Board declassification and firm value: Have shareholders and boards really destroyed billions in value?

authors: **Emiliano Catan** and **Michael Klausner**
discussant: **Arpit Gupta** (NYU Stern)

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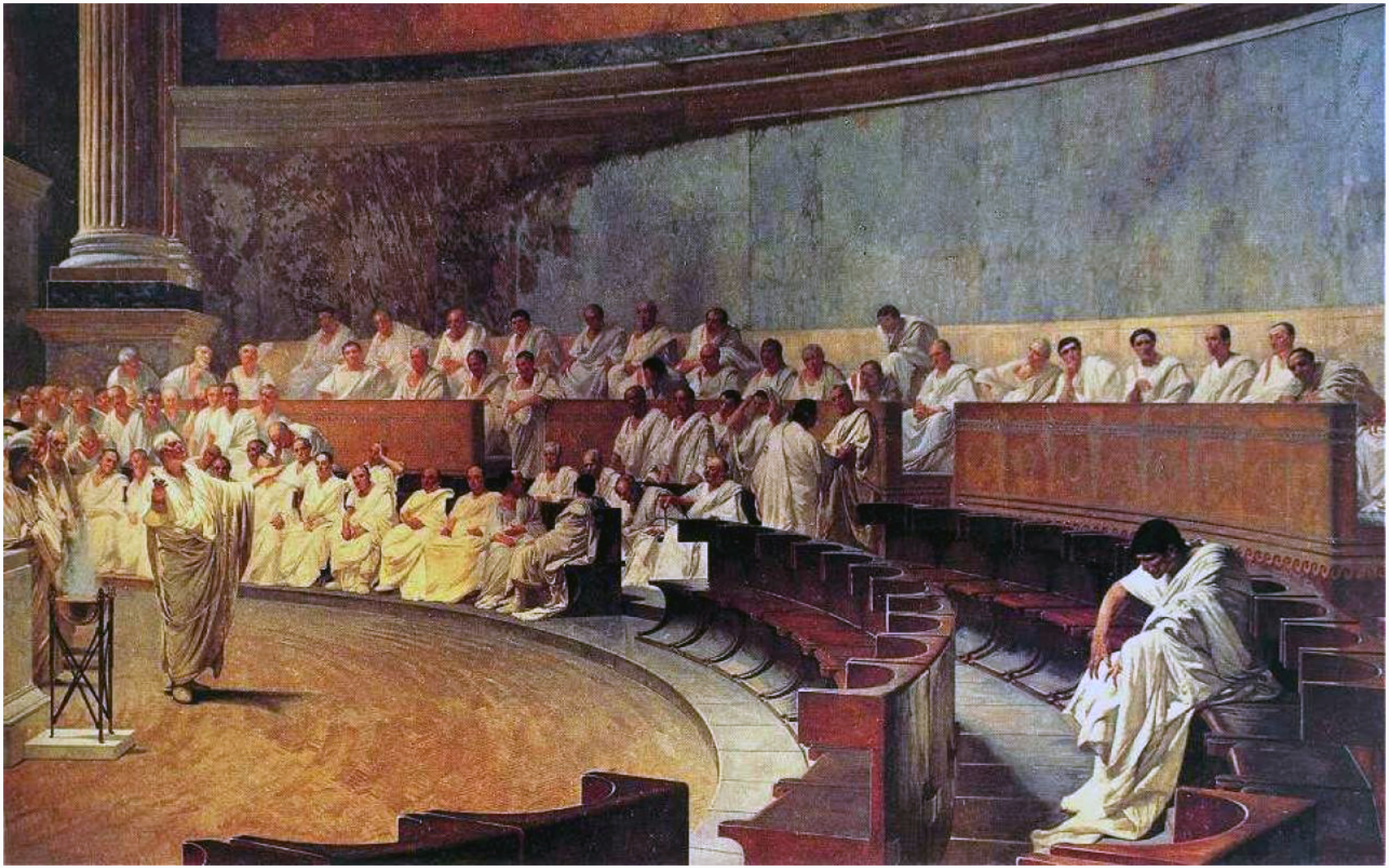
GCGC 2018

The Original Staggered Board



Cicero Denounces Catiline (1888)

