Opposition Parties and the Timing of No-Confidence Motions

Additional Materials

Laron K. Williams
Department of Political Science
University of Missouri
williamslaro@missouri.edu

Overview

In this document I discuss in greater detail a number of decisions that I made in the analyses dealing with the inclusion of additional institutional variables into the model specification and the possible non-linearity of *government tenure* and *time left in CIEP*.

Additional Model Specification

In the original model specification in the manuscript, I have characterized the opposition's utility of pass ($U_O(Pass)$) as a function of the opposition's likelihood of being in the next government. However, another possibility is that the various governing arrangements in the opposition's utility of fail also influence the utility of pass. In Table S.1 I explore this possibility by including the five variables (*surplus*, *minority*, *government parties*, *time left in CIEP* and *government tenure*) in the $U_O(Pass)$ equation.

These results are similar to those presented in the manuscript for the coefficients in the $U_O(Fail)$ equation. Unfortunately, including these institutional variables into both equations introduces an extremely high level of multicollinearity (pairwise correlation coefficients among the variables exceed 0.8 in a number of cases), so one should be cautious about drawing too strong of inferences. Nevertheless, since the results are similar to those presented in Table 3 of the manuscript, we can be confident that modifying the variables that make up the opposition's utilities do not change the key findings.

Table S.1: Statistical Backwards Induction Results for the Theoretical Model of No-Confidence Motions

	$U_O(Fail)$	$U_O(Pass)$	$U_{ML}(Pass)$
Surplus	0.60**	5.51	3.97**
	(0.23)	(7.11)	(1.86)
Minority	0.52**	9.11**	4.61**
	(0.21)	(4.53)	(1.53)
Government Parties	-0.15**	-1.50	-1.26**
	(0.05)	(4.61)	(0.42)
Time Left in CIEP	-2.88**	0.90	-2.38**
	(0.18)	(3.42)	(1.13)
Government Tenure	-0.06**	-0.03	-0.005
	(0.005)	(0.08)	(0.02)
Time Since NCM	-0.02**		
	(0.01)		
No. of Previous NCMs	0.02**		
	(0.003)		
Real GDP Growth	-0.09**	-0.18	0.33
	(0.03)	(0.37)	(0.22)
Effective Parties		-4.12*	
		(2.21)	
Returnability Index			7.37**
			(3.41)
Constant			-7.96**
			(3.17)
N	9,820	9,820	280

Note: S.E. in parentheses; the S.E. for the opposition's utility are based on 1,000 bootstrapped replications. $U_O(SQ)$ and $U_{ML}(Fail)$ are constrained to 0 for identification purposes.

$** = p < .05$,$* = p < .1$ (two-tailed).

Functional Form

Figures 4 and 5 in the manuscript hint that the effects of *government tenure* and *time left in CIEP* may be curvilinear rather than linear. Indeed, it looks as though the effects become flatter at the higher values of both variables (on the right side of the x-axis for Figure 4 and the left side for Figure 5). To test for this possibility, I have added the squared term of both *government tenure*^{2} and *time left in CIEP*^{2} to the $U_O(Fail)$ and $U_{ML}(Pass)$ equations. The results are presented in Table S.2 and Figures 4 and 5 are replicated in Figures S.1 and S.2.

As Table S.2 shows, the results are robust to these changes, as the sign and magnitudes of the coefficients are quite similar (though the level of statistical significance may vary). If we focus our attention on the opposition's utility, it is clear that only *time left in CIEP* has a nonlinear relationship, as the squared term reaches conventional levels of statistical significance. The coefficient for *government tenure*^{2}, on the other hand, is not statistically significant. This intuition is supported if one considers Figure S.1 and Figure S.2.

While Figure S.1 appears quite similar to the linear specification in the manuscript, in Figure S.2 the probability of propose flattens out early in the election cycle (at high values of *time left in CIEP*). This suggests that the probability of propose takes a slight decrease (though not significantly) early in the election cycle, and then increases with about half the election cycle remaining. It should also be noted that the largest differences across the three scenarios of likelihood of acceptance ($Pr(A)$) occurs in the early stage of the election cycle, suggesting that the chance of passage is most likely to lead to proposing a NCM immediately following the last election.

