracket in the year before re-election. The estimated coefficient is statistically significant at the 5%-level, suggesting that a tax cut benefits the incumbent's electoral score. However, the variable is not statistically significant in the sub-samples that only consider finance ministers or first re-elections. Depending on the debt level, surpluses and deficits may be evaluated differently. As debt in the year before a re-election is influenced by the financing statement result in the same year and could bias the estimation (Angrist & Pischke 2009: 65), it was not included in the initial regression. Yet I did include the debt level of two years before a re-election for a robustness check. The debt level might influence the incumbent's opinion and strategy concerning fiscal consolidation and thus the financing statement result of the following year. Additionally, higher levels of debt correlate with higher interest payments which then weigh on the fiscal balance. The variable of debt is itself not statistically significant and its inclusion seems not to change the other estimates much compared to the initial model. It also does not matter if instead the debt level of t_{-3} or t_{-1} is taken. I also included a control regarding the investment level because surpluses could be generated by cutting down investments, something which might not be appreciated by voters. It remains questionable whether consumption or investment spending decrease is more harmful electorally (Burret & Feld 2018). Decreases in investment expenditure seem to be more appropriate as it usually takes some time for investments to complete and thus a decrease will probably not immediately be noticed by voters. On the contrary, decreasing consumption expenditure might provide losses to a larger number of voters (Rogoff 1990). Furthermore, consumption spending

(reduction) is not easy to implement as it is often subject to a process of legislative bargaining. At the same time, the variable seems not to be statistically significant. The number of observations drops to 525 as data for these financial indicators are not available for the whole time period. The results are presented in Table 24 in the Appendix and stay quite the same if each of these control variables are interacted with the finance ministry while also controlling for a heterogeneous attribution of responsibility to spending and finance ministers. The fact that voters react to debt increase/reduction during the term but not to the debt level in general suggests that they do not hold finance ministers accountable for inherited financial circumstances.

To control for the condition of the business cycle, I included two economy-specific covariates. The first was the cantonal GDP-growth rate in the year before the election and the other the difference in the cantonal unemployment rate. As commonly known, automatic stabilizers increase tax revenues and decrease public spending during an economic growth period whereas the opposite is true during a recession. Official data for the GDP at the cantonal level are not available for the years preceding 2008. Consequently, as a substitute for GDP-levels in previous years, I used data on total cantonal income ("Volkseinkommen", "Revenus cantonaux") between 1980 and 2005.[75] Data gaps exists for the years 2006 and 2007 because there are no data available on cantonal income nor GDP. This means my number of observations drops to 601. The variable of interest, the interaction effect between finance ministry and fiscal performance, stays significant, see Table 25, despite adding these additional control variables which are themselves not statistically significant.

The next step was to introduce government statistics. First, a variable measuring the number of parties represented in the government and second a variable measuring the concordance between government and parliament. In a fragmented and less concordant context, individual characteristics and performance might add weight to the vote decision whereas an ideologically more unified government would more likely be judged as a team. However, empirical studies have also shown that members or parties of a coalition government are less likely to be subject to electoral accountability compared to single-party governments (Fisher and Hobolt 2010) and that among coalition governments, retrospective voting further declines with the number of members. On the other hand, studies have also shown that fragmented governments tend to have higher expenditures and deficits (Roubini and Sachs 1989; Schaltegger and Feld 2009). And so this variable may also have an effect on fiscal performance. Yet neither the

[75] Data are not available publicly but can be obtained upon request from the Federal Statistical Office.

fragmentation variable nor the concordance variable seems to have a statistically significant influence on re-election results, neither in the full sample nor in the subsamples. Results are displayed in Table 26.

I added two additional election-specific controls at this point. First, the actual ballot papers differ between cantons and over time. Depending on the canton and the year, citizens received party lists, candidate lists, or blank ballot papers with or without info sheets with their election envelope. As Milic et al. (2012) point out, some modalities require a lower cognitive personal effort than others but may also strengthen the influence of party membership on the vote decision compared to individual and performance characteristics. Several studies have further confirmed that information about politicians on the ballot sheet matters for the voter's decision (McDermott 2005, Sajons 2016). This might be further amplified by strategic considerations in the case of alliances between parties. Such alliances were often formed in the bourgeois camp between CVP, FDP and SVP, but have declined since the 90's because of inter-bloc divisions, making elections more competitive (Bochsler and Bousbah 2015). It appears useful then to investigate whether controlling for alliances changes the effect of fiscal performance on a finance minister's electoral fortune. At the same time, making alliances might eventually depend on the objectives of the various parties, their expected chance of winning, and therefore on the performance of a party's incumbents in the previous term. To account for all this, I also included a variable measuring the expected tightness of the election. Although the actual result of the vote or election is not known in advance, the actual tightness of a result correlates strongly with the expected tightness (Milic et al. 2012). I found that the alliance variable is highly significant in the full sample, which is in line with findings of Milic (2014). However, in the sub-sample on first re-election, alliances again lost their statistical significance. When it comes to the tightness variable, the variable was only statistically significant at the 10% level in the full sample but the effect became stronger in the sub-sample estimations. Nonetheless, the variable of interest, the electoral effect of fiscal performance for finance ministries, seemed unaffected by the inclusion of these additional control variables and remained significant as is shown in Table 27.

A subsequent estimation dropped the cantonal fixed effects and instead included control variables such as population size, number of government seats, language region, proportional voting system and an indicator measuring fiscal preferences initially developed by Pujol & Dafflon (2001). The fiscal preference index is based on the level of acceptance of objects submitted to a popular vote, reflecting citizen fiscal conservatism. It refers to the preference or

aversion, respectively, for either a balanced budget or debt-financing.[76] The index is created based on the results by canton for votes at the federal level between 1979 and 2018. Pujon & Dafflon (2001) normalise the percentage of yes/no votes of each canton, giving to the Swiss mean the value 50. This transformation attributes the same weight to each one of the 129 voting, independently of the mean degree of acceptance for each one of them. The normalisation also conserves the difference of vote intensity within a given voting and among all voting. I create an aggregate value of relative fiscal preferences of each canton and decade by simply computing the arithmetic mean of the single values obtained by each canton in a given decade (80', 90', 00', 10')[77]. Index-values above 50 indicate that a canton is fiscally more conservative than the Swiss average for the same time period. The coefficients in Table 28 demonstrate that language region negatively correlates with the increase in obtained vote % for incumbents. This could be because there is generally a higher number of candidates running in the first round in the French or Italian-speaking cantons. Population size has a negative effect on the change in obtained vote percentage compared to the earlier election. The number of government seats, the proportional voting system, and the fiscal preference index have no statistically significant effect in the full sample. When not controlling for canton fixed effects, the effect of fiscal performance is also statistically significant for spending minister at the 5%-level, however the coefficient is still smaller than for the finance minister, indicating that the finance minister still benefits to a greater extent from surpluses than spending ministers. This result seems to be especially due to the inclusion of the language region as control variable. This point will be addressed in more detail in Section 7.3.2.

Going in the opposite direction, I also re-estimated the model without any control variables and without any fixed effects; the results of this estimation are presented in Table 29. In this estimation, the prior election score is not included and the absolute vote % constitutes the dependent variable. The estimate of interest was nevertheless statistically significant in the full sample and roughly the same size as in other estimations. In this model, fiscal performance was again only statistically significant for finance ministers and not for spending ministers. However, when only taking first re-elections into account, with or without propensity score weighting, the electoral effect of fiscal performance for the spending minister was not

[76] According to Pujol & Dafflon (2001), a canton will be considered more conservative than another canton if it has a **higher rate of acceptance** for the introduction of new taxes, increase of existing taxes, suppression/ decrease of grants & public expenditures or adoption of a fiscal rule. Further a canton will be considered more conservative than another canton if it has a **lower rate of acceptance** for tax reduction or the adoption / increase of new expenditures.

[77] I thus assume that preferences are more or less stable in the mean-term (10 years).

statistically significant without considering fixed effects, the prior election score, or any other controls.

Case Selection & Level of Analysis

In order to be sure that the effects are not driven by a few extreme values, I restricted the sample to include the 5th – 95th percentiles in terms of financing statement result per capita. This restriction did not, however, end up affecting the strength and statistical significance of the coefficient of interest which are presented in Table 30.

I then went on to expand the sample to consider non-competitive election settings as well. Because non-competitive elections systematically differ from competitive elections and the number of candidates running for election might as well be endogenous to a government's performance, this constitutes a good test for whether or not my assumptions are still confirmed when including those cases in the analysed sample. The interaction effect remained robust in this estimation as well; Table 31 in the Appendix displays the results.

Finally, I successively dropped individual cantons and years to be sure that the effect was not driven by a specific canton or year. This procedure did not affect the significance nor substantially the size of the coefficients of interest.

Additionally, I ran the estimations using cantonal government election results broken down on municipality-level for the years 2000-2018. Of course both fiscal performance and the ministers do not vary across municipalities for the same cantonal election, yet it makes sense to test whether or not the effect of fiscal performance on re-election results is more or less systematic across municipalities as this should reinforce the statistical strength of the coefficient due to the higher number of observations. This time the models alternatively included the absolute vote percentage, the change on obtained vote percentage, and the distance in term of vote percentage to a fellow incumbent party member in the same election and same municipality as the dependent variable. Table 32 presents the results. Again, the coefficient of interest stayed statistically significant throughout all estimations. Municipal characteristics will again be exploited in Section 7.3.1 to test for possible heterogeneous effects of fiscal performance due to fiscal preferences.

Functional Form

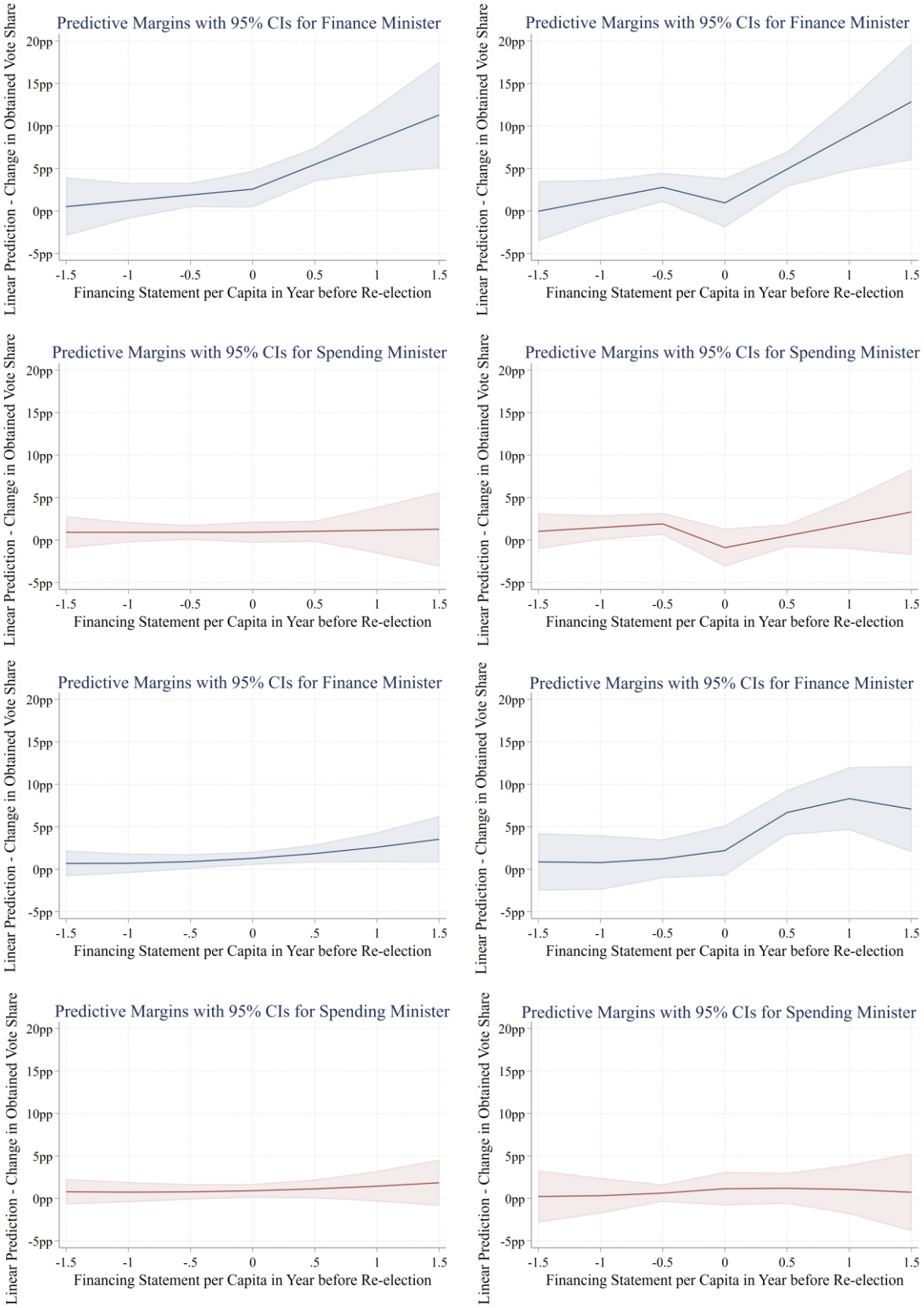
The effect of fiscal performance on a finance minister's re-election result might have one linear effect for deficits and a different linear effect for surpluses. Empirical results suggest that public reactions to bad economic information are much bigger than to good economic information (Soroka 2006: 381). Furthermore, Boyne et al. (2009) find evidence that voter behaviour is affected by gradations of performance. Apparently only the difference between low and mediocre performance seems to matter. There is no reward for high performance. To some extent these findings may be related to prospect theory which suggests that utility is evaluated in relation to a reference point and that below reference point values (losses) are weighted more heavily than gains (Kahneman & Tversky 1979). However, this contrasts with findings from Lewis-Beck & Stegmeier (2007) who show that it is macroeconomic success that significantly increases the vote share of government parties. This prompted me to perform a switching regression to allow for changes in slope between deficits and surpluses either with or without a structural break at 0, i.e., the budget equilibrium. Additionally, the relationship between fiscal performance and electoral success may also be non-linear, meaning that an increase in the financing statement does not at each level produce the same electoral effect. And so I also estimated a polynomial model with quadratic terms and present it here graphically.

Figure 14 below shows the marginal effects for the various relationships. In order to increase the visibility of the relationship, the graph was restricted to the 5^{th}-95^{th} percentile of the distribution regarding the financing statement result.[78] The first row of Figure 14 shows the marginal effects of fiscal performance for finance ministers when allowing for differences in slopes between deficits and surpluses. It is evident that either with or without a break at the budget equilibrium the slope is steeper for surpluses than for deficits and it is above all the positive values in the financing statement which have an electoral effect significantly different from zero for a finance minister.

The graphs in the second row of Figure 14 show the effect for spending ministers. Without a break at the budget equilibrium there is almost no difference in slopes for negative or positive values. When allowing for a break, the slope for the positive values get a little steeper however the effect is still not significantly different from zero.

[78] The confidence intervals become really large outside of the range -1.5 to 1.5, which would require an increase of the y-axis scaling and make it difficult to read the graph.

Figure 14. Functional Form of Fiscal Performance



Notes: *From left to right: 1. Difference in slope between deficit und surplus for FM. 2. Difference in slope between deficit and surplus with structural break at 0 for FM. 3. Difference in slope between deficit and surplus for SM. 4. Difference in slope between deficit and surplus with structural break at 0 for SM. 5. Quadratic estimation for FM. 6. Quadratic estimation with difference in slope between deficit and surplus for FM. 7. Quadratic estimation for SM. 8. Quadratic estimation with difference in slope between deficit and surplus for SM.*
Source*: own illustration*

Finally, in the third row of Figure 14, quadratic effects are estimates yet the curve is not as expected (concave), it is convex for the finance minister. Yet again the effect seems only to be statistically significant from zero for surpluses in the financing statement. Additionally, the estimations of different quadratic effects for deficits and surpluses are shown in the graphs of the second column of row three and four in Figure 14. In the case of the finance minister, the curve is concave for deficits and convex for surpluses, however only values of the financing statement close above zero seem to have a statistically significant positive electoral effect in this specification. The slope for spending ministers seems to remain pretty flat even when taking into account quadratic effects and allowing for changes in slopes between deficits and surpluses.

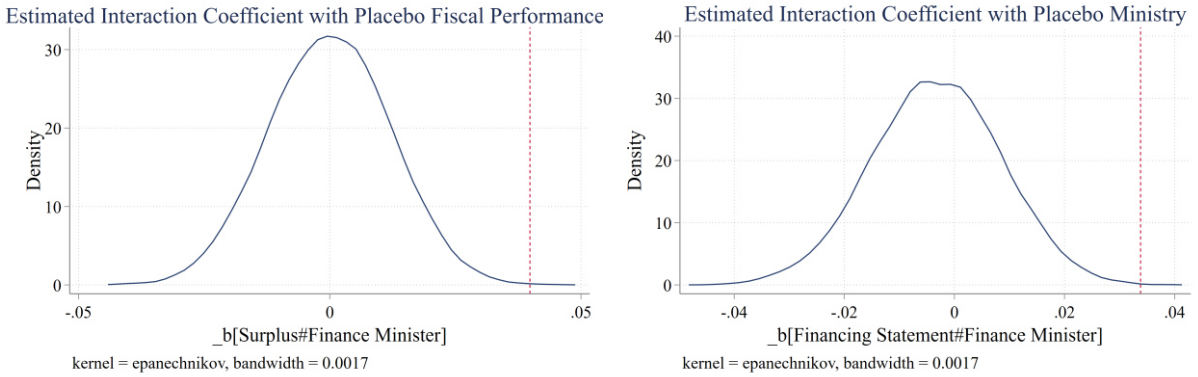
To sum up, taking into account different functional forms, it seems that deficits do not statistically negatively influence the electoral score of finance ministers whereas surpluses do engender increases in a finance minister's vote share compared to the prior election result but seemingly with diminishing marginal returns.

Placebo Tests

The analysis setting could, to a certain extent, be related to design-based uncertainty (Abadie et al. 2019). Indeed, there is uncertainty about the values the regression outcome would have taken under alternative policy interventions. This means that it is not possible to observe the counterfactual electoral result a finance minister would have obtained by having a deficit instead of a surplus (dummy variable) or, alternatively, which electoral result an incumbent would have obtained by being in charge of the finance ministry instead of the spending ministry. To test the confidence of the estimated interaction, I randomly permuted the values of the fiscal performance variable 10'000 times treating all incumbents running in the same election as one unit of assignment. This means that cantons and thus the incumbents were randomly assigned to have a deficit or a surplus in the year before each re-election. Figure 15 shows the density of the placebo interaction coefficient values, the red line indicating the initially estimated value of 4.0 percentage point in Model 2 of Table 4. In only 12 times out of 10'000 resampled assignments was the realization of the test-statistic more extreme than in the initial regression. This leads to a randomized inference-based p-value of 0.001. Thus, the evidence is strong enough to reject the null hypothesis that fiscal performance has no effect on electoral success for finance ministers. Alternatively, I repeated the same procedure but instead randomly assigned incumbents to spending or finance ministries using the real values for the financing statement result per capita for the interaction. In 55 reassignments out of 10'000 the test-statistic was more extreme than in the initial regression which estimated an interaction coefficient of

3.4 percentage point in Model 6 of Table 4. This corresponds to a p-value of 0.006, a number which also still supports the electoral effect of fiscal performance for finance ministers.

Figure 15. Placebo Estimations



Notes: *In the graph on the left the placebo fiscal performance is measured with a dichotomous variable (deficit vs. equilibrium/surplus) and permuted 10'000 times. The value for the ministry represents the true ministry. In the graph on the right the placebo ministry (finance vs. spending ministry) is permuted 10'000 times. Fiscal performance is measured with a continuous variable, the financing statement result per capita in CHF 1000 and represents the true value.*
Source: *own illustration*

7.3 Fiscal Preferences

The mechanism of performance-oriented voting might be subject to heterogeneous effects. The literature review has already presented several factors which could channel the perception and evaluation of performance as well as the attribution of responsibility. The following chapter will concentrate on the role of fiscal preferences according to hypothesis 2 formulated in Chapter 3. Fiscal preferences may vary across citizens or constituencies, across cantons as well as depend on financial and economic factors.

7.3.1 Citizens

The effect of fiscal performance might depend on fiscal preferences and the size of specific constituencies. Mueller (1963) suggests distinguishing between those groups which are more or less likely to benefit by a given policy. As argued in the literature section, homeowners might care more about sound public finances considering that debt capitalizes in property values (Stadelmann & Eichenberger 2008) and might thus constitute an interesting constituency to analyse with respect to fiscal preferences and the electoral effect of fiscal performance. I will hereby discuss the concept of capitalization as well as some literature on homeownership before proceeding to the empirical analysis.

Capitalisation

The value of real estate reflects individual preferences for government services, taxes, demographic, socio-economic, and local characteristics (Stadelmann 2009: 1). Oates (1969) confirms for the first time in his empirical analysis that taxes (negatively) and state benefits (positively) capitalise in real estate values. With regard to land and property prices, the capitalisation principle states that the value of the land or a property corresponds exactly to the sum of all expected income and costs discounted to the present value (FFA 2013: 9). Real estate prices thus already anticipate future events (Fischel 2001: 147). Theoretically, Oates (1969) refers to the Tiebout Model (1956), according to which rational, fully informed, and mobile citizens settle in jurisdictions that offer the most attractive government services or choose those jurisdictions that offer the tax/spending program best suited to their needs. If citizens are not satisfied with the performance of their jurisdiction, they have the option of moving to another jurisdiction ("voting by feet"). The basic prerequisite for this is that there exists a large number of nearby jurisdictions with different service offerings. If a jurisdiction lowers its taxes or increases its state-provided services (for example, the education sector) while all other factors remain constant, it becomes more attractive, which increases the demand for real estate and thus also real estate prices.

Eichenberger and Stadelmann (2008) have shown that debts also capitalise in property values. Accordingly, municipalities with a higher debt level have, among other things, lower property values in the canton of Zurich. This relationship can be explained as follows: If a municipality finances its expenses with debt, this means higher future repayments with interest. As a result, a future reduction in services or an increase in the taxes and duties of a municipality is to be expected, which reduces the attractiveness of a municipality. A high level of local debt in the present is a commitment to high taxes in the future (Schulz and Sjöstörm 2001: 316). As a result, demand for real estate and thus also real estate prices will fall in the future. As the real estate market systematically anticipates price movements, municipalities with high debt already have lower real estate prices today. The value of a property not only reflects what is happening in the present, but also anticipates the probability of future developments (Fischel 2001: 147). Who ultimately bears the burden of debt depends on the flexibility of the tenant market. Accordingly, if both the homeownership and rental markets were fully flexible, there would be no asymmetric effects of debt accumulation for either homeowners or tenants. Homeowners would immediately be compensated by higher rents. The principle of debt capitalisation thus shows that the debt burden cannot be transferred into the future but is already borne today by

homeowners. However according to Eichenberger and Stadelmann (2013) two factors are crucial to capitalising debt in land values. On the one hand, the extent of debt capitalisation depends on the probability of a bail-out and whether or not debt can be shifted to a higher level or other jurisdictions.[79] On the other hand, the more mobile the production factors of labour and capital, the greater the extent of debt capitalization. When individuals are immobile, they cannot respond to differences in taxes and public services in different communities and move to communities that offer services and taxes that best match their preferences. In this case, no capitalisation of these factors would take place either. Thus, the size of the local authorities and the degree of decentralisation or federalism have a decisive influence on the extent of debt capitalisation. Various international and Swiss studies have shown the influence of tax differences between cantons[80] (Feld and Kirchgässner 2001) and municipalities (Schmidheiny 2006, Schaltegger et al. 2011) on migration. The empirical evidence confirms the Tiebout sorting mechanism. Due to the small size of the country and its subfederal units, private and corporate taxpayers can easily move to places with low tax burdens.[81] Capitalization of debt on the cantonal level has never been investigated, however Brülhart et al. (2019) present evidence for the capitalisation of wealth tax cuts into property prices.[82] The Federal Finance Administration (2013) also suggests that lower income taxes correlate with higher real estate prices.[83] Yet capitalization rates are assumed to be lower for between as for within canton differences (Morger 2013).

Fischel (2005:39) drew attention to the fact that the scarcity of land is a necessary condition for capitalisation. If the supply of houses is inelastic due to land scarcity, capitalisation occurs because the price difference from the demand side and the supply side cannot compensate for the demand shocks. Jurisdiction with little available building land should therefore have a higher degree of capitalisation. Various theoretical reasons suggest that the supply of building

[79] Systems such as fiscal equalisation can also dampen capitalisation at the local level by transferring debt from one municipality to another or to a higher level.

