Coups and Democracy

Marinov and Goemans in *BJPolS*

Online Appendix

February 23, 2016

1 Coup Occurrence

Our argument posits some relationships between the coup and post-coup stages. It would be instructive to estimate a model of coup occurrences, with the same variables, to see whether the selection dynamic we posit appears to be at work. For example, we believe that rising levels of GDP per capita fails to explain the movement to elections after coups because most richer countries never experience coups – and so, even if they *would* experience a faster onset of post-coup elections, we would not be able to observe the event in a range of the explanatory variable allowing us to estimate its impact.

Table **??** presents results of analysis of a probit estimation of likelihood of coups. We again include a weighted average of the 10 year history of coups, which we expect to significantly increase the probability of a coup as countries may be caught in 'coup traps'. Not only does this variable thus capture the path-dependence of coups, it may also be the case that this variable would capture some of the differences between countries' propensity to experience the event, differences not adequately summarized by the covariates.

Table **??** shows the results of the estimation. We find that a country's wealth is signed as expected and highly statistically significant as a predictor of coups. Richer countries, before and now, are less likely to experience a coup event. The selection dynamic we posited is at work, helping to explain the attrition in the values of the wealth variable in the coup sample. Thus, Hypothesis 1, linking wealth to post-coup elections is not necessarily wrong: it is simply difficult to test in observed post-coup samples. The *observed* variation across the two periods we are looking at in the timing of post-coup elections is explained by variables other than rising global wealth.

Our findings on the importance of a country having electoral democracy in place are of considerable interest. Electoral democracies are less likely to experience coups, an effect that is strengthened after the end of the Cold War. Theoretically, this finding sits nicely with the idea that there is more of an insistence on the holding of elections after the coup: if a potential plotter knows that they would have to hold elections after they seize power, and the country is already an electoral democracy, then coup plotters can expect post-coup policy to be set where it already is: at the median voter's preferred point. That makes the

actual gains from undertaking a risky grab of power minimal and potentially not worth the effort. This requires us to believe that the existence of electoral democracy in a country tends to result in greater pressure for elections in the post-1991 period. Whether this results from some normative shift among domestic audiences or whether some other mechanism is at work merits further research. In combination with the findings on elections after the coup, the finding on electoral democracy has a special meaning: coups after the Cold War are less likely to come to countries that already have elections and more likely to steer the countries they affect toward the holding of elections.

As expected, we find that coup-history is a significant predictor of future coups. We do not find that economic growth leads to fewer coups, a non-finding possibly attributable to the complex relationship between economic performance and political instability. The French colony variable is also insignificant, possibly a reflection of the inability or unwillingness of outsiders to intervene with the fast-developing, possibly violent events that mark most coups.

We plot the overtime variation in the incidence of successful coup d'états. Figure **??** shows two trends. The bars indicate the number of coups in a given year. The line represents the number of countries with coup-installed leaders. There is an evident overtime decline in the incidence of coups. The popularity of coups peaked at the height of the Cold War between 1960 and 1980, with some years recording 10 or more extra-constitutional seizures of executive power. Before 1991, there was not a single year on record in which a coup did not succeed at least once. After the end of the Cold War, some years record no coups, and the maximum number of events we see in a single year does not come close to the maximum observed in the earlier period.

Our results indicate that growing levels of economic development may be partly responsible for the decline, and greater insistence on post-coup elections may also play a role.

