

Policy Uncertainty, Political Capital, and Firm Risk-Taking

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“We think the heightened uncertainty over economic policy associated with a potential Trump presidency could adversely affect both financial markets and the real economy.”
— *Lew Alexander, Chief Economist, Nomura*



Why do firms donate to politicians?

- **Existing literature: “Direct” rent extraction**

- ▶ **Government bailouts** (Faccio, Masulis, and McConnell (2009); Duchin and Sosyura (2012))
- ▶ **Government contracts** (Brogaard, Denes, and Duchin (2015); Schoenherr (2015))
- ▶ **Access to credit** (Khwaja and Mian (2005); Claessens, Feijen, and Laeven (2008))

- **Our paper: Policy uncertainty**

- 1 Firms that are highly sensitive to government policy uncertainty have a stronger incentive to become politically connected
- 2 These “policy-sensitive” firms should respond more strongly to the gain or loss of a political connection than “policy-neutral” firms

Motivation, continued

- Political elections resolve two types of uncertainty:
 - ▶ Uncertainty related to government policy (aggregate)
 - ▶ Uncertainty related to political connectedness (firm-specific)
- One literature has examined the effects of aggregate uncertainty resolution on firm outcomes around elections
 - ▶ Julio and Yook (2012); Kelly, Pastor, & Veronesi (2015); Jens (2016)
- Another literature has examined firm outcomes following shocks to political connectedness (“political capital”)
 - ▶ Firm value, sales, investment/R&D spending, leverage, etc.
- **Both types of uncertainty matter for firm outcomes**
 - ▶ Need to separate both types of shocks to correctly estimate marginal effects

Our setting: Close U.S. Congressional Elections

- We look **within** the set of firms that donate to candidates in “close” U.S. Congressional elections
 - ▶ Close election outcomes resemble coin flips
- Each election cycle, we classify firms as being “**policy-sensitive**” or “**policy-neutral**”
- We also classify firms as being “**lucky**” or “**unlucky**” based on whether they donated to more close-election winners than losers in a given election cycle
 - 1 Can compare outcomes for firms with *same* policy sensitivity but different luck in close elections
 - 2 Can also compare outcomes for firms with *same* election luck but different policy sensitivities

What we find

- 1 When a firm becomes policy-sensitive, it increases its campaign contributions relative to when the *same* firm was policy-neutral
- 2 Close-election political capital shocks have a strong effect on subsequent firm risk-taking
 - ▶ Implied volatility drops, CDS spreads decline, firm value increases
- 3 These effects are significantly stronger for policy-sensitive firms
 - ▶ Magnitudes are sizable – for example, 10% for investment
- 4 Many results documented in the political connections literature appear to be driven by policy-sensitive firms

Our focus: Close elections

- Our tests focus on the outcomes of “**close**” congressional elections (margin of victory $\leq 5\%$)
 - ▶ Outcomes not predictable in advance / not known until election day

- Sample: 205 close elections between 1998-2010

- For each firm-election cycle pair, we define *Net Close Wins* as:

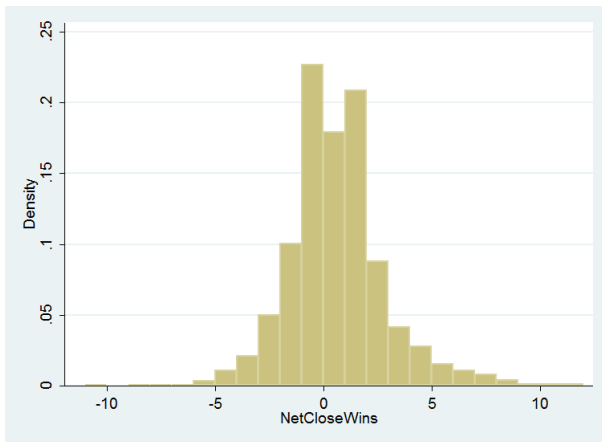
$$\textit{Net Close Wins} = \# \textit{Close Election Wins} - \# \textit{Close Election Losses}$$

- Example: Coca-Cola, 2004. Two winners, five losers.

- ▶ *Net Close Wins* = 2 – 5 = -3.