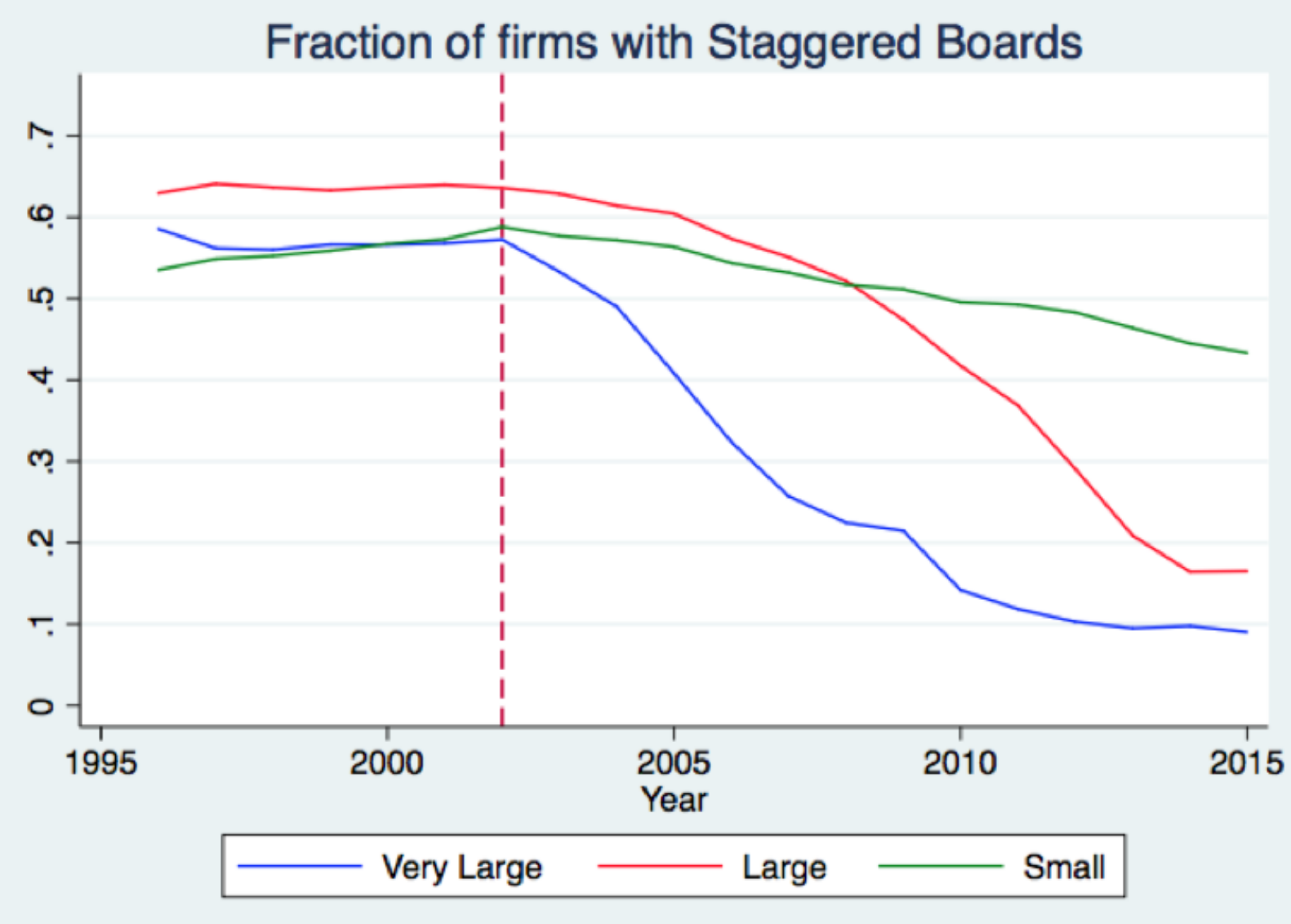
Background

- Staggered Boards are bad:
  - Entrenched management
  - Firms have been steadily de-classifying
- Staggered Boards are good:
  - Insulates board from short-term shareholder pressure
  - Stronger bargaining position (esp. with poison pill)
  - IPOs generally have staggered boards
- This paper:
  - Board destaggering is endogenous decision
  - Little evidence for view that destaggering is destructive

Data

- Sample:
  - Companies part of S&P 1500 Index from 1996–2015
  - Excludes financials, utilities
  - Excludes firms with dual-class share structure
  - Merged with Compustat (dropped if no match)
  - 2200 firms, 28k firm-year obs
- Board Destaggering:
  - Hand-collected from SharkRepellent, IRRC, SEC annually
  - 56 firms staggered boards; excluded
    - Typically happened along with bundled vote on merger, etc.

