

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

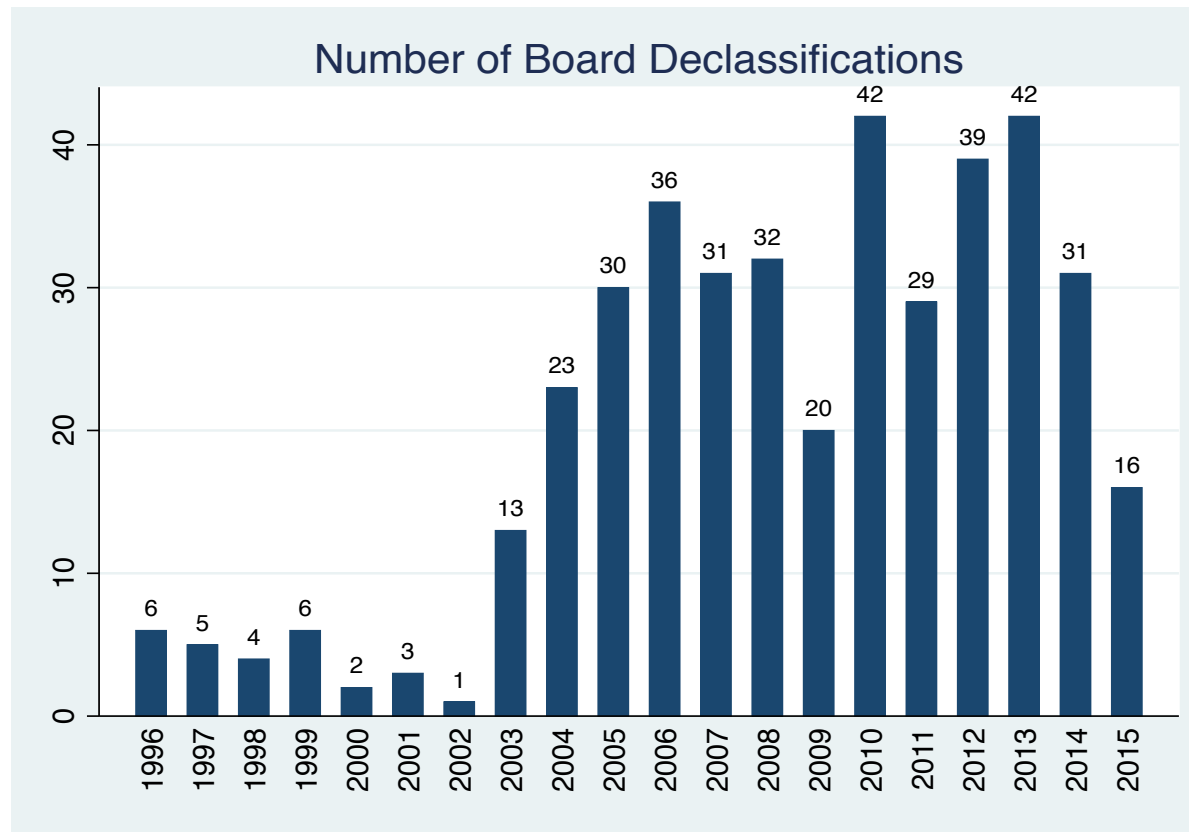
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## Background

- Over the past 15 years, several hundred publicly-traded firms destaggered their boards of directors (often in response to shareholder proposals).

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- Over the past 15 years, several hundred publicly-traded firms declassified their boards of directors (often in response to shareholder proposals).
- The declassification wave has received overwhelming support from shareholders in general, and from the big institutional investors in particular.

## Background

- Recent scholarly work (e.g., Cremers, Litov & Sepe (2017), Cremers & Sepe (2016)) suggests that these declassifications led to economically significant drops in firm value.
- On the basis of their empirical findings, Cremers & Sepe propose
  1. Amending 14a-8 to make declassification proposals inadmissible.
  2. Adopting a staggered board structure as a “quasi-mandatory” rule.
- But is that what the evidence really tells us?

## Why the answer matters...

- If indeed the declassification wave was so harmful...
  - Directors should be blamed for being ignorant/spineless.
  - It would raise fundamental questions about the increasingly institution-centric corporate governance system adopted by the US over the past decades.

