

# Electoral and Financial Bookkeeping: A Comparison of Pre-Electoral Pledges on Public Spending and the Outcome of Post-Electoral Budget Debates

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## Abstract

In the wake of the financial crisis, budgetary discipline has taken centre stage in politics. More than ever a country's budget mirrors the true policy preferences of the legislative majority beyond all political discourse and cheap talk. The paper sheds light on mandate fulfilment in the field of public spending and fiscal policy in general.

Based on previous work on pledge fulfilment in Switzerland (Schwarz et al. 2010 and Fivaz et al. 2014) the paper compares publicised pre-electoral statements of MPs on public spending and the development of the public finances with their post-electoral legislative behaviour during budget debates and votes. The findings of the paper confirm the results of the aforementioned earlier studies and point to the potential of budgetary statements for future mandate fulfilment research.

## Keywords

Political representation; public finance; fiscal policy; mandate fulfilment.

## 1. Introduction

This paper addresses pledge fulfilment regarding public spending of members of the Swiss parliament (MPs). With the sole focus on budgetary matters we enter uncharted territory to some degree.

The idea to focus on the budget is not new. The saying “money makes the world go round” is generally known. In German this saying is even more accurate with regard to the topic of this paper: “Geld regiert die Welt” (“money governs the world”). A study on taxation and social conflict in Switzerland by Tanner (1994) concluded that a state’s budget reveals the true structures about who is in power and decides. Tanner (1994:124) described the budget as the state’s skeleton beyond cheap talk. Correspondingly the structure or the state’s activities cannot differ heavily from its budget.

Previous studies in the pledge fulfilment literature (for the case of Switzerland: Schwarz et al. 2010 and Fivaz et al. 2014) usually compare specific, single-issue related pre-electoral pledges with post-electoral behaviour. In contrast to the often-heard public complaint about dishonest politicians recent studies uphold a surprisingly positive picture regarding pledge fulfilment (e.g. Mansergh and Thomson 2007, Louwerse 2011 and 2012) that is confirmed in the Swiss case by Schwarz et al. (2010) and Fivaz et al. (2014). They found that in roughly 85% of the cases MPs acted in parliament according to their pre-electoral pledges.

Despite these encouraging results for representational democracy in terms of mandate fulfilment, it appears beneficiary for several reasons to challenge them with an alternative approach.

The first reason is the very specific and narrow definition of pre-electoral pledges. No matter whether party manifestos or, like increasingly in more recent papers, Voting Advice Applications (VAA)<sup>1</sup> have been used as data source to determine the content of pre-election pledges, the basic concept was to find exact matches between pre-election statements and legislative decisions. In the Swiss case only 34 out of 75 smartvote questions could be used for the analysis for the rest no matching legislative vote could be found.

Thus Fivaz et al. (2014) in their conclusions suggested an alternative way which would define pre-election promises in a more general and latent manner by aggregating all VAA statements belonging to a certain policy area into a general ideological position concerning this policy area which is less amenable to the specificities and circumstances of single-issue questions (e.g. “a general position in favour of environmental protection” instead of “in favour of the introduction of a 2% energy tax by 2018”). The idea of this alternative is to measure the level of kept promises on grounds of entire

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<sup>1</sup> VAAs are websites, which provide voters with the possibility to compare their own views on policy issues with those of parties or candidates. For further information see the edited volume by Garzia and Marschall (2014) or Ladner et al. 2010 as well as Ladner and Fivaz 2012. All over Europe and especially in Switzerland VAAs have become very popular. In the Swiss 2011 national elections almost every sixth voter used the services provided by smartvote (Ladner et al. 2012 and Pianzola 2014). Therefore it does not come to a surprise that also a large number of candidates answered the smartvote questionnaire in order to be present with their own political profile on the website (85% of the candidates and over 90% of the elected MPs in 2011), which makes it very tempting to use smartvote VAA data for scientific purposes. For a smartvote version in English see [www.smartvote.ch/11\\_ch\\_nr/election/index?lang=en\\_GB](http://www.smartvote.ch/11_ch_nr/election/index?lang=en_GB).

policy areas and not on grounds of very specific and often technical issues which would move the analysis closer to how voters see and interpret politics (Fivaz et al 2014).

Basically there are two ways how to implement this alternative approach. One possibility is to identify among the answers to all VAA statements a number of relevant policy areas by conducting any kind of clustering or scaling method. However, this paper follows a second path.

The smartvote questionnaire for the elections in 2007 and 2011 included beside specific issue questions also eleven more general questions on the federal budget asking how the candidates would set the financial priorities in these areas (e.g. “Would you spend less, more or the same amount of money for national defence?”). Previous studies regularly neglected these questions because they did not fit into a standard research design. In this paper we will partly replicate the aforementioned studies by Schwarz et al. (2010) and Fivaz et al. (2014) by using budget questions instead of the specific issue questions in order to compare pre-electoral pledges and post-electoral legislative behaviour.