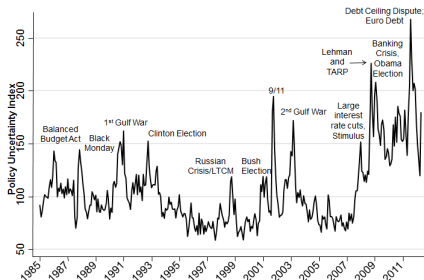
- We also define *Close Win Dummy* = 1 if *Net Close Wins* > 0 (sample median) and zero otherwise

Density Function of Net Close Wins



Measuring Firms' Sensitivities to Policy Uncertainty

- U.S. Economic Policy Uncertainty index created by Baker, Bloom, and Davis (2016)

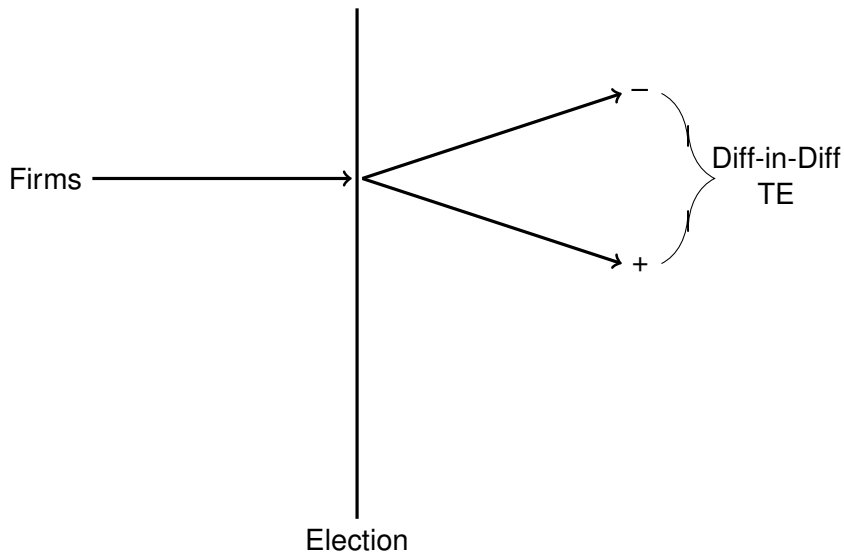


- Regress firm returns on the BBD index in each election cycle
- Classify firms as “policy-sensitive” in a cycle if p -value < 0.1
- Our measure captures **shocks to firms' policy sensitivities**
 - ▶ Virtually no persistence
 - ▶ Policy-sensitive/policy-neutral firms very similar on observables

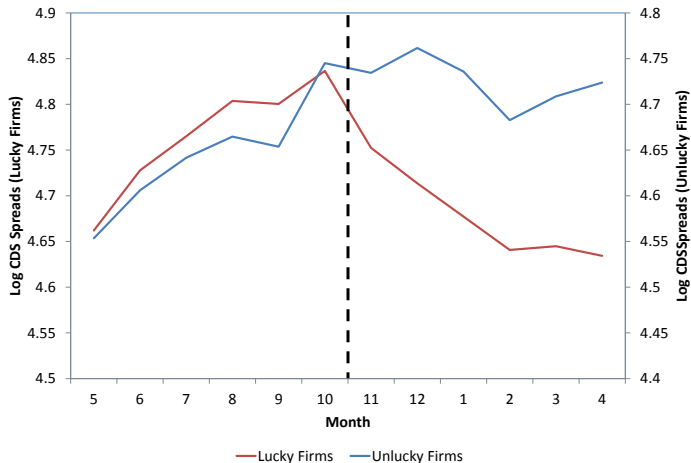
Policy Sensitivity and Contributions

	(1)	(2)	(3)	(4)	(5)	(6)
	Ln(Total Contributions)	Ln(Total Contributions)	Ln(Close-election Contributions)	Ln(Other Contributions)	Net Close- Election Wins	Net Close- Election Wins
<i>Policy Sensitive</i>	0.0792** (0.0328)	0.0749** (0.0352)	0.136** (0.0555)	0.0671* (0.0384)	0.0657 (0.124)	0.102 (0.136)
<i>Ln(Size)</i>		0.433*** (0.0438)	0.411*** (0.0510)	0.437*** (0.0470)		0.194* (0.104)
<i>Book Leverage</i>		-0.00583 (0.138)	-0.301 (0.193)	0.0936 (0.164)		0.0963 (0.404)
<i>Profit Margin</i>		0.0257 (0.0169)	0.0218 (0.0172)	0.0128 (0.0246)		-0.0611* (0.0367)
<i>M/B</i>		0.00619* (0.00362)	0.00713 (0.00444)	0.00522 (0.00391)		-0.0029 (0.0098)
<i>Cash/Assets</i>		0.0348 (0.160)	-0.145 (0.219)	0.172 (0.175)		-0.479 (0.483)
<i>Intercept</i>	12.03*** (0.490)	8.293*** (0.614)	4.124*** (0.874)	8.080*** (0.607)	-0.540 (2.635)	-2.222 (2.844)
Fixed effects	Firm, FF-Cycle	Firm, FF-Cycle	Firm, FF-Cycle	Firm, FF-Cycle	Firm, FF-Cycle	Firm, FF-Cycle
Clustering	Firm	Firm	Firm	Firm	Firm	Firm
Observations	27,190	23,077	23,069	22,925	27,190	23,077
R-squared	0.905	0.910	0.813	0.902	0.515	0.531

