### Strategic behavior in parliament

#### **Abstract**

Most research on roll call votes considers each voting decision by members of parliaments (MPs) as an independent observation. Only recently have scholars (e.g., Clinton & Meirowitz 2004, Clinton 2012a) started to assess how knowledge about the sequence of votes may help us to understand the legislative process more in detail. Many of these analyses are, however, predicated on quite important assumptions regarding the forward-looking capacities of MPs.

In this paper we draw on this more recent literature and bring it to bear in an analysis of two bills adopted in the Swiss parliament. Having available detailed information on the MPs' preferences over various options voted on we are able to test whether MPs behave strategically, and to what degree they are capable of anticipating the way forward through the agenda tree. We find evidence that MPs behave strategically, however, their foresight is not as perfect as we would expect from theoretical models.

Keywords: parliament, voting, agenda, strategy, Swiss politics

Web-Appendix

## Additional analysis on the incentive tax

As in almost all votes related to the incentive tax the sophisticated equivalents are identical to the options voted upon, we report the relationship between sincere preferences and votes in this appendix. In the final vote on the one article of the incentive tax bill (table 7) we find a rather close correspondence between sincere preferences and actual voting decisions.<sup>1</sup> Even stronger (and almost perfect) is this relationship in the second to last vote (table 14). Here only a handful of MPs voted against their sincere preferences.

We find a more or less identical relationship for the second to last vote (which is the last vote depicted in figure Erreur: source de la référence non trouvée) (Table 14). Again a large majority of the surveyed MPs voted according to their sincere preferences, and only a very small minority voted against these preferences

#### Table 14 about here

A rather puzzling result we find for the third to last vote, where the proposal of MP Wäfler attempted to eliminate the incentive tax and replace it by a so-called climate cent. For this vote (Table 15) we find a large share of the MPs (31) voting against their preferred option (i.e. the proposal by MP Wäfler). Most likely at this stage the MPs already largely knew that the committee majority proposal would win in the end.

#### Table 15 about here

A similar picture transpires for the fourth to last vote depicted in table 16. While almost all MPs who preferred the minority 2 proposal voted for this option, among those MPs who preferred the majority proposal, most voted against their sincere preferences. Nevertheless, this latter proposal passed with a large margin (see figure Erreur: source de la référence non trouvée). This is a rather puzzling finding, since according to our preference measures the MPs should have considered this as a vote where the options submitted corresponded to the sophisticated equivalents.

Table 16 about here

<sup>&</sup>lt;sup>1</sup>In figure Erreur: source de la référence non trouvée this vote is not represented, since it occurred slightly after the votes depicted in the agenda tree and since it was largely a repeat of the last vote appearing in the figure. Their close relationship also easily transpires in tables 6 and 13.

### Additional analysis and descriptive statistics

In table 17 we report the descriptive statistics of all variables employed in this paper, except for the preference and voting variables, for which details appear in tables 4-8 in the main text. Tables 18-21 report the results for the same models as those reported upon in tables 9-12 in the main text, except that the left-right positions of the voters are simply the average responsed obtained from the household panel survey.

Table 17 about here Table 18 about here Table 19 about here Table 20 about here Table 21 about here

# **Tables for Web-Appendix**

Table 14: Preferences and votes (incentive tax): second to last vote (majority vs. minority 4)

	Preference for options	
Vote for options	minority 4	majority
minority 4	32	5
majority	2	62

Table 15: Preferences and votes (incentive tax): third to last vote (Wäfler vs. majority)

	Preference for options	
Vote for options	Wäfler	majority
Wäfler 4	1	1
majority	31	56

Table 16: Preferences and votes (incentive tax): fourth to last vote (minority 2 vs. majority)

Preference for options				
Vote for options	minority 2	majority		
minority 2	43	32		
majority	4	13		

Table 17: Descriptive statistics

Variable	Min	Mean	Max	Std. Dev.	n			
MPs having p	MPs having participated in MP survey							
left-right	2.000	11.061	17.875	5.693	117			
position								
party								
left-right	4.094	4.741	6.188	0.340	119			
position								
voters								
strategist	0	0.091	1	0.289	110			

Table 18: Preferences, party and voter pressure, and votes (connection to the high-speed trains railway network): final vote (Bayesian probit) with alternative measure of voters' left right position

	Model 1	Model 2
sincere preference	0.98 *	0.06
-	(0.27)	(0.38)
left-right position party		-0.20 *
		(0.04)
left-right position voters		0.11
		(0.46)
constant	-0.33 *	1.82
	(0.18)	(2.29)
$\overline{N}$	94	94
n modal response	51	51
n correctly predicted	64	74
AIC	120.25	86.34
BIC	140.60	127.03
$\log L$	-52.13	-27.17

Table 19: Preferences, party and voter pressure, and votes (connection to the high-speed trains railway network): second vote (Bayesian probit)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
sincere	1.38*	1.60*			1.40*	1.63*	1.97*
preferenc							
e							
	(0.30)	(0.39)			(0.33)	(0.41)	(0.47)
left-right		0.18*		0.18*		0.19*	0.20*
position							
party							
		(0.04)		(0.04)		(0.05)	(0.04)
left-right		0.57		0.32		0.63	0.83
position							
voters		(0.40)		(O. 4=)		(0.74)	(0.74)
		(0.48)		(0.47)		(0.52)	(0.51)
preferenc			-0.94*	-0.04	-0.93*	0.11	
e over							
sophistica							
ted							
equivalen							
ts				(0.15)		(0.4.5)	
			(0.31)	(0.42)	(0.34)	(0.46)	0.00
strategic							0.88*
incentive							(0.40)
	4.00	- 0.4	0.44	4.00	o -=	- 10	(0.49)
constant	-1.02*	-6.04*	-0.21	-4.28*	-0.67*	-6.49*	-7.88*
3.7	(0.19)	(2.41)	(0.17)	(2.52)	(0.21)	(2.81)	(2.71)
N	96	98	93	93	93	93	98
n modal	66	66	66	66	66	66	66
response	7.4	70		70	0.1	0.1	0.1
n	74	78	66	73	81	81	81
correctly							
predicted	0661	60 <b>7</b> 6	10600	0.6.60	00.06	70.55	6 <b>7</b> 1 1
AIC	96.64	68.76	106.08	86.60	89.06	70.57	67.14
BIC	117.16	110.12	126.34	127.12	119.45	121.22	118.84
logL	-40.32	-18.38	-45.04	-27.30	-32.53	-15.28	-13.57