The research design and the applied statistical methods are based on these former studies. However, instead of preferences on very specific issues (e.g. the protection of endangered animals like wolves or bears) we use in this paper more general preferences on public spending for a number of policy fields (e.g. the public spending in favour of environmental protection) as implicit pledges. The idea behind is to test whether budget preferences could be used as an alternative to the typically used issue preferences. If we can deliver plausible results this approach would open new perspectives for research on the fulfilment of the party mandate.

Before we address both the research design and the data (section 3), we provide in the following section some basic insights into the budget and fiscal policy in Switzerland. Section 4 contains the analysis as well as the presentation of the results. The discussion of the results as well as the conclusions follow in section 5.

## **2. Economic development and fiscal policy in Switzerland**

In retrospect, and particularly compared to countries like Spain, France, Italy, Portugal and others, Switzerland has overcome the banking and financial crisis since 2008 without any larger difficulties. Table 1 contains important key figures concerning the Swiss economy and the federal budget since 2007. The Swiss economy began to feel the impact of the crisis in late 2008 resulting in a decrease of economic growth from 3.8% to 2.2%, but only in 2009 resulted a negative growth. Unemployment reacted with a certain time lag to the crisis and reached its peak in 2010. To sum up, the crisis' overall impact resulted in clearly weaker economic growth but Switzerland did not undergo a real economic depression like other hard-hit countries. In the end the Swiss economy recovered quickly.

Table 1: Fundamental key data for the Swiss economy and the federal budget (2007-2012)

	2007	2008	2009	2010	2011	2012
<b>Swiss economy fundamentals</b>						
GDP (in billion CHF)	540.8	567.9	554.4	572.7	585.1	591.9
GDP growth (in %)	3.8	2.2	-1.9	3.0	1.8	1.0
Unemployment rate (in%)	3.7	3.4	4.3	4.5	4.0	4.2
<b>Federal budget</b>						
Spending (in billion CHF)	62.2	64.1	58.7	60.0	64.1	62.2
Revenues (in billion CHF)	58.7	64.2	68.1	62.9	64.7	63.8
Surplus (in billion CHF)	-3.4	0.1	9.4	2.9	0.6	1.6
Government debt (in % of GDP)	41.8	39.2	37.7	36.4	35.5	36.4

Notes: Unemployment rate according to ILO standards; Government debt according to Maastricht criteria.

Source: Swiss Federal Statistical Office ([www.bfs.admin.ch](http://www.bfs.admin.ch))

This on the whole positive picture of the economic development is mirrored in the development of the federal budget. Since the beginning of the financial crisis the federal budget ended up with a surplus between 0.1 and 9.4 billion Swiss Francs in each year. It was even possible to reduce the government debt measured in per cent of the GDP during the crisis. In the eyes of foreign observers this might well look like Switzerland was not touched by the crisis at all, which with the benefit of hindsight is corroborated by the financial key figures presented above. But in the public discourse on governmental spending at that time the crisis was ubiquitous because of the profound insecurity it caused about what more was to come.

The healthy state of the federal budget is not only a result of the very positive general development of the country's economy (e.g. tax revenues were hardly affected by the crisis). A further reason is that both the government and the parliament traditionally insist on a rather cautious spending policy whenever the topic comes up (e.g. like other countries Switzerland also had a "stimulus package" to support the economy in 2010, but it was a very limited one). This cautious spending policy is consequential to the prevailing ideology of the centre and right wing parties, which have a persistent majority in the Swiss parliament. But most importantly, the institutional rules of budgetary accounting have to be taken into account.

Several instruments and regulations concerning the budget-making process are designed in a way to have a moderating effect on government spending. Among these mandatory procedures, which are often very technical and complicated to outsiders, two stand out and are exemplified. First, the so-called "spending brake" ("Ausgabenbremse") demands that all subsidies above 20 million CHF for non-recurring and above 2 million CHF for annual expenditures need the approval of a qualified majority in both chambers of the parliament. Second, the so-called "debt brake" is laid down in the constitution and requires from both the government and the parliament to spend only as much money as is available from tax revenues. The regulations allow deficit spending only on a very small scale and only contingent on the overall economic situation.

### 3. Data and research design

Our main focus is to explain incongruence between the pledges made during election campaigns and the voting behaviour in parliament. Incongruence is measured at MP level. We look at individual pre-electoral statements and compare them to the positions taken in legislative votes.

For the pre-electoral statements we use data from the 2007 and 2011 versions of the Swiss VAA *smartvote*. The 2007 *smartvote* version contained 73 questions in total, 10 of which enquired about specific items of Switzerland's federal budget, whereas the 2011 *smartvote* version contained 11 questions out of 75 dealing with preferences on the federal budget (for details see Appendix 1).