[80] Tax burden differs considerably between cantons. Example: if the unweighted Swiss average for 2011 equals 100, a variation in the average (weighted) cantonal and municipal tax burden can be observed between 31.3 in the canton of Zug and 161.8 in the canton of Neuchâtel (FFA 2013).

[81] It is also shown, however, that migration and migration destinations depend on income and thus lead to social segregation.

[82] The cumulative price-growth differential between 2008 and 2013 for single family houses was 13.5 percentage points in Lucerne relative to Bern. While Lucerne and Bern housing prices evolved in parallel prior to 2009, a very clear divergence appears concurrently with Lucerne's wealth tax cut of 2009.

[83] Transaction prices have increased by 49 percentage points for single-family houses and by 77 percentage points for condominiums from 2000 to 2011. Yet price increases varied widely in regional submarkets. Meanwhile the tax burden varies considerably between cantons and in the period of 2000 to 2011, cantons implemented various tax measures which not only altered their tax burden but also their attractiveness compared to other cantons (FFA 2013).

land is generally not elastic, and that capitalisation should therefore exist.[84]

According to Eichenberger and Stadelmann (2008: 9), the elasticity of the building land is less important in terms of debt capitalisation. The demand for building land is independent of the available building land in the event of an increase in public services. More public services lead to an increased demand for building land, which provides incentives for the local authority to increase the supply of building land. In the event of an increase in public debt, however, demand for building land depends on the available building land since the debt burden can be distributed among the homeowners. The debt burden per house owner decreases with increasing building land. Now, with an increasing debt burden, there are two opposing incentives for a local authority. On the one hand, the demand for property declines, which can induce the authorities to then reduce available building land. On the other hand, the authorities also have incentives to increase the building land in order to spread the debt among more homeowners.

Homeownership and Voting

Various studies present evidence that homeowners are better informed and participate more frequently in politics (Di Pasquale and Glaeser 1999). Rossi and Weber (1996: 23), for instance, show that homeowners vote 50% more often than tenants. According to Holian (2011: 268) this can be explained in two ways: on the one hand, because of an investment effect, since the quality of the services provided by a jurisdiction influences house prices, and on the other hand, homeownership reduces mobility, which leads to a stronger bond with the community among long-term residents. Holian (2011) also finds evidence that dissatisfied homeowners in particular have a statistically significantly higher turnout than tenants or satisfied homeowners. In addition to the fact that homeowners often vote, they also seem to pursue other voting motives than tenants. Fischel (2005) postulates the "home voter hypothesis", which states that property owners vote for public policies which they hope will increase the value of their property. He explains this by the fact that homeowners cannot insure their most important (and

[84] Stadelmann and Billon (2011: 16) investigated the extent to which the supply of land or houses actually influences the degree of capitalisation and did not find a significantly lower rate of capitalisation of taxes and state benefits in local authorities with more available building land than in those with less available building land in the Canton of Zurich. Accordingly, capitalisation remains even if it is possible to build new real estate. The reason for this is probably that the elasticity of the building land in the Canton of Zurich is still too low to bring capitalisation to zero in the long term, even in local areas with comparatively more available building land (Morger 2013: 4).

usually only) asset against falling value (Fischel 2001: 144).[85]

Public projects can usually be financed either by debt or by higher taxes. The choice between debt or tax financing is determined either by an elected politician or, depending on the institutional structure, by the citizen himself. It is conceivable that property owners may have different preferences than tenants because of government regulations and the difficulty of adjusting rents. Accordingly, property owners therefore prefer tax financing, whereas tenants, who tend to pursue short-term motives, opt instead for debt financing (Stadelmann and Eichenberger 2012: 977). In their analysis, Eichenberger and Stadelmann (2012) show that a higher ownership ratio in municipalities of the canton Zurich tends to lead to tax-financed rather than debt-financed expenditure. Homeowners, according to Andrews and Sanchez (2011: 211), generally seem to be more likely to make policy decisions that serve the long-term health of their community, whereas tenants have incentives to prefer policies that bring short-term benefits. Citizens generally have the opportunity to migrate to another municipality or canton if they are not satisfied with their jurisdiction's debt-tax-public services package. But there is also a difference between tenants and homeowners. Tenants can "flee" from the debt of a jurisdiction by moving to another jurisdiction, but homeowners will have to pay the debt even if they move, because they will only be able to sell their house at a lower value due to capitalization of debt (Wagner 1971: 301).

Analysis

The Swiss cantons offer an interesting context to analyse how homeownership moderates the effect of fiscal performance on re-election results. Average homeownership rates vary across cantons and over time, from roughly 10% to 60%, as well as within cantons on the municipal

[85]Non-insurable risks of residential property are, for example, the devaluation of a house due to changes in the nearby use of space. Fischel (2001: 144) describes opponents of changes in land use as NIMBY's ("Not In My Back Yard"). Some criticise that the definition of rational risk-averse NIMBY requires too much sophistication on the part of homeowners. For only rarely do homeowners justify their political decisions with financial considerations; they tend instead to cite health concerns, crime, school quality, loss of green spaces, air pollution or traffic congestion as reasons for their opposition. According to Fischel (2005: 60), capitalisation is the primary economic evidence that homebuyers/-owners are aware of fiscal differences and differences in public services between municipalities or regions. Today, real estate brokers provide a wealth of information on the financial situation and performance of communities, making it easy for future homeowners to find out. Even if it can be assumed that not all individuals who want to buy a house are interested in the fiscal differences between communities and so do not inform themselves accordingly, there are always certain people for whom these fiscal differences matter and so take them into account. Capitalisation occurs because when you buy a house you are in competition with such informed people (Fischel 2005: 44).

level from nearly 0 to over 95%. Table 9 describes the cantonal and municipal homeownership rates of the different cantons.

Table 9. Homeownership Rates across and within Cantons

Canton[a]	**Mean**$_{canton}$	**Min**$_{canton}$	**Max**$_{canton}$	**Mean**$_{municipality}$	**Min**$_{municipality}$	**Max**$_{municipality}$
Zurich	23.3	19.1	29.1	41.4	6.8	73.3
Bern	35.8	32.5	40.3	41.5	0	85.7
Lucerne	30.1	27.6	36.3	38.4	5.7	77.3
Uri	46.6	44.7	50.6	42.1	11.8	86.1
Schwyz	42.2	40.1	44.2	36.8	7.9	66.5
Obwalden	45.6	41.7	47.5	24.6	19.6	37.9
Nidwalden	38.2	34.9	40.1	23.2	10.5	59.1
Glarus	48.0	46.5	50.4	57.7	37.6	93.1
Zug	31.6	28.0	35.8	24.7	9.9	49.6
Fribourg	41.0	39.1	44.3	51.6	5.8	84.0
Solothurn	45.4	41.3	51.1	55.0	18.5	80.5
Basel-City	12.5	11.0	16.5	17.5	9.4	53.7
Basel-Country	40.3	37.6	45.8	54.6	9.4	82.3
Schaffhausen	37.2	32.9	43.6	57.0	21.4	76.9
St. Gallen	37.8	34.4	41.9	47.3	8.1	74.2
Graubünden	44.8	43.5	44.7	43.7	2.9	94.7
Aargau	46.5	43.5	49.6	52.1	13.1	81.0
Thurgau	42.1	38.7	47.9	48.2	14.9	72.4
Ticino	37.9	36.5	40.2			
Vaud	28.1	24.4	31.7	43.7	2.3	81.4
Valais	59.4	56.8	61.4	47.2	2.5	95.5
Neuchâtel	26.4	20.4	31.8	35.7	6.8	67.6
Geneva	15.3	11.2	18.5	38.5	0.9	78.4
Jura	52.3	49.0	58.0	58.7	25.0	81.8

Notes: *[a] On the cantonal level for the period of 1980-2000, data on property-ownership are published in ten-years intervals; from 2010 on yearly data exist. Regarding municipalities, data on property-ownership are published for the year 2000 yet since 2012 on, yearly data exist, not on property-ownership anymore but on the percentage of the population living in single family houses. Yet this measure, not available for earlier years, might be better suited as the prior operationalization of the homeownership rate by means of the share of owned properties. Indeed the property-ownership measure tends to overestimates the actual homeownership rate of a municipality, as it cannot be assumed with certainty that the owners of real estate are actually resident in their property and do not sublet it whereas this seems more plausible for single-family houses.*
[b] The canton of Ticino is only included in the cantonal-level analysis and not in the municipal-level analysis due to its proportional voting system and the huge amount of candidate results which would have been necessary to collect. For the same reasons as in the main analysis Appenzell Innerrhoden and Ausserrhoden are not included in the estimation of heterogenous effects either.
Source: *Federal Statistical Office*

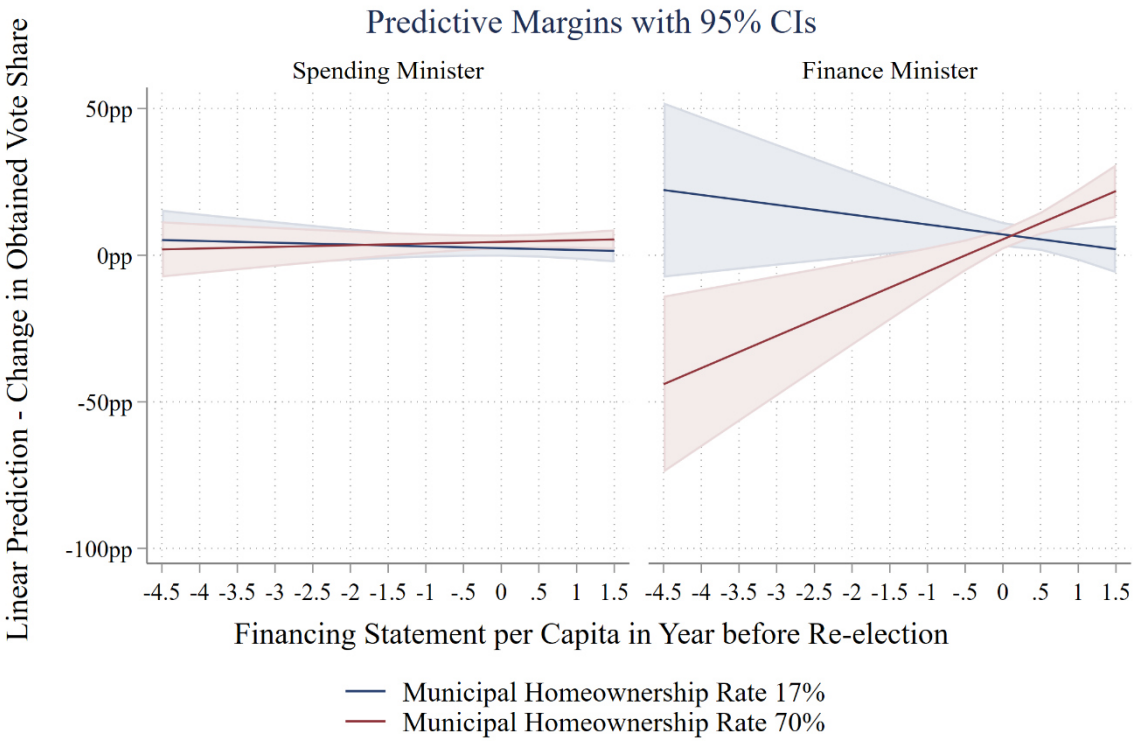
I first analysed the influence of homeownership rates on the electoral effect of fiscal performance on the cantonal level. Additionally, I also used cantonal government election results on the municipality level to investigate how the electoral effect of fiscal performance might vary between different municipalities. While the variable of fiscal performance is

constant for all municipalities in a canton, both the level of homeownership as well as the electoral result of the different candidates vary between municipalities. Table 10 presents the estimations. The first two columns show my analysis of the effect of homeownership across cantons, first for all incumbents and then only for the subsample of finance ministers. Model 1 estimates a three-way interaction between finance ministers, fiscal performance, and cantonal homeownership rate, which is statistically significant at the 5%-level. The homeownership rate is centred in order for the mean homeownership rate of 36% to equal 0, which is a little more meaningful for interpretation than an unrealistic 0% cantonal homeownership rate. This is especially relevant for interpreting the base effects of finance minister and fiscal performance as well as for the interaction between the two variables which thus measure the effect for a canton which is "average" in terms of homeownership rate.[86] Model 2 reduces the sample and only takes finance ministers into account. The interaction effect between fiscal performance and homeownership is also statistically significant and positive. Which means that an increase of the financing statement result of one unit correlates with an increase of 4.8 percentage points in a canton with average homeownership rates. An increase of the homeownership rate by one percentage engenders an additional 0.2 percentage point increase in obtained vote share for the same financing statement result.

In models 3-6 I exploit the re-election result of cantonal government members on the municipal level and thus analyse the effect within a canton across municipalities for all incumbents and for finance ministers only. It is true that cantonal homeownership rates might themselves be a result of cantonal policies (Delbiaggio and Wanzenried 2010). Exploiting the intra-canton variation of municipal homeownership rates attenuates this problem as cantonal housing policy is held constant. In Model 3 and 4 the dependent variable measures the change in obtained vote share compared to an incumbent's previous election. The coefficients of interest are statistically significant suggesting stronger effects of fiscal performance on a finance minister's electoral fortune in municipalities with higher homeownership rates. Figure 16 presents a visualization of the marginal effects. The difference between municipal homeownership rates at the 5th and 95th percentile of the distribution is indicated in the graph. While the electoral effect of fiscal performance seems not to vary at all with the homeownership rate for spending ministers, it seems to have a distinct effect for finance ministers.

[86] For example, the finance minister coefficient estimates the effect of being in charge of the finance ministry compared to a spending ministry when the financing statement is in equilibrium and the homeownership rate is about 36%.

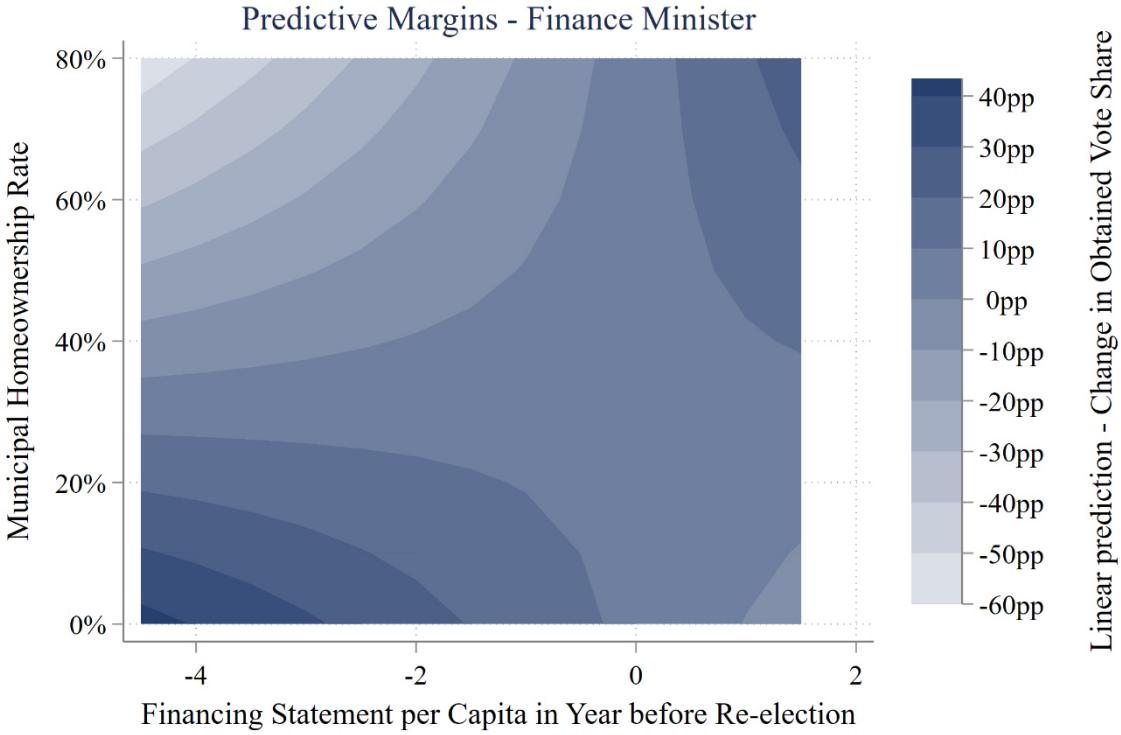
Figure 16. Margins Plot of Fiscal Performance depending on Municipal Homeownership Rates



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The graph displays the predictive margins of the different values of the financing statement result on the change in obtained vote percentage between the re-election and the prior election of finance and spending ministers separately and two levels of municipal homeownership rates with 95% confidence intervals (y-axis).*
Source*: own illustration*

Figure 17 additionally shows the predictive margins in terms of percentage point changes in obtained vote share for different levels of homeownership rates and financing statement results with a contour plot. Note that the predictive margins are negative for deficits in municipalities with high levels of homeownership rates whereas they are positive for municipalities with low levels of homeownership rates. On the contrary the predictive margins are positive for surpluses and high surpluses in municipalities with high levels of homeownership rates and negative for high surpluses in municipalities with low levels of homeownership rates.

Figure 17. Contour Plot of Fiscal Performance depending on Municipal Homeownership Rates



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The y-axis indicates the different levels of homeownership rates. The graph displays the predictive margins of the different values of the financing statement result and homeownership rates on the change in obtained vote percentage between the re-election and the prior election of finance ministers with different colour shades.*
Source*: own illustration*

It is also interesting to take a look at three specific control variables in Table 10, namely whether a municipality is part of the same language region or the same district of an incumbent's residence municipality or whether it is actually the municipality where an incumbent lives. The same language region is especially relevant for bilingual cantons and seems indeed to significantly affect an incumbent's re-election score. The dummy variables focusing on whether a municipality is located in the incumbent's home district or is the incumbent's home municipality are also statistically significant. These results suggest that incumbents tend to increase their electoral base to a greater extent in the regions of a canton where they are actually from. Additional control variables also included in the estimation yet not displayed in Table 10 for space reasons are: an incumbent's municipal party strength, prior municipal election score, municipal participation rates, as well as individual and election controls which do not vary across municipalities. The municipal party strength, the prior municipal election result, as well

as differences in the municipal participation rate all had a statistically significant effect on the re-election results of incumbents.

In Model 5 and 6, the dependent variable measures the distance in terms of vote share between an incumbent and his fellow incumbent party-member in the same election and municipality. The interaction effect is again statistically significant and positive. Indicating a stronger electoral effect of fiscal performance for finance ministers in municipalities with higher homeownership rates. Interestingly, the base effect of finance minister in a municipality with an average homeownership rate and a balanced financing statement is negative, meaning that a finance minister obtained less votes than her fellow incumbent party member in the same election and municipality. However, one has also to consider that individual fixed effects are included in this specific regression. As there are only a few candidates who changed ministry in the period 2000-2018, the effect might be mainly due to those and amplified by the number of municipalities in the canton.

These results need to be relativized for three reasons. First, the analysis is based on aggregate and not on micro data, meaning that it is not possible to deduce that it is definitely homeownership which makes citizens care more about fiscal performance for their vote decision.

Second, there are determinants of homeownership that might as well influence citizen vote decision. Delbiaggio and Wanzenried (2010: 23) summarize the main determinants of homeownership in Switzerland according to five categories: household-specific factors, factors specific to the buildings, municipal and site-specific characteristics, cantonal- and region-specific factors, as well as a group of policy variables. The household-specific, as well as municipal factors seem relevant for the interpretation of the estimation results of Table 10. The category of household-specific factors includes sociodemographic information on the head of the household and factors relevant to mobility. The analysis of Delbiaggio and Wanzenried (2010) shows that the probability of owning a home increases with age and Swiss citizenship. Moreover, on average, households with children are less likely to own a house, although the direction of this effect changes with increasing age. There is also a negative correlation between mobility and home ownership. Municipal and site-specific characteristics include the vacancy rate, population and building density, average taxable income per household and the type of municipality as defined by the Swiss Federal Statistical Office. Accordingly, a high vacancy rate has a positive impact on home ownership, whereas population density has a negative impact on home ownership. Typically, citizens' fiscal preferences as well as their political know-how

is also influenced by income level, education, age, and whether or not someone has children (Alesina and Perroti 1995; Hayo and Neumeier 2014; Mueller 1963). As discussed above these variables are themselves determinants of homeownership. Because income level may be a strong confounder, I will introduce it as a control variable for a robustness check. Indeed, Mueller (1963) reports that debt reduction might be more a concern for people with high income. Table 33 in the Appendix presents these results. Despite including interactions between the finance minister, fiscal performance, and average taxable income in a municipality in the regression, the coefficient of interest for the three-way interaction with homeownership is robust and stays statistically significant. The effect of income however is small and not statistically significant.

Furthermore, critics might argue that homeowners are more likely to belong or to prefer certain parties and that the effect is mainly driven by partisanship or differences between spending and finance ministers in terms of partisanship. Yet as the dependent variable in Model 5 and 6 constitutes the difference in obtained vote share between finance ministers and fellow incumbent spending ministers from the same party in the same election and same municipality, this concern might not be a big problem. Thirdly, finance ministers might actually anticipate voter preferences in certain cantons and behave strategically by improving the financial results, yet when I investigated intra-cantonal effects this concern seems to be lowered too.

Table 10. Heterogeneous Effects – Fiscal Preferences

	Cantonal-level		Municipal-level			
Dependent Variable:	**Δ in Obtained Vote % compared to prior Election**				**Vote Margin % compared to Fellow Incumbent Party Member**	
	(1)	(2)	(3)	(4)	(5)	(6)
	All Incumbents	Finance Ministers	All Incumbents	Finance Ministers	All Incumbents	Finance Ministers
Finance Minister	0.025***		0.027*		-0.083***	
	(0.008)		(0.014)		(0.030)	
Fiscal Performance	0.015*	0.048**	-0.000	0.092***	-0.012	0.041**
	(0.008)	(0.019)	(0.007)	(0.027)	(0.011)	(0.019)
Homeownership	-0.456	-0.054	0.036	-0.088*	0.032	-0.184***
	(0.294)	(0.300)	(0.048)	(0.052)	(0.043)	(0.066)
Finance Minister * Fiscal Performance	0.029**		0.043*		0.140***	
	(0.012)		(0.024)		(0.040)	
Finance Minister * Homeownership	-0.059		-0.072*		-0.013	
	(0.054)		(0.038)		(0.033)	
Fiscal Performance * Homeownership	0.086**	**0.206****	0.022	**0.193****	-0.044	**0.125*****
	(0.042)	**(0.087)**	(0.029)	**(0.074)**	(0.029)	**(0.045)**
FM * Fiscal Performance * Homeownership	**0.135****		**0.248*****		**0.223*****	
	(0.061)		**(0.079)**		**(0.069)**	
Residence in same Language Area (biling. Canton)			0.065***		0.107***	
			(0.014)		(0.015)	
Residence in same District			0.015***	0.024*	0.039***	0.062***
			(0.005)	(0.014)	(0.006)	(0.016)
Residence in same Municipality			0.045***	0.037	0.059***	0.019
			(0.007)	(0.025)	(0.007)	(0.012)
Constant	0.311***	0.313***	0.254***	0.467***	-0.048	-0.166***
	(0.030)	(0.063)	(0.018)	(0.021)	(0.048)	(0.039)
Individual Controls	✓	✓	✓	✓	✓	✓
Election Controls	✓	✓	✓	✓	✓	✓
Canton Fixed Effects	✓	✓				
Municipal Fixed Effects			✓	✓	✓	✓
Party Fixed Effects	✓	✓	✓	✓		
Individual Fixed Effects					✓	✓
Observations	674	117	24108	3576	22577	2742
R^2	0.516	0.591	0.588	0.860	0.697	0.837

***Notes**: Robust std. errors clustered in parentheses at election-& candidate-level (Model 1 &2) & at election-candidate-& municipal-level (Model 3-6). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is either the difference in obtained vote percentage between one's own re-election and own prior election (Model 1-4) or the difference in obtained vote percentage between one's own re-election and the re-election result of a fellow incumbent party member running in the same election (Model 5 + 6). Fiscal performance is based on the financing statement and measured with a continuous variable. Municipalities which have been through a merger during an election cycle are excluded from the analysis as electoral results of the old and new municipality cannot be compared.*

7.3.2 Cantons

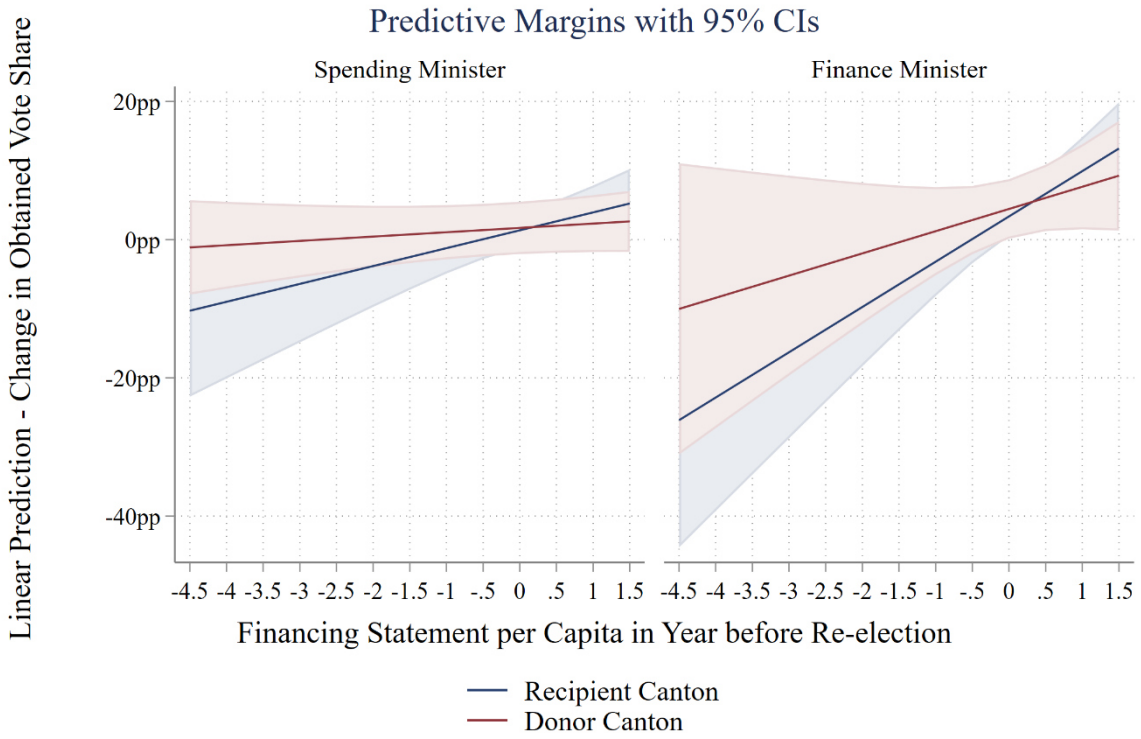
Fiscal preferences might also vary between cantons or different groups of cantons. The following variables were used to measure potentially diverging fiscal preferences between cantons: an index concerning vote decision on ballots related to fiscal issues, resource power, population size, population density and language region. The estimations are presented in Table 34, 35 and 36 in the Appendix: I first created the index of Pujol & Dafflon (2001), already discussed extensively in the robustness section, for the municipal level and then estimated the interaction effects for the cantonal and municipal level. The results, however, remained inconclusive and inconsistent; there are several possible reasons for this. On the one hand, Pujol & Dafflon (2001) regard the introduction of new taxes or the increase of existing ones as a fiscally conservative position. This is debatable considering that fiscal conservatism is often understood as being less eager to step up government spending programs, coupled with a greater desire to reduce debt but also with a desire to lower taxes or avoid tax increases (Mueller 1963). I therefore created an alternative index which did not take ballots on tax-issues into consideration. This alternative index measure did not improve the estimation. Second, several ballots were on issues with collateral interests (mountains, rural areas, cities) which affect cantons and municipalities to varying degrees. Depending on the ballots, such preferences might be stronger than those for sound public finance. Property owners for instance, even if debt-averse, might vote for public policies which they hope will increase the value of their property (Fischel 2005) and this might be even more the case if the national level or other cantons comparatively bear more of the costs.