Figure 1: What Happened to the Coup d'Etat? Fewer Coups, Fewer Coup-leaders in Power
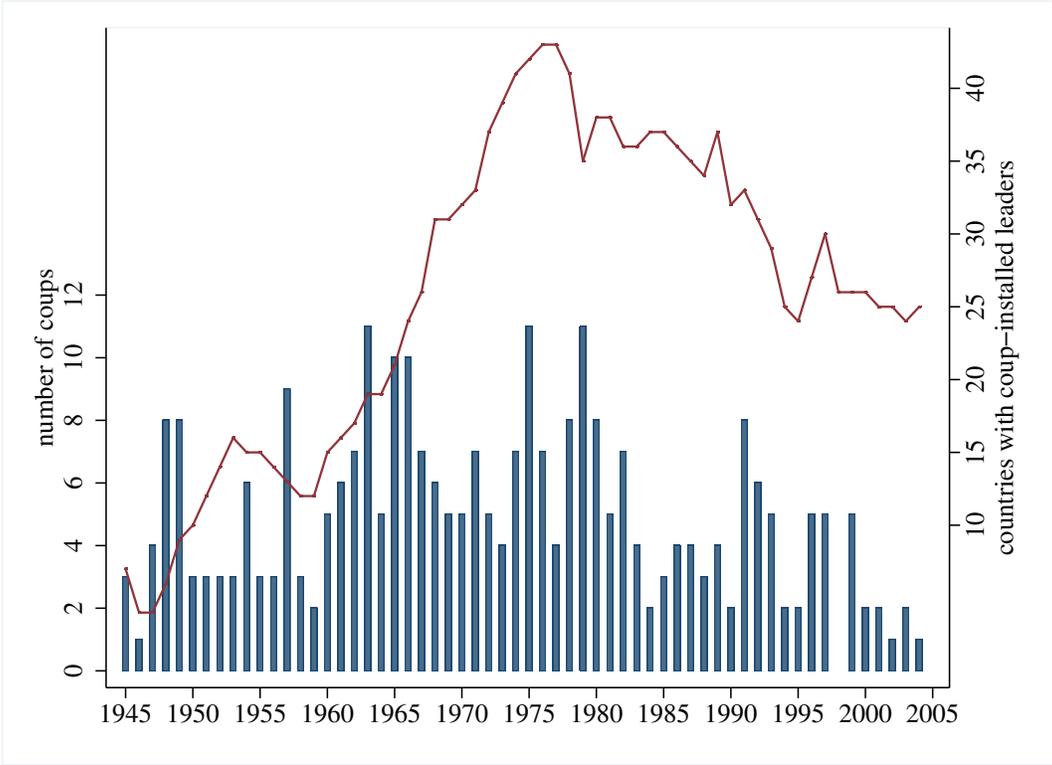
Table 1: **Probit Model of the Likelihood of a Coup**

Variables	(1) Pre-	(2) Post-	(3) Pre and Post
Aid dep	-0.365	0.457	-0.380
	(0.671)	(0.956)	(0.674)
log GDP pc	-0.191***	-0.211**	-0.188***
	(0.0704)	(0.106)	(0.0705)
Growth	0.485	0.567	0.500
	(0.874)	(0.509)	(0.573)
Ex-French Colony	0.0308	0.176	0.0673
	(0.161)	(0.195)	(0.145)
El Dem	-0.281**	-0.789***	-0.281**
	(0.123)	(0.224)	(0.123)
Coup History	4.770***	5.500***	4.836***
	(0.741)	(1.301)	(0.690)
Post Cold War			0.237
			(0.788)
Post x Aid Dep			0.753
			(1.030)
Post x GDP pc			-0.0432
			(0.104)
Post x El Dem			-0.456**
			(0.228)
Constant	-0.220	-0.179	-0.252
	(0.522)	(0.826)	(0.519)
Observations	1,856	1,193	3,049

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

2 Coup Dates in Archigos

Table 2: Coup Dates

Afghanistan	07sep53	19jun65	17jul73	27apr78	27dec79	16apr92
	29jun92	27sep96	13nov01			
Argentina	13nov55	29mar62	28jun66	08jun70	22mar71	29mar76
	11dec81	17jun82	18jun93			
Bangladesh	06nov75	30may81	20mar82			
Benin	27oct63	22dec65	17dec67	10dec69	26oct72	
Bolivia	16may51	11apr52	04nov64	26sep69	06oct70	22aug71
	24nov78	01nov79	17jul80	04aug81	19jul82	
Brazil	30oct45	24aug54	11nov55	02apr64		
Burkina Faso	03jan66	08feb74	25nov80	07nov82	04aug83	15oct87
Burundi	28nov66	01nov76	03sep87	21oct93	25jul96	
Cambodia	18mar70	10apr75	06jul97			
Central AR	01jan66	01sep81	15mar03			
Chad	01aug45	21jan49	13jun53	10may57	11sep73	13apr75
	23mar79	07jun82	02dec90			
Comoros	03aug75	13may78	18dec89	29sep95	30apr99	
Congo	04sep68	18mar77	05feb79			
Congo, DR	20apr48	10mar52	01jan59	14sep60	25nov65	15jul74
	16may97	15oct97	25dec99	16jan01		
Dominican R	30may61	19jan62	25sep63	27apr65		
Ecuador	03sep47	22jul52	07nov61	11jul63	15feb72	11jan76
El Salvador	14dec48	26oct60	25jan61	03aug79	15oct79	07dec80
Ethiopia	17feb64	23nov74	03feb77	14may87	27may91	06jan92
	22jul94	14jul00				
Ghana	24feb66	13jan72	05jul78	04jun79	31dec81	
Greece	15jul65	13dec67	25nov73			
Guatemala	08jul54	27oct57	31mar63	23mar82	08aug83	03apr84
	31may93					