Endogeneity in Staggered Boards



Main Empirical Strategies

1. Literature Replication:

$$\text{Tobin Q}_{it} = \alpha_i + \theta \text{ Staggered Board}_{it} + \gamma_t + \eta_{it} + \varepsilon_{it}$$

2. Event Study by Size Group: $s \in \{\text{small, large, very large}\}$

$$Q_{it} = \alpha_i + \sum_{\tau=-8}^{8} \lambda_{\tau,s} \cdot \mathbf{1}[(t - \text{Year of Destaggering}_{i,s}) = \tau] + \gamma_t + \eta_{it} + \varepsilon_{it}$$

3. Cohort Analysis:

$$Q_{it} = \alpha_{ic} + \theta \text{Stag. Board}_{it} + \mu \text{Stag. Board}_{it} \times \text{Large}_{ic} + \gamma_{ct} + \eta_{ict} + \varepsilon_{ict}$$

defined by stacking cohorts y_o based on size

1. Replicates Existing Studies

$$\text{Tobin Q}_{it} = \alpha_i + \theta \text{ Staggered Board}_{it} + \gamma_t + \eta_{it} + \varepsilon_{it}$$

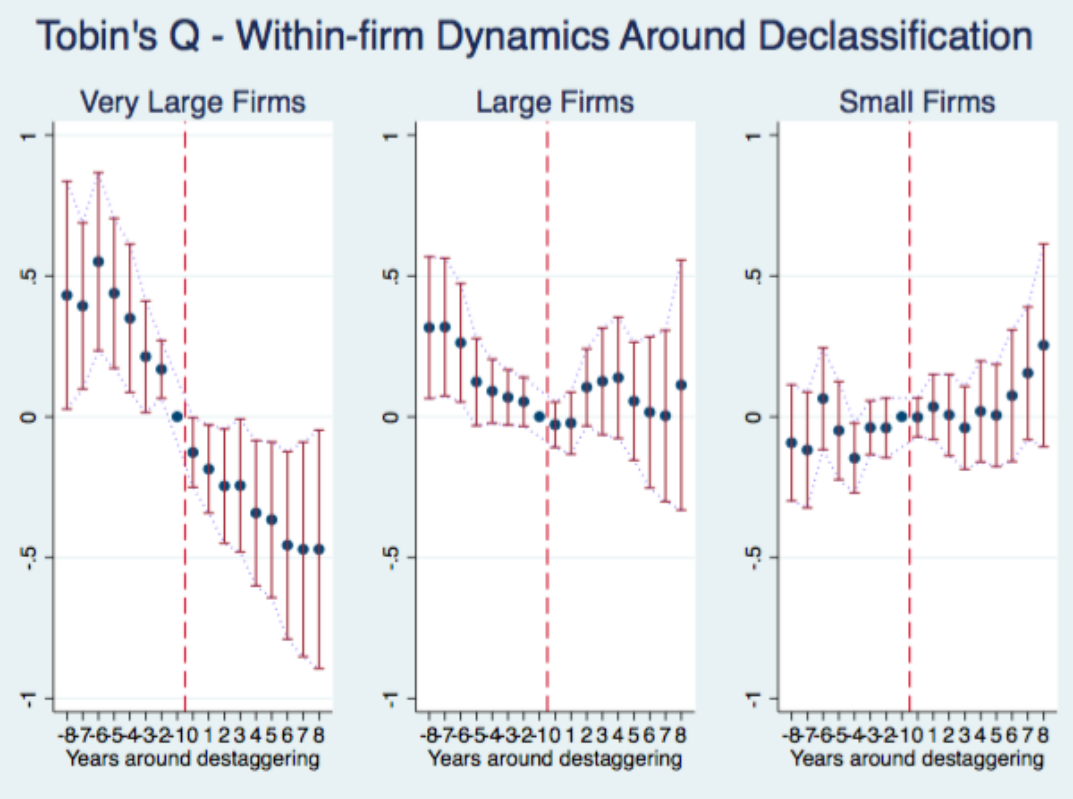
Recall boards were *destaggered* over this time; here correlating with large value destruction (especially among large firms)