The second measure considers to what extent a canton's expenditures are financed by its own resources compared to transfers depending on whether a canton is a donor or a recipient in the fiscal equalization system.[87] Indeed, transfers can distort local/regional decisions towards excessive spending (Eichengreen and von Hagen 1996; Carreaga and Weingast 2002) and subsequently also affect citizens' voting decision (Brender 2003; Jones et al. 2012). Again, there seems to be no statistically significant difference between donor and recipient cantons except for a small tendency visible in the marginal effects of Figure 18 yet not in line with the expectations that recipient cantons would evaluate fiscal performance less severely. The linear predictions stay practically the same when differentiating between the old and new fiscal

[87] Since official data on net fiscal equalization payments are only available since 1993 the number of observations is smaller than in other estimations.

equalization system. For visibility reasons, I do not graphically present any additional distinction.

Figure 18. Margins Plot of Fiscal Performance depending on Resource Power



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The graph displays the predictive margins of the different values of the financing statement result on the change in obtained vote percentage between the re-election and the prior election of finance and spending ministers separately as well as donor and recipient cantons in the fiscal equalization system with 95% confidence intervals (y-axis).*
Source: *own illustration*

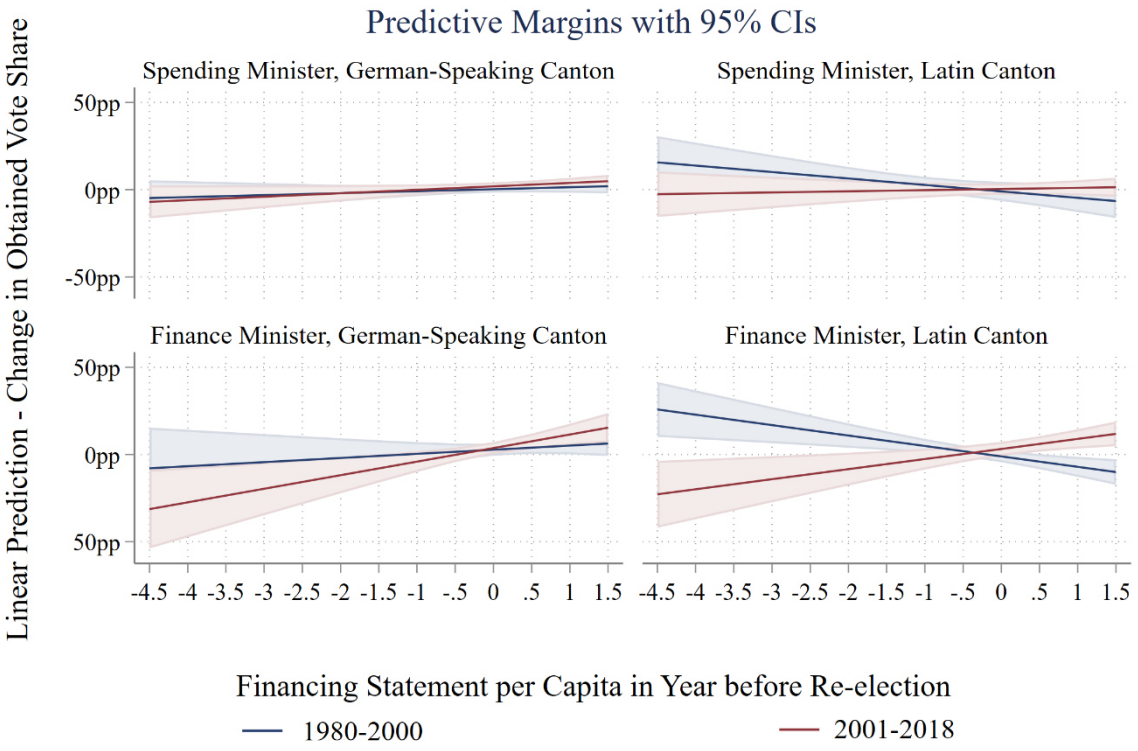
Cantons also vary in their population size and population density which in turn could affect citizen's political preferences as well as the evaluation of fiscal performance. Figure 25 in the Appendix suggests that cantons with fewer inhabitants and less dense population seem to react more negatively to deficits and more positively to surpluses. As several small and rural cantons are or have been recipient cantons in the past this could be a reason why the estimated results regarding resource power are not in line with the formulated expectations that recipient cantons would evaluate fiscal performance less severely. However, even if some tendencies with respect to population size and population density can be observed graphically in the contour plot in Figure 25 the differences are not statistically significant (see Table 35).

Finally fiscal preferences may also vary depending on the language region. The French- and Italian-speaking cantons/municipalities in Switzerland are often assumed to perceive the state

and its role differently. In his work on multilingual countries, Hofstede (1984: 228) concluded that there is a wide culture gap between the German-speaking part and the French- and Italian-speaking part of Switzerland, in particular on the dimension of power distance. According to Pujol and Weber (2003), it would make sense then that German-speaking cantons will behave in a way that is fiscally more rigorous than the French- and Italian-speaking cantons. Additionally, fiscal preferences might also change over time. In 2001, Swiss citizens voted on the introduction of a federal debt brake. The ballot was, as previously mentioned, accepted with 84.7%, indicating that the public debate on the introduction of a debt brake as well as the introduction itself, could be a sign of a cultural change with regard to public finance management, or a change in the aversion for deficits and debt-financing. The introduction of the debt brake may not only be a sign for a change in the attitude toward debt but could itself have raised awareness and strengthened the attitudes around this issue due to increased public debate and media coverage. This phenomenon was also acknowledged by Beljean & Geier (2013) as well as Salvi & Schnell (2016: 17). Accordingly, the fiscal policy culture has fundamentally changed with respect to the 90's when fiscal policy was more often oriented towards the demands and perceived necessities for public services than towards the available resources. Rather limited attention was paid to the budget balance at that time and only the rearing debt burden lead to a rethink. Additionally, the case of Leukerbad, with respect to which the Swiss Supreme Court decided in 2003 that the canton of Valais is not liable for municipal debt (Feld et al. 2017), could also have changed the budget constraint of governments and voters fearing that there will be no bail-out from a higher level government even if the specific case was related to a municipality and not to a canton. On the contrary, in case of a (believed) soft budget constraint, governments in federal systems have incentives to accumulate excessive debt if they can expect to be bailed out when running into financial troubles (Pettersson-Lindbom 2010) and voters may even support policies that would otherwise seem undesirable (Brender 2003).

Looking at Figure 19 shows that it is above all in the French- and Italian-speaking cantons where the electoral effect of fiscal performance for finance ministers has changed since 2000. This finding might also be due to the fact that several of these cantons were in severe financial distress in the nineties and can be related to interview statements from former finance ministers from these linguistic regions. However, the slope has also become steeper for German-speaking finance minister since the new millennium.

Figure 19. Margins Plot of Fiscal Performance depending on Language Region and Time Period



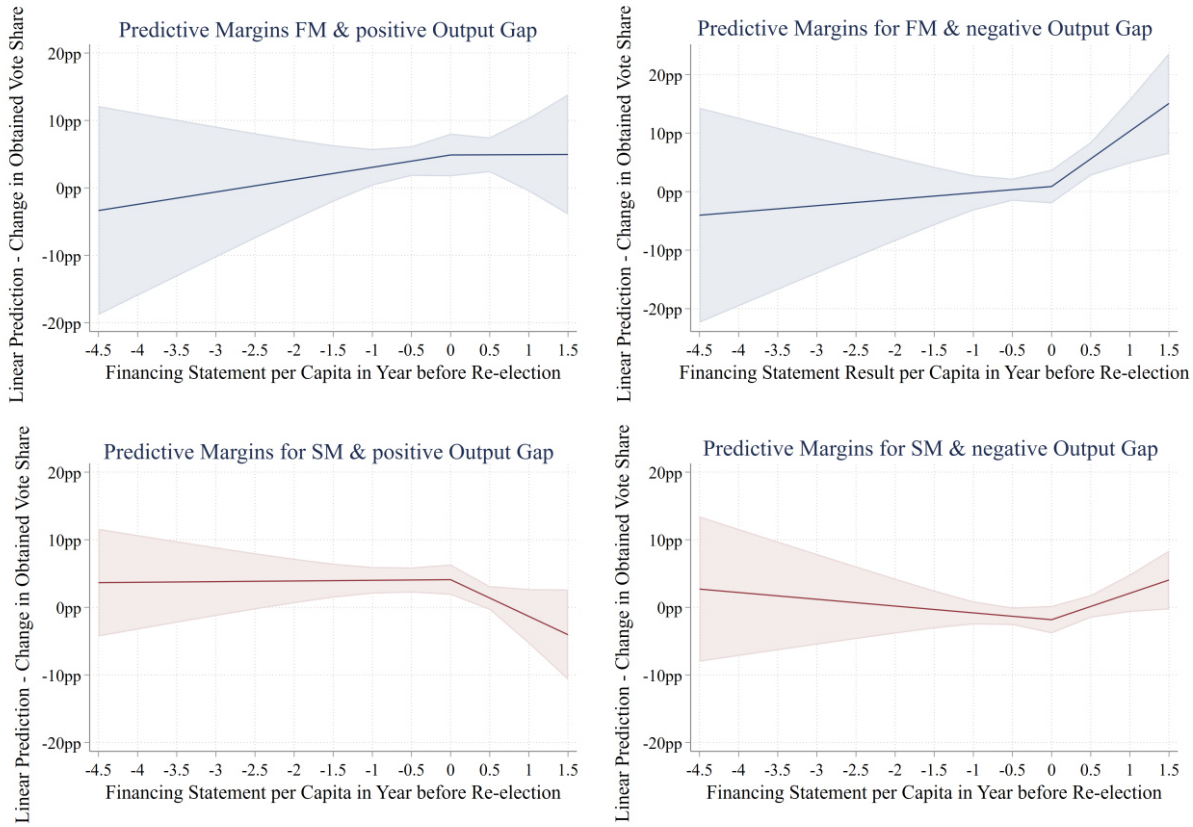
Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The graph displays the predictive margins of the different values of the financing statement result on the change in obtained vote percentage between the re-election and the prior election of finance and spending ministers separately as well as differentiated by language region and time period with 95% confidence intervals (y-axis).*
Source: *own illustration*

7.3.3 Economic and Financial Conditions

It seems safe to assume that depending on the business cycle the fiscal preferences for surpluses or deficits may vary. Even if according to Mueller (1963: 223) the conviction of "deficits are bad" is probably deeply rooted in some people's thinking and seldom consciously re-examined, environmental changes and new information might still change the public attitude and the preference for more spending. Especially as the business cycle is also taken into account in the design of the federal debt brake. Indeed, the federal debt brake allows for deficits when the economy is depressed and thereby offers the government some flexibility in taking counter-cyclical measures (Federal Finance Administration 2016). It is possible then that voters will evaluate finance ministers less severely for deficits during economic downturns. To test this assumption, I estimated the trend GDP using the Hodrick Prescott Filter based on Swiss national GDP data and determining the cyclical factor k as a ratio of trend GDP to actual GDP. If the resulting k-factor is above 1 the output gap is negative and if below 1 the output gap is positive.

The balance of the financing statement is thus interacted with a dummy taking the value 1 when the output gap is negative. Swiss GDP data were used to create this dummy variable instead of cantonal data as it is difficult to estimate cantonal trend GDP because of the gaps in the cantonal income and cantonal GDP data. Although national GDP data cannot directly take all cantonal economic fluctuations into account, it is likely that citizens are better informed about the national economic situation and that the salience is also higher in this respect. Running a simple interaction with the dummy output gap variable gives the impression that deficits are more severely evaluated during recessive times according to the steeper slope for negative output gap years than for positive output gap years. Yet, allowing for changes in slopes between deficits and surpluses shows in Figure 20 that it is mostly surpluses which are responsible for a steeper slope in recessionary years.

Figure 20. Margins Plot of Fiscal Performance depending on the Business Cycle



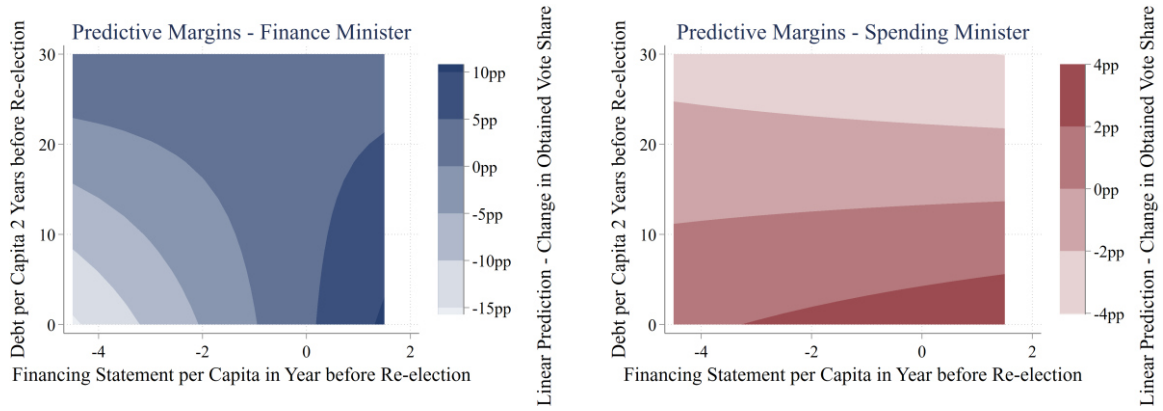
Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The y-axis shows the predicted change in obtained vote percentage between re-election and prior election of finance and spending ministers separately and depending on the business cycle with 95% confidence intervals. The estimation allows for a change in slope between deficits and equilibrium/surpluses.*
Source: *own illustration*

This does not necessarily mean that voters do not want the government to take counter-cyclical measures. However, a finance minister who is able to run a surplus during difficult economic

times may be perceived as especially competent. Moreover, when the economy is doing bad there might just be more awareness among media and the voters towards the financial situation or public finance might be more salient. Interestingly, spending ministers also seem to benefit at the edge of statistical significance from surpluses when the economy is doing bad. Table 37 in the Appendix presents the corresponding estimations.

Recently, various debates between economists took place on the issue of public debt, inter alia questioning too rigorous fiscal policies and the added value from further debt reduction in times of negative interest rates, notably in Switzerland.[88] This makes it interesting to investigate whether deficits or surpluses are evaluated differently depending on a canton's debt level. The debt level per capita varies between roughly CHF 500 and 38'000 per capita across cantons and over time. Yet even in cantons with already low levels of debt, finance ministers seem to benefit from surpluses as shown in the contour plot Figure 21 below.

Figure 21. Contour Plot of Fiscal Performance depending on the Debt Level



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The y-axis indicates the different levels of debt per capita in CHF1000 two years before re-election. The graph displays the predictive margins of the different values of the financing statement and debt level on the change in obtained vote percentage between the re-election and the prior election of finance and spending ministers separately with different colour shades.*
Source: *own illustration*

While a more or less balanced account seems to benefit finance ministers in low as well as in high-debt cantons, finance ministers running high deficits seem to be evaluated more severely in cantons with lower levels of debt. As the debt levels are historically inherited and a result of past fiscal policies, cantons with rather fiscally conservative preferences may be more likely to already have low level of debts and to continue to favour surpluses. Yet with such a contour plot one is not able to infer whether the predictive margins for fiscal performance are

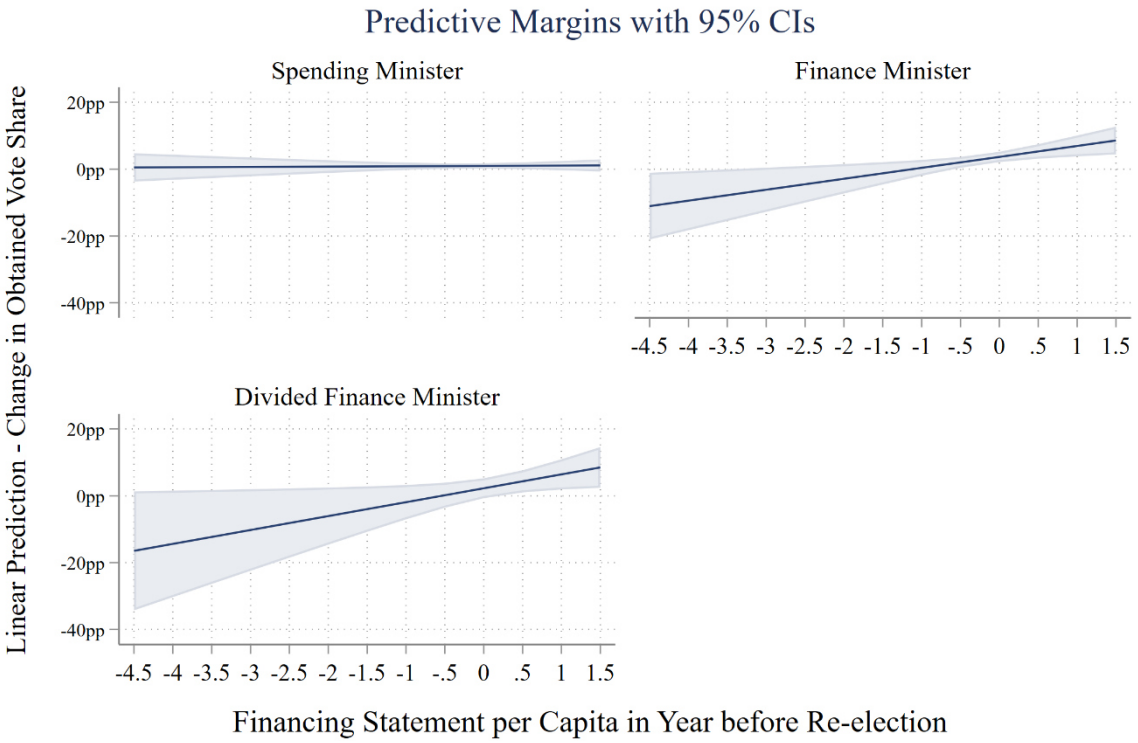
[88] See, for instance, Tille, C. (2020): https://voxeu.org/article/putting-swiss-public-debt-good-use

significantly different depending on the level of debt. It turns out that although one can see some nuances when taking into account the confidence intervals, the differences are not statistically significant.

7.4 Clarity of Responsibility

Institutional, procedural, and political characteristics might also affect the clarity of responsibility and thereby influence citizens in their voting behaviour and how they attribute responsibility. According to Hobolt et al. (2013), it is possible to distinguish between institutional clarity which tends to stay rather constant over a longer time period and government clarity which may change with each election. Thus, this section will investigate how divided ministries, fiscal rules, financial referenda, and the political setup in the government additionally influence the effect of fiscal performance on a finance minister's electoral score.

Figure 22. Margins Plot of Fiscal Performance for pure vs. divided Finance Ministry



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The graph displays the predictive margins of the different values of the financing statement on the change in obtained vote percentage between the re-election and the prior election of pure and divided finance ministers as well as spending ministers separately (y-axis).*
Source: *own illustration*

Some finance ministers are also in charge of an additional policy like health, economy, or education. This may impede how performance is attributed because the finance minister must also promote the interests of a spending ministry that may fundamentally diverge according to the theoretical discussion in Chapter 3. Thus, I differentiate between pure finance ministers and "divided" finance ministers.[89] Figure 22 shows the predictive margins and Table 11 the estimated coefficients. Contrary to the expectations formulated, the effect seems to be stronger, size-wise, for divided ministers than for pure finance ministers. Yet the effect seems to be statistically less strong for divided finance ministers and not always significantly different from zero. Moreover, the difference between pure and divided finance minister is itself not always statistically significant. However, the number of competitive re-election cases of divided finance ministers was rather small, only amounting to 21, which makes a reliable estimation difficult.

In terms of fiscal policy, cantons have institutional features which are supposed to control or restrain both the government and the parliament. This includes fiscal rules and the instrument of the financial referendum. Chatagny (2015) argues that fiscal rules render the signal of fiscal performance less informative for the competence of a finance minister and thus fiscal performance could become less important for the vote choice. Schaltegger and Luechinger (2013) see fiscal rules as a substitute for strategic projections in budget negotiations between finance and fellow cabinet members or legislatures. Likewise, in order to avoid a financial referendum, spending ministers may also have the tendency to plan fewer prestigious projects[90] again making negotiations less demanding for a finance minister. On the other hand, fiscal rules as well as the instrument of the financial referendum could also be a sign of a strong aversion towards debt-financing and deficits or of citizen mistrust towards politicians. In this kind of case, deficits might even be evaluated more severely. I first created a dummy coded 1 for cases where there is a stringent fiscal rule in place according to the index measure of Feld and

[89] Finance ministers were only identified as divided if they also represented policies which had a considerable share of expenditures in the budget, for example, health, education, etc.. If a finance minister was also in charge of a minor policy area, for example, church, she was not coded as divided.
[90] Alternatively, to evade a referendum on an unpopular project, politicians can simply split it nominally into several smaller projects, all of which fall beneath the spending threshold. Yet Feld and Matsusaka (2003) suggest that this does not seem to happen.