We compared these pre-electoral budget preferences with the individual parliamentary votes in the first budget debate following the elections. Swiss elections always take place in October, budget debates in December. In both of this paper's relevant reference studies (Schwarz et al. 2010; Fivaz et al. 2014) the date of included parliamentary votes was one of the explanatory variables because as time goes by pre-election positions are sometimes overtaken by events. The longer the time span between the VAA statement and the legislative vote, the higher the propensity that conditions change, and with them the positions taken by MPs. In the paper at hand the time span between the VAA statement and the budget debates is very short, only 2 months, and also the same for all votes. There is therefore no need for this variable. However, we kept a time variable in our models because we included two budget debates into our analysis: one took place before the 2008 outbreak of the financial crisis and one afterwards. This time variable is used to analyse the potential impact of the financial crisis on pledge fulfilment.

In total we found 38 votes in the 2007 and 2011 budget debates, which match the VAA budget items (see full list in Appendix 2). Focussing only on budget debates implies an important restriction. There are two kinds of expenditures in the federal budget: discretionary (unbound or free) expenditures and expenditures bound to a specific legal act that differs from the annual budget act. E.g., large parts of welfare state expenditures are regulated in specific acts on retirement provisions or unemployment insurance. Within the budget debates MPs can only decide about discretionary expenditures. If they intend to adapt expenditures appropriated by a specific act they have to initiate a revision of this act. Therefore focussing on budget debates is responsible for the limited number of policy areas included into our analysis (see Appendix 1 and 2).

#### Dependent variable

The dependent variable is a binary congruence measure for every matching pair of VAA item and parliamentary vote: it is 1 if the voting behaviour matches the VAA answer (positional congruence), otherwise it is 0 (positional incongruence). The set of available answer options in the VAA survey and in parliamentary votes is not identical, however. In the 2007 *smartvote* version the three available options were: spend more, spend the same, spend less. The 2011 version featured five options, adding: spend considerably more and spend considerably less to the set in 2007. For this paper we adjusted the 2011 version to the three-option set according to the 2007 *smartvote* version.

MPs are given three voting options in parliament: yes, no, abstention. In budgetary votes, depending on how the specific proposal is formulated, the available yes/no option equals to either of the following two pairs of opposites:

1. Spend less vs. spend not less (= spend the same or more).
2. Spend more vs. spend not more (= spend the same or less).

In our analysis we took care that VAA answers are correctly matched with parliamentary votes. That is, in a first step we investigated for every budget vote the meaning of 'yes' and 'no', and how it matched with the smartvote answer options (see Appendix 2). Abstentions are always treated as incongruent behaviour, absenteeism in legislative votes as missing values.

### **Explanatory variables**

In our analytical model we include the following explanatory variables:

*Positional centrality of a party:* Parties at both ends on the common left-right scale are more extreme in their standpoints (which is basically why they are located there), more ideology-driven and less willing to compromise with others. In contrast, parties more to the centre of the political system usually hold less stubborn views and thus are welcome partners in legislative alliances. We hypothesise that the more extreme (the less central) the party position is, the higher its positional congruence. We use the average party success rates in parliamentary votes to measure the positional centrality of a party (i.e., the higher the success rate the more central).

As an alternative to the positional centrality variable, we employ party dummies in order to estimate the effect of individual parties on the dependent variable (reference category = moderate Christian Democrats). The inclusion of party dummies requires dropping party random effects levels.

*Legislature:* Our data stem from two distinct periods of time. In 2007 there were no real signs of a financial crisis, at least it was not a topic in political circles. VAA answers and the subsequent budget debate were unaffected by any symptoms of crisis. The picture had changed by 2011 when banking, currency and financial crises were in full swing and in some countries reached levels of political turmoil. The variable captures the political context that had changed over time, especially regarding the financial outlook on the European continent.

*Positional incongruence with party group majority:* Positional congruence by an MP is more likely if the party group takes up the same stance on the issue. If an MP finds out after the election that the majority of her fellow party members take another position there should be an increased propensity that she will eventually conform to the majority position due to peer pressure. This variable is binary, analogically defined to the dependent variable.

*District magnitude:* Voting theory suggests that the electoral connection is closer in small districts because a lower number of MPs makes it easier to keep track of their legislative behaviour (Bowler and Farrel 1993; Carey and Shugart 1995; Cox 1997). We therefore expect that pre-election positions are more likely to be disregarded in larger districts. Because district magnitude is not expected to

show a linear effect, we use two dummy variables which capture the smallest districts with up to 4 seats and the largest ones with 15 or more seats (reference category = medium-sized districts).

*Incumbency:* The effect of incumbency on pledge fulfilment is theoretically ambiguous: Unlike freshmen, incumbents are more consolidated in their political positions. But incumbents also have gained self-confidence from the fact that they have been constantly re-elected, which could weaken the chain of delegation and broaden political leeway (Shugart et al. 2005; Tavits 2009).

*Control variables:* Moreover, we control for language (French- and Italian-speaking minorities vs. German-speaking majority), as well as MPs' age and sex.