Table S.2: Statistical Backwards Induction Results for the Theoretical Model of No-Confidence Motions

	$U_O(Fail)$	$U_O(Pass)$	$U_{ML}(Pass)$
Surplus	0.40**		4.95**
	(0.20)		(1.90)
Minority	0.50**		5.11**
	(0.19)		(1.66)
Government Parties	-0.08*		-1.51**
	(0.05)		(0.53)
Time Left in CIEP	-6.62***		-8.46
	(0.71)		(6.42)
Time Left in CIEP^2	4.16**		5.46
	(0.73)		(6.08)
Government Tenure	-0.04**		0.41*
	(0.02)		(0.18)
Government Tenure^2	-0.0002		-0.01*
	(0.0004)		(0.006)
Time Since NCM	-0.02**		
	(0.004)		
No. of Previous NCMs	0.02**		
	(0.003)		
Real GDP Growth	-0.11**	-0.08	0.33
	(0.02)	(0.21)	(0.24)
Effective Parties		-1.55**	
		(0.31)	
Returnability Index			7.12**
			(3.39)
Constant			-8.98**
			(3.89)
N	9,820	9,820	280

Note: S.E. in parentheses; the S.E. for the opposition's utility are based on 1,000 bootstrapped replications. $U_O(SQ)$ and $U_{ML}(Fail)$ are constrained to 0 for identification purposes.
$** = p < .05$,$* = p < .1$ (two-tailed).

Figure S.1: Probability of Opposition Proposing a No-Confidence Motion (pr_P) across Government Tenure for Three Different Values of Probability of Accept (pr_A)