VARIABLES	(1) Tobin's Q	(2) Tobin's Q	(3) Tobin's Q
Staggered Board	0.138**	-0.116*	-0.118*
	(0.0560)	(0.0640)	(0.0640)
Staggered*Large or VeryLarge		0.469***	
		(0.0991)	
Staggered*Large			0.279***
			(0.0981)
Staggered*VeryLarge			0.738***
			(0.160)
Observations	28,290	28,290	28,290
R-squared	0.583	0.585	0.585
Year FE	Yes	Yes	Yes
Years since Public FE	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes

2. Event Study Points to Endogeneity

$$Q_{it} = \alpha_i + \sum_{\tau=-8}^{8} \lambda_{\tau,s} \cdot \mathbf{1}[(t - \text{Year of Destaggering}_{i,s}) = \tau] + \gamma_t + \eta_{it} + \varepsilon_{it}$$

Large value drops; but associated with pre-trends



3. Cohort Analysis Shows Little Effect

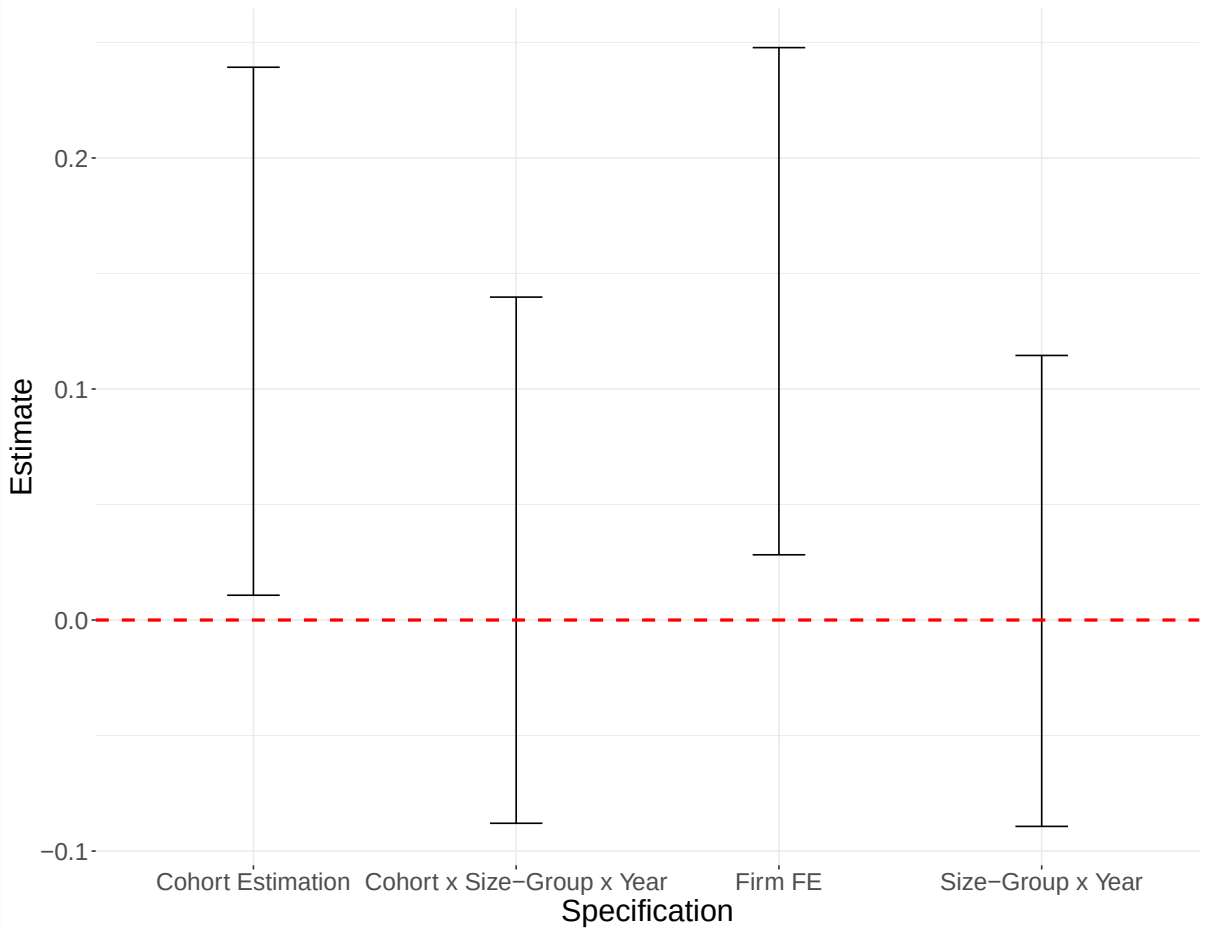
$$Q_{it} = \alpha_{ic} + \theta \text{Stag. Board}_{it} + \mu \text{Stag. Board}_{it} \times \text{Large}_{ic} + \gamma_{ct} + \eta_{ict} + \varepsilon_{ict}$$