## **Research method**

Given the clustered structure of the data, we ran a number of mixed-effects (multilevel) regression models to explain positional (in-)congruence. The hierarchical data structure features four levels: individual MP, electoral district (canton), national party, and the single vote/issue. These levels are not perfectly nested, the model specification thus has to deal with cross-classification (e.g. national parties appear in different cantons and every MP gives his or her opinion on a number of different votes). The cross-classification structure is simplified by the fact that 'empty model' estimations containing only random effects indicated that the contribution to the explained variance by the level of cantons is extremely small (results not reported here). We therefore dropped cross-classifications involving parties and cantons, but leaving those between votes/issues and MPs/parties.

## **4. Analysis and results**

Table 2 lists the average positional congruence of Swiss MPs by party and compares it to the figures according to Fivaz et al. (2014: 208). Overall congruent behaviour is 80.2%, which means that legislative voting is in agreement with VAA statements in 8 out of 10 cases. Interesting is the comparison with the study recently published by Fivaz et al.: there the authors found the general pattern that more extreme parties show higher congruence rates. The present paper confirms this for the two leftist parties SP and GPS, but not so for rightist SVP whose congruence rate plunged from almost 87 to 74%. The comparison also reveals that all parties, except the FDP, show somewhat lower congruence figures in the present budget study.

Table 2: Congruence of MP positions (averages by party)

	Congruent behaviour (N)	Fivaz et al. 2014:208 Congruent behaviour (N)
CVP	73.6% (977)	75.8% (736)
FDP	80.4% (902)	80.3% (704)
GPS	91.5% (689)	93.7% (474)
SP	89.6% (1,405)	93,4% (1,301)
SVP	74.2% (1,657)	86.6% (1,243)
Other (small parties)	70.6% (473)	82.9% (342)
All MPs	80.2% (6,103)	86.3% (4,800)

Notes: CVP = Christian Democrats (centrist), FDP = Liberals (centre-right), GPS = Greens (left), SP = Social Democrats (left), SVP = Swiss People's Party / Conservative (right).

Like in both reference studies (Schwarz et al. 2010; Fivaz et al.2014) ideological and organisational aspects of parties seem to account for some variation in positional congruence in the present budget study as well. For an in-depth analysis of the possible driving factors we ran two statistical models to predict positional congruence between VAA positions and voting behaviour in parliament (Table 3). The models only differ in the way they capture the party effects (random level vs. dummy fixed effects).

The estimations largely confirm again the results in Schwarz et al. (2010) and Fivaz et al. (2014): By far the most important factor to explain positional incongruence between VAA answers and parliamentary voting is still incongruence between an MP's VAA answer and the later majority position in her legislative party group. The logit coefficient of over 6 indicates that the odds to a positional change are almost 500 times higher if the VAA position does not match the subsequent majority position in the party group.

All other significant factors in our models are party-related: party centrality (MPs from pivotal parties in the political centre are more likely to change their mind) in the first model and its replacement party dummies (higher probability to stick to the pre-election attitude if you are not an MP of the moderate Christian Democrats) in the second model.

Completely gone is the effect of small electoral districts, which gained significance in the two forerunner studies of 2010 and 2014 (higher positional congruence with MPs from small districts).

Further noteworthy is the non-effect of the political context of the financial crisis in Europe, which is captured by the variable "year of vote" (see Table 3), with the 2007 as the pre- and the 2011 as the in-crisis budget included in the models. The negative coefficients indicate a slight decline in positional congruence in economically insecure times, but the effect is insignificant. It seems that party-driven long-term ideological mind sets value more than short-term insecurities in the political context. However, Switzerland was affected only modestly by the financial crisis (see Table 1). Therefore it might be different in Countries, which were hit harder by the crisis and/or had to endure an extensive downsizing of government spending.



The state of our paper is preliminary for which reason we did without the inclusion of a variable capturing salience of budget items to parties (strength of pre-electoral preferences on budgetary issues). Based on the experience from Fivaz et al. (2014) we can expect that this would mitigate somewhat the huge effect of disagreement between VAA statement and party group majority.

To sum up, positional (in-)congruence in budgetary matters is attributable to an even smaller number of party-related factors than in the more issue-specific, non-budgetary studies by Schwarz et al. (2010) and Fivaz et al. (2014): only the situation in the own party group after the election and ideological/structural aspects of the party remain significant.

