# Internet Appendix to "Political Uncertainty and Corporate Investment Cycles"\*

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#### Table AI Alternative Proxies for Investment Opportunities

This table reports the estimates of the baseline investment regression specification. Each column reports the estimates of the regression using different proxies for firm investment opportunities. The first column uses the same proxy for Tobin's Q as in Table III, defined as the book value of total assets minus the book value of total equity plus the market value of equity scaled by the book value of total assets. The second column reports the results using the worldwide industry-year average of Tobin's Q for each three-digit SIC industry. The third column uses the median industry-level Tobin's Q each year as the proxy for growth opportunities, based on three-digit SIC industries. The final column employs sales growth, defined as the percentage change in sales over the previous year for each firm. Standard errors, clustered by country and year, are reported in brackets.

	(1)	(2)	(3)	(4)
Election Year Dummy	-0.0039	-0.0040	-0.0040	-0.0039
	[0.0013]***	[0.0015]**	[0.0015]**	[0.0013]***
Q	0.0055			
	[0.0010]***			
Mean Industry Q		0.0131		
		[0.0038]***		
Median Industry Q			0.0217	
			[0.0057]***	
Sales Growth				0.0417
				[0.0053]***
Cash Flow	0.1866	0.1914	0.1898	0.1386
	[0.0159]***	[0.0153]***	[0.0161]***	[0.0184]***
GDP Growth	0.0365	0.0352	0.0321	0.0347
	[0.0192]*	[0.0182]**	[0.0184]**	[0.0096]***
Observations	101,824	101,824	101,824	101,155
R-squared	0.07	0.07	0.07	0.14
Fixed Effects	Firm	Firm	Firm	Firm
	Year	Year	Year	Year

### Table AII Alternative Measures of Corporate Investment

This table reports the estimates of investment regressions using alternative definitions of corporate investment. The first column uses capital expenditures scaled by beginning-of-year total assets. The second column uses capital expenditures scaled by beginning-of-year net property, plant, and equipment. The third column uses the percentage change in capital expenditures relative to the previous year. The final column uses the percentage change in the capital stock (net PP&E) over the previous year. Firm and year fixed effects are included. Standard errors are clustered by country and year.

	(1)	(2)	(3)	(4)
Dependent Variable	$I_t/A_{t-1}$	$I_t/K_{t-1}$	%ΔCAPEX	Capital Stock Growth
Election Year Dummy	-0.0038 [0.0013]***	-0.0121 [0.0044]***	-0.0386 [0.0121]***	-0.0142 [0.0050]***
Q	0.0055	0.0366	0.0323	-0.0034 [0.0163]
Cash Flow	0.1866	0.8086	3.6355	1.5514
GDP Growth	0.0365	0.1064	0.2261	[0.1734]*** 0.1736
Constant	[0.0192]* 0	[0.0848] 0.0001	[0.2623] 0.0011	[0.1002]* 0.0001
	[0.0021]	[0.0079]	[0.0161]	[0.0109]
Observations R-squared	101,587 0.07	101,288 0.04	97,534 0.02	101,276 0.04

## Table AIII Investment Regressions: Additional Controls and Subsamples

This table reports the results of various robustness checks. Column (1) reports the result of the baseline investment-Q regression from Table III. Column (2) reports the specification that includes firm size (log of real total assets), leverage (short term and long term debt scaled by total assets), cash holdings (cash and short-term investments scaled by total assets), and profitability (ROA). Column (3) reports the results with Finland, France, Pakistan and Poland omitted from the sample. Firm and year fixed effects are included in both specifications. Standard errors are clustered by country and year.

	(1)	(2)	(3)
	Baseline	Extra Controls	Four Countries Omitted
Election Year Dummy	-0.0038	-0.0040	-0.0040
	[0.0013]***	[0.0013]***	[0.0012]***
Q	0.0055	0.0130	0.0055
	[0.0012]***	[0.0006]**	[0.0011]***
Cash Flow	0.1866	0.3130	0.0186
	[0.0159]***	[0.0391]***	[0.0171]***
GDP Growth	0.0365	0.0414	0.0373
	[0.0192]*	[0.0203]**	[0.0197]*
Size		-0.0298	
		[0.0039]***	
Leverage		-0.0742	
		[0.0415]*	
Cash Holdings		0.0461	
		[0.0331]	
Profitability		-0.0208	
		[0.0381]	
Observations	101,587	101,288	99,412
R-squared	0.07	0.10	0.07

### Table AIV Proxy-Quality Tests: Direct and Reverse Regressions

This table reports results based on the proxy-quality threshold tests of Erickson and Whited (2005). The first column reports the results of the *direct* regression of investment on our proxy for Tobin's Q, cash flow, GDP growth and the election year dummy. The second column reports the results of the *reverse* regression of our proxy for the true incentive to invest on investment, cash flow, GDP growth and the election year dummy. The results from the reverse regressions are re-arranged to put investment on the left-hand side. All regressions include firm and year fixed effects and the standard errors are corrected for heteroskedasticity using the White (1980) estimator.