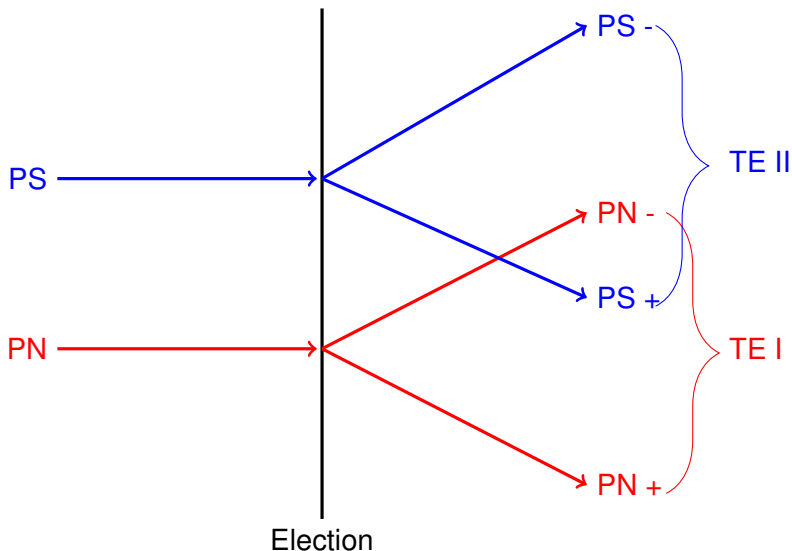
Econometric Setting



Graphical Evidence — 5 Year CDS Spreads



Econometric Setting



$$\text{Triple Difference} = TEII - TEI$$

Empirical Specification

- Differences-in-differences — β_2 captures the connection effect in the post election period

$$Outcome_{i,t} = \alpha + \beta_1 Post Election_t + \beta_2 Close Win Dummy_{i,t} \times Post Election_t + \Gamma' Controls_{i,t} + Firm \times Election Cycle FE + \epsilon_{i,t} ,$$

- Triple Differences — β_4 captures the differential effect of political capital shocks on Policy Sensitive/Neutral firms

$$Outcome_{i,t} = \alpha + \beta_1 Post Election_t + \beta_2 Close Win Dummy_{i,t} \times Post Election_t + \beta_3 Post_{i,t} \times Policy Sensitive_{i,t} + \beta_4 Post_t \times Policy_{i,t} \times Win Dummy_{i,t} + \Gamma' Controls_{i,t} + Firm \times Election Cycle FE + \epsilon_{i,t} ,$$

Results — Market Outcomes

$$\begin{aligned}
 Outcome_{i,t} = & \alpha + \beta_1 Post Election_t + \beta_2 Close Win Dummy_{i,t} \times Post Election_t + \\
 & + \beta_3 Post_{i,t} \times Policy Sensitive_{i,t} + \beta_4 Post_t \times Policy_{i,t} \times Win Dummy_{i,t} + \\
 & + \Gamma' Controls_{i,t} + Firm \times Election Cycle FE + \epsilon_{i,t} ,
 \end{aligned}$$

	(1)	(2)	(3)	(4)	(5)	(6)
	1-Month Implied Volatility	5-Year Log CDS Spread	M/B	1-Month Implied Volatility	5-Year Log CDS Spread	M/B
<i>Post Election</i>	0.0354*** (0.00308)	0.0917*** (0.0207)	-0.213*** (0.0387)	0.00566** (0.00267)	-0.0822*** (0.0173)	-0.0953** (0.0403)
<i>Post × Close Win Dummy</i>	-0.0495*** (0.00403)	-0.210*** (0.0254)	0.169*** (0.0557)	-0.0298*** (0.00351)	-0.0585*** (0.0211)	0.0692 (0.0589)
<i>Post × Policy Sensitive</i>				0.135*** (0.00894)	0.539*** (0.0410)	-0.525*** (0.106)
<i>Post × Policy × Win Dummy</i>				-0.0499*** (0.0156)	-0.307*** (0.0811)	0.365** (0.159)
Firm Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Firm-Cycle	Firm-cycle	Firm-cycle	Firm-Cycle	Firm-Cycle	Firm-cycle
Clustered errors	Firm-Cycle	Firm-cycle	Firm-cycle	Firm-Cycle	Firm-Cycle	Firm-cycle
Observations	841,169	271,160	21,152	841,169	325,005	21,152
R-squared	0.750	0.926	0.857	0.761	0.931	0.858