*Table 3: Logit predictions for positional congruence between pre- and post-election sphere. Three-level cross-classification models (MPs, parties, issues)*

	<b>Model 1</b>	<b>Model 2</b>	<b>Fivaz et al. (2014) Model 3</b>	<b>Fivaz et al. (2014) Model 4</b>
(Intercept)	14.81 (11.83)	15.81 (12.26)	2.98*** (0.57)	2.11*** (0.58)
Minority language (F/I)	-0.00 (0.20)	0.01 (0.20)	0.00 (0.14)	-0.03 (0.15)
Age	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	0.00 (0.01)
Sex: male	-0.12 (0.21)	-0.12 (0.21)	-0.05 (0.15)	0.03 (0.16)
Year of vote	-0.20 (0.25)	-0.25 (0.25)	0.04 (0.06)	0.04 (0.06)
Time span to vote			-0.01 (0.01)	-0.01 (0.01)
Incumbent	-0.09 (0.19)	-0.03 (0.19)	0.20 (0.14)	0.20 (0.15)
Relevance of vote			0.02 (0.24)	0.02 (0.24)
District seize ≤ 4	0.22 (0.34)	0.22 (0.33)	0.51† (0.26)	0.51† (0.26)
District seize ≥ 15	-0.10 (0.19)	-0.10 (0.20)	-0.10 (0.14)	-0.13 (0.14)
Preference strength			1.26*** (0.13)	1.26*** (0.13)
Disagreement with party group	-6.28*** (0.19)	-6.28*** (0.19)	-3.98*** (0.13)	-3.96*** (0.13)
Core issue			0.10 (0.10)	0.12 (0.11)
Party centrality	-0.25* (0.12)		-0.18** (0.06)	
Party FDP		0.73* (0.31)		0.04 (0.21)
Party GPS		0.75* (0.37)		0.71* (0.31)
Party SP		1.37*** (0.30)		0.66** (0.23)
Party SVP		0.55* (0.27)		0.15 (0.20)
Party GLP		1.36**		

	Model 1	Model 2	Fivaz et al. (2014) Model 3	Fivaz et al. (2014) Model 4
Party small		(0.51) 0.11 (0.40)		-0.07 (0.28)
Log Likelihood	-1,004	-999	-966	-962
Num. obs.	6,085		4,744	4,744
Num. groups: MP	265	265	250	250
Num. groups: Party	13		12	
Num. groups: Issue	38	38	34	34
Variance: MP (Intercept)	0.76	0.73	0.07	0.06
Variance: Party (Intercept)	0.11		0.00	
Variance: Issue (Intercept)	0.28	0.27	0.19	0.17

Notes: \*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$ , † $p < 0.1$  (Standard errors in brackets).

CVP = Christian Democrats (centrist), FDP = Liberals (centre-right), GLP = Green-Liberals (centrist), GPS = Greens (left), SP = Social Democrats (left), SVP = Swiss People's Party / Conservative (right).

## 5. Conclusions

The paper presents a replication of recent studies on pledge fulfilment by Swiss MPs (Schwarz et al. 2010 and Fivaz et al. 2014). The same research design and statistical method like in the reference studies are applied, with the notable exception that the present paper uses pre-electoral statements on budget matters for the comparison with parliamentary votes while previous studies compared statements on specific single issues with votes on identical issues in parliament. This exhibits, to our knowledge, a new approach in the mandate fulfilment literature.

This is a preliminary paper with an explorative setting particularly with regard to the used budget data. Thus the following conclusions do not only discuss the empirical results but also the potential of the budgetary perspective for our field of research.

The empirical results mainly offer a confirmation of the aforementioned 2010 and 2014 studies. This is in three ways good news: First, because it corroborates the findings of our previous work using different data sources. Second, because it confirms that the use of pre-election pledges based on budget statements lead to very similar results like the use of conventional VAA statements. We see no reason why budget statements should not be used for mandate fulfilment research. And third, it refutes once more the notorious picture of constantly lying MPs.

A closer look at the results reveals interesting differences, though: For instance, the significant impact of the district size has vanished. Following Stratmann and Bauer (2002) and Edwards and Thames (2007) the specific shape of electoral systems has an impact on MPs' legislative activities (e.g. committee membership, voting behaviour concerning government spending or support of pork-barrel). According to their studies more important than district size is the election type (candidate-oriented first-past-the-post or party-oriented systems of proportional representation). Because we did not include Switzerland's second chamber (Council of States), whose members are elected by a different electoral system than those of the first chamber, into our analysis, we cannot present evidence about the impact of the election type. However, future research – especially in countries

with mixed electoral systems like Germany, New Zealand or Switzerland – should pay more attention to potential effects of different electoral systems.

There is, of course, further room for improvement: First, we see the need to broaden the thematic scope of the study by extending the selection of parliamentary votes to expenditures, which are bound by a specific legislative act. This would allow for a more representative picture of the vote selection compared to the real federal budget because important areas like social welfare, public transport and infrastructure are mostly regulated in separate acts. Second, there is no reason why future pledge fulfilment studies could not combine budget and conventional issue statements in a common model.

We have shown the potential of budgetary matters for the research on pledge or mandate fulfilment by MPs (or governments as a whole). Whether this new approach is adaptable to other countries depends on the legislative budget-making rules. The lower the control of the government over this process and the more open the process to proposals by individual MPs and parties which are not part of the government, the more appropriate the available data will be. These conditions are met in the case of Switzerland for which reason the results of this paper conform so nicely to the reference studies.