	(1)	(2)
	Direct Regression	Reverse Regression
Election Year Dummy	-0.0039	-0.0540
	[0.0005]***	[0.0140]***
Q	0.0055	1.7370
	[0.0005]***	[0.1670]***
Cash Flow	0.1866	-3.9300
	[0.0046]***	[0.2790]***
GDP Growth	0.0364	-0.3250
	[0.0025]***	[0.0570]***
Observations	101,587	101,587
R-squared	0.07	0.07

#### Table AV Investment Regressions - Including Macroeconomic Control Variables

This table reports both the baseline investment/Q regression from Table III with additional macroeconomic controls included on the right hand side. Specification (1) includes the growth in central government spending over the previous year; Specification (2) includes the growth in the money supply (M1) over the previous year; Specification (3) includes the real interest rate; Specification (4) includes the inflation rate. The sample period is 1980 to 2005. Firm and year fixed effects are included in all specifications. Standard errors are clustered by country and year.

	(1)	(2)	(3)	(4)
Election Year Dummy	-0.0033	-0.0034	-0.0037	-0.0038
	[0.0011]***	[0.0011]***	[0.0012]***	[0.0011]***
Q	0.0059	0.0046	0.0055	0.0059
	[0.0007]***	[0.0008]***	[0.0010]***	[0.0010]***
Cash Flow	0.1267	0.1619	0.1751	0.1746
	[0.0124]***	[0.0154]***	[0.0118]***	[0.0112]***
GDP Growth	-0.0182	0.0214	0.0481	0.0352
	[0.0068]**	[0.0081]**	[0.0114]***	[0.0103]***
$\Delta G$	-0.1518			
	[0.0684]**			
$\Delta$ M1		-0.0179		
		[0.0037]***		
r			0.0015	
			[0.0005]***	
i				0.0002
				[0.0000]***
Observations	75,798	80,582	96,150	101,558
R-squared	0.07	0.06	0.07	0.10

#### Table AVI Basis of Executive Legitimacy

The data set covers the national elections whose outcomes determine the chief executives of countries directly or indirectly. For each country, the following steps are taken to identify the chief executive and to classify the country based on where the executive power is vested (Table I).

- 1. A country is classified as presidential (parliamentary) if the president (prime minister) is chief of state and head of government. A country is also considered parliamentary if a hereditary monarch is the chief of state while the prime minister is the head of government.
- 2. For countries with both the prime minister and the president, we refer to Polity IV database from the Center for International Development and Conflict Management at the University of Maryland, The Encyclopedia Britannica, and The World Factbook published by America's Central Intelligence Agency. If these sources describe a country as parliamentary, we classify the country as parliamentary.
- 3. A country with the prime minister (or premier) is classified as parliamentary if the president is elected by members of the parliament rather than by popular vote.
- 4. These steps leave six countries unclassified: Finland, France, Poland, Russia, South Korea, and Taiwan. We classify these countries as hybrids as they have elements of both parliamentary and presidential systems. All these countries have prime minister as well as a directly elected president. Both leaders actively participate in the executive decision making, although the relative division of power between the two leaders varies across countries.

We utilize the presidential elections for countries with presidential systems as the outcome of the election directly determines the leader of the nation. In the absence of a direct election for prime minister, the outcome of a legislative election has the foremost influence over the appointment of the prime minister in parliamentary systems as the leader of the majority party or coalition is usually appointed prime minister. Thus, we consider legislative elections

for parliamentary countries. An exception is Israel, for which we consider prime ministerial elections rather than general elections. Israel introduced a direct election of prime minister in 1996, separate from the general elections. After three direct elections for the premiership, however, it went back in 2001 to the earlier practice, in which the governing coalition's leader sits as prime minister. We also note that Switzerland deviates from a typical parliamentary system in terms of leadership. One of the seven members of Federal Council, which is elected by members of parliament, is elected as president for a term of one year. The members of the Federal Council thus serve as president in rotation.