Table 2 continued from previous page

Guinea-Bissau	14nov80	07may99	14sep03			
Haiti	11jan46	10may50	12dec56	14jun57	07feb86	17sep88
	30sep91	29feb04				
Honduras	30apr51	19aug53	15jul56	21oct56	03oct63	12mar66
	04dec72	22apr75	07aug78			
Iraq	14jul58	03jul61	08feb63	17jul68	26oct79	
Laos	31dec59	10dec60	19apr64	02dec75	22nov89	
Lesotho	19nov68	01sep69	11feb75	12apr80	20jan86	09sep90
	26mar91	02may91	17aug94	06jul02		
Mauritania	26may47	18feb51	02mar62	10jul78	06apr79	17jul79
	04jan80	12dec84	18sep88			
Niger	15apr74	27jan96	11apr99			
Nigeria	29jul66	23jul70	29jul75	13feb76	31dec83	27aug85
	17nov93					
Pakistan	07oct58	20dec71	05jul77	18apr93	05nov96	12oct99
Panama	01oct48	20nov49	12oct68	03mar82		
Paraguay	03jun48	10sep49	06may54	03feb89		
Peru	30dec47	28oct48	19jul62	03mar63	01nov63	03oct68
	22feb72	05jul73	25apr74	29aug75	21aug91	27jun95
Sierra Leone	23mar67	19apr68	26jun78	24jan86	26jan91	29apr92
	17jan96	25may97				
Sudan	17nov58	23may69	22jul71	10aug83	06apr85	30jun89
Syria	19dec49	28feb50	28feb54	28sep61	28mar62	27jul63
	25feb66	13nov70	07sep92			
Thailand	25jul57	16sep57	13jan63	14apr67	06oct76	20oct77
	07nov87	23feb91				
Turkey	27may60	12mar71	20sep80	30jun97		
Uganda	25jan71	01sep76	12may80	27jul85	29jan86	
Venezuela	18oct45	24nov48	13nov50	30jan64	12jun65	
Yemen	13mar48	27sep62	05nov67	22jun69	13jun74	

3 Onset of Elections After Coups: Polity Scores

Figure **??** shows the average polity2 score of countries experiencing coups. Depending on the number of years since the onset of the coup, the average polity2 score will differ. As we can see, there is no or little liberalization for the pre-1991 period. Even many years after the onset of the coup, a country is likely to record a polity2 score in negative (undemocratic) category. This changes after 1991. Countries move quickly into positive territory on polity2. Coups after 1991 take place against more liberalized settings than their predecessors: the year before the coup (-1) on the x-axis shows countries close to 1 on polity2 for 1991 and later, and shows countries in negative polity2 terrirory for the preceding period. This is probably a function of the greater prevalence of elections after the Cold War ends. Still, seven years after a country undergoes a coup in the 1991 period, it is (1) more liberalized than a pre-1991 coup country at the same juncture, but also it is (2) more liberalized relative to where it starts off before the coup. While our dependent variable is time-to-elections, and not polity2, this discussion confirms that there the end of the Cold War is non-trivial watershed in the consequences of coups for democratization.
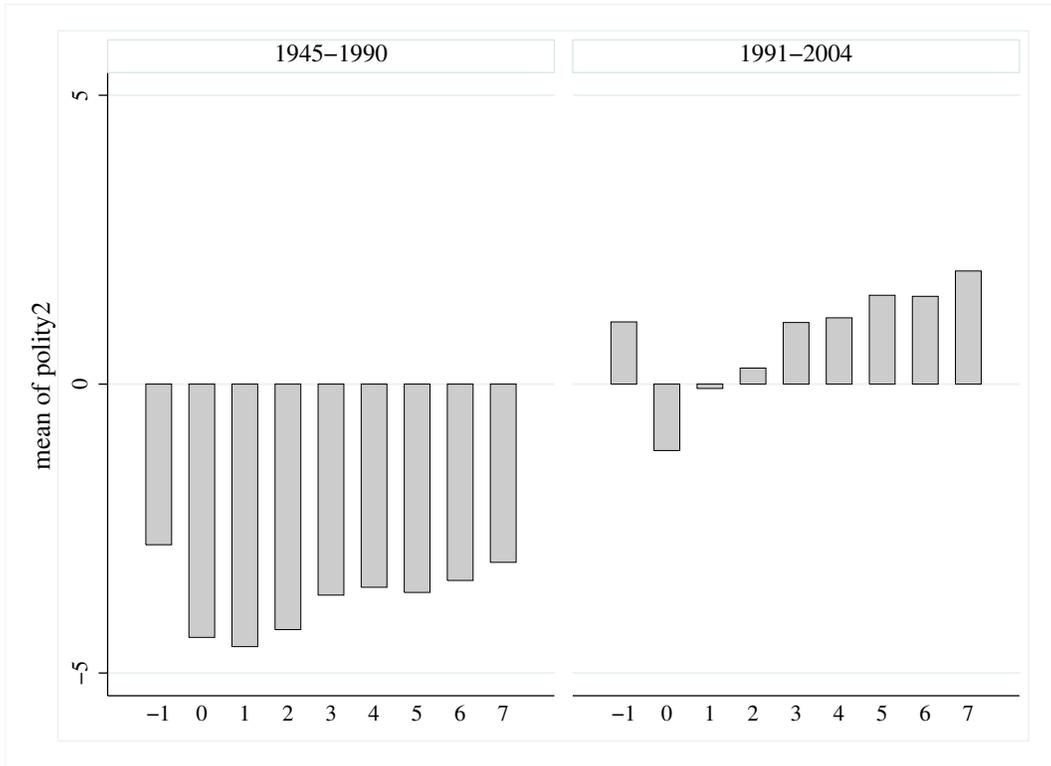
Figure 2: Countries' Changing Post-Coup Trajectories: Polity