## Appendix 1: List of smartvote budget statements 2007 and 2011

smartvote 2007	Public spending according to previous budget
<b>General Question:</b> How would you set the financial priorities in the following policy areas? You can choose between the following alternatives: spend "considerably less", "less", "the same amount", "more" or "considerably more".	
<b>2007</b>	
1. National defence	4.4 billion CHF
2. Development aid	1.6 billion CHF
3. Public transport	4.6 billion CHF
4. Road construction and maintenance	2.7 billion CHF
5. Education and research	4.0 billion CHF
6. Subsidies for culture and sports	0.2 billion CHF
7. Federal contributions to pensions (age)	5.8 billion CHF
8. Federal contributions to pensions (invalidity)	4.7 billion CHF
9. Subsidies for agriculture	3.8 billion CHF
10. Environmental protection	0.4 billion CHF
<b>2011</b>	
1. Public security (police/law enforcement)	1.0 billion CHF
2. National defence	4.9 billion CHF
3. Development aid	1.9 billion CHF
4. Public transport	5.2 billion CHF
5. Road construction and maintenance	2.7 billion CHF
6. Environmental protection	1.2 billion CHF
7. Education and research	6.3 billion CHF
8. Subsidies for culture and sports	0.3 billion CHF
9. Welfare state and public health system	20.4 billion CHF
10. Subsidies for agriculture	3.6 billion CHF
11. Fiscal transfers to cantons	3.0 billion CHF

## Appendix 2: List of parliamentary votes included in the analysis

Vote ID	Date & time	Vote subject	Meaning 'yes'	Meaning 'no'	Spending decision if 'yes'	Spending decision if 'no'	smartvote budget item
48.1-0102	2007-12-13 10:21:11	708 Office fédéral de l'agriculture A2310.0149 Paiements directs généraux	Proposition de la majorité	Proposition de la minorité Bugnon	less	not less	agriculture
49.1-6592	2011-12-12 18:06:43	EVD - Bundesamt für Landwirtschaft A2310.0146 Zulagen Milchwirtschaft	Antrag der Mehrheit	Antrag der Minderheit Hutter Markus	not less	less	agriculture
49.1-6593	2011-12-12 18:07:34	EVD - Bundesamt für Landwirtschaft A2310.0149 Allgemeine Direktzahlungen Landwirtschaft	Antrag der Mehrheit	Antrag der Minderheit Grin/Bugnon	less	not less	agriculture
48.1-0072	2007-12-11 10:42:35	306 Office fédéral de la culture A2310.Encouragement du	Proposition de la majorité	Proposition de la minorité Pfister	not less	less	culture

Vote ID	Date & time	Vote subject	Meaning 'yes'	Meaning 'no'	Spending decision if 'yes'	Spending decision if 'no'	smartvote budget item
		cinéma		Theophil			
48.1-0073	2007-12-11 10:43:25	306 Office fédéral de la culture A2310.0320 Beaux-arts	Proposition de la majorité	Proposition de la minorité Pfister Theophil	not less	less	culture
48.1-0074	2007-12-11 10:44:17	306 Office fédéral de la culture A2310.0321 Arts appliqués	Proposition de la majorité	Proposition de la minorité Pfister Theophil	not less	less	culture
48.1-0084	2007-12-11 10:45:17	303 Office fédéral de la culture A4300.0138 Protection du paysage et conservation monuments historiques	Proposition de la commission	Proposition Kiener Nellen	not more	more	culture
49.1-6577	2011-12-08 12:27:38	EDI - Bundesamt für Kultur A2310.0493 Filmkultur	Antrag der Mehrheit	Antrag der Minderheit Schelbert	not more	more	culture
48.1-0085	2007-12-11 12:52:40	525 Défense	Proposition de la majorité	Proposition de la minorité Frösch (réduction globale de 1'007'400'000.--)	not less	less	defence
48.1-0088	2007-12-11 12:53:42	525 Défense A2150.0102 Equipement et matériel à renouveler	Proposition de la majorité	Proposition de la minorité II Marti Werner	not less	less	defence
48.1-0090	2007-12-11 12:54:40	525 Défense A2150.0103 Etudes de projets, essais et préparatifs d'achats	Proposition de la majorité	Proposition de la minorité II Marti Werner	not less	less	defence
48.1-0112	2007-12-17 16:26:50	525 Défense V0008.00 Etudes de projets, essais et préparatifs	Proposition de la majorité	Proposition de la minorité Marti Werner	not less	less	defence
48.1-0063	2007-12-11 10:07:59	202 DDC A2310.0287 Actions spéc. de la coop. au développement	Proposition de la majorité	Proposition de la minorité Fässler	not more	more	development cooperation
48.1-0064	2007-12-11 10:09:10	202 DDC A2310.0288 Contributions générales à des organisations internationales	Proposition de la majorité	Proposition de la minorité I Fässler	not more	more	development cooperation
48.1-0065	2007-12-11 10:10:04	202 DDC A2310.0288 Contributions générales à des organisations internationales	Proposition de la majorité	Proposition de la minorité II Schwander	not less	less	development cooperation
48.1-0066	2007-12-11 10:11:02	202 DDC Assistance financière à des actions humanitaires	Proposition de la majorité	Proposition de la minorité Fässler	not more	more	development cooperation
48.1-0067	2007-12-11 10:12:04	202 DDC A2310.0295 Aide aux pays de l'Est	Proposition de la majorité	Proposition de la minorité I Fässler	not more	more	development cooperation
48.1-0068	2007-12-11 10:12:54	202 DDC A2310.0295 Aide aux pays de l'Est	Proposition de la majorité	Proposition de la minorité II Schwander	not less	less	development cooperation
48.1-0100	2007-12-13 10:04:22	704 Secrétariat d'Etat à l'économie A2310.0370 Coopération économique au développement	Proposition de la majorité	Proposition de la minorité Kiener Nellen	not more	more	development cooperation
48.1-	2007-12-13	704 Secrétariat d'Etat à l'économie A2310.0446	Proposition de la	Proposition de la	not more	more	development