Results — Firm Decisions

$$\begin{aligned}
 Outcome_{i,t} = & \alpha + \beta_1 Post\ Election_t + \beta_2 Close\ Win\ Dummy_{i,t} \times Post\ Election_t + \\
 & + \beta_3 Post_{i,t} \times Policy\ Sensitive_{i,t} + \beta_4 Post_t \times Policy_{i,t} \times Win\ Dummy_{i,t} + \\
 & + \Gamma' Controls_{i,t} + Firm \times Election\ Cycle\ FE + \epsilon_{i,t} ,
 \end{aligned}$$

	(1)	(2)	(3)	(4)	(5)	(6)
	Investment	Book Leverage	R&D	Investment	Book Leverage	R&D
<i>Post Election</i>	0.00002 (0.000591)	0.00114 (0.00148)	0.000572* (0.000318)	0.00210*** (0.000674)	-0.00246 (0.00167)	0.000690* (0.000403)
<i>Post × Close Win Dummy</i>	0.00103 (0.000880)	-0.00162 (0.00235)	-0.000192 (0.000510)	-0.000622 (0.000972)	0.00204 (0.00261)	-0.000146 (0.000578)
<i>Post × Policy Sensitive</i>				-0.00844*** (0.00139)	0.0151*** (0.00375)	-0.000445 (0.000826)
<i>Post × Policy × Win Dummy</i>				0.00538** (0.00237)	-0.0167*** (0.00556)	-0.000794 (0.00137)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Fixed effects	Firm-cycle	Firm-cycle	Firm-cycle	Firm-cycle	Firm-cycle	Firm-cycle
Clustered errors	Firm-cycle	Firm-cycle	Firm-cycle	Firm-cycle	Firm-cycle	Firm-cycle
Observations	18,368	18,267	6,573	18,368	18,267	6,573
R-Squared	0.691	0.941	0.721	0.693	0.941	0.721

Robustness — Industry vs. firm sensitivities

- Does our measure of sensitivity just pick up industry sensitivity?
 - ▶ Results hold with industry-election cycle FE
 - ▶ But we can go further...
- Match three industries with their Senate “regulator committees” and repeat analysis
 - ▶ Oil, gas, and mining firms matched to Senate Energy
 - ▶ Utilities and communications firms matched to Senate Commerce
 - ▶ Banks and insurance companies matched to Senate Finance
- PS firms benefit much more than PN firms *in the same industry* and even more than PS firms *in other industries*

Robustness — Uncertainty measure

- Does our measure of policy uncertainty capture general uncertainty?
- Three approaches:
 - ① Orthogonalize policy uncertainty index w.r.t. Fama-French factors and VIX
 - ★ Results if anything are larger
 - ② Construct an alternative measure of policy uncertainty using firm disclosures of “risk factors” in 10Ks
 - ★ Number of times that firms say “government policy” and “uncertainty”
 - ★ All results hold
 - ③ Placebo test: sort firms into “policy-sensitive”/“policy-neutral” buckets using VIX
 - ★ All results go away

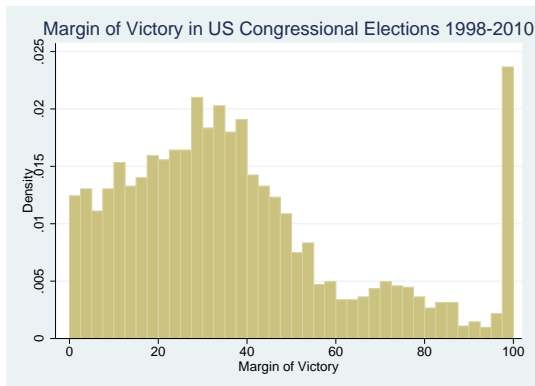
Alternative Channels

- Results do not seem to be coming from the government contracting channel
 - ▶ Policy-sensitivity definition is not just picking up large government contractors
- Results seem inconsistent with firms donating to receive bailouts
 - ▶ Better-connected firms seem to be more efficient/profitable, in contrast with the bailout-related findings in other studies
 - ▶ Moreover, policy-sensitive firms *reduce* leverage — inconsistent with most bailout stories

