Discussion of

Knowledge is Power: A Field Experiment in the Chinese and US Stock Markets

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What does this paper do?

- Does: randomized experiment to educate investors on accruals

- Finds:
  - Treated stocks experiences less accrual mispricing upon earnings releases
  - Treated firms have lower accruals going forward (interpreted as discipline)

Overall

- Great idea
  - Doing controlled experiments in asset markets is GREAT
  - I hope to see more papers like this

- Main comment: I am puzzled by the size of the effects
  - I hope the authors can provide more evidence of the channels

1. Let’s think through the effects

What is the effect found?

	The Chinese market		The US market	
	(1)	(2)	(3)	(4)
Treat×*Accruals*	**-0.030*** **		**-0.256*** **	
	(-3.47)		**(-4.06)**	
Accruals	0.020***		-0.008	
	(3.33)		(-0.15)	
Treat×*Accruals*$_{UD}$		**-0.058*** **		**-0.058** **
		(-4.00)		**(-1.97)**
Accruals$_{UD}$		0.059***		0.028
		(6.03)		(1.33)
Treat	-0.011***	-0.009***	-0.011**	0.001
	(-5.53)	(-4.12)	(-2.48)	(0.44)
SUE	0.466***	0.446***	0.588***	0.545***
	(4.99)	(4.80)	(5.27)	(4.84)
Industry and month FEs	Yes	Yes	Yes	Yes
Observations	1,711	1,711	1,792	1,792
R-squared	0.095	0.107	0.196	0.179

- Control: prices somewhat respond to Accruals
- Treatment: effect entirely reversed
- Effect even stronger in the U.S.

What does it take to produce such an effect?

- Typically, we think $Price = \sum_i w_i \cdot Views_i$
  - Where the weights w_i depends on investor trading volume/wealth

- Therefore, if you want the pricing effect to reverse 100%, then you have to educate 100% of people

- Caveat: it might be that some of the educated retail investors acted as "arbitrageurs"and actively traded against accruals
  - In other words, they had a bigger effect on prices than their wealth suggests
  - *Honestly this is the only way I can make sense of the recorded magnitude*

1) What fraction of investors are reached?

Table 2—Reading Volume of Social Media Posts

Panel A: The Chinese market

A1: Total volume of all firms

Group	(1) Posts	(2) Reads	(3) Comments	(4) Retweets	(5) Likes	(6) Saves
C	18,715	9,081,608	3,526	2,732	306	97
T_1	18,181	9,271,280	5,149	3,864	289	129
T_2	17,838	8,481,201	4,385	7,108	213	166
Total	54,734	26,834,089	13,060	13,704	808	392

- How many retail investors are there in China?
  - Jones et al (2022): around 50 million accounts from *one* exchange
  - Other sources: 177 million total

2) Do they get it?

- I looked into the educational material.
  - It is not easy to understand… I can't imagine my grandma understanding this.

Regression models

To measure earnings and accrual quality , we can regress accruals on cash flow realization using the following model . [1]

$$WCA_t = a_0 + a_1 * CFO_{t-1} + a_2 * CFO_t + a_3 * CFO_{t+1} + e_t$$

- WCA_t : Working-capital accruals (defined by Eq. 1) in year *t*. Specifically, WCA_t = (Change in current assets $_t$ - Change in cash $_t$ - Change in current liabilities $_t$ + Change in short_term debt $_t$)/ Total assets $_{t-1}$.
- CFO_t : Cash flow from operating activities as reported in the statement of cash flows in year *t*, scaled total assets in year *t*-1.

This model can be estimated at the firm level. That is, an OLS regression can be run for a firm using its current and past annual data (requiring a minimum of five observations).[1]

3) Does this impact firm behavior?

- The paper finds that treated firms reduce their discretionary accruals after the experiment.

- I really have trouble believing this… to the extent it made me think that this is what caused the pricing result.
  - E.g. For chance reasons, the treatment group had less accruals after treatment so there is nothing for prices to respond to

2. What can the authors do?

Verify that the treatment REALLY changes behavior

- Give some retail investors/volunteers your educational message.

- A couple of days later, ask them:
  - 1) Do you understand it? (Let them repeat it to you)
  - 2) How would you trade on this information?

- If you really want to push the "change firm reporting" effect, I hope to see one company execute say it:
  - *"I noticed that markets do not like accruals so we stopped doing it…"*
  - The mechanism requires conscious recognition by firm executives

Summary

- You can see that I am conflicted.
- I really like what the paper does, and I really want to believe the results.
- I might be massively underestimating the cognitive ability/power of retail investors, which the authors can prove me wrong.
- I enjoyed reading the paper and hope to see it published well.