4   Onset of Elections After Coups: Results with Different Decades

Table **??** shows results for different decades and results for whether democracy was in place longer (more than 10 years). In model (2), the 1960s are the baseline category. The 1970s dummy and the 1980's dummy cannot distinguish time to elections in those decades from the 1960s. The confirms the view that the end of the Cold War is an important dividing line. Models (3) and (4) contrast the case of coups against democracies that have been in place for 7 and 15 years, respectively. In either case, we are morel likely to see elections after a coup. This does not settle the question of what is the magic age (causing democracy to get institutionalized), but it indicates that it is not necessarily the case that representative institutions need to be in place for a very long period of time to have consequences.

We provide another look at the variation in time to election over time, this time using a structural break approach. Figure **??** shows a test for structural breaks in the data, using time to election after coup as the dependent variable. Tests with R's *sctest* command using time to elections within 3 years indicate that the evidence for structural break in the data is strongest for 1991. Results are similar using 5 year interval as the cutoff date. Results for early 1960s reflect a change to shorter time to elections. That change is not as significant as the change with the onset of the post-CW period.

Table 3: Elections After Coups: Different Decades and Coups in Older Democracies

	(1) By CW	(2) By Dec	(3) Dem	(4) Old Dem
Aid Dependence	0.145	0.0566	-1.076	-1.145
	(0.390)	(0.405)	(0.880)	(0.891)
GDP per capita	0.0584	0.0579	0.0389	0.0277
	(0.0553)	(0.0560)	(0.0540)	(0.0549)
Economic Growth	-0.952	-0.843	-0.863	-1.023
	(0.639)	(0.647)	(0.682)	(0.657)
Ex-French Colony	-0.00713	-0.0201	0.112	0.115
	(0.107)	(0.106)	(0.124)	(0.129)
Years since Coup	-0.0211***	-0.0227***	-0.0165**	-0.0191***
	(0.00631)	(0.00663)	(0.00668)	(0.00663)
Pre-Coup Dem			0.367***	
			(0.129)	
Pre-Coup 15-yrs Dem				0.364**
				(0.159)
Post x Aid Dep			1.866**	2.001**
			(0.896)	(0.894)
1970s		-0.165		
		(0.164)		
1980s		0.144		
		(0.159)		
Post Cold War	0.685***	0.702***	0.507***	0.523***
	(0.109)	(0.156)	(0.124)	(0.124)
Constant	-1.871***	-1.853***	-1.879***	-1.731***
	(0.386)	(0.393)	(0.398)	(0.390)
Observations	1,591	1,591	1,588	1,591

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

11

Figure 3: Test for a Structural Break in Data: Does Time to Elections After Coup Change in year t? Test with R *sctest* command (*strucchange*) with a three-year cutoff criterion. See ?.