Kirchgässner (2008).[91] It turns out that the interaction with the statement of financial performance leads to better results than the interaction with the financing statement. This is not surprising as most of the cantonal fiscal rules, but not all, target the statement of financial performance and do not consider investments. This point has been addressed by Burret and Feld (2018) who also emphasize the importance of a fiscal rules' coverage. According to their findings, the effect of a fiscal rule is stronger the better the considered budget position corresponds with the variable actually targeted. The mechanism might be similar for the electoral effect. This means that the estimation might be further improved by operationalising fiscal performance with the account that is actually targeted by a canton's fiscal rule like Burret and Feld (2018). Column 3 and 4 in Table 11 present the estimated coefficients. The predictive margins indicate that the electoral effect of fiscal performance has the tendency to be stronger when there is a fiscal rule in place yet the electoral difference between having a rule and having no rule is not statistically significant. The margins plot is displayed in the Appendix (Figure 26).

Next, I considered the instrument of mandatory financial referendum. I created an interaction effect with a dummy equalling 1 for cantons and years with a mandatory financial referendum in place and 0 otherwise. The instrument of a mandatory financial referendum seems not to influence the electoral effect of fiscal performance for finance ministers statistically but for spending ministers. Whereas the effect is negative for finance ministers it is positive for spending ministers. This means there might be a benefit for spending ministers if costly spending decisions have to be discussed publicly and voted on by citizens. The effect might, however, also depend on the actual use of this direct democratic instrument and not only on the legislation. By accepting or refusing financial referenda, citizens are also providing governments with information concerning their preferences. And so a second operationalization is based on the two aspects of validation of government decisions and approval of government decisions in line with Schaltegger and Togler (2007). The variable equals the ratio of accepted financial referenda (mandatory and optional) times the number of financial referenda held. A higher number of ballots implies a higher validation of government decisions whereas a higher number of approved ballots implies a higher approval of government decisions. Overall a higher

[91] The dummy variable equals zero for all years and cantons where the index value equals 0, for the index values 1-3, the dummy variable equals 1. Recall: The Fiscal Rule Index makes use of three criteria: 1. Is the budget planning strongly connected to actual budget execution? 2. Are there strong numerical constraints? 3. Are there effective sanctions whenever the numerical constraint is not respected (for example automatic tax adjustments)? The index thus measures the stringency of fiscal rules and equals 0 whenever no criteria is fulfilled or when no fiscal rule is in place.

index value can indicate an intensive discussion and high consensus on cantonal spending decisions. The index value is created for a 10-year interval in order to measure "lived" direct democracy in terms of financial decisions[92] and ranges from 0 to 41. Column 7 in Table 11 shows the results. An increase in the number of validations and approvals of government financial decision has a positive effect on spending ministers re-election result (base value of financial referendum index). However, the electoral effect of fiscal performance for finance ministers seems to be less strong in times of vivid direct democracy regarding financial decisions relating to the substitution argument mentioned by Chatagny (2015) and Schaltegger and Luechinger (2013). In column 8, which only considers finance ministers, the effect is also negative but not statistically significant. The number of financial referenda ballots varies substantively between cantons, as displayed in Figure 2 in Chapter 4.1. There have also been substantially fewer of these ballots since 2000, mainly because some cantons abolished the instrument of mandatory financial referendum or transformed it into an optional one, like the cantons of Zurich and Neuchâtel.[93] While the total number of financial referenda ballots over all cantons, except those with citizen assemblies, amounted to 470 for the period of 1980-2000, the next period (2001-2018) included only 220. The results of these estimations are also presented graphically in the Appendix[94] in Figure 27 and 28.

[92] It would definitely involve a great amount of additional work to know in which years each of the financial referendum spending decision affects the financial accounts and to investigate whether voters evaluate fiscal performance differently if the financing statement results are affected from a decision accepted in a financial referendum. Depending on the project, there may be delays of varying degrees between the decision at the ballot box and the financial impact on the financial accounts of a canton. Moreover, some decisions may affect the financial accounts over several years.

[93] https://www.letemps.ch/suisse/vaudois-voudrontils-dun-referendum-financier-dautres-cantons-cherchent-sen-debarrasser

[94] Due to the high number of financial referenda, nearly 500, these are not listed by name in the Appendix but can be handed out upon request.

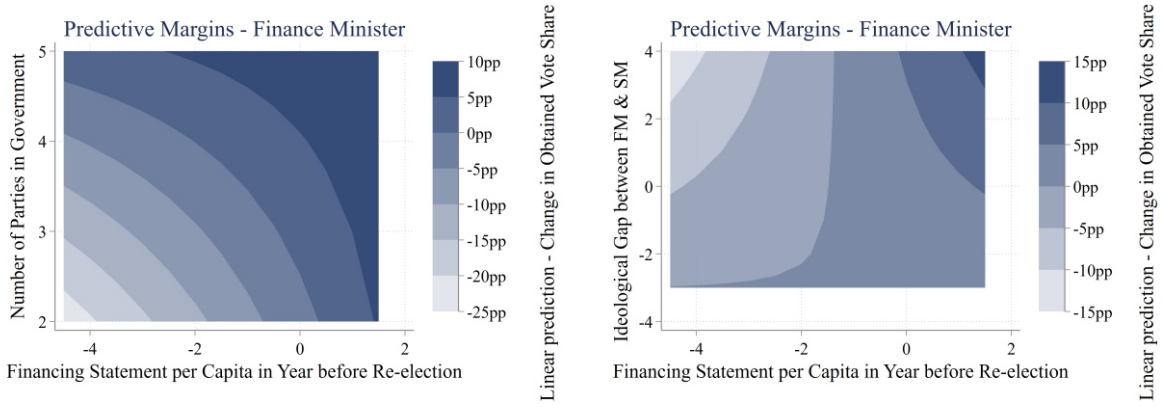
Table 11. Heterogeneous Effects – Clarity of Responsibility

Dependent Variable: **Δ in Obtained Vote % compared to prior Election**	(1) All Incumb.	(2) Finance Min	(3) All Incumb.	(4) Finance Min.	(5) All Incumb.	(6) Finance Min	(7) All Incumb.	(8) Finance Min.
Finance Minister	0.027***		0.026**		0.027**		0.028**	
	(0.008)		(0.010)		(0.012)		(0.012)	
Divided Finance Minister	0.013	-0.001						
	(0.016)	(0.060)						
Fiscal Performance	0.001	**0.053****	-0.001	0.002	0.002	0.058***	-0.001	0.066**
	(0.005)	**(0.021)**	(0.009)	(0.018)	(0.005)	(0.020)	(0.009)	(0.027)
Finance Minister * Fiscal Performance	**0.032*****		0.008		0.033*		0.046**	
	(0.011)		(0.017)		(0.017)		(0.018)	
Divided FM* Fiscal Performance	**0.041****	**0.003**						
	(0.020)	**(0.057)**						
Fiscal Rule			-0.010	-0.027				
			(0.015)	(0.022)				
Finance Minister* Fiscal Rule			-0.008					
			(0.016)					
Fiscal Performance* Fiscal Rule			0.021	**0.090****				
			(0.015)	**(0.044)**				
FM* Fiscal Performance* Fiscal Rule			**0.049****					
			(0.023)					
Financial Referenda					0.014	0.020	0.005**	-0.000
					(0.026)	(0.046)	(0.002)	(0.002)
FM* Financial Referendum					-0.008		-0.001	**-0.005**
					(0.015)		(0.001)	**(0.003)**
Fiscal Perf. * Financial Referendum					0.041**	**-0.026**	0.002	
					(0.020)	**(0.040)**	(0.002)	
FM* Fiscal Perf.* Financial Ref.					**-0.033**		**-0.004****	
					(0.026)		**(0.002)**	
Constant	0.342***	0.290***	0.335***	0.388***	0.310***	0.283***	0.269***	0.241***
	(0.040)	(0.079)	(0.035)	(0.078)	(0.031)	(0.063)	(0.038)	(0.059)
Canton Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Observations	673	115	660	109	679	116	600	103
R^2	0.624	0.655	0.477	0.577	0.484	0.569	0.532	0.622

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*
The dependent variable is the change in obtained vote percentage between an incumbent's re-election and prior election. Fiscal performance is based on the financing statement and measured with a continuous variable. In model 1 and 2, party-period and canton-period or canton fixed effects are included. In model 3-6, cantons and parties are not differentiated by decades as there is not much institutional variation across time and cantons. The financial referendum variable constitutes a dummy variable taking the value 1 if a canton can use a mandatory financial referendum and 0 otherwise in model 5 and 6. In Model 7 and 8, the financial referendum variable is an index measuring the validation and approval rate of spending decisions in a canton

In terms of government clarity, the constellation in the government may also influence how well citizens are able or want to hold the finance minister responsible for the financial situation of a canton. Therefore, Figure 23 below shows the predictive margins of fiscal performance on a finance minister's re-election result either depending on the number of parties in government or the ideological gap between finance and spending ministers. With regards to the number of parties in the government, fiscal performance is evaluated less severely when there are more parties in the government. This may be related to the argument presented in Chapter 3 that fragmentation in government and society in general makes the common pool problem more severe and hence the work of a finance minister more demanding. It seems therefore likely that a same fiscal performance is evaluated differently in a government with 2 parties or 5 parties. Considering the ideological gap between finance and spending ministers, the predictive margins suggest that on the one hand deficits are evaluated more negatively when the finance minister is ideologically to the right of the spending ministers[95] while surpluses are evaluated more positively when the finance minister is ideologically to the right of the spending ministers.

Figure 23. Contour Plot of Fiscal Performance depending on Government Clarity



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The y-axis indicates the number of parties in the left graph and the ideological gap between finance and spending ministers in the right graph. The graph displays the predictive margins of the different values of the financing statement and government clarity variables on the change in obtained vote percentage between the re-election and the prior election of finance ministers with different colour shades.*
Source: *own illustration*

This of course might not reliably indicate that the ideological gap between finance and spending ministers affects the voting behaviour of citizen but could also suggest that depending on their ideological position finance ministers are evaluated differently for their fiscal performance as

[95] The parties are coded based on their political leaning on a left-right scale ranging from 0 to 10 (Ladner 2006). A positive value of the ideological gap variable means that the finance minister's party is positioned more to the right compared to the parties of the spending ministers. A negative value of the ideological gap variable means that the finance minister's party is positioned more to the left than the parties of the spending ministers.

obviously there is a high correlation between the ideological position of a finance minister and the ideological gap between finance and spending ministers. This would relate to Lowry et al. (1998) who argued that voters do not vote against fiscal excess in general but only when it deviates from expected performance and that expected performance might differ from one party to another.

Finally, note that Figure 23 only shows predictive margins for different numbers of parties and levels of ideological gap but does not enable any statements on statistical significance. Indeed, despite these visible tendencies, there seems to be no statistical significant difference regarding the effect of fiscal performance on the re-election result of finance ministers depending on these measures of government clarity. Table 39 in the Appendix presents the corresponding estimation for the government clarity interactions.

7.5 Strategic Behaviour of Finance Ministers

The estimations might be subject to some endogeneity issues due to an omitted variable or reverse causality. On the one hand, a finance minister's charisma and strength could influence the budgeting process and his ability to persuade spending ministers and the parliament in order to generate good financial results. Additionally, his charisma and strength could also lead to higher re-election results. Weak finance ministers might be unable to negotiate and implement restrictive fiscal policies against the spending ministers and the parliament (Brender 2003: 2193) and, as different authors have argued, the strength of a finance minister might have an influence on fiscal performance (Hagen and Harden 1995, Jochsimen and Thomasius 2014).

The literature identifies procedural rights, the relationship to the prime minister, the number of spending ministers in opposition, the government fragmentation, or personal characteristics as factors strengthening the minister of finance. His popularity may be an additional form of strength to consider, as it could help the finance minister pursue his goals and achieve good performance. On the other hand, an unpopular finance minister with a small win margin might feel even more compelled to generate surpluses in order to demonstrate competence and ensure re-election (Lowry et al 1998). Given voter preferences for fiscal discipline, politicians might behave strategically by improving the financial results, for example through creative accounting or manipulation of tax revenue projections, in pre-electoral years. By generating surpluses an incumbent finance minister could try to signal that his preferences are close to those of the voters. Power-hungry politicians might be more tempted to do so which leads back to the omitted variable problem. I took this issue of a finance minister's strength, charisma, or ambition into account by first including personal characteristics such as age, education, political

experience, experience in office, as well as the former electoral score (Brender 2003), and then in a second step by including individual fixed effects.

Of course, whether there are any incentives to act strategically if the risk of being thrown out of office is really small is a valid question (Jochimsen and Nuscheler 2011: 2403). As discussed during the presentation of the dataset, only 5 finance ministers have not been re-elected since 1980. This low rate of non-re-election may be the consequence of positively evaluated performance. It is impossible to know the counterfactual electoral result of finance ministers running huge deficits instead of surpluses. Indeed, as presented in Chapter 5, the non-re-election rate of spending ministers is a little higher. Second, finance ministers might not only care about their political career on the cantonal level but may also have goals for higher political office at the national level or in the private sector. Track record and popularity become all the more important in this respect. Since 1980, four former cantonal finance ministers went on to become members of the Federal Council (government),[96] 20 of the Council of States (parliament, upper chamber) and 13 of the National Council (parliament).

Revelly (2008) addresses a similar endogeneity question in an analysis investigating the effect of local tax rates and service performance ratings on the probability of re-election in English localities. He chooses to instrumentalize the property tax rate by tax base size and composition, central government block grants, population size, and population density. Lowry et al. (1998), on the other hand, control for elections that take place under binding term limits. While they acknowledge this is an imperfect instrument, they argue that it isolates many cases of behaviour by incumbents who do not expect to be around after the next election. Hence in order to improve the causal estimation strategy, I considered possible exogenous variables which are not directly influenced by the finance minister or fiscal preferences (exogeneity criteria) but highly correlated with the financing statement result (relevance criteria) and only affect the re-election result via this channel (Angrist and Pischke 2009). Various instruments, like the cantonal revenues coming from shared federal taxes and contributions, interest payments, or population growth were considered yet did not meet either the criteria of relevance or of exogeneity.

A further possibility could be to take a look at the behaviour of incumbent finance ministers and model the electoral effect of possible "opportunistic distortions" as Aidt, Veiga & Veiga (2011) and Klomp & de Haan (2012). Clémenceau (2014) already investigated whether creative

[96] In the canton of Geneva, for instance, politicians from the bourgeois bloc accused Micheline Calmy-Rey of presenting a rather political statement of financial performance in 2002 and budget 2003 to enhance her chances to be elected to the Federal Council: https://www.letemps.ch/suisse/micheline-calmyrey-accusee-davoir-presente-un-budget-politique-favoriser-ascension-federale

accounting activities, additional depreciation charges, and special funds[97] were influenced by upcoming elections in Swiss cantons and did not find any evidence. However, the amount of creative accounting was measured in the election year itself and not in the pre-electoral year. Chatagny (2015), on the other hand, found evidence for bigger tax revenue projection errors in pre-electoral years, which is in line with the assumption that finance ministers can underestimate tax revenues to restrain spending and get better financial results before the next re-election. Yet, neither author considered whether the incumbent finance minister was running for re-election or not. In line with Chatagny's argument (2015) that manipulating revenue projections is the cheaper way for the finance minister to influence fiscal policy, I investigated possible opportunistic distortions and their electoral effect. As a naïve test, I used the variable of tax revenue projection errors as a control variable in the regression. The variable measures the difference between the projected amount and the actual amount of tax revenue per capita. The more negative the value of the variable the stronger the underestimation of tax revenues. Alternatively to control for cyclical or structural effects, I also measured the variable as a deviation from the average of the other canton's projection error in the same year or to the average of a canton's own projection errors in the three years before. The results are presented in the column 1-3 in Table 12. No measure seems to significantly influence the electoral score of finance ministers and the effect of the variable of interest, i.e., fiscal performance, is also not altered by the inclusion of this additional control variable. However, the sign of the variable would go in the expected direction meaning that a stronger underestimation of tax revenues would benefit the finance minister electorally.

Finally, similar to the approach of Klomp & de Haan (2012), I estimated a political budget cycle in tax revenue projection error (PCB) with and without taking into account variables measuring election effects. Without the inclusion of election variables, the error term captures the unexplained part of the tax revenue projection errors concerned along with election effects. Thus, the difference between the error term in a pre-election year and the average error term during the term in office of the government constitutes the political budget cycle variable. I then included the PBC variable in the electoral outcome regression in order to see whether or not opportunistic distortions have an electorally beneficial effect for finance ministers. Column 4 estimates tax revenue projection errors including election-specific effects, more specifically dummy variables measuring pre- & electoral years when finance ministers are running for re-

[97] Creative accounting in the context of Swiss cantons is mainly used for the purpose of worsening the fiscal balance or disguise surpluses in order to restrain spending desires and structurally improve a canton's financial situation.

election and post electoral years in general. The model specification is very similar to Chatagny (2015), except that it considers whether or not a finance minister is actually running for re-election and not only if it is an electoral year. The results confirm those of Chatagny (2015) even when including 10 additional years. Indeed tax revenue projections do seem to be influenced by election cycles. Column 5 estimates tax revenue projection errors without taking into account election dummies and the residuals are predicted in order to compute the political cycle variable as described above. Finally, column 6 includes the political cycle variable in the electoral outcome regression yet seems neither to significantly influence the electoral score of finance ministers nor to change the effect of the fiscal performance variable significantly.

Finance ministers may also anticipate the strategic behaviour of spending ministers in pre-electoral years with the higher amount of error in tax revenue projections. Indeed, Baldi and Foster (2019) find evidence for higher government spending in Swiss cantons in electoral years but no effect for total revenues or the total budget.[98] This means that, assuming that finance ministers and spending ministers are more or less equally charismatic and power-hungry as well as have a similar tendency to behave strategically in the budget process, they all should be subject to the omitted variable bias. They should therefore cancel each other out and diminish possible endogeneity problems in the econometric estimations. It seems reasonable to assume that the electoral score of spending ministers would be similarly affected, making the difference between finance and spending ministers again meaningful. Interestingly, the systematic credit leftovers, at least at the national level (FFA 2016: 59), suggest that the spending minister's appetite for budget appropriations can also result in better fiscal performance and might thus even benefit the finance minister.[99]

Finally, finance ministers may behave strategically in an additional way and base their decision to run for re-election on the canton's financial situation (Brender 2003). If this is the case, the results could even underestimate the effect of performance on a finance minister's re-election prospects. This point was addressed in interviews with former and incumbent finance ministers but the discussions did not indicate this kind of behaviour.

[98] This effect could indeed be a sign of electoral cycles and opportunistic behaviour as the authors present it or simply be caused by the rolling 4-years ahead financial blueprint and legislation planning. Big projects and policy programs could be scheduled more toward the end of a legislation as it takes time to plan and implement them.

[99] If the need for budget appropriation is bigger than what was already decided, a request for supplementary appropriation must be submitted (Soguel 2018). Ministers are incentivized to plan generously or more carefully, in order to avoid this, which means it could be interesting to collect those data and test the effect of the difference between budgeted and actual expenditures on the electoral scores of finance and spending ministers.

Table 12. PBC in Tax Revenue Projection Errors & Election Outcome

	Election Outcome Regression			Political Budget Cycle Regression		Elect. Regression
Dependent Variable:	**Δ in Obtained Vote % compared to prior Election**			**Tax Projection Error**		**Δ in Obtained Vote % compared to prior Election**
	(1)	(2)	(3)	(4)	(5)	(6)
	All Incumbents	All Incumbents	All Incumbents	1980-2018	1980-2018	All Incumbents
Finance Minister	0.020**	0.020***	0.023***			0.021***
	(0.008)	(0.006)	(0.007)			(0.007)
Fiscal Performance	0.002	0.001	0.001			0.005
	(0.005)	(0.005)	(0.005)			(0.011)
Finance Minister * Fiscal Performance	**0.027****	**0.003*****	**0.028*****			**0.027****
	(0.012)	**(0.011)**	**(0.011)**			**(0.013)**
Tax Projection Error	0.016	0.021	0.026			0.028
	(0.017)	(0.014)	(0.019)			(0.065)
Finance Minister * Error	-0.036	-0.018	-0.041			-0.023
	(0.026)	(0.023)	(0.025)			(0.096)
Left				-0.241***	-0.243***	
				(0.075)	(0.076)	
Fiscal Rule				0.023	0.024	
				(0.018)	(0.018)	
Left*Rule				0.047**	0.047**	
				(0.022)	(0.022)	
Pre-Reelection Year				-0.036**		
				(0.015)		
Reelection Year				-0.048*		
				(0.028)		
Post-Election Year				-0.044***		
				(0.016)		
Constant	0.345***	0.308***	0.343***	-0.054	-0.093**	0.309***
	(0.040)	(0.030)	(0.040)	(0.043)	(0.045)	(0.037)
Individual Controls	✓	✓	✓	✓	✓	✓
Election / Canton Controls	✓	✓	✓	✓	✓	✓
Canton Fixed Effects	✓	✓	✓	✓	✓	✓
Party Fixed Effects	✓	✓	✓			✓
Year Fixed Effects				✓	✓	
Observations	673	627	673	884	884	499
R^2	0.625	0.653	0.625	0.253	0.246	0.677

Notes: *Robust std. errors clustered at election-& candidate-level in parentheses (Models 1, 2, 3+6) and at the minister-& year-level (Models 4+5)* * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

Models 1,2, 3 and 6 include party-period and canton-period fixed-effects. The dependent variable is the change in obtained vote percentage between an incumbent's re-election and prior election (Models 1, 2, 3+6) or the tax projection error per capita (Models 4+5). Fiscal performance is based on the financing statement and measured with a continuous variable.

7.6 Key Takeaways from the Quantitative Analysis

The aim of this chapter was to econometrically estimate whether voters hold finance ministers accountable for their fiscal performance on re-election day. To look at this, I tested the assumptions formulated in Chapter 3 using re-election data from finance and spending ministers in the Swiss cantons over the period of 1980-2018. Consistent with my derived hypotheses, the estimations indicate that finance ministers benefit statistically and electorally from balanced financial accounts and debt reduction. In numerical terms, finance ministers running a balanced financing statement or a surplus benefit from a statistically significant 4 percentage point increase in obtained vote share, with the confidence interval ranging from 1.3 to 6.6 percentage points. Using a continuous variable to measure the financing statement result instead of a dummy variable further shows that an improvement of the financing statement of CHF 1000 per capita in the year before re-election raises the electoral result of a finance minister about 3.4 percentage points compared to the obtained vote percentage in the previous election, with the confidence interval going from a 1.4 to 5.4 percentage point change in obtained vote percentage per unit increase of the financing statement. Oppositely, the electoral results of the spending ministers do not seem to be significantly affected by the financing statement result. Now, it is possible that individual characteristics may influence a minister's choice of taking over the finance ministry, her fiscal policy choices while in office as well as the electoral results. Furthermore, incumbents running for a second, third, or fourth time may also differ from incumbents running for their first re-election. To correct for these potential selection effects I then ran the estimation on a sample only considering first re-elections in which the observations were additionally weighted by the inverse probability of taking over the finance ministry. My results suggest that the electoral effect of fiscal performance is not caused by a selection bias but rather by the office of the finance ministry itself. The results are robust to a large number of control exercises including alternative operationalization of electoral success as well as the fiscal performance variable, additional covariates, variation in the functional form, and case selection as well as placebo tests. Across the different specifications, the electoral effect seems to be stronger for positive financing statement results, i.e., debt-level reduction, suggesting that good performance attracts votes from outside the party base whereas small deficits may not always have a significant negative influence on the evaluation by the core vote base. Moreover, a non-linear specification suggests diminishing marginal utility of surpluses for electoral purposes.

In the second part of the chapter, I investigated heterogeneous effects in terms of fiscal preferences as well as political and institutional characteristics which could impede the clarity of responsibility. Considering fiscal preferences, the electoral effect of fiscal performance for finance ministers seems to be significantly stronger in jurisdictions with higher homeownership rates. Furthermore, the results suggest that since 2000, voters from French- and Italian-speaking cantons have become more similar to voters from German-speaking cantons in terms of fiscal preferences, currently even evaluating finance ministers running deficits negatively and surpluses positively. In terms of political and institutional characteristics, such as pooled finance ministries, fiscal rules, the instrument of financial referendum as well as the number and ideological position of parties represented in the government, I was able to single out a few tendencies. However, looking at the predictive margins of fiscal performance on the re-election of finance ministers, no strong statistical differences between political and institutional characteristics could be observed. Finally, I discussed and relativized endogeneity issues and more specifically any omitted variables as well as reverse causality.

Overall, the econometric results confirm my main hypothesis 1, namely that fiscal performance does affect the re-election of finance ministers, and then also indicate a specific attribution of performance to individual incumbents. My findings suggest that electoral accountability might even be possible in the hard case of coalition governments and consensus democracy provided that the members of the executive, i.e., the finance ministers, are individually elected by citizens through majority vote and have discretionary power. Furthermore, the effect of fiscal performance on the re-election of finance ministers seems to be conditioned by fiscal preferences consistent with hypothesis 2 as stronger preferences for fiscal discipline increase the effect of fiscal performance on a finance minister's re-election result. Lastly, and in contrast, I was unable to present any robust statically significant evidence for hypothesis 3 that political and institutional factors which decrease clarity of responsibility lower the effect of fiscal performance on a finance minister's re-election.