Table 20: Preferences, party and voter pressure, and votes (incentive tax): final vote (Bayesian probit)

	Model 1	Model 2
sincere preference	2.97 *	2.30 *
-	(0.40)	(0.67)
left-right position party		-0.49 *
		(0.14)
left-right position voters		-0.90
		(1.15)
constant	-1.54 *	10.05
	(0.34)	(6.41)
N	103	103
AIC	54.79	24.29
BIC	75.87	66.45
$\log L$	-19.40	3.85

Table 21: Preferences, party and voter pressure, and votes (incentive tax): fifth to last vote (Bayesian probit)

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
sincere	3.95*	2.27*			2.53*	0.76
preference						
	(0.65)	(0.90)			(0.96)	(1.12)
left-right		-0.66*		-0.87*	-0.71*	-0.72*
position						
party		(0.10)		(0.20)	(0.10)	(0.10)
1.0.11.		(0.18)		(0.20)	(0.18)	(0.19)
left-right		-1.10		-1.62	-1.50	-1.72
position						
voters		(1.21)		(1.47)	(1.64)	(1.66)
C		(1.21)	2.00.	(1.47)	(1.64)	(1.66)
preference			2.08*	-0.99	-1.69	
over						
sophisticat						
ed						
equivalents			(0.50)	(1.10)	(1.15)	
			(0.52)	(1.12)	(1.17)	• • •
strategic						2.16*
incentive						
						(1.16)
constant	-1.79*	13.01*	-0.06	20.01*	15.81*	16.75*
	(0.51)	(7.05)	(0.29)	(8.37)	(8.91)	(8.87)
N	95	95	97	97	94	94
n modal	61	59	65	63	59	59
response						
n correctly	83	85	65	89	84	84
predicted						
AIC	67.26	34.15	102.38	38.21	32.59	32.08
BIC	87.69	75.01	122.97	79.41	83.46	82.94
$\log L$	-25.63	-1.07	-43.19	-3.11	3.71	3.96

Table 22: Preferences, party and voter pressure, and votes (connection to the high-speed trains railway network): final vote (Bayesian probit) with only MPs responding before the votes

	Model 1	Model 2
sincere preference	2.56*	1.96
	(0.71)	(1.67)
left-right position party		
8 1 1 1 1		-0.37*
		(0.18)
left-right position voters		
• •		-0.13
		(1.96)
constant		
	-1.09 * (0.54)	4.64
	(0.34)	(8.97)
$\overline{N}$	26	28
n modal response	26 15	26 16
n correctly predicted	22	24
AIC	17.54	9.66
BIC	27.6	30.97
$\frac{\log L}{\log L}$	-0.77	11.17

Table 23: Preferences, party and voter pressure, and votes (incentive tax): fifth to last vote (Bayesian probit) with only MPs responding before the votes

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
sincere preference	3.16*	1.19			1.08	0.74
	(1.10)	(1.77)			(1.80)	(1.99)
left-right position party		-0.59*		-0.70*	-0.62*	-0.60*
		(0.24)		(0.25)	(0.26)	(0.24)
left-right position voters (post- stratified)		0.66		0.63	0.57	0.48
		(1.71)		(1.78)	(1.78)	(1.81)
preference over sophisticat ed equivalents			1.91*	-0.83	-0.60	
			(0.87)	(1.83)	(1.77)	
strategic incentive						0.93
						(1.63)
constant	-1.48	3.65	-0.30	6.32	4.73	1.66
	(0.91)	(8.49)	(0.61)	(8.90)	(9.02)	(13.18)

$\overline{N}$						
1 <b>v</b>	25	27	27	29	28	28
n modal response	16	15	15	17	15	15
n correctly predicted AIC	20	23	19	25	23	23
THE	22.02	11.44	29.4	11.22	13.22	13.11
BIC	31.77	32.17	39.76	33.1	39.86	39.75
$\frac{\log L}{2}$	-3.01	10.28	-6.70	10.39	13.39	13.45

Model	Model 2	Mod el 3	Mod el 4	Mod el 5	Mod el 6	
gz2n	3.16*	1.19			1.08	0.74
	-1.1	-1.77			-1.8	-1.99
Mean LR		0.59*	- 0.70*	- 0.62*	- 0.60*	
		-0.24		-0.25	-0.26	-0.24
predlr0 4sa		0.66		0.63	0.57	0.48
		-1.71		-1.78	-1.78	-1.81
gy2n		1.91*	-0.83	-0.60		
			-0.87	-1.83	-1.77	
incen						0.93
						-1.63
(Interc ept)	-1.48	3.65	-0.30	6.32	4.73	1.66
	-0.91	-8.49	-0.61	-8.9	-9.02	-13.18
N	25	27	27	29	28	28
AIC	22.02	11.44	29.4	11.22	13.22	13.11
BIC	31.77	32.17	39.76	33.1	39.86	39.75
log L	-3.01	10.28	-6.70	10.39	13.39	13.45

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