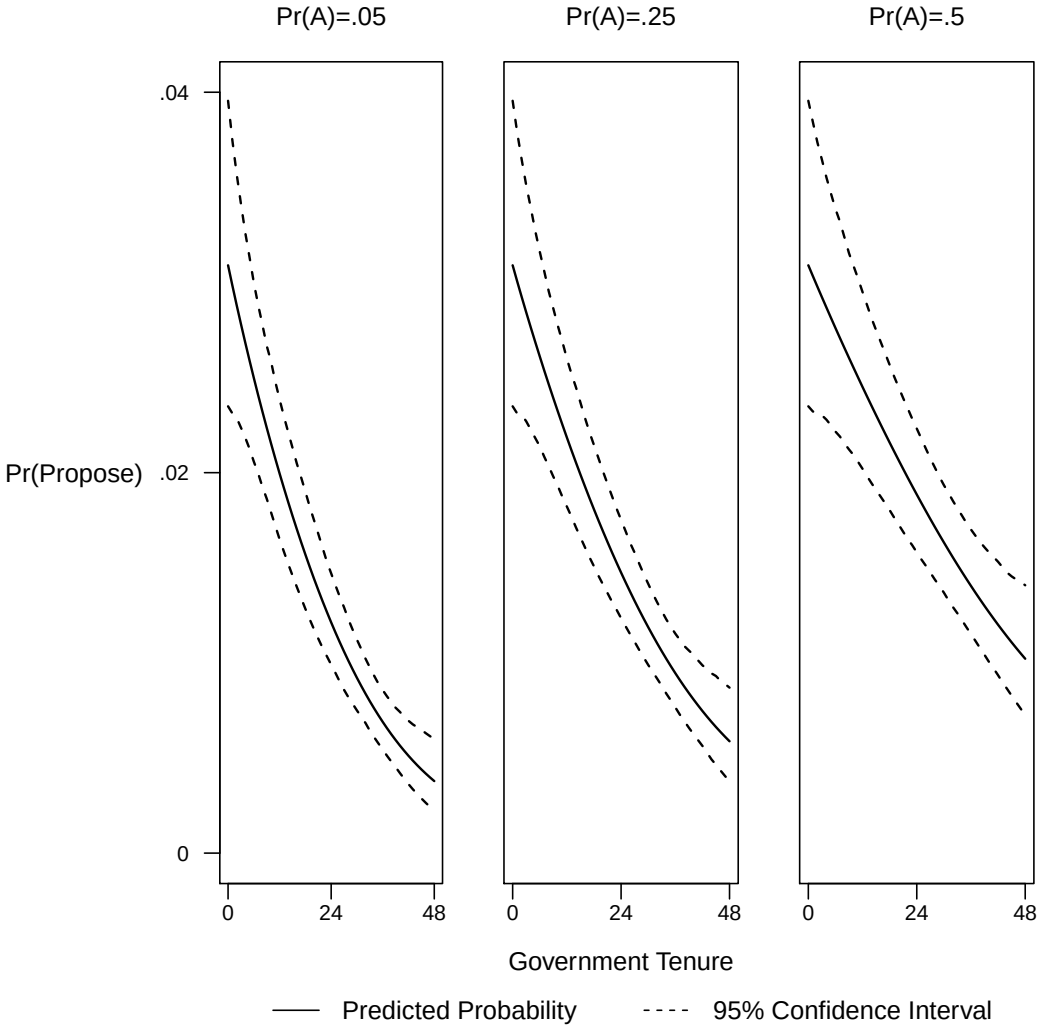
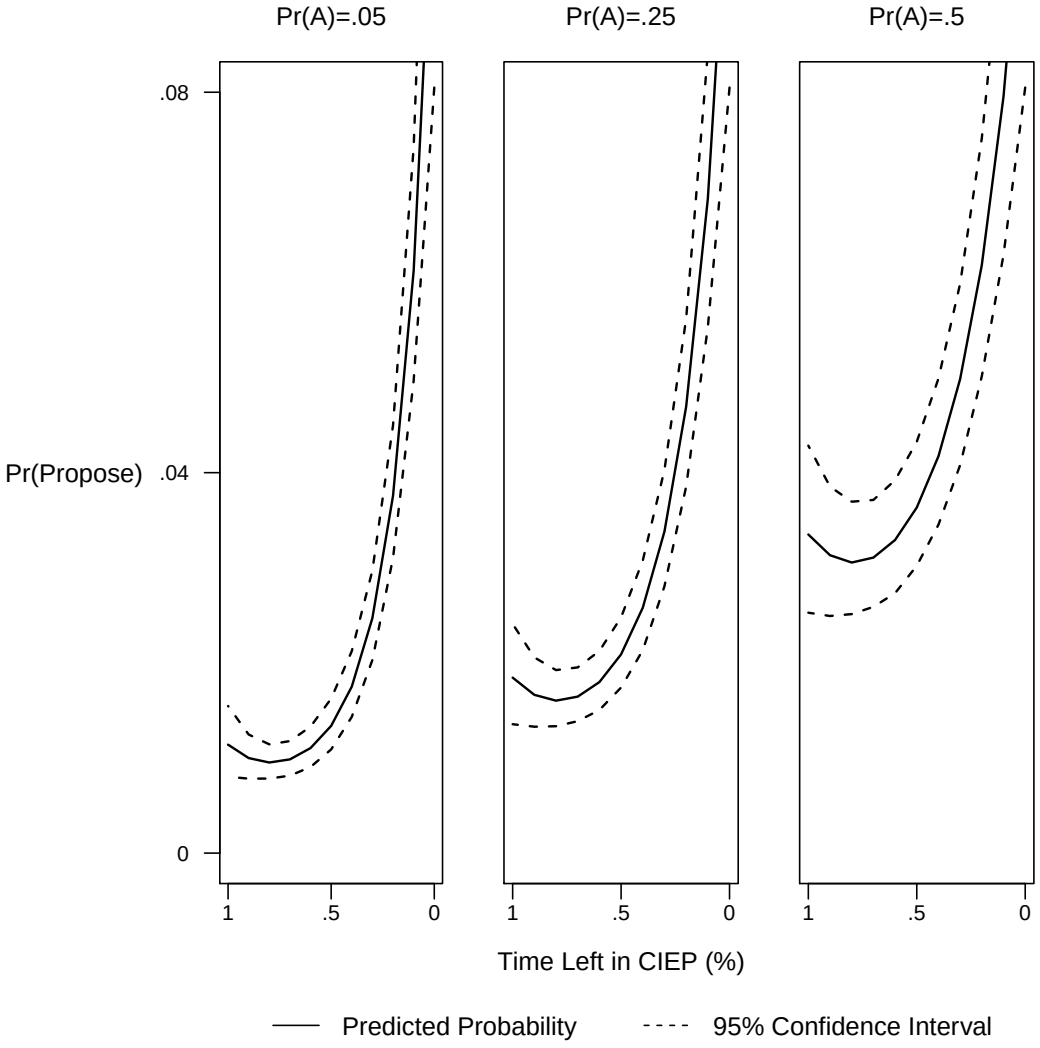
Figure S.2: Probability of Opposition Proposing a No-Confidence Motion (pr_P) across the Electoral Cycle for Three Different Values of Probability of Accept (pr_A)