8 Conclusion

Electoral control and accountability are important aspects of a functioning democracy. Since 1970 a great amount of research on the accountability relationship in elections has been conducted, both on theoretical as well as empirical grounds. Despite this, it has remained difficult to empirically demonstrate consistent effects. While some findings show that on the whole voters seem to respond to government performance on both the national (Kramer 1971) and local level (Brender 2003), others suggest that voters are rather politically ignorant, poorly informed, or behave irrationally by reacting to irrelevant factors (Achen and Bartels 2016). Which gives rise to the question of whether or not voters are competent, and so what this means for democratic accountability is far from settled (Fowler and Hall 2017). Different factors can influence a voter's perception, evaluation, and attribution of performance and thus his vote choice: amount of information, a voter's predisposition and preferences, as well as the political and institutional context are just a few examples. In this way, the identification strategy is crucial for empirical analyses on electoral accountability. The configuration of a novel dataset on Swiss cantons for the period of 1980-2018 provided me the opportunity to test whether cantonal finance ministers are held accountable for a canton's financial situation on re-election day. Making use of a unique institutional context enabled a more subtle analysis as well as an improved identification of performance-oriented voting for several reasons. First, members of the cantonal executive are elected individually by the citizens in multi-seat majoritarian elections and the (re)-election results of a same candidate could be compared to her prior election result. Second, the performance of a finance minister could convincingly be based on the fiscal balance. Third, as cantonal governments consist of 5 to 7 members, there are usually several incumbents running for re-election, constituting a possible control group, which provided the opportunity to compare the electoral scores between finance and spending ministers. Fourth, the variation between and within cantons in terms of fiscal preferences as well as institutional and contextual factors made it possible to identify the conditions which make performance-oriented voting more pronounced.

This thesis started by discussing the relevant literature on electoral accountability, with a special focus on economic voting and political business cycles, and more specifically fiscal performance and political budget cycles. Concluding that the development of research on the existence of pre-electoral policy patterns, i.e., policy-cycles, as well as their electoral effect might to a certain extent reflect varying concerns and preferences of citizens over time or between and within countries. I formulated my hypotheses according to models of electoral

accountability and public finance (Persson and Tabellini 2000) as well as the political economy of budget processes (von Hagen and Harden 1995). Emphasizing the common pool characteristics of the public budget, I discussed the different roles and objectives of spending and finance ministers. The common view being that the strength and competence of a finance minister might be crucial to discipline the spending ministers and resolve the common pool problem, I identified fiscal balance as the main indicator to assess a finance minister's effectiveness and competence. I further demonstrated the suitability of the Swiss cantonal context to investigate electoral accountability through a discussion of fiscal management and fiscal policy on the cantonal level as well as the configuration of cantonal governments and the corresponding electoral rule. Finally, the data on electoral success and fiscal performance further showed that there is enough variation within and across cantons to justify an in-depth empirical analysis.

Next, I went on to discuss the validity of the theoretical assumptions as well as the indented measures regarding the dependent, independent, and control variables with 16 former and incumbent finance ministers. Most of the finance ministers described budget balance and fiscal consolidation as their main objective and the majority, but not all, intuitively agreed that fiscal performance matters for a finance ministers' re-election score while continuing to acknowledge the importance of other factors. The additional qualitative investigation of several hypotheses-confirming as well as hypotheses-contradicting cases further highlighted the need for a multivariate econometric analysis.

The data analysis of 220 cantonal government elections covering the period of 1980-2018 with about 700 suitable re-election cases confirmed my main formulated hypothesis. Finance ministers benefit statistically and electorally from balanced financial accounts and debt reduction. In numerical terms, finance ministers who close their financial accounts with a "black zero" or a surplus (debt stabilization or debt reduction) electorally benefit from an increase of 4 percentage points compared to their previous election score, with the confidence interval ranging from 1.3 to 6.6 percentage points. Using a continuous variable to measure the financing statement result instead of a dummy variable further shows that an improvement of the financing statement of 1000 Swiss francs per capita in the year before re-election raises the electoral result of a finance minister about 3.4 percentage points compared to the obtained vote percentage in the prior election. The confidence interval for this estimation goes from 1.4 to 5.4 percentage points change in the obtained vote share per one unit increase of the financing statement result. The annual financing statement results for all years of the period from 1980 to 2018 are distributed between roughly CHF -4700 and 3600 per capita, or CHF -4700 and 1600

per capita if only pre-electoral years are considered. Based on the estimations of this thesis such financing statement results could lead to electoral losses or gains of nearly up to 15 percentage points for finance ministers compared to their previous election score. Considering that in half of the elections since 1980 the distance between the worst elected and best non-elected in the first ballot was less or equal to 3 percentage points the effect seems non-negligible. On the contrary, spending ministers' electoral results do not seem to be significantly affected by the financing statement result. Correcting for possible selection effects, results suggest that the electoral effect of fiscal performance may not be caused by a selection bias but rather by the office of the finance ministry itself. In general, the electoral effect seems to be stronger for positive financing statement results, i.e., debt-level reduction, suggesting that good performance provides votes outside of the party base whereas deficits might not always have a significant negative influence on the evaluation by the core vote base. This finding can be related to testimonies of interviewed finance ministers. On the one hand it was essentially the finance ministers that generated surpluses who believed that fiscal performance matters for re-election. On the other hand, some said that citizens were rather understanding with them regarding deficits. As elections affect democratic performance through the interaction of politicians and voters it might indeed be that those finance ministers who believed voters to strongly care about sound public finance also put more weight on delivering that. Considering fiscal preferences, the electoral effect of fiscal performance for finance ministers seems to be significantly stronger in jurisdictions with higher homeownership rates. Sound public finances seem generally to have become more important regarding the re-election of finance ministers in the 21st century, even indicating a statistically significant change of preferences in the French- and Italian-speaking cantons. All in all, the results suggest a high sophistication level of citizens voting behaviour.

It's important, however, to highlight a few critical points and limitations of my analysis. The results make no statement whatsoever regarding social welfare. Whether or not the financial management and fiscal policies in the cantons are socially beneficial is not part of this analysis. This thesis concentrates on the question of whether or not and under which conditions citizens react to the financial situation of a canton when casting their vote for a finance minister. This means that it could be that elections induce politicians to enact policies which they think will improve their re-election chances even if they are socially harmful. A second limitation concerns the time frame. Indeed, the nineties seem to have had important consequences for Swiss and cantonal public finances in terms of institutional arrangements, financial

competences, citizen fiscal preferences, and, as a result a finance minister's objectives while in office. I was able to deduce this through my discussions with former finance ministers, by reading newspaper articles and financial accounts, as well as by looking at the number of popular votes on financial rules and other restrictions at the turn of the millennium. So it is not sure how the electoral effect of fiscal performance might evolve over the following years and decades, especially depending on the preferences and concerns of citizens and the size of various constituencies.

Further research on selection and disciplining effect of government elections under multi-seat majority system in Swiss cantons and big municipalities are encouraged. Indeed, political agency models are most promising when applied to a context where there are individually elected politicians with discretionary power. First, it would be interesting to reproduce the analysis with performance-specific variables regarding the different spending ministries. Using the electoral scores on municipal level, one might additionally investigate, for instance, whether projects and policies targeting specific districts and municipalities have an electoral effect for the responsible spending minister. In terms of municipal governments, variations exist concerning the election rules as some apply proportional voting systems and others multi-seat majoritarian systems. This variation could be exploited to analyse differences in the electoral effect of performance as well as analyse differences in government or minister performance as Eichenberger, Schafer and Stadelmann (2019) do, for example. The authors show that under multi-seat majoritarian elections, politicians are more focused on serving citizens preferences, cooperate better within the government, and face fewer performance limits. Indeed, as discussed in Chapters 2 and 3, factors which strengthen electoral accountability also foster incentives for politicians to perform well and in line with citizen preferences and thereby affect political outcomes.

Finally, I can formulate some practical implications and recommendations. First, from a rather political-strategic point of view, a finance minister interested in signalling competence, with higher political ambitions and the aim of increasing his popularity, is well advised to generate surpluses. Turning to the procedural-/ institutional-level, a huge literature (von Hagen and Harden 1995, Jochismen and Thomasius 2014) deals with the strength of the finance minister as well as his position in the budget process and suggests increasing the power of this player through reforms in order to improve public finances. An additional possibility to consider would be to increase the private incentive and accountability of a finance minister through elections. Conceivable are general elections as is mostly the case in the Swiss cantons or specific elections of the finance minister as is the case in the canton of Appenzell Innerrhoden. Indeed, the citizen

assembly specifically re-elects a politician as finance minister ("Säckelmeister") whereas the spending ministers are not re-elected to a specific ministry but as a member of the government. A last—but not least—implication is that multi-seat majority elections, even if it is important not to generalize from the particular Swiss case, may constitute a good option for increasing electoral accountability and politician-specific monitoring in multi-party governments.

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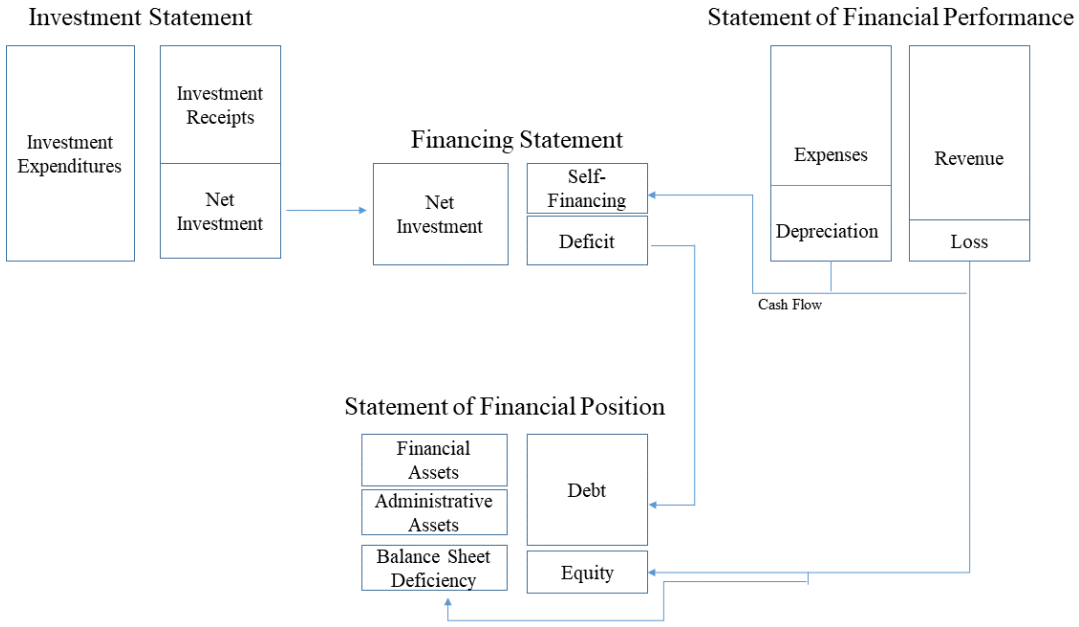
Appendix

A.1 Cantonal Accounting

Figure 24. Financing Statement vs. Statement of Financial Performance



Source: *own illustration*

A.2 Data

Table 13. Descriptive Statistics Full Sample 1980-2018, all Incumbents and Re-elections

Variables	Description	Source	Obs	Mean	Std. Dev.	Min	Max
Δ in Obtained Vote %	Difference between obtained vote percentage in re-election and in prior election	Own calculations based on data from cantonal websites & official registers	893	0.014	0.121	-0.598	0.523
Obtained Vote %	Votes obtained in relation to total votes cast	Own calculations based on cantonal websites & official registers	1006	0.557	0.151	0.101	0.960
Vote Margin % to Fellow Incumbent Party Member	Difference in obtained vote percentage between incumbent and other fellow incumbent party member in same election	Own calculations based on data from cantonal websites & official registers	543	-0.013	0.081	-0.425	0.287
Financing Statement $_{t-1}$	Balance of the financing statement/ capita in CHF 1000 in the year before re-election in real terms. Positive numbers indicating a surplus and negative numbers a deficit.	Federal Finance Administration	974	-0.086	0.647	-4.663	1.635
Cumulative Financing Statement $_{t-3-1}$	Addition of the financing statement results in real terms per capita in CHF 1000 in the three years before re-election	Federal Finance Administration	917	-0.210	1.503	-6.316	5.524
Debt Level $_{t-2}$	Per capita debt in CHF 1000 in real terms two year before re-election	Federal Finance Administration	946	7.372	6.695	0.470	35.947
Δ Tax Rate	Dummy taking the value 1 if mean personal income tax rate is decreased in the year before re-election	Federal Tax Administration	862	0.772	0.419	0	1
Investment Expenditures $_{t-1}$	Real per capita investment expenditures in CHF 1000 in the year before re-election	Federal Finance Administration	721	1.307	0.945	0.340	5.541
Vote Share$_{t-1}$	Obtained votes/total votes cast in the prior election	Cantonal websites & official registers	893	0.542	0.158	0.161	0.959

Δ Participation Rate	Difference between participation rate in re-election and prior election	Own calculations based on data from cantonal websites & official registers	890	-0.010	0.075	-0.321	0.292
Δ Candidates	Difference in number of candidates in re-election and prior election standardized by government seats	Own calculations based on data from cantonal websites & official registers	899	0.364	3.675	-18	17
Δ Free seats	Difference in number of free seats in re-election and prior election	Own calculations based on cantonal websites & official registers	913	-0.185	1.574	-5	4
Party Share in parliament	Vote share of finance ministers' party in parliament at time of election	Federal Statistical Office	992	0.249	0.116	0	0.641
GDP-growth $_{t-1}$	Real GDP per capita growth rate in the year before re-election	Federal Statistical Office	867	0.013	0.049	-0.117	0.403
Δ Unemployment $_{t-1}$	Difference in unemployment rate between t-2 and t-1	Federal Statistical Office	946	0.001	0.07	-0.016	0.028
Female	Dummy variable taking the value 1 for female incumbents and 0 for male finance ministers	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	1006	0.136	0.353	0	1
Econ	Dummy variable taking the value 1 for incumbents with university degree in law	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	975	0.121	0.326	0	1
Law	Dummy variable taking the value 1 for incumbents with university degree in economics	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	975	0.171	0.378	0	1
Finance Ministry	Dummy variable taking the value 1 if incumbent was in charge of the finance ministry	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	958	0.183	0.387	0	1
Education Ministry	Dummy variable taking the value 1 if incumbent was in charge of the education ministry	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	958	0.160	0.367	0	1

Health Ministry	Dummy variable taking the value 1 if incumbent was in charge of the health ministry	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	958	0.134	0.340	0	1
Economy Ministry	Dummy variable taking the value 1 if incumbents was in charge of the economy ministry	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	958	0.162	0.368	0	1
Security Ministry	Dummy variable taking the value 1 if incumbents was in charge of the security ministry	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	958	0.172	0.378	0	1
Environment Ministry	Dummy variable taking the value 1 if incumbent was in charge of the environment ministry	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	958	0.190	0.392	0	1
Re-election Number	Number of times a candidate has participated in a cantonal government re-election	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	756	1.903	0.925	1	6
SVP	Dummy variable taking the value 1 if candidate is from the Swiss people's party	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	1006	0.126	0.332	0	1
CVP	Dummy variable taking the value 1 if candidate is from the Christian democratic party	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	1006	0.279	0.449	0	1
FDP	Dummy variable taking the value 1 if candidate is from the liberal party	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	1006	0.316	0.465	0	1
SP	Dummy variable taking the value 1 if candidate is from the social-democratic party	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	1006	0.203	0.402	0	1
Political Experience	Sum of dummy variables measuring the political experience at municipal, cantonal and national level in the government and parliament	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	961	2.437	0.837	0	5

Experience in National Parliament	Dummy variable taking the value 1 if the finance minister already has a prior experience in the national parliament	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	1006	0.134	0.341	0	1
Left	Dummy taking the value 1 if incumbent is member of a leftist party	Own coding based on personal websites, questionnaire, historical encyclopaedia of Switzerland	1006	0.236	0.425	0	1
Index Fiscal Preferences	Index measuring the degree of fiscal conservatism per decade, centred	Own calculations based on data from Federal Chancellery	1006	0.006	0.029	-0.127	0.041
Homeownership	Homeownership rate per canton, centred	Federal Statistical Office, Federal Housing Agency	1006	-0.006	0.117	-0.250	0.254
Election Tightness	Difference in vote percentage between last elected and first non-elected in first round	Own calculation based on data from cantonal websites & official registers	889	0.087	0.129	0.000	0.833
Alliances	Dummy taking the value one if incumbent is member of an alliances for election	Own coding based on Année politique Suisse, cantonal websites & official registers	1006	0.285	0.452	0	1
Government Fragmentation	Number of parties represented in the government	Own coding based on data from cantonal websites, & official registers, Federal Statistical Office	974	3.685	0.745	2	5
Concordance	The concordance variable represents the proportion of seats held in parliament by the governing parties	Own calculation based on data from cantonal websites, & official registers, Federal Statistical Office	974	0.827	0.122	0	1
Ideological Gap	Difference between ideological leaning of a finance minister's party and the ideological leaning of the spending minister's parties. Ideological leaning of the parties is measured on a left-right scale going from 0 to 10	Own calculations based on data from cantonal websites, & official registers, Federal Statistical Office	974	1.436	1.580	-2.871	4.014
Donor Canton	Dummy taking the value 1 if a canton is a netto-payer in the fiscal equalization system	Own coding based on data from Federale Finance Administration	670	0.375	0.484	0	1

1. Geographical Comparative Measure	Difference between financing statement and the average financing statement of all other cantons in the year before re-election in real terms and per capita in CHF 1000	Own calculations based on data from Federal Finance Administration	974	-0.026	0.600	-4.429	1.372
2. Geographical Comparative Measure	Difference between financing statement and the average financing statement of all other cantons of the same language region in the year before re-election in real terms and per capita in CHF 1000	Own calculations based on data from Federal Finance Administration	974	-0.031	0.606	-4.396	1.351
1. Historical Comparative Measure	Difference between financing statement in the year before re-election and the three years before that year in real terms and per capita in CHF 1000	Own calculations based on data from Federal Finance Administration	902	-0.007	0.643	-3.789	2.061
2. Historical Comparative Measure	Difference between financing statement in the year before re-election and the financing statement in the pre-electoral year of the prior election per capita in CHF 1000	Own calculations based on data from Federal Finance Administration	872	0.005	0.922	-4.147	3.469
3. Historical Comparative Measure	Difference between financing statement in the year before re-election and the financing statement in the pre-electoral year of the prior election per capita in CHF 1000 if the finance minister was already in office	Own calculations based on data from Federal Finance Administration	909	-0.050	0.809	-4.662	3.469
4. Historical Comparative Measure	Difference between the cumulative financing statement in the whole term and the cumulative financing statement in the previous term in real terms and per capita in CHF 1000	Own calculation based on data from Federal Finance Administration	817	-0.103	1.989	-5.778	7.788
Financing Statement in % of Revenue $_{t-1}$	Financing statement in % of total cantonal revenue in the year before re-election	Federal Finance Administration	974	-0.010	0.064	-0.543	0.170
Language	Dummy taking the value 1 for Latin cantons	Federal Statistical Office	1006	0.256	0.437	0	1
Population Size	Log of population size in year before re-election	Federal Statistical Office	974	12.195	1.026	10.417	14.184
Proportional Voting System	Dummy taking the value 1 if canton has a proportional election system for cantonal governments	Own coding based on data from cantonal websites	1006	0.058	0.233	0	1

Government Seats	Number of government seats in cantonal governments	Federal Statistical Office	914	6.048	1.400	1	9
Ordinary Financing Statement $_{t-1}$	Ordinary financing statement in real terms and per capita in CHF 1000 in year before re-election not taking into account extraordinary operations	Federal Finance Administration	974	-0.021	0.568	-1.955	2.686
Statement of Financial Performance $_{t-1}$	Statement of financial performance in real terms and per capita in CHF 1000 in year before re-election	Federal Finance Administration	974	0.013	0.548	-4.142	2.239
Error in Tax Revenue Projections $_{t-1}$	Difference between budgeted and actual tax revenues per capita in real terms in CHF 1000 in the year before re-election	Own calculation based on data from cantonal budgets and financial accounts.	974	-0.104	0.247	-1.359	0.651
Competitive Election	Dummy taking the value 1 if more candidates are running than seats in government	Own coding based on data from cantonal websites & official registers	1006	0.894	0.308	0	1
Initial Election Type	Dummy taking the value 1 if the initial election is a regular election and 0 if the initial election is a by-election	Own coding based on data from cantonal websites & official registers	999	0.716	0.451	0	1
Fiscal Rules	Dummy variable taking the value 1 if a canton meets at least one criteria of the stringency measure developed by Feld & Kirchgässner 2008	Own coding based on cantonal constitutions and financial management act of parliament	977	0.363	0.481	0	1
Mandatory Financial Referendum	Dummy variable taking the value 1 if a canton avails itself of the instrument of mandatory financial referendum	Own coding based cantonal constitutions and financial management act of parliament	1006	0.591	0.491	0	1
Index Financial Referendum	Number of financial referendum ballots time the ratio of accepted financial referendum per decade	Own calculations based on cantonal websites and C2D database	902	6.817	6.464	0	41
Municipal Obtained Vote %	Votes obtained in relation to total votes cast on municipal level	Own calculation based on data from cantonal websites and official registers	44828	0.515	0.160	0	100

Municipal Δ Vote %	Difference between obtained vote percentage in re-election and in prior election on municipal level	Own calculation based on data from cantonal websites and official registers	29337	0.031	0.129	-0.508	0.723
Municipal Vote Margin %	Difference in obtained vote percentage between incumbent and other fellow incumbent party member in same election	Own calculation based on data from cantonal websites and official registers	34764	0.029	0.126	-0.627	0.867
Δ *M*unicipal Participation Rate	Difference between participation rate in re-election and prior election on municipal level	Own calculation based on data from cantonal websites and official registers	29337	-0.009	0.067	-0.590	0.541
Municipal Strength of Party	Strength of party in national council elections on municipal level	Federal statistical office	37770	0.226	0.152	0	1
Same Language Region	Dummy taking the value 1 if incumbent lives in same language region as municipality	Own coding based on personal websites, historical encyclopaedia of Switzerland	42710	0.904	0.294	0	1
Same District	Dummy taking the value 1 if incumbent lives in same district as municipality	Own coding based on personal websites, historical encyclopaedia of Switzerland	44828	0.176	0.381	0	1
Same Municipality	Dummy taking the value 1 if incumbent lives in same municipality as municipality	Own coding based on personal websites, historical encyclopaedia of Switzerland	44828	0.009	0.097	0	1
Municipal Income	Average Taxable Income per Taxpayer in Municipality in CHF 100’000	Federal Tax Administration	34325	0.676	0.298	0.193	8.573

A.3 Main Estimation

Table 14. Main Estimation – All Incumbents and Spending Ministers only

Dependent Variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Δ in Obtained Vote % compared to prior Election	All Incumbents	All Incumbents	Spending Min.	Spending Min.	All Incumbents	All Incumbents	Spending Min.	Spending Min.
	Fiscal Performance = dummy variable (1=surplus, 0=deficit)				Fiscal Performance= continuous variable (financing statement p. ca.)			
Fiscal Performance	**-0.020****	**-0.012**	**-0.024****	**-0.016**	**0.004**	**0.005**	**0.002**	**0.003**
	(0.010)	**(0.010)**	**(0.011)**	**(0.0qq)**	**(0.005)**	**(0.005)**	**(0.006)**	**(0.005)**
Vote Share in Prior Election	-0.744***	-0.710***	-0.777***	-0.743***	-0.733***	-0.702***	-0.765***	-0.734***
	(0.059)	(0.098)	(0.070)	(0.112)	(0.058)	(0.098)	(0.069)	(0.111)
Number of Re-election		-0.012**		-0.013**		-0.012***		-0.013**
		(0.005)		(0.006)		(0.005)		(0.005)
Law Degree		0.002		0.001		0.002		0.000
		(0.007)		(0.009)		(0.008)		(0.009)
Economics Degree		-0.014		-0.016		-0.015		-0.018
		(0.010)		(0.011)		(0.008)		(0.011)
Female		-0.008		-0.008		-0.008		-0.008
		(0.009)		(0.011)		(0.009)		(0.011)
National Experience		0.014		0.021		0.013		0.020
		(0.010)		(0.013)		(0.011)		(0.013)
Party Strength		0.237***		0.234***		0.237***		0.238***
		(0.064)		(0.067)		(0.064)		(0.068)
Δ Candidates		-0.005***		-0.004***		-0.005***		-0.005***
		(0.001)		(0.001)		(0.001)		(0.002)
Δ Participation		-0.273***		-0.203*		-0.270***		-0.206**
		(0.092)		(0.106)		(0.091)		(0.103)
Δ Free Seats		0.003		0.002		0.003		0.002
		(0.003)		(0.003)		(0.003)		(0.003)
Constant	0.402***	0.346***	0.416***	0.363***	0.386***	0.336***	0.397***	0.350***
	(0.031)	(0.040)	(0.037)	(0.047)	(0.030)	(0.039)	(0.035)	(0.045)
Canton Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓	✓	✓	✓	✓
Observations	693	674	573	554	692	673	573	554
R^2	0.561	0.616	0.576	0.626	0.558	0.614	0.571	0.624

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.*
The dependent variable is the change in obtained vote percentage between an incumbent's re-election and prior election. Fiscal performance is based on the financing statement: either measured with a dichotomous variable (Model 1-4) or a continuous variable (Model 5-8). Models 1, 2, 5 and 6 consider all incumbents but do not allow for a differentiation of fiscal performance between finance and spending ministers (no interaction term). Models 3, 4, 7 and 8 are only estimated on the sub-sample of spending ministers.