Structural Change Point
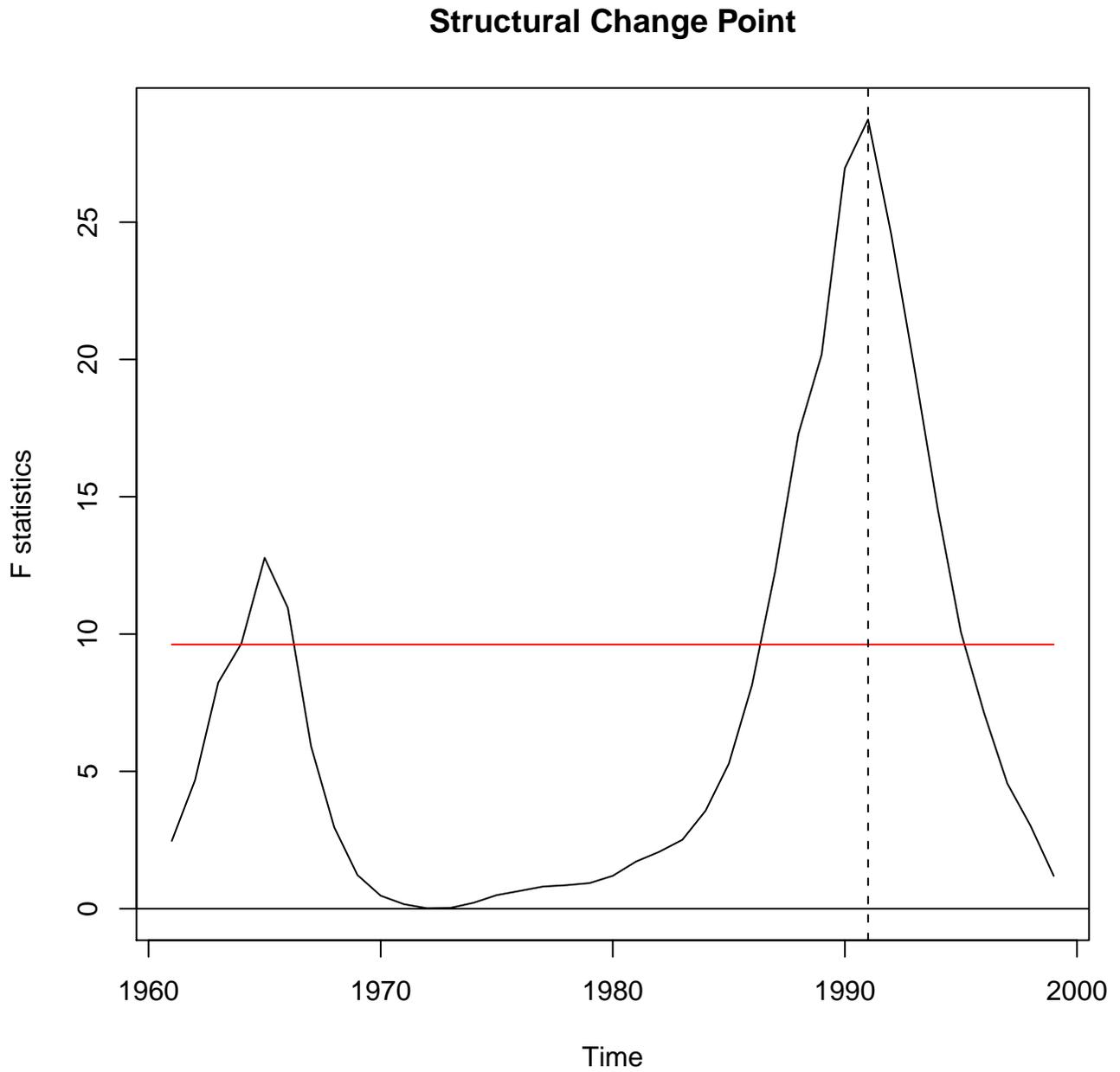
5   Results with Different Coup Datasets

Tables **??** and **??** show a comparison of results for the pre-1990 and post-1991 period respectively for five datasets of coups: (1) coup data by **?**; (2) **?**; (3) **?**; (4) coup data by Monty G. Marshall and Donna Ramsey at the Center for Systemic Peace and (5) data by **?**. These datasets are the major existing efforts to collect data on a global scale. Since we are interested in time to elections after coups, we look at successful coups. The models reflect the availability of covariates across all the datasets (for example, not all datasets include the identity of the actors perpetrating the coup, so this information cannot be included).

