Electronic Appendix for
Election Timing In Majoritarian Parliaments.
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British Journal of Political Science

The editor, for space reasons, requested that this material be excluded from the print version of the article. Chapter 4 of my book, *Election Timing*, also contains a lengthy discussion of these matters.

The Timing of Elections and Subsequent Economic Performance

The theory argues leaders who anticipate declines in future performance call early elections. The earlier empirical tests support this claim. Model 4 (Table 2) shows that increases in future inflation and unemployment or declines in future growth trigger elections. Although these results support the argument, they also support alternative arguments. Proponents of political business cycles might argue that rather than elections being called in advance of economic decline, the elections themselves are responsible for economic downturns. Indeed, Alesina, Cohen and Roubini (1992), for instance, found inflation increases following elections. They might argue that the evidence in Table 2 supports the alternative hypothesis that elections affect economic outcomes. Although the anecdotal evidence provided above suggests future performance is influential in leaders' timing decisions and the tests in Table 3 demonstrate the electoral support hypothesis, such alternative explanations deserve serious consideration.

In Table 4, I test whether post-electoral economic performance depend upon the relative timing of elections. These tests are in the spirit of Granger causality tests (1969).[1]
If future performance triggers the announcement of elections, then post-electoral performance will be related to the political incentives under which the election was called. For example, if an election is called exceptionally early relative to expectations then the decline in future economic conditions is likely to be large. When elections are widely anticipated, any decline in economic conditions should, on average, be mild. In contrast under the alternative causal pathway, that elections affect economic performance, the impact of elections on economic conditions should be unrelated to relative election timing. By rejecting the null hypothesis that timing considerations have no impact on post-electoral economic performance, I reject PBCs being the only factor that accounts for a relationship between elections and economic output.

Table 4 reports how the relative earliness or tardiness of elections affects the post-electoral economic change. I use Zellner's (1962) Seemingly Unrelated Regression analysis to simultaneously examine how the inflation rate, unemployment rate and growth rate will change between the announcement of elections and 183 days later. SUR is a multiple equations method that allows for the possibility that the errors in each of the equations are correlated. Although analyses of each of the dependent variables separately yield similar conclusions, single equation models do not capture the concept of an overall economic decline. Indeed, from a partisan political business cycle perspective we might expect governments to trade off inflation and

[1] See Londregan and Poole (1990) for a discussion and example of these methods in political economy.

unemployment differently (Hibbs 1977; Alesina 1987).[2] However, no government regardless of its ideology wants to promote increases in both inflation and unemployment.

Changes in all three economic indicators are strongly influenced by the relative timing of elections, as evidenced by the coefficients on the Ratio of Cumulative Hazards variable. In model 10, moving from the minimum (.136) of the Ratio of Cumulative Hazards variable to its maximum (1.635) predicts increases in the inflation rate and unemployment rates of 2.9% and 1.4% and a decline in the annual growth rate of 8.0%.

Model 10 excludes the pathological case of the February 1974 election. As a result of industrial action by striking mine workers, Heath's Conservative government placed the country on a three day work (i.e. industries only worked 3 of 7 day a week). Following the election, the new Labour government reached agreement with the miners and the country returned to full time work. Although other economic conditions worsen after the election, the end of the strike and the return to a full week drastically improved GDP after the election. This effect also explains the insignificance of future economic growth reported in model 4. The results with respect to future inflation and unemployment are unaffected by the inclusion or exclusion of the February 1974 election.

The results in Table 4 reject the null hypothesis that the timing of elections is unrelated to post-electoral economic performance. As such they support the theory that poor future economic conditions induce early elections.

Table 4: How Post Election Economic Performance Depends upon the Conditions under which the Election was Announced.

Dependent Variable: The change in economic conditions over the half-year following the announcement of elections.

Zellner's (1962) Seemingly Unrelated Regression Analysis.

	Model 10		
	ΔInflation Rate over *next* half year	ΔUnemployment Rate over *next* year	ΔGrowth Rate over *next* half year
Ratio of Cumulative Hazards: month over half-year (Model 3)	1.911** (1.030)	.914* (.669)	-5.346** (1.429)
Years Remaining	.635 (.276)	.602** (.179)	-1.123** (.382)
constant	-1.659** (.991)	-1.364** (.643)	4.734** (1.374)
Observations	11 (1974, February excluded)		
R2	0.3317	0.4885	0.5637

[2] Controlling for partisan changes in government the results persist (analysis not shown).

χ^2	5.95 (Pr.=0.051)	11.462 (Pr.=0.003)	15.507 (Pr.=0.000)

* Significant at greater than the 10% level in a one tailed test.

** Significant at greater than the 5% level in a one tailed test.

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