Does Social Media Reduce Corporate Misconduct? & Do Private Firms Learn from the Stock Market?

Ruming Liu[1]

Stevens Institute of Technology[1]

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Outline

Introduction

Main Results of the Paper

- The authors find that facilities reduce violations and penalties following the introduction of 3G in a local area or the activity of tweets in that area.
- Non-financial violations are reduced more by the social media activities.
- The effect is stronger for those firms with more twitter followers.

Questions or Concerns

Data

- The way they utilize the data from Twitter.
- In users' tweets, they include a lot of information, hashtag, location info, @ account and contents.
- But the research only uses the location information and total tweets count in this paper.
- Also, the data from tweets have more unrelated noises compared with traditional news. We should clean the data before utilizing it.

Firms care about social media?

- One of the research's assumptions is that social media can impose reputational and regulatory costs for a firm, leading firms do care about social media.
- As we are using twitter data, one of an easy way to confirm such assumption is using social media network analysis for corporates' twitter account, to see whether firms in the dataset are such responsive to the twitter information.
- Otherwise, we should add control variable to identify the facilities attention to social media.

Facility location 3G dominance regression

- $Y_{i,j,l,t} = \beta 3G_{l,t} + Controls + \gamma_i + \sigma_{s,t} + \epsilon$
- It tries to say that the facility i of company j located at l will reduce misconduct if it starts with 3G service.
- Other possible explanation: Parent company j does respond to the social media and push all its facilities to reduce misconducts.
- $Y_{i,j,l,t} = \beta 3G_{l,t} + \beta' 3G_{j's\ ZIP,t} + Controls + \gamma_i + \sigma_{s,t} + \epsilon$

Facilities' respond control variable

- Some facilities are actively tweeting on social media for sales pitch, such companies are more likely to listen to the complaints on social media.
- We can use twitter comments of the firms/facilities account whether they are responsive on social media
- $Y_{i,j,l,t} = \beta 3G_{l,t} + \beta' 3G_{j's\ ZIP,t} + \beta'' Comments_i + OtherControls + \gamma_i + \sigma_{s,t} + \epsilon$

The effect is stronger for those firms with more twitter followers?

- 3G on firm misconduct is more pronounced among facilities that are part of firms with more Twitter followers.
- This assumption may have reverse causality.
- Such accounts have more followers because they perform with less violations.

Proxy of Twitter Activity

- $Y_{i,j,l,t} = \beta HighTwitterActivity + ...$
- They conclude facilities will reduce violations if their area social media is active.
- Some twitters are unrelated with the operation of your facility.
- Suggestion: Only collect tweets which are only related to complaints of working related topics, even the complaints of each facility.

Some other indentification tests

- Except the DiD in the same county, other tests may also enhance the result
- 1. Regression Discontinuity: two facilities under same firm in different zip, one with 3G service but another without 3G Service. (Minimum wage in NJ & PA)
- 2. If some influencers conceal the misconducts of a firm, its penalty is high in the very next year and significantly reduce after that. We will be very confident that social media opinions do reduce the violations of firms.

Introduction'

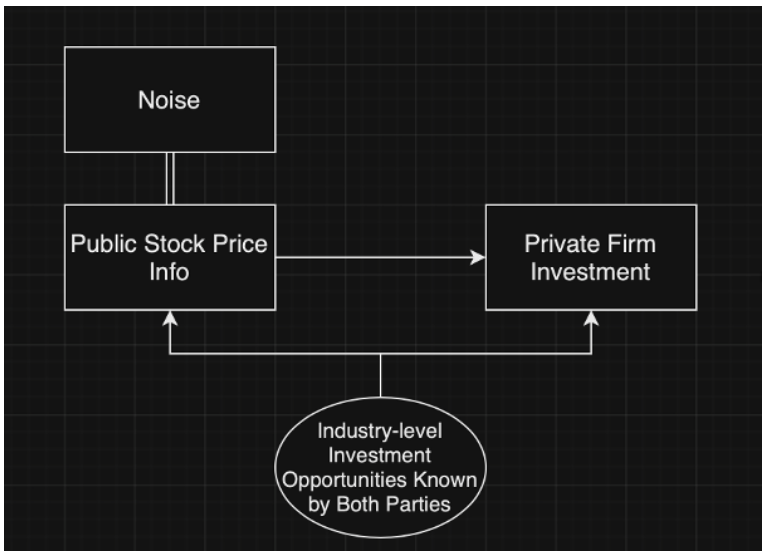
Main Results of the Paper

- Investments made by private firms respond positively to the valuation of public firms in the same industry.
- Investments made by private firms respond positively to the noise of in the price signal.
- Cross sectional investment decision respond to public price signal.