For hybrid systems, we study the constitutional framework and practice of each country to understand how the executive power is divided between the two leaders, and accordingly, select the election identifying the leader who exerts more power over executive decisions (see Table I for the choice of elections). The task of classification is somewhat complicated for countries in which the executive power of the two leaders is well balanced. In France, for example, the president controls foreign relations and national defense while the premier handles domestic policy. Despite such division of responsibilities, however, the president wields formidable executive powers including the power to dissolve the national legislature and call national referenda. For some countries, however, the selection process is rather straightforward. The South Korean system, for instance, is akin to a pure presidential system despite the existence of a prime minister. Its legislative elections do not serve as an indirect election of prime minister as the prime minister is not required to be a member of parliament as in typical parliamentary systems, in which the prime minister arises from among the ranks of the parliament's membership. Therefore, presidential elections are in effect the most influential national elections in South Korea. Based on our examination, presidential elections are chosen for France, Russia, South Korea, and Taiwan while legislative elections are utilized for Finland and Poland. One may disagree with our choice of elections for France, Poland, Finland, and Pakistan, where the executive power of the two leaders is relatively well balanced (France, Poland, and Finland) or has shifted over time (Pakistan). As a robustness check, we repeat the test excluding these four countries to ensure that the test results are not driven by our choice of the elections and find that the results remain intact (see Internet Appendix Table ?? for the results).

#### Table AVII Definition of Political Platforms

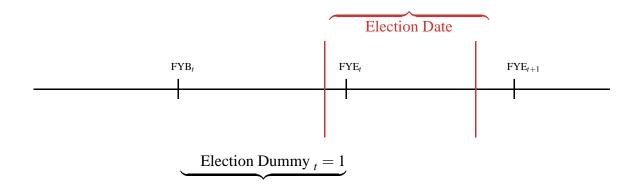
The following description was taken from Keefer (2007), which explains how World Bank Database of Political Institutions identifies party orientation with respect to economic policy.

- 1. In the Handbooks, we first considered the party name, and used the following rules: Right: for parties that are defined as conservative, Christian democratic, or right-wing. Left: for parties that are defined as communist, socialist, social democratic, or left-wing. Center: for parties that are defined as centrist or when party position can best be described as centrist (e.g. party advocates strengthening private enterprise in a social-liberal context). Not described as centrist if competing factions "average out" to a centrist position (e.g. a party of "right-wing Muslims and Beijing-oriented Marxists"). 0: for all those cases which do not fit into the above-mentioned category (i.e. party's platform does not focus on economic issues, or there are competing wings), or no information. NA: for those cases which there is no executive. Blank: for those cases where orientation is unknown.
- 2. If the orientation of a party was not immediately obvious from its name or description in the handbooks, we consulted the website: http://www.agora.stm.it/elections/parties.htm. This site provides one-word descriptions of party orientation which could be fit into the above framework. Cross-checks on parties listed in both sources showed a high degree of agreement. As this source provided no historical information, we assumed that party location on the left right spectrum remained unchanged over time, and we recorded this party orientation for all years. Terms on the website such as "liberal", "progressive", "authoritarian" or "xenophobic" were dealt with in the following way: For "liberal" we went with the European definition (right), since the website is based in Europe. We classified "progressive", "authoritarian", "xenophobic" as "0" (none of the above) unless we had additional information that allowed us to position the party on the left/right spectrum.

- 3. We further spot-checked party orientations with Political Parties of Africa and the Middle East and Political Parties of Eastern Europe and the Successor States, both published by Longman Current Affairs series. If there was a conflict among these sources, we went with the description of the party economic platform (from any source).
- 4. If there was evidence that the executive deviated considerably from the party orientation (e.g. austerity policy of a socialist/social democratic party) the executive's orientation is recorded in the database, not the party's. In addition, if executive is independent, the executive's orientation is recorded.
- 5. Finally, we compared our codings with those of Inglehart and Huber (1995). The coincidence of codings was high, but there were some discrepancies between theirs (based on party platforms) and ours (determined as stated above). When we noted deviations, we revisited our sources to determine whether a change in coding was warranted.

Figure A1. Matching Election Years with Fiscal Years

This figure demonstrates the construction of the election year dummy for each firm given the firm's fiscal year beginning and end. If the date of the election lies between 60 days prior to the end of the fiscal year t and 274 days after the end of fiscal year t then the election year dummy variable takes a value of one. All fiscal years for which the election date does not fall within this range have the election dummy set to a value of zero.



If the election date is in  $[\mathbf{FYE}_t - \mathbf{45} \ \mathbf{days}, \mathbf{FYE}_t + \mathbf{274} \ \mathbf{Days}]$  then Election Dummy<sub>t</sub> = 1.