Table **??** shows that results on the effect of aid dependence are the same for the period preceding the end of the Cold War: there is no significant effect. Table **??** shows that, by contrast, aid dependent states move to adopt elections faster in the post-1991 period. The effect is insignificant only in model (2) but then again, this model has significantly fewer observations than the other models, an artifact of the mid-1990s cutoff date for the data collection. Comparing Archigos to the other data, we see that the pattern is even stronger elsewhere. Inspection of the trends in the different datasets, often available in the original publication, indicate that time to election is also on average shorter for the period after the end of the Cold War.

Table 4: Elections After Coups: A Comparison of the Archigos, Alesina, Belkin and Schofer, Marshall and Marshall, Powell and Thyne Datasets - Cold War Period

Variable	(1) Arch	(2) Ales	(3) BelSch	(4) MM	(5) PowTh
Aid Dependence	-0.730	-1.360	-0.512	-0.634	-1.022
	(0.836)	(1.209)	(0.957)	(0.895)	(0.958)
GDP per capita	0.0591	0.175**	0.128	0.0972	0.0749
	(0.0637)	(0.0827)	(0.0809)	(0.0778)	(0.0774)
Economic Growth	-2.584***	-2.722***	-2.612***	-1.866**	-2.591***
	(0.721)	(1.012)	(0.880)	(0.750)	(0.827)
Ex-French Colony	-0.290*	-0.661***	-0.469**	-0.193	-0.226
	(0.162)	(0.239)	(0.183)	(0.179)	(0.176)
Years Since Coup	-0.0272***	-0.0281**	-0.0438***	-0.0588***	-0.0430***
	(0.00852)	(0.0123)	(0.0133)	(0.0165)	(0.0148)
Constant	-1.665***	-2.260***	-1.909***	-1.735***	-1.592***
	(0.457)	(0.591)	(0.567)	(0.544)	(0.547)
Observations	1,251	864	936	854	925

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Elections After Coups: A Comparison of the Archigos, Alesina, Belkin and Schofer, Marshall and Marshall, Powell and Thyne Datasets - the Post-Cold War Period

Variable	(1) Arch	(2) Ales	(3) BelSch	(4) MM	(5) PowTh
Aid Dependence	0.749*	1.021	1.282**	0.999**	1.068*
	(0.425)	(0.709)	(0.646)	(0.405)	(0.596)
GDP per capita	-0.0233	-0.116	0.0357	-0.144	-0.138
	(0.0822)	(0.159)	(0.129)	(0.0928)	(0.0910)
Economic Growth	0.296	-0.132	-0.577	0.782	0.304
	(0.783)	(0.729)	(0.861)	(0.891)	(0.794)
Ex-French Colony	0.487***	0.821***	0.500**	0.643***	0.755***
	(0.180)	(0.304)	(0.217)	(0.210)	(0.215)
Years Since Coup	-0.0161	-0.0211	-0.0228*	-0.0183*	-0.0239**
	(0.0106)	(0.0240)	(0.0118)	(0.0110)	(0.0105)
Constant	-0.998*	-0.462	-1.342*	-0.432	-0.459
	(0.523)	(0.945)	(0.743)	(0.567)	(0.566)
Observations	341	139	218	248	254

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

References

Alesina, Alberto, Sule Ozler, Nouriel Roubini and Phillip Swagel. 1996. "Political Instability and Economic Growth." *Journal of Economic Growth* 1:189–211.

Belkin, Aaron and Evan Schofer. 2003. "Toward a Structural Understanding of Coup Risk." *Journal of Conflict Resolution* 47:594–620.

Goemans, Hein, Kristian Skrede Gleditsch, Giacomo Chiozza and Jinhee L. Choung. 2004. "Archigos: A Database on Political Leaders." University of Rochester and University of California San Diego. Version 1.4.

Powell, J.M. and C.L. Thyne. 2011. "Global instances of coups from 1950 to 2010." *Journal of Peace Research* 48(2):249–259.

Zeileis, Achim. 2006. "Implementing a Class of Structural Change Tests: An Econometric Computing Approach." *Computational Statistics & Data Analysis* 50:2987–3008.