VARIABLES	(1) Tobin's Q	(2) Tobin's Q	(3) Tobin's Q
Staggered Board	0.0259	-0.0152	-0.0152
	(0.0581)	(0.0689)	(0.0689)
Staggered*Large_or_VeryLarge		0.0729	
		(0.108)	
Staggered*Large			0.124
			(0.108)
Staggered*VeryLarge			0.0214
			(0.160)
Observations	368,296	368,296	368,296
R-squared	0.585	0.585	0.585

Assessment of Paper

- Great work to assemble primary dataset, careful empirical analysis
- Paper provides convincing evidence that prior work estimating large negative effects of board destaggering are overstated
- I will focus my comments on:
  1. What can paper say about magnitudes?
  2. Is Tobin's Q the right measure of firm value?
  3. What would be the ideal specification?

1. Contrasting Evidence from Paper



Cannot rule out aggregate destruction from de-staggered board of $290b, or gain of $226b

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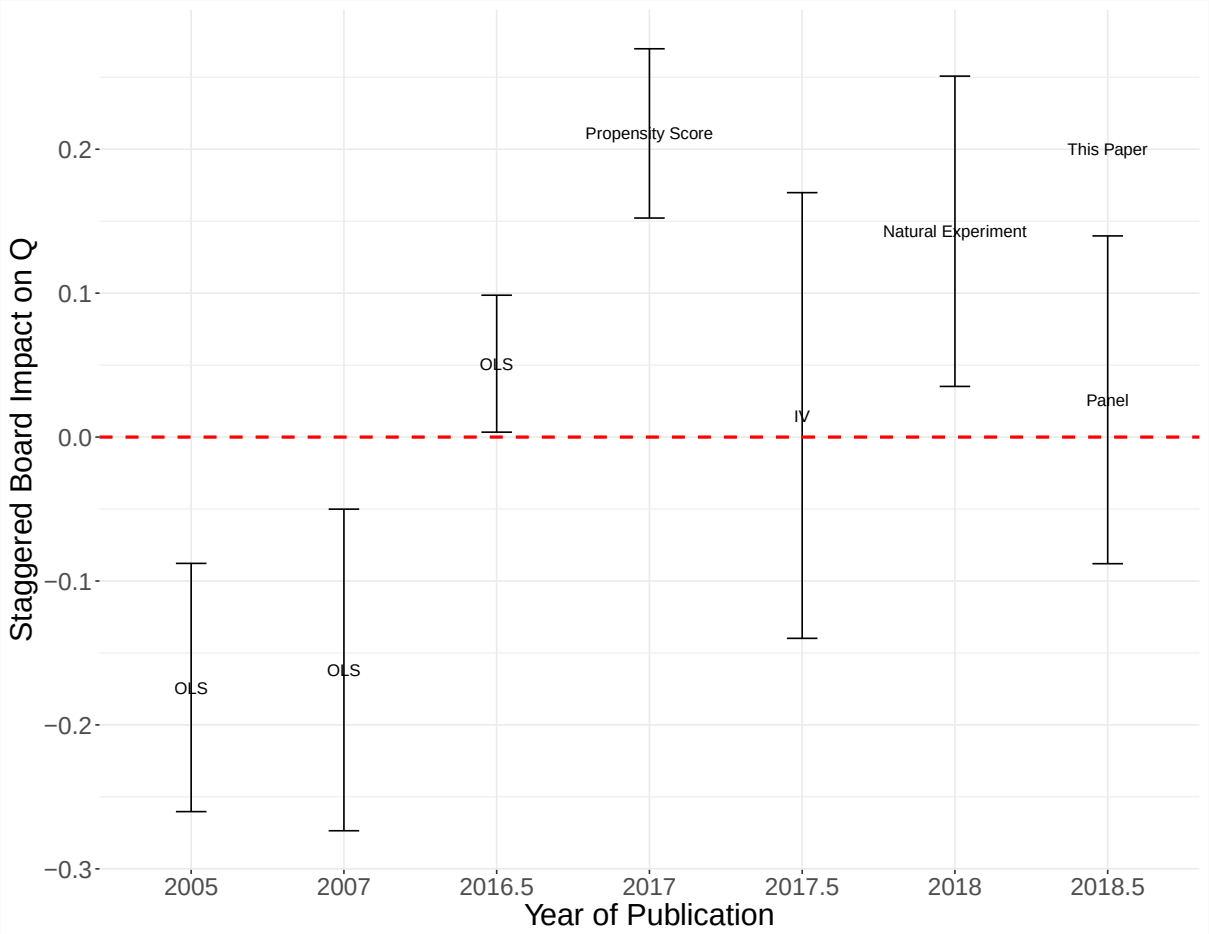

