POLITICAL UNCERTAINTY, POLITICAL CAPITAL, AND FIRM RISK-TAKING

Pat Akey, *University of Toronto* Stefan Lewellen, *London Business School*

> **ASSA 2018 Discussion** Stephen Terry, *Boston University*

HERE'S WHAT I LEARNED FROM THIS INTERESTING PAPER

Policy uncertainty maps heterogeneously onto firms "Policy sensitive" firms: precise/large loadings on BBD index "Policy neutral" firms: insignificant loadings on BBD index A firm's classification is transient, not persistent

Policy sensitive firms have more skin in the game Contribute more to politicians. Conditional upon narrow political wins see changes relative to neutral firms:

Relative Increase: $\frac{I}{K}$, Tobin's Q, ROA

Relative Decrease: CDS spreads, option implied volatility

Key Point

To understand policy uncertainty, first understand policy sensitivity shifts across and within firms

Bringing a Model to a Data Fight

The deleterious effects of a macro discussant...

I wrote and solved a GE model of firm-level investment with policy uncertainty and sensitivity shocks.

Three questions a model can answer in this context

- 1) Do the empirical results make sense?
- 2) Do the relative differences across firms wash out, or do they have any net aggregate impact?
- 3) What exactly do we mean by policy uncertainty?

HERE'S THE MODEL

Policy neutral firms invest based on tax rate τ fixed for today and persistent TFP

$$V^n(z,k,\tau) = \max_{k',n} \left[\begin{array}{cc} (1-\tau)y - k' - Wn + (1-\delta)k \\ -AC(k,k') \end{array} \right. \\ \left. + \frac{1}{1+r} \mathbb{E}V(z',k',\tau) \right]$$

$$y=zk^{\alpha}n^{\nu},\quad \alpha+\nu<1, \qquad \text{2 point Markov }z\in\{z_{l},z_{h}\}, \qquad \tau\in\{0,\bar{\tau}\}, \quad \alpha,\delta\in(0,1)$$

Policy sensitive firms face higher taxes unless they contribute, in which case their candidate wins with some probability p_w and gives them favorable treatment

$$V^{s}(z, k, \tau) = \max_{k', n, c} \begin{bmatrix} (1 - p_{w}) \left((1 - \bar{\tau})y - k' - Wn + (1 - \delta)k + \frac{1}{1 + r} \mathbb{E}V^{n}(z', k', \bar{\tau}) \right) \\ p_{w} \left((1 - \tau(c))y - k' - Wn + (1 - \delta)k + \frac{1}{1 + r} \mathbb{E}V^{n}(z', k', \tau(c)) \right) \\ -F_{c}\mathbb{I}(c = 1)k - AC(k, k') \end{bmatrix}$$

$$\tau(c) = \begin{cases} 0, & c = 1 \\ \bar{\tau} > 0, & c = 0 \end{cases}, \quad p_{w} \in (0, 1)$$

IID sensitivity shock: each period neutral firms become sensitive with prob. p_s

$$V(z, k, \tau) = (1 - p_s)V^n(z, k, \tau) + p_sV^s(z, k, \tau), \qquad p_s \in (0, 1)$$

Solution Method + GE

Discretized VF iteration, ergodic distributions μ^n , μ^s , $1+r=\beta^{-1}$, $W=\phi C$, where

$$C = \int (y - i - AC(k, k')) d\mu^n + \int (y - i - AC(k, k') - F_c \mathbb{I}(c = 1)k) d\mu^s$$

and $\beta \in (0,1), \, \phi > 0$ are HH preference parameters with $U(C,N) = \log C - \phi N$

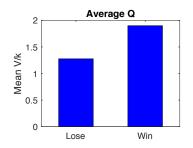
The Results Do Make Sense

More contributions for sensitive firms

Policy sensitive firms are the only firms making contributions, consistent with the empirical results by construction

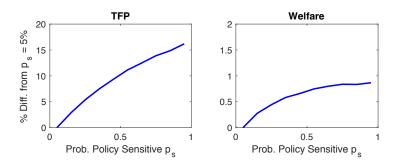
More investment, higher Q for sensitive firms that win

Winning firms face persistently lower tax rates, so they invest more under higher valuations immediately after winning





THERE IS A NET MACRO IMPACT



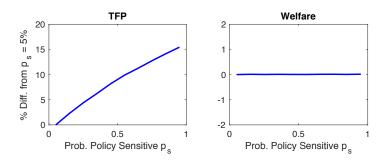
"Ouch, stop distorting me!"

Firms suffering from high distortions get the chance to unburden themselves when they become policy sensitive.

Increased Efficiency, Welfare

As $p_s \uparrow$, misallocation \downarrow and TFP \uparrow as taxes become more uniform and smaller. Welfare increases due to more efficiency and fewer distortions.

BUT THE DIRECTION IS NOT CLEAR



"Hey friend, can I grab a subsidy?"

In a new version of the model firms get subsidies rather than avoid taxes.

Increased Efficiency, Flat or Declining Welfare

As $p_s \uparrow$, misallocation \downarrow and TFP \uparrow as the subsidy becomes more uniform. But welfare is flat or declining since mean distortions increase.

What Exactly are Firms Doing?

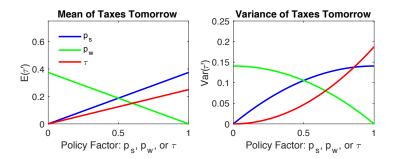
Do firms use their time in the policy spotlight to escape onerous distortion or to grab goodies at the expense of society?

Some concrete reasons to attack this question directly

- ▶ Relative results even well identified ones based on a close elections strategy aren't the end of the story.
- ▶ Please embrace, rather than avoid, exploration of differences between sensitive & neutral or winning & losing firms in composition, taxes, earnings call transcripts, contracts, etc...

With the answer to this question, people like me stand a chance of building the right model.

WHAT IS POLICY UNC. HERE?



There are three crucial parameters in the model I wrote

1) the prob. of entering the policy spotlight p_s , 2) the prob. of winning an election p_w , and 3) the size $\bar{\tau}$ of the policy distortion

All of them affect first moments, all of them affect second moments Which factor varies in your sample? The difference matters. Should policy be more predictable $(p_s \downarrow)$ or distort less $(\bar{\tau} \downarrow)$?

MINOR SUGGESTIONS & QUIBBLES

More disaggregated variation in sensitivity categories would be nice Use of the aggregate BBD index leaves a lot of variation on the table. Can you exploit their categorical indexes? How about creating an industry-based notion of sensitivity based on your 10-K work? Can you use the Hassan, et al. (2017) index to classify firms?

Noisy sorting based on estimated sensitivity or bins

Induces extra sampling variation which is not accounted for in the standard errors by typical clustering. An easy firm-level block bootstrap of the full two-step procedure can account for this as a robustness check.

Clustering choice

Please maintain the same level of clustering throughout the paper, unless there's a specific pressing reason to vary the level.

My Parting Thoughts

What I learned

Different firms interact differently with politics during uncertain periods, and sensitivity matters for the dynamics of firms after political events

What I still wish to know

- ▶ What are sensitive firms trying achieve with their contributions to politicians during periods of high policy uncertainty?
- Does the predictability of policy or the size of distortions matter most for driving policy uncertainty?

The best of luck with your very nice paper!