A.4 Benchmarking

Table 15. Benchmarking Estimation

Dependent Variable: **Δ in Obtained Vote % compared to prior Election**	(1) Prior Years	(2) Prior Term t-1	(3) Prior Term cum.	(4) Cantons	(5) Lang. Region.
	Historical Reference Point			Geographical Reference Point	
Finance Minister	0.022***	0.022***	0.023	0.021***	0.021***
	(0.007)	(0.007)	(0.008)	(0.007)	(0.007)
Fiscal Performance t-1	-0.001	0.001	0.003	-0.000	0.001
	(0.005)	(0.005)	(0.003)	(0.006)	(0.006)
FM * Fiscal Performance t-1	**0.035*** **	**0.036*** **	**0.009** **	**0.040*** **	**0.042*** **
	(0.012)	**(0.011)**	**(0.004)**	**(0.013)**	**(0.013)**
Reference Point t-1	0.012	0.001	0.002	0.012	0.003
	(0.009)	(0.005)	(0.003)	(0.018)	(0.020)
FM * Reference Point t-1	**-0.002**	**0.002**	**-0.002**	**-0.022**	**-0.029**
	(0.012)	**(0.010)**	**(0.004)**	**(0.029)**	**(0.026)**
Constant	0.306***	0.307***	0.306	0.306***	0.306***
	(0.030)	(0.030)	(0.030)	(0.030)	(0.030)
Canton Fixed-Effects	✓	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓	✓
Control Variables	✓	✓	✓	✓	✓
Observations	581	581	581	581	581
R^2	0.650	0.649	0.647	0.649	0.649

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses.* $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$. *Fiscal performance is measured as the financing statement result per capita in CHF 1000 in the year before re-election. The reference point variable in column 1 is the average financing statement result of the years t-2, t-3, t-4. The reference point variable in column 2 is the pre-electoral year of the previous term. The reference point variable in column 3 is the cumulative financing statement result of the previous term. The reference point variable of column 4 is the average financing statement of the other cantons in the same year. The reference point variable in column 5 is the average financing statement result of the cantons from the same language region in the same year. Fiscal performance is measured as the financing statement variable in the pre-electoral year in model 1, 2, 4 and 5 and as cumulative financing statement of the term (t-1+t-2+t-3) in Model 3.*

A.5 Robustness

Table 16. Overview Robustness Checks

Decision	Original Specification	Alternative Specification
1. How to operationalize electoral success	Change in obtained vote percentage compared to prior election	Obtained vote percentage, distance to fellow incumbent party member in terms of vote share, first rank
2. How to operationalize fiscal performance	Financing statement result per capita in year before re-election	Cumulative measure over whole term, comparative measure to other cantons and to own past, financing statement in % of receipts, ordinary financing statement result, statement of financial performance
3. Which covariates to include	Individual and election-specific controls	Economic and financial indicators, alternative political and electoral controls, cantonal controls, no controls
4. Which cases to consider	Only competitive elections for all re-election and first re-election, excluded 1-2 outlier form city-cantons Basel-Stadt and Geneva	Considering also non-competitive elections, dropping cases outside of 5^{th}-95^{th} interval regarding fiscal performance, successively dropping cantons and years.
5. Functional Form of fiscal performance	Assessed whether the interaction of fiscal performance for finance minister was greater than 0	Test quadratic and cubic relationship, allow for changes in slope between deficits and surpluses
6. Fixed-effects and standard errors	Canton-period FE, Party-period FE, clustering at candidate and election-level	Election fixed effects, candidate fixed effects, no fixed effects, clustering at candidate- and election-level.

I. Electoral Success

Table 17. Robustness – Election Fixed-Effects

Dependent Variable: **Δ in Obtained Vote % compared to prior Election**	(1) All Incumbents	(2) 1.Re-election	(3) Selection Bias
Finance Minister	0.023***	0.036***	0.036***
	(0.006)	(0.014)	(0.013)
Fiscal Performance			
Finance Minister * Fiscal Performance	**0.039*** **	**0.047*** **	**0.045*** **
	(0.011)	**(0.015)**	**(0.014)**
Constant	0.314***	0.311***	0.316***
	(0.026)	(0.075)	(0.075)
Individual Controls	✓	✓	✓
Election Controls			
Canton Fixed-Effects			
Party Fixed-Effects	✓	✓	✓
Election Fixed-Effects	✓	✓	✓
Candidate Fixed-Effects			
Observations	668	212	212
R^2	0.773	0.804	0.807

Notes: *Robust std. errors clustered at election-& candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. The dependent variable constitutes the difference in obtained vote percentage between an incumbent's re-election and prior election. Election fixed effects are included in the estimation, reason why the base effect of fiscal performance, namely the financing statement result per capita in CHF, is dropped in this estimation as it is election invariant. The interaction effect between finance minister and fiscal performance can, however, still be estimated.*

Table 18. Robustness – Candidate Fixed-Effects

Dependent Variable: **Obtained Vote %**	(1) All Incumbents	(2) Finance Minister
Finance Minister	0.022	
	(0.020)	
Fiscal Performance	0.003	**0.030*** **
	(0.005)	**(0.011)**
Finance Minister * Fiscal Performance	**0.034*** **	
	(0.011)	
Constant	0.680***	0.730***
	(0.052)	(0.128)
Individual Controls	✓	✓
Election Controls	✓	✓
Canton Fixed-Effects		
Party Fixed-Effects		
Election Fixed-Effects		
Candidate Fixed-Effects	✓	✓
Observations	630	105
R^2	0.827	0.867

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.*

The dependent variable constitutes the absolute obtained vote percentage. The vote percentage of the prior election is not included as control variable, however candidate fixed effects and time-varying individual controls (number of re-election, party strength) are included. Fiscal performance is measured as the financing statement result per capita in CHF 1000 in the year before re-election.

Table 19. Robustness – Vote Margin % to Fellow Incumbent Party Member

Dependent Variable: **Vote Margin % to Fellow Incumbent Party Member**	(1) All Incumbents	(2) Finance Min.	(3) 1.Re-election	(4) Selection Bias
Finance Minister	0.034***		0.046**	0.052**
	(0.011)		(0.018)	(0.021)
Fiscal Performance	-0.000	**0.050****	0.006	0.008
	(0.009)	**(0.022)**	(0.020)	(0.019)
Finance Minister * Fiscal Performance	**0.051****		**0.019**	**0.023**
	(0.021)		**(0.033)**	**(0.033)**
Constant	-0.022**	-0.099	-0.020	-0.017
	(0.027)	(0.159)	(0.047)	(0.048)
Individual Controls	✓	✓	✓	✓
Election Controls	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Election Fixed-Effects				
Candidate Fixed-Effects				
Observations	440	91	164	164
R^2	0.152	0.531	0.178	0.189

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. The dependent variable constitutes the difference between the re-election result of an incumbent and the re-election result of a fellow incumbent from the same party in the same election. Fiscal performance is measured as the financing statement result per capita in CHF 1000 in the year before re-election.*

Table 20. Robustness – Logistic Regression with First Rank

Dependent Variable: **First Rank**	(1) All Incumbents
Finance Minister	2.156***
	(0.573)
Fiscal Performance	1.103
	(0.168)
Finance Minister * Fiscal Performance	**3.569*****
	(1.647)
Constant	0.236
	(0.342)
Individual Controls	✓
Election Controls	✓
Canton Fixed-Effects	✓
Party Fixed-Effects	✓
Election Fixed-Effects	
Candidate Fixed-Effects	
Observations	673
Pseudo R^2	0.143
Wald chi^2	769.56

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01.*
The dependent variable corresponds to a dummy variable taking the value 1 when an incumbent is ranked first and 0 otherwise. Odds ratio are presented instead of coefficients. Fiscal performance is measured as the financing statement result per capita in CHF 1000 in the year before re-election.

II. Fiscal Performance

Table 21. Robustness – Ordinary Financing Statement

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Fiscal Performance= Ordinary Measure	All Incumb.	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.024***		0.033**	0.040***
	(0.007)		(0.016)	(0.015)
Fiscal Performance	0.001	**0.056****	0.002	0.002
	(0.006)	**(0.023)**	(0.011)	(0.011)
Finance Minister * Fiscal Performance	**0.032*****		**0.040***	**0.041****
	(0.009)		**(0.020)**	**(0.019)**
Constant	0.342***	0.277***	0.274***	0.280***
	(0.040)	(0.079)	(0.063)	(0.063)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	674	115	258	258
R^2	0.625	0.654	0.670	0.665

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. Fiscal Performance is a canton's ordinary financing statement result per capita in year t-1, meaning that extraordinary operations are not taken into account. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election.*

Table 22. Robustness – Financing Statement in % of Revenue

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Fiscal Performance= in % of Revenue	All Incumb.	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.025***		0.037**	0.045***
	(0.007)		(0.017)	(0.016)
Fiscal Performance	0.042	**0.520****	-0.005	-0.002
	(0.060)	**(0.222)**	(0.082)	(0.082)
Finance Minister * Fiscal Performance	**0.297****		**0.399****	**0.417****
	(0.112)		**(0.173)**	**(0.164)**
Constant	0.341***	0.292***	0.273***	0.278***
	(0.039)	(0.079)	(0.062)	(0.062)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	673	115	258	258
R^2	0.623	0.655	0.670	0.666

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. Fiscal Performance is measured as the financing statement result in % of total receipts in t-1. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election.*

Table 23. Robustness – Statement of Financial Performance

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Fiscal Performance= SPF (Income Statement)	All Incumb.	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.023***		0.030*	0.037**
	(0.006)		(0.016)	(0.015)
Fiscal Performance	0.005	**0.052****	0.003	0.003
	(0.007)	**(0.024)**	(0.015)	(0.015)
Finance Minister * Fiscal Performance	**0.044*****		**0.038****	**0.039****
	(0.010)		**(0.019)**	**(0.019)**
Constant	0.342***	0.303***	0.273***	0.278***
	(0.039)	(0.086)	(0.063)	(0.063)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	674	115	258	258
R^2	0.626	0.636	0.670	0.665

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. Fiscal Performance is the statement of financial performance. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election.*

III. Additional Covariates

Table 24. Robustness – Additional Financial Controls

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Financial Controls	All Incumbents	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.027***		0.040**	0.046***
	(0.007)		(0.017)	(0.015)
Fiscal Performance	-0.000	**0.091*****	-0.002	-0.002
	(0.006)	**(0.026)**	(0.012)	(0.012)
Finance Minister * Fiscal Performance	**0.038*****		**0.039****	**0.041*****
	(0.012)		**(0.016)**	**(0.015)**
Debt level	-0.001	-0.000	-0.000	0.000
	(0.003)	(0.008)	(0.004)	(0.005)
Investment	-0.006	0.061*	-0.037	-0.038
	(0.016)	(0.033)	(0.028)	(0.028)
Tax cut	0.022**	-0.017	0.020	0.023
	(0.005)	(0.032)	(0.029)	(0.029)
Constant	0.296***	0.236*	0.283***	0.279***
	(0.044)	(0.127)	(0.096)	(0.098)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	525	89	217	217
R^2	0.617	0.719	0.677	0.674

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. Debt level constitutes the real debt level per capita in t-2. Investment constitutes the investment expenditures per capita in t-1, tax cut is a dummy variable taking the value 1 if tax rate has been reduced in the year before election. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000.*

Table 25. Robustness – Additional Economic Controls

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Economic controls	All Incumbents	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.025***		0.047**	0.053***
	(0.008)		(0.021)	(0.019)
Fiscal Performance	0.004	**0.055*** **	0.011	0.012
	(0.005)	**(0.020)**	(0.014)	(0.014)
Finance Minister * Fiscal Performance	**0.038*** **		**0.048*** **	**0.052*** **
	(0.011)		**(0.017)**	**(0.016)**
Difference in Unemployment	0.003	0.002	0.021	0.021
	(0.007)	(0.020)	(0.016)	(0.017)
GDP Growth	0.085	0.370	0.021	0.018
	(0.088)	(0.232)	(0.158)	(0.159)
Constant	0.347***	0.316***	0.286***	0.288***
	(0.043)	(0.072)	(0.071)	(0.071)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	601	104	229	229
R^2	0.644	0.713	0.693	0.690

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. Difference in Unemployment is measured between t-2 and t-1 and GDP growth is measured in t-1.*

Table 26. Robustness – Additional Political Controls

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Political Controls	All Incumbents	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.025***		0.033*	0.041**
	(0.007)		(0.017)	(0.016)
Fiscal Performance	0.000	**0.051** **	-0.000	0.000
	(0.005)	**(0.021)**	(0.010)	(0.010)
Finance Minister * Fiscal Performance	**0.035*** **		**0.038** **	**0.040** **
	(0.010)		**(0.017)**	**(0.016)**
Government Fragmentation	0.009	0.016	-0.017	-0.016
	(0.016)	(0.030)	(0.025)	(0.025)
Concordance	0.101	-0.121	0.154	0.126
	(0.091)	(0.195)	(0.152)	(0.158)
Constant	0.229**	0.306**	0.215	0.238*
	(0.075)	(0.134)	(0.139)	(0.143)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	673	115	258	258
R^2	0.626	0.659	0.672	0.668

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. Government Fragmentation measures the number of different parties in government and concordance represents the proportion of seats held in parliament by the governing parties.*

Table 27. Robustness – Additional Election Controls

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Election Controls	All Incumbents	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.024***		0.034**	0.041**
	(0.007)		(0.017)	(0.016)
Fiscal Performance	-0.002	**0.050****	0.001	0.001
	(0.005)	**(0.021)**	(0.010)	(0.010)
Finance Minister * Fiscal Performance	**0.032*****		**0.035***	**0.036****
	(0.010)		**(0.017)**	**(0.016)**
Alliance	0.075***	0.086***	0.026	0.026
	(0.017)	(0.030)	(0.023)	(0.023)
Expected Tightness	0.088*	0.049	0.212**	0.211**
	(0.047)	(0.110)	(0.101)	(0.104)
Constant	0.305***	0.263**	0.254***	0.258***
	(0.036)	(0.070)	(0.065)	(0.066)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	
Party Fixed-Effects	✓	✓	✓	✓
Observations	667	113	258	258
R^2	0.657	0.693	0.679	0.675

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. Alliance is a dummy variable taking the value one if the incumbent is member of an alliance for the election. Expected tightness measures the difference in vote percentage between the last elected and first non-elected in the first round of the election.*

Table 28. Robustness – Additional Cantonal Controls

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Cantonal Controls	All Incumbents	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.018**		0.019	0.023*
	(0.007)		(0.015)	(0.013)
Fiscal Performance	0.015**	**0.050*****	0.017*	0.018*
	(0.007)	**(0.018)**	(0.010)	(0.010)
Finance Minister * Fiscal Performance	**0.030****		**0.035***	**0.038***
	(0.013)		**(0.020)**	**(0.020)**
Language	-0.080***	-0.057*	-0.103***	-0.099***
	(0.020)	(0.033)	(0.025)	(0.025)
Population	-0.014**	-0.009	-0.018**	-0.019**
	(0.006)	(0.010)	(0.008)	(0.008)
Government seats	0.009	0.014	0.017**	0.017**
	(0.006)	(0.008)	(0.008)	(0.008)
Proportional Voting System	-0.011	0.049	-0.023	-0.026
	(0.019)	(0.025)	(0.021)	(0.023)
Index Fiscal Preferences	-0.378	0.001	-0.836**	-0.837*
	(0.347)	(0.624)	(0.420)	(0.425)
Constant	0.589***	0.333	0.826***	0.827***
	(0.189)	(0.329)	(0.222)	(0.225)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects				
Party Fixed-Effects	✓	✓	✓	✓
Observations	673	115	270	270
R^2	0.443	0.581	0.442	0.444

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. Language is a dummy variable taking value 1 for Latin cantons. Fiscal preferences is measured by the index of fiscal preferences developed by Pujol & Dafflon (2001).*

Table 29. Robustness – No Controls

Dependent Variable: Obtained Vote %	(1)	(2)	(3)	(4)
No Controls	All Incumbents	Finance Min.	1.Re-election	Selection Bias
Finance Minister	0.039***		0.024	0.023
	(0.013)		(0.018)	(0.017)
Fiscal Performance	0.014	**0.047****	0.020	0.021
	(0.010)	**(0.019)**	(0.014)	(0.015)
Finance Minister * Fiscal Performance	**0.033****		**0.018**	**0.017**
	(0.016)		**(0.025)**	**(0.024)**
Constant	0.527***	0.566***	0.509***	0.510***
	(0.010)	(0.014)	(0.010)	(0.010)
Individual Controls				
Election Control				
Canton Fixed-Effects				
Party Fixed-Effects				
Observations	802	141	312	306
R^2	0.022	0.036	0.015	0.016

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the absolute obtained vote % of an incumbent in his re-election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. No control variables are included.*

V. Case selection

Table 30. Robustness – Case Restriction

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
Percentiles 5th -95th	All Incumb.	Finance Min.	1.Re-election	Select. Bias
Finance Minister	0.024***		0.035**	0.040**
	(0.007)		(0.018)	(0.016)
Fiscal Performance	-0.002	**0.082*****	-0.005	-0.006
	(0.016)	**(0.030)**	(0.025)	(0.025)
Finance Minister * Fiscal Performance	**0.046****		**0.063****	**0.059****
	(0.016)		**(0.031)**	**(0.029)**
Constant	0.345***	0.303***	0.271***	0.277***
	(0.043)	(0.088)	(0.072)	(0.073)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	601	106	226	226
R^2	0.634	0.690	0.685	0.682

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. The cases are restricted to the 5th to 95th percentile of the financing statement result.*

Table 31. Robustness – Case Expansion

Dependent Variable: Δ in Obtained Vote %	(1)	(2)	(3)	(4)
All Elections (including non-competitive)	All Incumb.	Finance Min.	1.Re-election	Select. Bias
Finance Minister	0.023***		0.033**	0.041***
	(0.006)		(0.016)	(0.015)
Fiscal Performance	0.004	**0.061*** **	0.003	0.004
	(0.006)	**(0.020)**	(0.011)	(0.011)
Finance Minister * Fiscal Performance	**0.039*** **		**0.036** **	**0.037** **
	(0.011)		**(0.018)**	**(0.017)**
Constant	0.386***	0.339***	0.308***	0.316***
	(0.037)	(0.071)	(0.062)	(0.063)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	793	140	282	282
R^2	0.641	0.684	0.722	0.723

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. All election and re-elections are included even the non-competitive ones.*

VI. Level of Analysis

Table 32. Robustness – Municipal Level

Dependent Variable:	**Obtained Vote%**		**Δ in Obtained Vote %**		**Vote Margin %**	
	(1)	(2)	(3)	(4)	(5)	(6)
Municipal Level	All Incumbents	Finance Min.	All Incumbents	Finance Min	All Incumbents	Finance Min
Finance Minister	0.010		0.028**		-0.062**	
	(0.037)		(0.012)		(0.027)	
Fiscal Performance	0.003	**0.109** **	-0.002	**0.069*** **	-0.012	**0.096** **
	(0.005)	**(0.041)**	(0.007)	**(0.023)**	(0.011)	**(0.047)**
FM * Fiscal Performance	**0.089** **		**0.039** **		**0.120*** **	
	(0.036)		**(0.015)**		**(0.037)**	
Constant	0.489***	0.622***	0.291***	0.473***	-0.032	-0.105
	(0.022)	(0.051)	(0.017)	(0.023)	(0.039)	(0.086)
Individual Controls	✓	✓	✓	✓	✓	✓
Election Control	✓	✓	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓	✓	✓
Party Fixed-Effects			✓	✓		
Candidate Fixed-Effects	✓	✓			✓	✓
Municipal Fixed-Effects	✓	✓	✓	✓	✓	✓
Observations	37448	5856	25319	3588	28237	4133
R^2	0.748	0.831	0.558	0.857	0.682	0.764

Notes: *Robust standard errors clustered at election- candidate- & municipal-level in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*

In column 1 & 2 the dependent variable is the obtained vote % in election t. In column 3 & 4 the dependent variable is the change in obtained vote % between one's own re-election and prior election. In column 5 & 6 the dependent variable is the vote margin % to a fellow incumbent party member in the same election. Fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000.

A.6 Fiscal Preferences

Table 33. Heterogeneous Effects – Robustness Fiscal Preferences Homeowners

Dependent Variable:	**Δ in Obtained Vote %**		**Vote Margin %**	
	(1) All Incumbents	(2) Finance Ministers	(3) All Incumbents	(4) Finance Ministers
Finance Minister	0.030**		-0.094***	
	(0.015)		(0.034)	
Fiscal Performance	-0.006	0.095***	-0.011	0.040**
	(0.007)	(0.025)	(0.012)	(0.019)
Homeownership	0.010	-0.065	0.040	-0.154**
	(0.053)	(0.048)	(0.043)	(0.063)
Finance Minister * Fiscal Performance	0.030		0.156***	
	(0.026)		(0.043)	
Finance Minister * Homeownership	-0.068*		-0.014	
	(0.041)		(0.036)	
Fiscal Performance * Homeownership	0.028	**0.167****	-0.051*	**0.109****
	(0.028)	**(0.081)**	(0.030)	**(0.041)**
FM * Fiscal Perf. * Homeownership	**0.185****		**0.190****	
	(0.087)		**(0.080)**	
Average Taxable Income	-0.002	0.016	0.000	0.036*
	(0.007)	(0.010)	(0.006)	(0.021)
Finance Minister * Income	0.001		0.023	
	(0.016)		(0.015)	
Fiscal Performance * Income	-0.021	-0.088*	0.000	-0.050*
	(0.018)	(0.046)	(0.006)	(0.029)
FM * Fiscal Performance * Income	0.020		-0.065*	
	(0.036)		(0.037)	
Constant	0.245***	0.450***	-0.048	-0.198***
	(0.019)	(0.018)	(0.048)	(0.041)
Individual Controls	✓	✓	✓	✓
Election Controls	✓	✓	✓	✓
Canton Fixed Effects				
Municipal Fixed Effects	✓	✓	✓	✓
Party Fixed Effects	✓	✓		
Individual Fixed Effects			✓	✓
Observations	21021	2989	19822	2249
R^2	0.593	0.880	0.707	0.856

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses for model 1 &2 and at election-candidate & municipal-level for model 3-6.* * *p < 0.10,* ** *p < 0.05,* *** *p < 0.01.*
In column 1 & 2 the dependent variable is the change in obtained vote % between one's own re-election and prior election. In column 3 & 4 the dependent variable is the vote margin % to a fellow incumbent party member in the same election. Municipalities which have been through a merger during an election cycle are excluded from the analysis as electoral results of the old and new municipality cannot be compared. Fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000. Income is measured as a municipality's average taxable income per taxpayer in CHF 100'000.