Vote ID	Date & time	Vote subject	Meaning 'yes'	Meaning 'no'	Spending decision if 'yes'	Spending decision if 'no'	smartvote budget item
0101	10:05:18	Coopération économique avec les Etats d'Europe de l'Est	majorité	minorité Kiener Nellen			cooperation
49.1-6573	2011-12-08 12:09:10	EDA - Direktion für Entwicklung und Zusammenarbeit A2310.0287 Bestimmte Aktionen der Entwicklungszusammenarbeit	Antrag der Mehrheit	Antrag der Minderheit Brönimann/Schwander	more	not more	development cooperation
49.1-6574	2011-12-08 12:10:06	EDA - Direktion für Entwicklung und Zusammenarbeit A2310.0288 Multilaterale Entwicklungszusammenarbeit	Antrag der Mehrheit	Antrag der Minderheit Vischer	not more	more	development cooperation
49.1-6575	2011-12-08 12:11:08	EDA - Direktion für Entwicklung und Zusammenarbeit A2310.0295 Osthilfe	Antrag der Mehrheit	Antrag der Minderheit Schwander	more	not more	development cooperation
48.1-0070	2007-12-11 10:40:44	306 Office fédéral de la culture A2310.0307 Encouragement de l'instruct. de jeunes Suisses de l'étranger	Proposition de la majorité	Proposition de la minorité II Kaufmann	not less	less	education & research
48.1-0071	2007-12-11 10:41:40	306 Office fédéral de la culture A2310.0307 Encouragement de l'instruct. de jeunes Suisses de l'étranger	Proposition de la majorité	Proposition de la minorité I Pfister Theophil	not less	less	education & research
48.1-0077	2007-12-11 11:33:13	325 Secr. d'Etat à l'éducation et à la recherche A2310.0193 Fondation Fonds national suisse	Proposition de la majorité	Proposition de la minorité Pfister Theophil	more	not more	education & research
48.1-0078	2007-12-11 11:34:03	325 Secr. d'Etat à l'éducation et à la recherche A2310.0194 Académies suisses	Proposition de la majorité	Proposition de la minorité Pfister Theophil	not less	less	education & research
48.1-0079	2007-12-11 11:34:57	325 Secr. d'Etat à l'éducation et à la recherche A2310.0197 Dialogue science et société	Proposition de la majorité	Proposition de la minorité Pfister Theophil	not less	less	education & research
48.1-0080	2007-12-11 11:35:53	325 Secr. d'Etat à l'éducation et à la recherche A2310.0441 Mesures d'accompagnement, coop. dans domaine spatial	Proposition de la majorité	Proposition de la minorité Pfister Theophil	not less	less	education & research
49.1-6584	2011-12-12 16:43:30	Finanzdepartement: Eidg. Personalamt A2101.0148 Kredit für besondere Personalkategorien	Antrag der Mehrheit	Antrag der Minderheit Heim	less	not less	education & research
48.1-0108	2007-12-13 11:16:46	805 Office fédéral de l'énergie A2111.0145 und 0146;2310.0222	Proposition de la majorité	Proposition Riklin	not more	more	environmental protection
48.1-0137	2007-12-13 11:18:48	805 Office fédéral de l'énergie A4300.0126	Proposition de la majorité	Proposition de la minorité Fässler	not more	more	environmental protection
48.1-	2007-12-13	805 Office fédéral de l'énergie A2111.0145	Proposition de la	Proposition de la	not more	more	environmental