Aside from whether 0 is included in 95% CI; would be nice to see greater discussion of magnitudes relative to this literature

2. Did this firm destroy value?

Price/Book

- From 1990 to today; Market/Book went from 1.7 $\rightarrow$ 1.36

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- Value destruction?
- Yet Berkshire Hathaway's investors gained 3,871% in this period (relative to 765% for market)

2. So why is Tobin's Q used to measure firm value?

See Bartlett and Partnoy (2018)

$$
\begin{aligned}
Q_{it} &= \frac{\text{Price}_{it} \times \text{Shares}_{it} + \text{Book Value Assets}_{it} - \text{Book Value Equity}}{\text{Book Value Assets}_{it}} \\
&= \frac{\text{Market Value Equity}_{it} + \text{Book Value of Debt}_{it}}{\text{Book Value Equity}_{it} + \text{Book Value of Debt}_{it}}
\end{aligned}
$$

- Firms maximize value when marginal $Q = 1$ (same as avg Q with quadratic adjustment costs in Hayashi (1982))
  - in general is mean-reverting
  - May reflect growth options or intangible investments
- Book/Market is a risk factor in asset pricing
  - So inversely related to returns
- Erikson and Whited (2012) also point out issues with measurement error and aggregation

3. Ideal Specification?

- Many ways to think about firm value instead
  - Bartlett and Partnoy [2018] suggest several
  - Returns to shareholders seems good proxy in this case
- My suggestion: Try a Two Stage Regression:

$$r_{it} - r_{ft} = \alpha_{it} + \beta_{1,i} RMRF_t + \beta_{2,i} SMB_t + \beta_{3,i} HML_t + \beta_{4,i} MOM_t + \varepsilon_{it}$$

Then:

$$\alpha_{it} = \sum_{\tau=-8}^{8} \lambda_\tau \cdot \mathbf{1}[(t - \text{Year of Destaggering}_i) = \tau] + \text{controls} + \varepsilon_{it}$$

3. Ideal Specification?

- Event study: take only firms what ever have a destaggered board (variation from timing of shock)
    - Value-weighted
- Compares before/after destaggering announcement; every firm is its own control
- Can also look at Freyaldenhoven, Hansen, Shapiro (2018)
    - Shows how to do inference with pre-trends

Conclusion

- Great paper making use of rich data
- Strong points about endogeneity and limitations of prior research
- I suggest you read the paper!

Thank You!