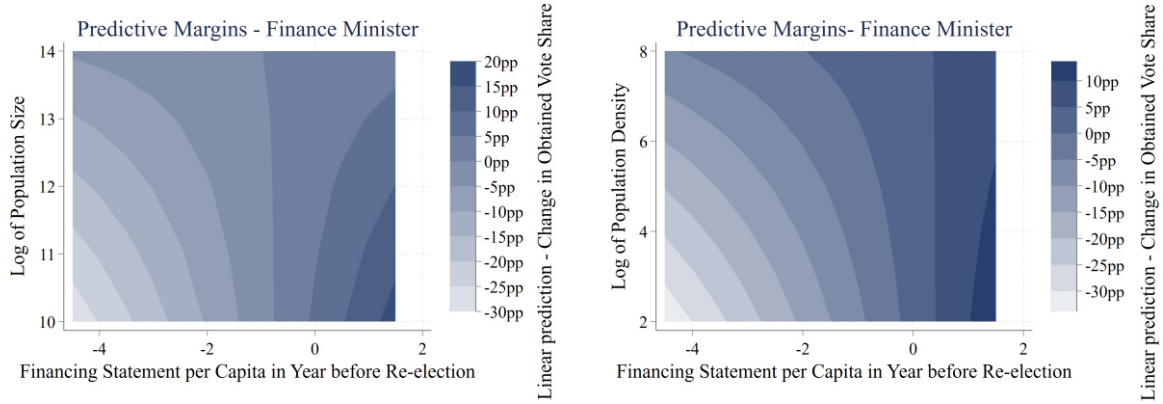
Table 34. Heterogeneous Effects – Cantonal Index Measure and Resource Power

	Index Fiscal Preference		Resource Power	
Dependent Variable:	(1)	(2)	(3)	(4)
Δ in Obtained Vote % compared to prior Election	All Incumbents	Finance Min.	All Incumbents	Finance Min
Finance Minister	0.020**		0.020***	
	(0.008)		(0.009)	
Fiscal Performance	0.014**	0.050**	0.026*	0.051
	(0.007)	(0.020)	(0.014)	(0.040)
Fiscal Preferences	-0.652	0.065	0.003	-0.083*
	(0.421)	(0.936)	(0.031)	(0.046)
FM * Fiscal Performance	0.033**		0.040**	
	(0.014)		(0.018)	
FM * Fiscal Preferences	0.131		0.007	
	(0.232)		(0.014)	
Fiscal Perf.* Fiscal Prefer.	0.361	**1.181***	-0.020	**0.049**
	(0.226)	**(0.677)**	(0.015)	**(0.063)**
FM * Fisc. Perf. * Fisc. Prefer.	**0.341**		**-0.014**	
	(0.313)		**(0.028)**	
Constant	0.306***	0.268***	0.297***	0.399
	(0.029)	(0.076)	(0.030)	(0.099)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	673	115	502	85
R^2	0.516	0.673	0.499	0.707

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses.* * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Fiscal preferences is measured by the index of fiscal preferences developed by Pujol & Dafflon (2001) in column 1 and 2. In model 3 and 4 the fiscal preferences variable is a dummy variable taking the value 1 for donor cantons in the fiscal equalization system and the value 0 for recipient cantons. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000.

Figure 25. Contour Plot of Fiscal Performance depending on Population Size and Density



Notes: *Fiscal performance is measured with a continuous variable in this graph, namely the financing statement result per capita in CHF 1000 in the year before re-election (x-axis). The y-axis indicates the Logarithm of population size in the left graph and the Logarithm of population density in the right graph. The graphs display the predictive margins of the different values of the financing statement and population size / density on the change in obtained vote percentage between the re-election and the prior election of finance ministers with different colour shades.*
Source: *own illustration*

Table 35. Heterogeneous Effects – Population Size and Density

	Population Size		Population Density	
Dependent Variable:	(1)	(2)	(3)	(4)
Δ in Obtained Vote % compared to prior Election	All Incumbents	Finance Min.	All Incumbents	Finance Min
Finance Minister	0.020***		0.020***	
	(0.007)		(0.007)	
Fiscal Performance	0.014	0.050**	0.025	0.051***
	(0.007)	(0.019)	(0.009)	(0.018)
Fiscal Preferences	-0.014**	-0.009	-0.004	0.000
	(0.006)	(0.012)	(0.005)	(0.012)
FM * Fiscal Performance	0.025*		0.021*	
	(0.014)		(0.012)	
FM * Fiscal Preferences	0.003		0.008*	
	(0.007)		(0.005)	
Fiscal Perf.* Fiscal Prefer.	-0.016*	**-0.000**	-0.011**	**0.005**
	(0.009)	**(0.018)**	(0.004)	**(0.012)**
FM * Fisc. Perf. * Fisc. Prefer.	**0.000**		**0.001**	
	(0.014)		**(0.007)**	
Constant	0.447**	0.212	0.641***	0.321
	(0.189)	(0.453)	(0.193)	(0.354)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Cantonal Controls	✓	✓	✓	✓
Canton Fixed-Effects				
Party Fixed-Effects	✓	✓	✓	✓
Observations	673	115	673	115
R^2	0.448	0.581	0.451	0.582

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses.* $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.
In column 1 +2 fiscal preferences = Logarithm of population size. In column 3+4 fiscal preferences= Logarithm of population density. Both variables are centered in order to make the interpretation of the interaction effects more meaningful. The models are estimated without cantonal fixed-effects but with cantonal control variables (see Robustness-Check Table 28). The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000.

Table 36. Heterogeneous Effects – Language Region and Time Period

	Language (1=Latin ca.)		Time (1=after 2000)	
Dependent Variable:	(1)	(2)	(3)	(4)
Δ in Obtained Vote % compared to prior Election	All Incumbents	Finance Min.	All Incumbents	Finance Min
Finance Minister	0.019*		0.013	
	(0.010)		(0.012)	
Fiscal Performance	0.022**	0.054**	-0.009	-0.000
	(0.008)	(0.022)	(0.014)	(0.021)
Fiscal Preferences	-0.068***	-0.048**	0.023	0.004
	(0.013)	(0.022)	(0.018)	(0.020)
FM * Fiscal Performance	0.032*		-0.000	
	(0.019)		(0.014)	
FM * Fiscal Preferences	-0.004		0.011	
	(0.015)		(0.016)	
Fiscal Perf.* Fiscal Prefer.	-0.026	**-0.017**	0.028*	**0.088****
	(0.016)	**(0.030)**	(0.016)	**(0.036)**
FM * Fisc. Perf. * Fisc. Prefer.	**-0.003**		**0.055****	
	(0.028)		**(0.023)**	
Constant	0.275***	0.281***	0.295***	0.249***
	(0.027)	(0.042)	(0.033)	(0.068)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects			✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	673	116	673	116
R^2	0.430	0.471	0.516	0.603

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses.* * *p < 0.10,* ** *p<0.05,* *** *p < 0.01.*

Fiscal preferences are measured as dummy variables for language and time-period. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000.

Table 37. Heterogeneous Effects – Economic and Financial Conditions

	Business Cycle		Debt Level	
Dependent Variable:	(1)	(2)	(3)	(4)
Δ in Obtained Vote % compared to prior Election	All Incumbents	Finance Min.	All Incumbents	Finance Min
Finance Minister	0.020**		0.028***	
	(0.010)		(0.007)	
Fiscal Performance	-0.012	0.017	0.002	0.041**
	(0.009)	(0.031)	(0.005)	(0.020)
Fiscal Preferences	-0.038***	-0.034*	-0.002	0.001
	(0.012)	(0.019)	(0.003)	(0.003)
FM * Fiscal Performance	0.017		0.030***	
	(0.014)		(0.011)	
FM * Fiscal Preferences	0.014		0.002**	
	(0.013)		(0.001)	
Fiscal Perf.* Fiscal Prefer.	0.016	**0.031**	-0.000	**-0.001**
	(0.012)	**(0.040)**	(0.000)	**(0.002)**
FM * Fisc. Perf. * Fisc. Prefer.	**0.025**		**-0.001***	
	(0.020)		**(0.001)**	
Constant	0.473***	0.252***	0.474***	0.238***
	(0.055)	(0.051)	(0.060)	(0.057)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	666	109	648	106
R^2	0.655	0.623	0.644	0.602

Notes: *Robust standard errors clustered at election- & candidate-level in parentheses.* $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

In column 1 +2 fiscal preferences = dummy variable taking the value 1 when the output gap is negative. In column 3+4 fiscal preferences = debt level, which is centered in order to make the interpretation of the interaction effects more meaningful. The dependent variable is the change in obtained vote % between an incumbent's re-election and prior election and fiscal performance is measured as financing statement per capita in the year before re-election in CHF 1000.

Table 38. National Ballots with Financial Consequences

Date	Ballot	Type
18.02.1979	Bundesbeschluss vom 06.10.1978 über die Volksinitiative 'zur Förderung der Fuss- und Wanderwege' (Gegenentwurf)	Exp +
20.05.1979	Bundesbeschluss vom 15.12.1978 über die Neuordnung der Umsatzsteuer und der direkten Bundessteuer	Tax +
30.11.1980	Bundesbeschluss vom 20.06.1980 über die Aufhebung des Kantonsanteiles am Reinertrag der Stempelabgaben	Tax +
30.11.1980	Bundesbeschluss vom 20.06.1980 über die Neuverteilung der Reineinnahmen der Eidgenössischen Alkoholverwaltung aus der fiskalischen Belastung der gebrannten Wasser	Tax +
30.11.1980	Bundesbeschluss vom 20.06.1980 über die Revision der Brotgetreideordnung des Landes	Grant -
05.04.1981	'Mitenand-Initiative für eine neue Ausländerpolitik'	Exp +
29.11.1981	Bundesbeschluss vom 19.06.1981 über die Weiterführung der Finanzordnung und die Verbesserung des Bundeshaushaltes	Tax +
27.02.1983	Bundesbeschluss vom 08.10.1982 über die Neuregelung bei den Treibstoffzöllen	Tax +
27.02.1983	Bundesbeschluss vom 08.10.1982 über den Energieartikel in der Bundesverfassung	Exp +
26.02.1984	Bundesbeschluss vom 24.06.1983 über die Erhebung einer Schwerverkehrsabgabe	Tax +
26.02.1984	Bundesbeschluss vom 24.06.1983 über eine Abgabe für die Benützung der Nationalstrassen	Tax +
02.12.1984	Volksinitiative 'für einen wirksamen Schutz der Mutterschaft'	Exp +
02.12.1984	Bundesbeschluss vom 23.06.1984 über einen Radio- und Fernsehartikel	Tax +
02.12.1984	Bundesbeschluss vom 22.06.1984 über die Volksinitiative 'zur Entschädigung der Opfer von Gewaltverbrechen' (Gegenentwurf)	Exp-
10.03.1985	Bundesbeschluss vom 05.10.1984 über die Aufhebung der Beiträge für den Primarschulunterricht	Sub -
10.03.1985	Bundesbeschluss vom 05.10.1984 über die Aufhebung der Beitragspflicht des Bundes im Gesundheitswesen	Grant-
10.03.1985	Bundesbeschluss vom 05.10.1984 über die Ausbildungsbeiträge	Grant-
09.06.1985	Bundesbeschluss vom 05.10.1984 über die Aufhebung des Kantonsanteiles am Reinertrag der Stempelabgaben	Tax +
09.06.1985	Bundesbeschluss vom 05.10.1984 über die Neuverteilung des Reinertrages aus der fiskalischen Belastung gebrannter Wasser	Tax +
09.06.1985	Bundesbeschluss vom 14.12.1984 über die Aufhebung der Unterstützung für die Selbstversorgung mit Brotgetreide	Grant +
22.09.1985	Bundesbeschluss vom 05.10.1984 über die Innovationsrisikogarantie zugunsten von kleinen und mittleren Unternehmen	Sub+
28.09.1986	Bundesbeschluss vom 20.12.1985 über die 'Eidgenössische Kulturinitiative'	Exp +
28.09.1986	Volksinitiative 'für eine gesicherte Berufsbildung und Umschulung'	Exp +
28.09.1986	Bundesbeschluss über die inländische Zuckerwirtschaft, Aenderung vom 21.06.1985	Sub +

07.12.1986	Bundesbeschluss 21.03.1986 über die Volksinitiative 'für Mieterschutz' (Gegenentwurf)	Exp +
07.12.1986	Volksinitiative 'für eine gerechte Belastung des Schwerverkehrs (Schwerverkehrsabgabe)'	Tax +
05.04.1987	Volksinitiative 'für die Mitsprache des Volkes bei Militärausgaben (Rüstungsreferendum)'	Exp -
06.12.1987	Bundesbeschluss vom 19.12.1986 betreffend das Konzept BAHN 2000	Exp +
06.12.1987	Volksinitiative 'zum Schutz der Moore - Rothenthurm-Initiative'	Exp +
06.12.1987	Bundesgesetz über die Krankenversicherung, Aenderung vom 20.03.1987	Exp +
12.06.1988	Bundesbeschluss vom 20.03.1987 über die Verfassungsgrundlagen für eine koordinierte Verkehrspolitik	Tax +
12.06.1988	Volksinitiative 'zur Herabsetzung des AHV-Rentenalters auf 62 Jahre für Männer und 60 Jahre für Frauen'	Exp +
04.06.1989	Volksinitiative 'für ein naturnahes Bauern - gegen Tierfabriken (Kleinbauern-Initiative)'	Exp +
01.04.1990	Bundesbeschluss vom 23.06.1989 über den Rebbau	Exp +
23.09.1990	Bundesbeschluss vom 06.10.1989 über den Energieartikel in der Bundesverfassung	Exp +
23.09.1990	Bundesgesetz über den Strassenverkehr, Aenderung vom 06.10.1989	Exp +
03.03.1991	Volksinitiative 'zur Förderung des öffentlichen Verkehrs'	Exp +
02.06.1991	Bundesbeschluss über die Neuordnung der Bundesfinanzen	Tax +
16.02.1992	Eidgenössische Volksinitiative 'für eine finanziell tragbare Krankenversicherung (Krankenkasseninitiative)'	Exp -
17.05.1992	Bundesgesetz über den Schutz der Gewässer (Gewässerschutzgesetz, GSchG)	Exp +
17.05.1992	Eidgenössische Volksinitiative 'zur Rettung unserer Gewässer'	Exp +
27.09.1992	Bundesbeschluss über den Bau der schweizerischen Eisenbahn-Alpentransversale (Alpentransit-Beschluss)	Exp +
27.09.1992	Bundesgesetz über die Stempelabgaben, Aenderung vom 4. Oktober 1991	Tax -
27.09.1992	Bundesgesetz über die Bezüge der Mitglieder der eidgenössischen Räte und über die Beiträge an die Fraktionen (Entschädigungsgesetz), Aenderung vom 4. Oktober 1991	Exp +
27.09.1992	Bundesgesetz über die Beiträge an die Infrastrukturkosten der Fraktionen und der Mitglieder der eidgenössischen Räte (Infrastrukturgesetz)	Exp +
07.03.1993	Bundesgesetz über die Erhöhung des Treibstoffzolles vom 9. Oktober 1992	Tax +
06.06.1993	Eidgenössische Volksinitiative 'für eine Schweiz ohne neue Kampfflugzeuge'	Exp -
26.09.1993	Bundesbeschluss über befristete Massnahmen gegen die Kostensteigerung in der Krankenversicherung	Exp -
26.09.1993	Bundesbeschluss über Massnahmen in der Arbeitslosenversicherung	Tax +
28.11.1993	Bundesbeschluss über die Finanzordnung	Tax +
28.11.1993	Bundesbeschluss über einen Beitrag zur Gesundung der Bundesfinanzen	Tax +

28.11.1993	Bundesbeschluss über Massnahmen zur Erhaltung der Sozialversicherung	Tax +
28.11.1993	Bundesbeschluss über besondere Verbrauchssteuern	Tax +
20.02.1994	Bundesbeschluss über die Weiterführung der Nationalstrassenabgabe	Tax +
20.02.1994	Bundesbeschluss über die Weiterführung der Schwerverkehrsabgabe	Tax +
20.02.1994	Bundesbeschluss über die Einführung einer leistungs- oder verbrauchsabhängigen Schwerverkehrsabgabe	Tax +
12.06.1994	Bundesbeschluss über einen Kulturförderungsartikel in der Bundesverfassung (Art. 27septies BV)	Exp +
25.09.1994	Bundesbeschluss über die Aufhebung der Verbilligung von inländischem Brotgetreide aus Zolleinnahmen	Grant -
04.12.1994	Bundesgesetz über die Krankenversicherung (KVG)	Exp +
04.12.1994	Eidgenössische Volksinitiative 'für eine gesunde Krankenversicherung'	Canton
12.03.1995	Bundesbeschluss über die Volksinitiative 'für eine umweltgerechte und leistungsfähige bäuerliche Landwirtschaft' (Gegenentwurf)	Exp +
12.03.1995	Bundesbeschluss über eine Ausgabenbremse	Exp -
25.06.1995	Bundesgesetz über die Alters- und Hinterlassenenversicherung, Aenderung vom 7. Oktober 1994	Exp -
25.06.1995	Eidgenössische Volksinitiative 'zum Ausbau von AHV und IV'	Exp +
10.03.1996	Bundesbeschluss über die Revision des Sprachenartikels in der Bundesverfassung (Art. 116 BV)	Grant +
10.03.1996	Bundesbeschluss über die Aufhebung der kantonalen Zuständigkeit im Bereich der persönlichen Ausrüstung der Armeeangehörigen	Exp -
10.03.1996	Bundesbeschluss über die Aufhebung der Pflicht zum Ankauf von Brennapparaten und zur Uebernahme von Branntwein	Grant -
10.03.1996	Bundesbeschluss über die Aufhebung der Bundesbeiträge an Bahnhofparkplatzanlagen	Grant -
09.06.1996	Gegenentwurf der Bundesversammlung vom 21. Dezember 1995 zur Volksinitiative 'Bauern und Konsumenten - für eine naturnahe Landwirtschaft'	Exp +
09.06.1996	Regierungs- und Verwaltungsorganisationsgesetz (RVOG) vom 6. Oktober 1995	Exp +
08.06.1997	Bundesbeschluss über die Aufhebung des Pulverregals	Grant -
28.09.1997	Bundesbeschluss vom 13. Dezember 1996 über die Finanzierung der Arbeitslosenversicherung	Exp, Grant -
07.06.1998	Bundesbeschluss über Massnahmen zum Haushaltausgleich	Dette -
27.09.1998	Bundesgesetz über eine leistungsabhängige Schwerverkehrsabgabe (Schwerverkehrsabgabegesetz, SVAG)	Tax +
27.09.1998	Volksinitiative 'für die 10. AHV-Revision ohne Erhöhung des Rentenalters'	Exp +
29.11.1998	Bundesbeschluss über einen befristet geltenden, neuen Getreideartikel	Grant -
07.02.1999	Eidgenössische Volksinitiative 'Wohneigentum für alle'	Tax -
13.06.1999	Bundesgesetz über die Invalidenversicherung	Exp -
13.06.1999	Bundesgesetz über die Mutterschaftsversicherung	Exp +

21.05.2000	Bundesbeschluss über die Genehmigung der sektoriellen Abkommen zwischen der Schweizerischen Eidgenossenschaft einerseits und der Europäischen Gemeinschaft sowie gegebenenfalls ihren Mitgliedstaaten oder der Europäischen Atomgemeinschaft andererseits	Exp +
26.11.2000	Volksinitiative 'Sparen beim Militär und der Gesamtverteidigung - für mehr Frieden und zukunftsgerichtete Arbeitsplätze (Umverteilungsinitiative)'	Exp -
26.11.2000	Volksinitiative 'für tiefere Spitalkosten'	Exp +
02.12.2001	Bundesbeschluss über eine Schuldenbremse	Debt -
02.12.2001	Volksinitiative 'für eine gesicherte AHV - Energie statt Arbeit besteuern!'	Tax +
02.12.2001	Volksinitiative 'für eine Kapitalgewinnsteuer'	Tax +
22.09.2002	Elektrizitätsmarktgesetz (EMG)	subv +
24.11.2002	Aenderung des Bundesgesetzes über die obligatorische Arbeitslosenversicherung und die Insolvenzentschädigung (Arbeitslosenversicherungsgesetz, AVIG)	Exp -
09.02.2003	Bundesgesetz über die Anpassung der kantonalen Beiträge für die innerkantonalen stationären Behandlungen nach dem Bundesgesetz über die Krankenversicherung	Exp +
18.05.2003	Volksinitiative 'Gesundheit muss bezahlbar bleiben (Gesundheitsinitiative)'	Exp+
18.05.2003	Volksinitiative 'Gleiche Rechte für Behinderte'	Exp+
08.02.2004	Gegenentwurf der Bundesversammlung vom 03.10.2003 zur Volksinitiative "Avanti - für sichere und leistungsfähige Autobahnen"	Exp+
16.05.2004	Aenderung vom 03.10.2003 des Bundesgesetzes über die Alters- und Hinterlassenenversicherung (AHVG) (11. AHV-Revision)	Exp -
16.05.2004	Bundesbeschluss vom 03.10.2003 über die Finanzierung der AHV/IV durch Anhebung der Mehrwertsteuersätze	Tax +
16.05.2004	Bundesgesetz vom 20.06.2003 über die Änderung von Erlassen im Bereich der Ehe- und Familienbesteuerung, der Wohneigentumsbesteuerung und der Stempelabgaben	Tax -
26.09.2004	Volksinitiative vom 26.04.2002 'Postdienste für alle'	Exp +
26.09.2004	Änderung vom 03.10.2003 des Bundesgesetzes über die Erwerbsersatzordnung für Dienstleistende in Armee, Zivildienst und Zivilschutz (Erwerbsersatzgesetz, EOG)	Exp +
28.11.2004	Bundesbeschluss vom 19.03.2004 über eine neue Finanzordnung	Tax +
26.11.2006	Bundesgesetz vom 24.03.2006 über die Zusammenarbeit mit den Staaten Osteuropas	Exp+
26.11.2006	Bundesgesetz vom 24.03.2006 über die Familienzulagen (Familienzulagengesetz, FamZG)	Exp+
17.06.2007	Änderung vom 6.10.2006 des Bundesgesetzes über die Invalidenversicherung (IVG)	Exp-
24.02.2008	Bundesgesetz vom 23.03.2007 über die Verbesserung der steuerlichen Rahmenbedingungen für unternehmerische Tätigkeiten und Investitionen (Unternehmenssteuerreformgesetz II)	Tax -

27.09.2009	Bundesbeschluss vom 13.06.2008 über eine befristete Zusatzfinanzierung der Invalidenversicherung durch Anhebung der Mehrwertsteuersätze, geändert durch den Bundesbeschluss vom 12.06.2009 über die Änderung dieses Beschlusses	Tax +
29.11.2009	Bundesbeschluss vom 03.10.2008 zur Schaffung einer Spezialfinanzierung für Aufgaben im Luftverkehr	Exp +
26.09.2010	Änderung vom 19.03.2010 des Bundesgesetzes über die obligatorische Arbeitslosenversicherung und die Insolvenzentschädigung (Arbeitslosenversicherungsgesetz, AVIG)	Exp -
11.03.2012	Volksinitiative vom 29.09.2008 'für ein steuerlich begünstigtes Bausparen zum Erwerb von selbst genutztem Wohneigentum und zur Finanzierung von baulichen Energiespar- und Umweltschutzmassnahmen (Bauspar-Initiative)'	Tax -
17.06.2012	Volksinitiative vom 23.01.2009 'Eigene vier Wände dank Bausparen'	Tax -
23.09.2012	Volksinitiative vom 23.01.2009 'Sicheres Wohnen im Alter'	Tax -
03.03.2013	Bundesbeschluss vom 15.06.2012 über die Familienpolitik	Exp +
24.11.2013	Volksinitiative vom 12.07.2011 «Familieninitiative: Steuerabzüge auch für Eltern, die ihre Kinder selber betreuen»	Tax -
09.02.2014	Bundesbeschluss vom 20.06.2013 über die Finanzierung und den Ausbau der Eisenbahninfrastruktur (direkter Gegenentwurf zur Volksinitiative «Für den öffentlichen Verkehr»)	Exp +
18.05.2014	Bundesgesetz vom 27.09.2013 über den Fonds zur Beschaffung des Kampfflugzeugs Gripen (Gripen-Fonds-Gesetz)	Exp +
28.09.2014	Volksinitiative vom 21.09.2011 «Schluss mit der MwSt-Diskriminierung des Gastgewerbes!»	Tax -
28.09.2014	Volksinitiative vom 23.05.2012 «Für eine öffentliche Krankenkasse»	Exp +
30.11.2014	Volksinitiative vom 19.10.2012 «Schluss mit den Steuerprivilegien für Millionäre (Abschaffung der Pauschalbesteuerung)»	Tax +
08.03.2015	Volksinitiative vom 05.11.2012 «Familien stärken! Steuerfreie Kinder- und Ausbildungszulagen»	Tax -
14.06.2015	Volksinitiative vom 20.01.2012 «Stipendieninitiative»	Subv +
14.06.2015	Volksinitiative vom 15.02.2013 «Millionen-Erbschaften besteuern für unsere AHV (Erbschaftssteuerreform)»	Tax +
28.02.2016	Volksinitiative vom 05.11.2012 «Für Ehe und Familie – gegen die Heiratsstrafe»	Tax -
28.02.2016	Änderung vom 26.09.2014 des Bundesgesetzes über den Strassentransitverkehr im Alpengebiet (STVG) (Sanierung Gotthard-Strassentunnel)	Exp +
05.06.2016	Volksinitiative vom 04.10.2013 «Für ein bedingungsloses Grundeinkommen»	Exp+
05.06.2016	Volksinitiative vom 10.03.2014 «Für eine faire Verkehrsfinanzierung»	Tax -
25.09.2016	Volksinitiative vom 17.12.2013 «AHVplus: für eine starke AHV»	Exp+
12.02.2017	Bundesbeschluss vom 30.09.2016 über die Schaffung eines Fonds für die Nationalstrassen und den Agglomerationsverkehr	Tax +
12.02.2017	Bundesgesetz vom 17.06.2016 über steuerliche Massnahmen zur Stärkung der Wettbewerbsfähigkeit des Unternehmensstandorts Schweiz (Unternehmenssteuerreformgesetz III)	Tax -