Vote ID	Date & time	Vote subject	Meaning 'yes'	Meaning 'no'	Spending decision if 'yes'	Spending decision if 'no'	smartvote budget item
0109	11:19:46	Recherche, développement et démonstration	majorité	minorité Frösch			protection
48.1-0111	2007-12-17 16:06:50	810 Office fédéral de l'environnement A4300.0105 Nature et paysage	Proposition de la majorité	Proposition de la minorité Frösch	not more	more	environmental protection
49.1-6595	2011-12-12 18:17:38	UVEK - Bundesamt für Energie A211.0146 Programme, Energie und Abwärmenutzung	Antrag der Kommission	Antrag Riklin Kathy	not more	more	environmental protection
48.1-0110	2007-12-17 15:58:32	806 Office fédéral des routes A8400.0100 Attribution annuelle au fonds d'infrastructure	Proposition de la majorité	Proposition de la minorité Pfister Theophil	less	not less	road construction
48.1-0120	2007-12-17 16:44:59	Art. 1 let. a	Proposition de la commission	Proposition Graber	not more	more	road construction
49.1-6590	2011-12-12 17:21:19	EVD - Bundesgesetz über die in die Schweiz entsandten Arbeitnehmer	Antrag der Mehrheit	Antrag der Minderheit Schelbert	not more	more	social welfare

## References

- Bowler, Shaun and David Farrel (1993). Legislator Shirking and Voter Monitoring: Impacts of European Parliament Electoral Systems upon Legislator-Voter Relationships. *Journal of Common Market Studies*, 32 (1): 45-69.
- Carey, John M. and Matthew Shugart (1995). Incentives to Cultivate a Personal Vote: a Rank Ordering of Electoral Formulas. *Electoral Studies*, 14 (4): 417-39.
- Cox, Garry (1997). *Making Votes Count: Strategic Coordination in the World's Electoral Systems*. Cambridge: Cambridge University Press.
- Edwards, Martin S. and Frank C. Thames (2007). District Magnitude, Personal Votes, and Government Expenditures. *Electoral Studies*, 26: 338-345.
- Fivaz, Jan, Tom Louwerse and Daniel Schwarz (2014). Keeping Promises: Voting Advice Applications and Political Representation. In: Marschall, Stefan and Diego Garcia (eds.). *Matching Voters with Parties and Candidates. Voting Advice Applications in Comparative Perspective*. Colchester: ECPR Press (197-215).
- Garzia, Diego and Stefan Marschall (eds.) (2014). *Matching Voters with Parties and Candidates. Voting Advice Applications in a Comparative Perspective*. Colchester: ECPR press.
- Ladner, Andreas and Jan Fivaz (2012). Voting Advice Applications. In: Kersting, Norbert (ed.). *Electronic Democracy*. Opladen: Barbara Budrichs Publishers (177-198).

- Ladner, Andreas, Joëlle Pianzola and Jan Fivaz (2012). Voting Advice Applications and Party Choice: Evidence from smartvote users in Switzerland. *International Journal of Electronic Governance*, 5 (3/4): 367-387.
- Ladner, Andreas, Gabriela Felder and Jan Fivaz (2010). More Than Toys? A First Assessment of Voting Advice Applications in Switzerland. In: Cedroni, Lorella and Diego Garzia (eds.). *Voting Advice Applications in Europe. The State of the Art*. Naples: Scipta Web (91-123).
- Louwerse, Tom (2012). Mechanisms of Issue Congruence: The Democratic Party Mandate. *West European Politics*, 35 (6): 1249-1271.
- Louwerse, Tom (2011). *Political Parties and the Democratic Mandate: Comparing Collective Mandate Fulfilment in the United Kingdom and the Netherlands*. Universiteit Leiden.
- Mansergh, Lucy and Robert Thomson (2007). Election Pledges, Party Competition, and Policymaking. *Comparative Politics*, 39 (3): 311–329.
- Pianzola, Joëlle (2014). Swing Voting due to smartvote Use? Evidence from the 2011 Swiss Federal Elections. *Swiss Political Science Review*, preview version.
- Schwarz, Daniel, Lisa Schädel and Andreas Ladner (2010). Pre-Election Positions and Voting Behaviour in Parliament: Consistency among Swiss MPs. *Swiss Political Science Review*, 16 (3): 533-564.
- Shugart, Matthew, Melody Ellis Valdini and Kati Suominen (2005). Looking for Locals: Voter Information Demands and Personal Vote-Earning Attributes of Legislators under Proportional Representation. *American Journal of Political Science*, 49 (2): 437–49.
- Stratmann, Thomas and Martin Baur (2002). Plurality Rule, Proportional Representation, and the German Bundestag: How Incentives to Pork-Barrel Differ Across Electoral Systems. *American Journal of Political Science*, 46 (3): 506-514.
- Tanner, Jakob (1994). Steuerwesen und Sozialkonflikte. Entwicklungslinien und Diskontinuitäten. In: Guex, Sébastien, Martin Körner and Jakob Tanner (eds.). *Staatsfinanzierung und Sozialkonflikte (14.-20. Jahrhundert)*. Zürich: Chronos Verlag (123-135).
- Tavits, Margit (2009). The Making of Mavericks: Local Loyalties and Party Defection. *Comparative Political Studies*, 42 (6): 793–815.