Questions & Concerns'

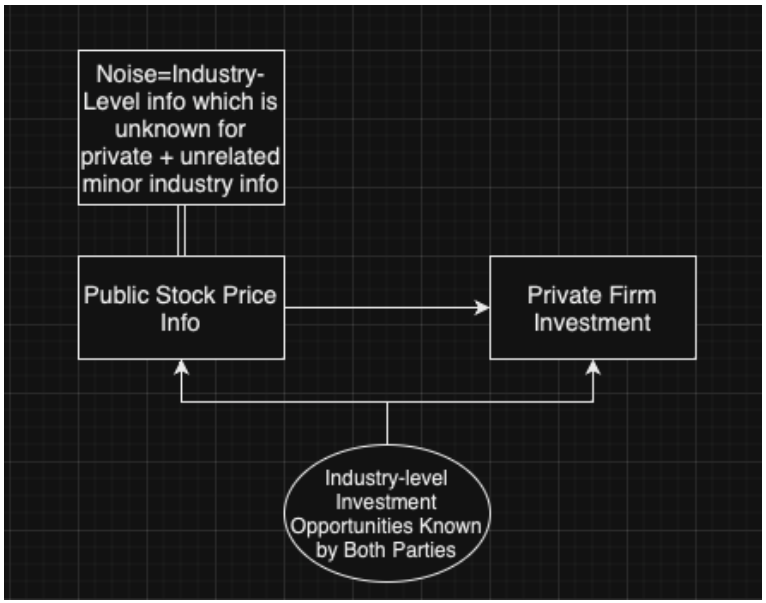
Why don't use instrument variable?

- Running the regression $I_{i,t} = \beta \times Industry_{q_{i,t-1}}$ may cause endogeneity. Because Both dependent and independent variables may be driven by the investment opportunity already known by private firms.
- So the author construct a noise from the price. She ran the regression of investment to the noise to prove private firm learn from the stock market.
- Why she don't use the noise as an instrument variable?



Construction of Noise

- Noise is proxied by public peers' unrelated minor-segment industries.
- So the author actually ignore the investment information which is not known by private firm.
- Such proxy can only confirm private firms learn from unrelated industry of peers.
- It can not confirm private firm can learn some investment opportunities they didn't know before. This channel is crucial. (Tech example)
- Again, as an instrument, the noise is good to go.



Financial institution's Info set

- Table 6 claims that financial institution can filter the noise (minor industry info) perfectly.
- Financial institute only make investment decision based on the relevant major industry information.
- However such relevant information comes from two ways, their in-house information and information inferred from peers
- One possibility is that financial institutions only use in-house private information and ignore all information from stock market, which can lead a same result.

Dependent variable:	$Capx/K$ (1)	$Capx/K$ (2)	$Capx/K$ (3)	$Capx/K$ (4)
Minor Industry q	0.031***	0.030***		
	(3.49)	(3.76)		
... × Inst. Shareholder	−0.018**	−0.022***		
	(−2.02)	(−2.64)		
Minor Leader q			0.010***	0.011***
			(2.83)	(3.10)
... × Inst. Shareholder			−0.014*	−0.015*
			(−1.96)	(−1.73)
Major Industry $\bar{q}$	0.027***	0.029***	0.024**	0.020***
	(3.19)	(3.11)	(2.54)	(2.22)
... × Inst. Shareholder	−0.009	−0.015	0.021	0.012
	(−0.81)	(−1.38)	(1.30)	(0.84)
Cash Flow		0.515***		0.530***
		(11.99)		(12.97)
Ln(Asset)		−0.152***		−0.152***
		(−9.79)		(−10.07)
Year FE & Firm FE	Yes	Yes	Yes	Yes
Industry Characteristics	No	Yes	No	Yes
Additional Controls	No	Yes	No	Yes
$Adj.R^2$	0.189	0.216	0.183	0.209
Obs.	41,412	37,012	39,612	35,525

Does noise a good indicator for private firm?

- Like author mentioned, a lot of non-financial institutions make decisions on the noise, I would like to see whether the noise leading investment can really make private's firm better.

Thanks!

E-mail: rliu38@stevens.edu