24.09.2017	Bundesbeschluss vom 17.03.2017 über die Zusatzfinanzierung der AHV durch eine Erhöhung der Mehrwertsteuer	Tax +
24.09.2017	Bundesgesetz vom 17.03.2017 über die Reform der Altersvorsorge 2020	Exp +/-
04.03.2018	Bundesbeschluss vom 16.06.2017 über die neue Finanzordnung 2021	Tax +
04.03.2018	Volksinitiative vom 11.12.2015 «Ja zur Abschaffung der Radio- und Fernsehgebühren (Abschaffung der Billag-Gebühren)»	Tax -

Source: *own collection based on data from Federal Chancellery and inspired by Dafflon & Pujol (2001)*

A.7 Clarity of Responsibility

Figure 26. Margins Plot of Fiscal Performance depending on Fiscal Rules

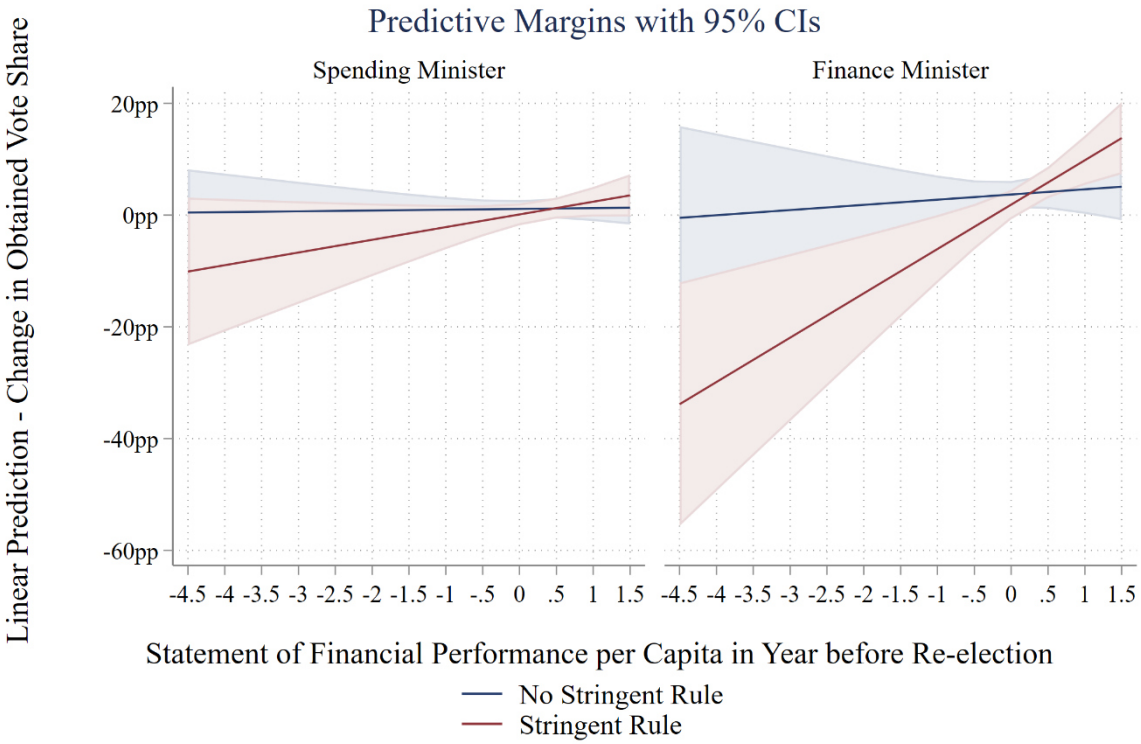


Figure 27. Margins Plot of Fiscal Performance depending on Mandatory Financial Referenda

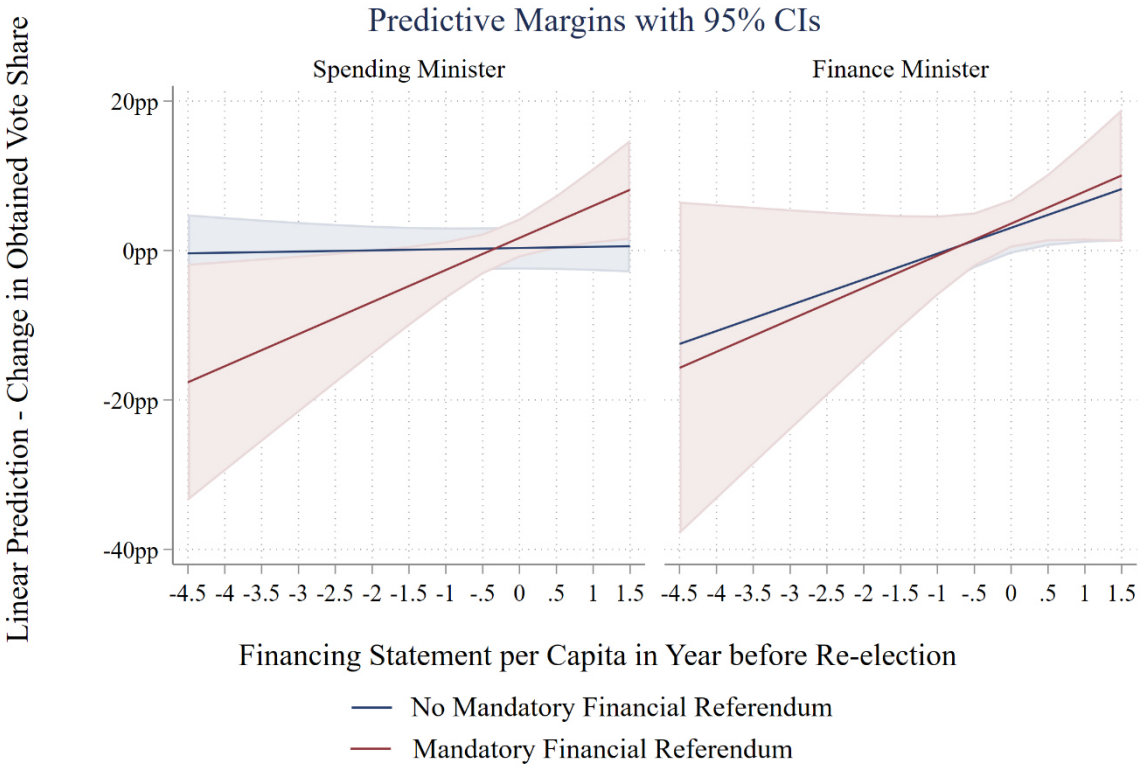


Figure 28. Margins Plot of Fiscal Performance depending on Financial Referenda Ballots

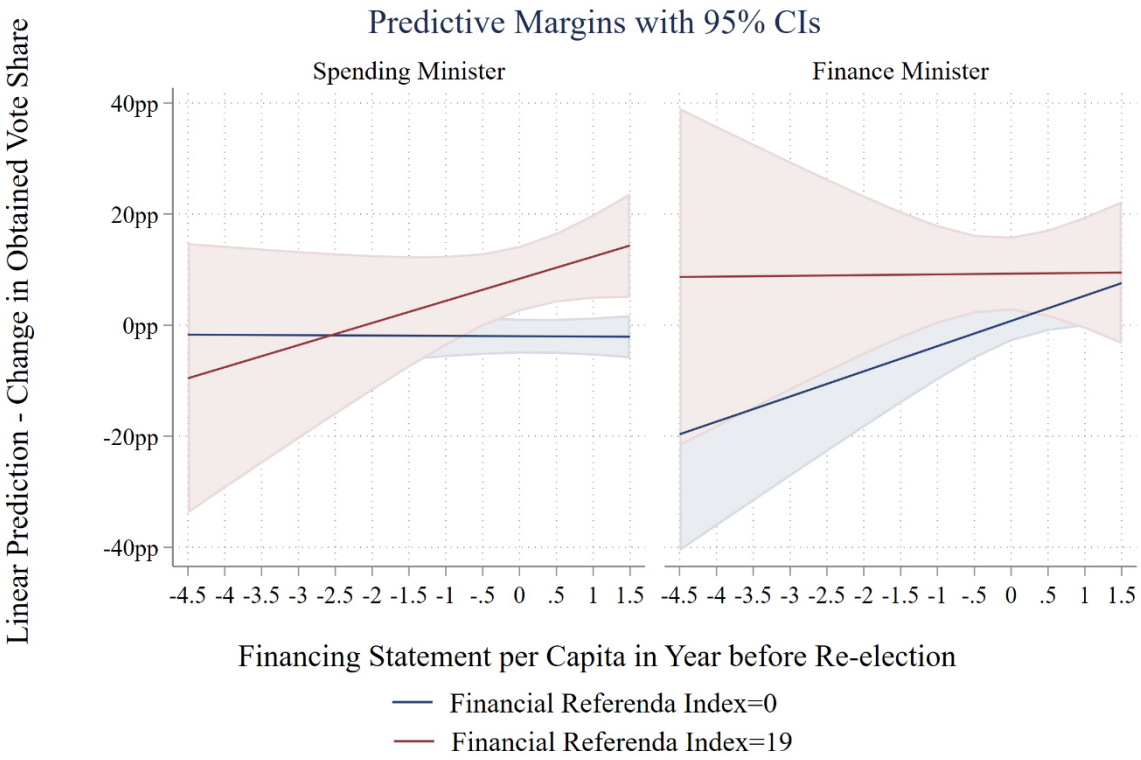


Table 39. Heterogeneous Effects – Government Clarity

	Number of Parties		Ideological Gap	
Dependent Variable:	(1)	(2)	(3)	(4)
Δ in Obtained Vote % compared to prior Election	All Incumbents	Finance Min.	All Incumbents	Finance Min
Finance Minister	0.028***		0.027***	
	(0.007)		(0.007)	
Fiscal Performance	0.004	0.038**	0.002	0.040**
	(0.006)	(0.019)	(0.006)	(0.019)
Government Clarity	0.019	0.022	0.010**	-0.014
	(0.015)	(0.018)	(0.004)	(0.011)
FM * Fiscal Performance	0.022**		0.024**	
	(0.009)		(0.009)	
FM * Government Clarity	0.013*		-0.003	
	(0.007)		(0.005)	
Fiscal Perf.* Gov. Clarity	-0.008	**0.012**	0.004	**0.003**
	(0.007)	**(0.024)**	(0.005)	**(0.016)**
FM * Fisc. Perf. * Gov. Clarity	**-0.004**		**0.002**	
	(0.010)		**(0.006)**	
Constant	0.463***	0.211	0.462***	0.217***
	(0.058)	(0.056)***	(0.058)	(0.055)
Individual Controls	✓	✓	✓	✓
Election Control	✓	✓	✓	✓
Canton Fixed-Effects	✓	✓	✓	✓
Party Fixed-Effects	✓	✓	✓	✓
Observations	666	109	666	109
R^2	0.643	0.606	0.643	0.609

***Notes**: Robust standard errors clustered at election- & candidate-level in parentheses.*
** $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.*
The clarity of government measures, i.e., number of parties and ideological gap between finance and spending ministers, are centered.

A.8 Interview Guide (in German)

I. Arbeitsmotivation

Das Ziel dieses ersten Teils, ist es mehr über die Nutzenfunktion von Finanzdirektoren und Finanzdirektorinnen zu erfahren und wodurch sie sich möglicherweise von anderen Politikern unterscheidet. Weiter geht es darum Informationen für die Definition und Operationalisierung von «guter/schlechter Leistung» zu erhalten.

1. Frau Regierungsrätin/ Herr Regierungsrat, welche Faktoren haben Sie dazu bewogen bzw. dazu geführt, dass Sie die Führung des Finanzdepartements übernommen haben? Was motiviert Sie in Ihrer Arbeit als Finanzdirektorin/ Finanzdirektor?
   → *Konkret, was erachten Sie als die 2 grössten Vorteile dieses Jobs im Vgl zu anderen Jobs/anderen Departementen?*
   → *Haben Sie das Gefühl bestimmte Typen von PolitikerInnen werden eher FinanzdirektorInnen bzw. gibt es bestimmte Charakteristiken, welche Finanzdirektoren teilen und wodurch sie sich von anderen Regierungsräten unterscheiden (selection effect)?*

2. Was sind ihre Ziele in Ihrer Arbeit als Finanzdirektor/Finanzdirektorin Ihres Kantons?
   - *VorgängerIn*
   - *Falls FinanzdirektorIn andere Funktionen/ Mandate hatte, versuchen Differenzen/ Gemeinsamkeiten zu etablieren.*
   - *Falls FinanzdirektorIn ein Multi-Departement führt, diesen Punkt ansprechen.*
   - *Einfluss Parteizugehörigkeit*

3. Auf einer Skala von 1-100%, wieviel Freiraum haben Sie in der Umsetzung Ihrer Ziele? Auf einer Skala von 1-100% wieviel Durchsetzungskraft haben sie als FinanzdirektorIn bzw. bei der Umsetzung Ihre Ziele?
   - *In ihrem Departement, in der Exekutive, im Parlament, Partei, Volk*
   - *Einfluss Parteizugehörigkeit*
   - *Erfolgsfaktoren um Mehrheiten für sich zu gewinnen*

4. Welche externen Faktoren haben den grössten positiven/negativen Einfluss auf Ihre Arbeit (Freiraum, Durchsetzungskraft)?
   - *Wirtschaftliche Situation, Parteistärken in Regierung/Parlament, politische Projekte anderer Departemente, Presse, institutionelle Rahmenbedingungen, Direkte Demokratie*

5. Was waren Ihre grössten Herausforderungen, Erfolge und Misserfolge als FinanzdirektorIn?

6. In Anbetracht dieser geäusserten Ziele, Erfolge, Misserfolge, was macht für Sie einen guten/erfolgreichen Finanzdirektor/ eine gute/erfolgreiche Finanzdirektorin aus, im Vergleich zu einem weniger Guten/ einer weniger Guten?
   - *Evtl. Selbst ein paar Beispiele machen basierend auf den Antworten zu Frage 2&3*
   - *Vergleichen Sie sich mit FinanzdirektorInnen anderer Kantone oder ihre VorgängerInnen in ihrem Kanton?*

7. Inwiefern unterscheidet sich „ein/e gute/r bzw. weniger gute/r“ FinanzdirektorIn von einem guten Erziehungsdirektor/Gesundheitsdirektor/Sicherheitsdirektor ect.?
   - Arbeitsweise, Charakteristiken, Nutzenfunktion

II. Wiederwahl

Das Ziel dieses zweiten Teils ist es, mehr über die Wichtigkeit und den Einfluss von Wiederwahlen auf die Arbeit der FinanzdirektorInnen zu erfahren (davor, während, danach) sowie allfällige Differenzen zwischen Wahlen multi-seat-government und andere Wahlen zu identifizieren.

1. In der Theorie wird die Wiederwahl als Ziel jedes Politikers/ jeder Politikerin betrachtet. A) Auf einer Skala von 1-5 wie wichtig ist die Wiederwahl für Sie? B) Wie beeinflusst der Aspekt der Wiederwahl Ihre Arbeit?
   □unwichtig □eher unwichtig □ weder noch □ eher wichtig □wichtig
   - *Durchführung bzw Nicht-Durchführung bestimmter Massnahmen in Anbetracht von Wahlen?*
   - *Kommunikationsstrategie (v.a gegenüber der Presse); Relativisierung, Blame-shifting (zu VorgängerIn, Parlament, pol. Konflikte, wirtschaftliche Situation…)?*
   - *Unterschiede in der Verhaltensweise in (Vor)wahljahren?*
   - *Lame duck? Unterschied zu letzter Amtsperiode.*

2. Wovon hängt ihr Entscheid sich (nicht) zur Wiederwahl zu stellen ab?
   - *Amtszeit als Regierungsrat/Regierungsrätin?*
   - *Amtszeit in anderen politischen Ämter?*
   - *Alter?*
   - *Andere Karriereziele?*
   - *Privatleben?*
   - *Finanzpolitische Situation?*
   - *Arbeitsatmosphäre im Departement, in der Regierung, mit dem Parlament?*
   - *Wiederwahlchancen?*
   - *Parteitaktik?*

3. a) Auf einer Skala von 0 bis 100%, wie präsent ist das Thema der Wiederwahl in Ihrem Kopf (im Vergleich zu anderen *Sorgen*)?
   □4 Jahre □12 Monate □6 Monate □3 Monate □ 1 Monat …vor dem Wahltag
   b) Auf einen Monat betrachtet, wieviel Prozent ihrer Zeit widmen Sie ihrem Wahlkampf?
   □4 Jahre □12 Monate □6 Monate □3 Monate □ 1 Monat …vor dem Wahltag
   - *Unterschied Erstwahl in Regierungsrat vs. Wiederwahl*
   - *Unterschied 1. Wahlgang, 2. Wahlgang*
   - *Wer unterstützt Sie in ihrem Wahlkampf (Partei, andere Regierungsmitglieder, Interessengruppen, Unternehmen, Bürger)?*
   - *Stichwort coattail voting: Sehen Sie sich auch als Aushängeschild für Ihre Partei? Betreiben Sie auch Wahlkampf für die Parlamentswahlen?*

4. Welches Ziel verfolgen Sie hinsichtlich des Wiederwahlresultats?
   (Antwortkarten: □ *Wiedergewählt zu werden* □*Als Bester wiedergewählt zu werden* □*Nicht als Schlechtester wiedergewählt zu werden* □ *Das absolute Mehr zu erreichen* □ *einen zweiten Wahlgang zu vermeiden* □*Mehr Stimmen als bei der letzten Wahl zu erhalten* □ *Stimmenmaximieren* □*mehr Stimmen als andere Parteikollegen zu erhalten)*

5. Welche drei Faktoren haben Ihrer Meinung nach den grössten Einfluss (positiv/negativ) auf das Wiederwahlresultat?
   (Antwortkarten: □ *Parteistärke (im Allgemeinen)* □ *Parteitrend* □ *Positionierung der Partei* □ *Medienpräsenz* □ *Medienberichterstattung* □ *Schuldenniveau* □ *Budgetabschlüsse* □ *Schuldenveränderung* □ *Steuerbelastung* □ *Änderung der Steuerbelastung* □ *Ausgabenvariation* □*Sparmassnahmen* □ *beruflicher Skandal* □ *Abstimmungen* □ *Qualität der Mitstreiter* □ *Anzahl Mitstreiter* □ *Partei der anderen Kandidaten* □ *wirtschaftliche Situation* □ *politische Situation (Konsens)* □ *Charisma* □ *Privatleben* □ *Geschlecht* □ *Alter* □ *berufliche Erfahrung* □ *politische Erfahrung* □ *Ausbildung*

6. Falls der Regierungsrat/ die Regierungsrätin bereits an anderen Wahlen teilgenommen hat: Gibt es gemäss Ihrer Erfahrung grundlegende Unterschiede zwischen Wahlen in den Regierungsrat (multi-seat government) und anderen Wahlen?
   - *Unter anderem bezüglich den Fragen 2-5: Entscheidung sich zu Wiederwahl zu stellen, Ziele hinsichtlich Wahlresultat, investierte Energie, Einflussfaktoren*
   - *Positionierung (Mitte, Konsensorientierung)*
   - *Halo-Effekt anderer Regierungsmitglieder*

7. Hat der Wahlerfolg einen Einfluss auf Ihre Arbeit nach der Wahl?
   - *Erleichtert ein gutes Wahlresultat Ihre Interaktionen mit den anderen Regierungsmitgliedern, der Verwaltung/ ihrem Departement/ dem Parlament?*
   - *Verleiht Ihnen ein gutes Wahlresultat eine gewisse Legitimität/ Macht?*
   - *Stimmt Sie ein gutes Resultat optimistisch für die nächste Wiederwahl und beeinflusst dadurch Ihre Arbeit (keine Angst vor unpopulären Massnahmen, weniger Effort)?*
   - *Stellt ein schlechtes Wahlresultat Ihre « Politik » in Frage, bzw. könnte dies zu einem finanzpolitischen Richtungswechsel beitragen?*

8. Die Wahl des Finanzministers direkt durch das Volk ist eine Seltenheit, was sind Ihrer Meinung nach die Vorteile und Nachteile eines solchen Systems?

III. Wahrnehmung der finanzpolitischen Situation & der Verantwortungszuweisung

Das Ziel dieses dritten Teiles ist es das Thema der Wahrnehmung der finanzpolitischen Situation durch die Bürger zu diskutieren sowie mehr Informationen zur Definition und Operationalisierung von «Leistung» zu erhalten. In einem zweiten Schritt geht es darum die Meinung der Finanzdirektoren und Finanzdirektorinnen hinsichtlich der Einflussfaktoren (Partisanship, Predispositions, Clarity of Responsibility) zur Wahrnehmung, Beurteilung und Verantwortungszuweisung der finanzpolitischen Situation zu erhalten.

1. Haben Sie den Eindruck die Bürger/WählerInnen interessieren sich für die kantonale finanzpolitische Situation?
   (Antwortkarten: welches sind Ihrer Meinung nach die drei wichtigsten finanzpolitischen Indikatoren für die WählerInnen?
   □ *Schuldenniveau* □ *Budgetabschlüsse* □ *Schuldenabbau/ -zunahme* □ *Steuerbelastung* □ *Änderung der Steuerbelastung* □ *Ausgabenkürzungen/ -erhöhungen* □*Sparmassnahmen* □ *beruflicher Skandal* □ *Abstimmungen*

2. Haben Sie den Eindruck die Bürger/ WählerInnen weisen Ihnen die Verantwortung für die kantonale finanzpolitische Situation zu?
   - *Vorgänger/ Vergangenheit*
   - *Kollegialitäts- und Konkordanzprinzip*
   - *Resultate von retrospective/economic voting auf nationaler Ebene*
   - *Falls der Regierungsrat ebenfalls für ein anderes Departement zuständig ist, diesen Punkt ansprechen.*
   - *Parteizugehörigkeit (Exekutive vs. Partei)*
   - *Nachbarkantone*
   - *Wirtschaftliche Situation*
3. Auf einer Skala von 1-5, haben sie den Eindruck die finanzpolitische Situation spielt eine Rolle bei der Entscheidung Sie wiederzuwählen?
   a) Bei WählerInnen Ihrer Partei/ Ihres Blocks
   □unwichtig □eher unwichtig □ weder noch □ eher wichtig □wichtig
   b) Bei WählerInnen einer anderen Partei/ eines anderen Blocks
   □unwichtig □eher unwichtig □ weder noch □ eher wichtig □wichtig
   - *Link zu Frage 5 des zweiten Teils.*

4. Wie wichtig ist Ihrer Meinung nach die finanzpolitische Situation bei finanzpolitischen Abstimmungsentscheiden?
   - *Persönliche Interessen vs. Gemeinschaftsinteressen (egotropic vs. sociotropic)*
   - *Typ der Abstimmungen (Steuerreformen, Sanierungsmassnahmen ect.)?*
   - *Welche anderen Faktoren sind relevant, um finanzpolitische Abstimmungen zu gewinnen?*

8. Ihr Kanton verfügt (nicht) über ein Finanzreferendum (fakultativ/ obligatorisch). Haben Sie den Eindruck, dass Massnahmen, welche einen Einfluss auf die Kantonsfinanzen haben und in einer Volksabstimmung angenommen/abgelehnt wurden, Sie als FinanzdirektorIn von einer gewissen Verantwortung entlasten?
   - *Falls Exekutive freiwillig Referendum dem Volk unterstellt hat, diesen Punkt ansprechen.*

List of Interviewed Finance Ministers

JU	Juillard Charles	BE	Gasche Urs
FR	Laesser Claude	GE	Hiler David
SG	Gehrer Martin	AR	Frei Köbi
AG	Mörikofer Stéphanie	NE	Perrinjacquet Sylvie
ZG	Hegglin Peter	BS	Herzog Eva
GE	Brunnschwig-Graf Martine	OW	Wallimann Hans
UR	Dittli Josef	BL	Balmer Adrian
GL	Widmer Rolf	NE	Kurth Laurent