Cash and Uncertainty

- Uncertainty decreases investment

- There is tension here
  - Less investment $\Rightarrow$ less cash needed
  - Possible future investment $\Rightarrow$ save cash

- Literature shows larger cash holdings with higher cash flow volatility, product market competition, R&D volatility, and tax uncertainty.
  - Are shocks to these uncertainty measures exogenous?
  - Can we separate effects on cash holdings from effect on other decisions?
Why study political uncertainty?

- Political uncertainty matters for investment decisions
  Julio and Yook (2012); Gulen and Ion (2016); Jens (2017); Bonaime, Gulen, and Ion (2017); Nguyen and Phan (2017); Atanassov, Julio, and Leng (2016); Cao, Li, and Liu (2019); and Chen, Cihan, Jens, and Page (2019)

- Firms are holding more cash over time
  Sánchez and Yurdagul (2013)

- Political uncertainty and polarization are increasing
  Baker, Bloom, and Davis (2016) and Boxell, Gentzkow, and Shapiro (2017)

- Our measure of political uncertainty: gubernatorial elections
  - Gubernatorial elections are exogenous
  - Both time series and cross-sectional variation → diff-in-diff
The model

- **Riddick & Whited (2009)**
  - Dynamic model of investment, payout, and savings
  - Random productivity shocks
  - Capital adjustment costs
  - Costly external financing
  - Cash earns interest, but it’s taxed

- **Plus uncertainty**
  - 16 quarter election cycle
  - Elections affect economic environment
    - “Friendly” governor leads to upward biased productivity growth
    - “Unfriendly” governor leads to downward-biased productivity growth
  - 90% probability of incumbent winning
Simulated Cash Holdings

- Without Elections
- With Elections

Cash / total assets over simulated quarters.
Simulated Flows

The chart shows simulated flows over time for different categories: Distribution, Investment, and Saving. Each category is represented by a line on the graph, with the x-axis indicating simulated quarters and the y-axis showing the value range.

- **Distribution** is represented by a blue line.
- **Investment** is represented by a red line.
- **Saving** is represented by a black line.

The chart helps visualize how these categories change over time, providing insights into the dynamics of cash flows in a simulated scenario.
Data

- Gubernatorial election data (Congressional Quarterly Press)

- Dependent variables and firm controls (Compustat quarterly files)

- Macroeconomic controls (BLS, BEA, NBER)

For robustness

- Economic Policy Uncertainty (EPU) index (Baker, Bloom, and Davis, 2016)

- Macroeconomic Uncertainty (Jurado, Ludvigson, and Ng, 2015)

- Financial Uncertainty (Ludvigson, Ma, and Ng, 2018)
Gubernatorial Election Diff-in-Diff

Firm 1

Firm 2
Cash Holdings around Gubernatorial Elections

Coefficient estimate vs. Quarters around election

-4 -3 -2 -1 0 +1 +2 +3 +4

Coefficient estimate

-1.0 -0.5 0.0 0.5 1.0

Quarters around election
Is It Elections?

We include other uncertainty proxies in the regression

- **Economic Policy Uncertainty Index**
  - Our coefficients change very little
  - Both EPU-news or EPU-baseline have significantly negative coefficients

- **Macroeconomic and Financial Uncertainty Indexes**
  - Our coefficients change very little
  - Macroeconomic uncertainty has a significant negative coefficient
  - Financial uncertainty has a marginally significant negative coefficient

- FYI – presidential election dummies have similar, but larger in magnitude, coefficients
Placebo Test

Coefficient estimate

Quarters from election

-4 -2 0 2 4
Cash Holdings by Firm Size

Quarter around Election

Small Large
Cash Holdings by Line of Credit

No Line vs. Has Line

Quarter around Election
Investment and Payout around Elections

[Graph showing investment and payout around elections with a legend indicating investment with red circles and payout with blue squares. The graph is marked with quarters around the election, ranging from -4 to +4.]
Savings, Investment, and Payout around Elections

Quarter around Election

Investment • Payout • Savings
# Payout vs. Equity Issuance

<table>
<thead>
<tr>
<th></th>
<th>Prob. Payout</th>
<th>Prob. SEO</th>
<th>SEO/Assets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large firms</td>
<td>52.38</td>
<td>2.12</td>
<td>14.22</td>
</tr>
<tr>
<td>Small firms</td>
<td>6.84</td>
<td>16.52</td>
<td>42.61</td>
</tr>
<tr>
<td>With line of credit</td>
<td>41.38</td>
<td>3.26</td>
<td>23.47</td>
</tr>
<tr>
<td>Without lines of credit</td>
<td>26.79</td>
<td>6.50</td>
<td>34.36</td>
</tr>
<tr>
<td>With bond rating</td>
<td>54.85</td>
<td>2.19</td>
<td>13.59</td>
</tr>
<tr>
<td>Without bond rating</td>
<td>19.16</td>
<td>9.41</td>
<td>38.45</td>
</tr>
</tbody>
</table>

Note: DeAngelo, DeAngelo, and Stulz (2010) show 63% of SEO firms would run out of cash without it
SEOs by Firm Size

- Small
- Large

Quarter around Election
SEOs by Credit Rating

![Graph showing the effect of credit rating on SEOs quarter around the election. The graph compares Unrated and Rated companies, with data points indicating changes in SEOs at different election quarters.](image Link)
Diff-in-diff = causal evidence on uncertainty and cash holdings

Firms actively manage their cash holdings around gubernatorial elections

Exposure to political uncertainty matters
- Firms build savings by decreasing payout if they can
- Firms most exposed to gubernatorial election uncertainty have no payout to decrease, rely on costly equity issuance