Conclusions

- We examine firms' policy sensitivity, political connections, and risk-taking before and after (close) U.S. congressional elections
 - ▶ Policy-sensitive vs. policy-neutral; Lucky vs. unlucky
- Policy-sensitive firms donate more to candidates than policy-neutral firms
 - ▶ Marginal value of connections is larger for policy-sensitive firms
- Political capital shocks affect subsequent firm risk-taking
 - ▶ Implied volatility drops, CDS spreads decline, firm value increases
- These effects are significantly stronger for policy-sensitive firms
 - ▶ Firm value, investment, leverage
- Many results in the existing political connections literature appear to be driven by policy-sensitive firms

Margin of Victory Distribution

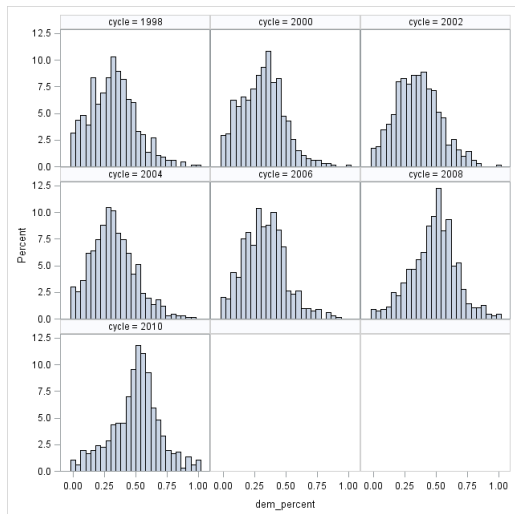


Mean	Median	Std. Dev.	N
37.762	33	25.94	3,314

Hedging Firms

- Firms may “hedge” in two ways
 - ▶ Hedging by *party* (supporting Democrats and Republicans)
 - ★ Very common — Average firm contributes splits 30%/70% (1998) to 50%/50% (2010) to Democrats/Republicans
 - ▶ Hedging by *race* (supporting the Democrat and the Republican *in the same race*)
 - ★ Rather uncommon — Firms only do this 10% of the time in close races, never in non-close races
- This seem unusual, but examining this question outside of the scope of the paper
- Firms maximize total political capital and candidates may be different
 - ▶ Differential costs of establishing a connection
 - ▶ Different candidates likely to sit on different committees — differential benefits of connection

Hedging by Party through Time



Characteristics of Policy Sensitive Firms

$$Prob(\text{Policy Sensitive} = 1) = f(\text{Firm Covariates})$$

Logit Analysis			
Variable	(1) Policy- Sensitive	(2) Policy- Sensitive	(3) Policy- Sensitive
<i>ln(Size)</i>	0.0595** (0.0282)	0.00672 (0.0373)	0.0284 (0.0484)
<i>Book Leverage</i>	0.610** (0.276)	1.003*** (0.372)	1.112** (0.505)
<i>I_t/K_{t-1}</i>	-0.546 (0.844)	-1.224 (1.084)	-1.195 (1.242)
<i>M/B</i>	-0.00658 (0.0114)	0.0115 (0.0133)	0.0170 (0.0178)
<i>Profit Margin</i>	0.0187 (0.0495)	0.0529 (0.0723)	0.0781 (0.108)
<i>Net PP&E/Assets</i>	-0.207 (0.179)	-0.190 (0.230)	0.0368 (0.416)
<i>ROA</i>	1.460 (2.191)	1.410 (2.963)	3.147 (3.518)
<i>Intercept</i>	-2.324*** (0.299)	-2.766*** (0.424)	-16.59*** (3.832)
Fixed effects	None	Cycle	FF-Cycle
Clustering	Firm	Firm	Firm
Observations	21,570	21,570	14,808
Pseudo-R squared	0.005	0.236	0.262

Policy sensitivity shocks vs. levels

- We measure policy sensitivity using the correlation between the EPU index and **firm stock returns**
 - ▶ This captures **shocks** to firms' policy sensitivities
- Shocks are a natural way to capture perturbations within the **same firm's** policy sensitivity
 - ▶ Policy sensitivity shocks line up with our political capital shocks, which are also perturbations in firms' connectedness
- Why not look at policy sensitivity **levels**?
 - ▶ E.g. Lockheed Martin might normally be policy-sensitive
 - ▶ Expectations vs. surprises. If Lockheed expects to be policy-sensitive, this will be reflected in ex-ante decision-making.
 - ▶ Effectively a single cross-section
 - ▶ How to measure? Government contracts?