## Caveat: spirit of the exercise

- We do not necessarily...
  - endorse the use of  $Q$  as the best/single outcome variable to determine the value implications of governance.
  - believe that the presence of staggered boards/the adoption of declassifications is “exogenous”.
- However, most of the recent debate on the effect of staggered boards has done both.
- The spirit of the exercise is to show that, even under the (heroic?) assumptions that (i) destaggerings are plausibly “exogenous” and that (ii)  $Q$  is a good proxy for shareholder value, the results do not withstand closer scrutiny.

## Sample

- Collected data on board structure over 1996-2015 for all firms *ever* in S&P1500 (over 2200 firms, 28K firm-years, after excluding financials, utilities, firms with dual-class shares).
- Matched with:
  - Compustat-CRSP for accounting data
  - CRSP for stock returns
  - Shark Repellent for precatory proposals

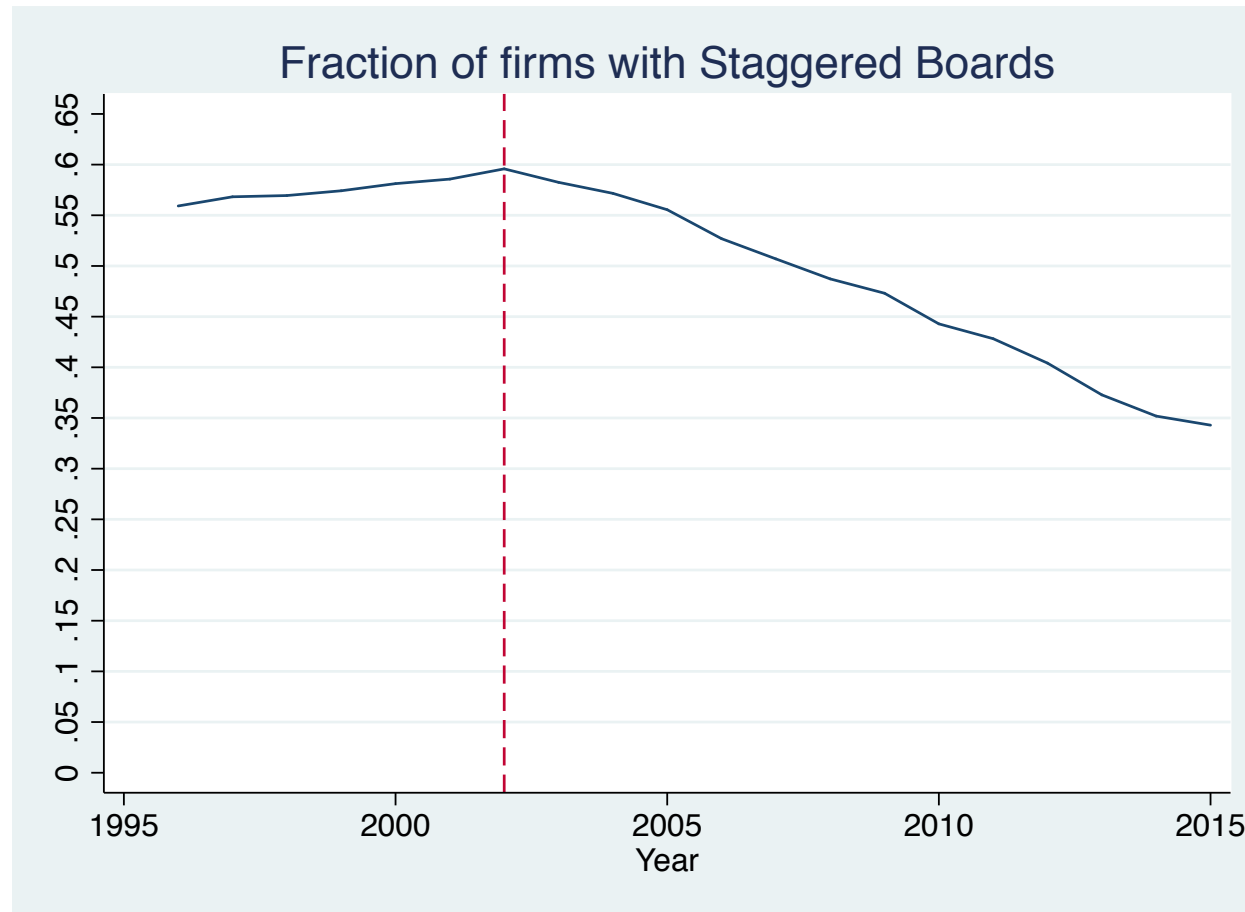


# Results 1

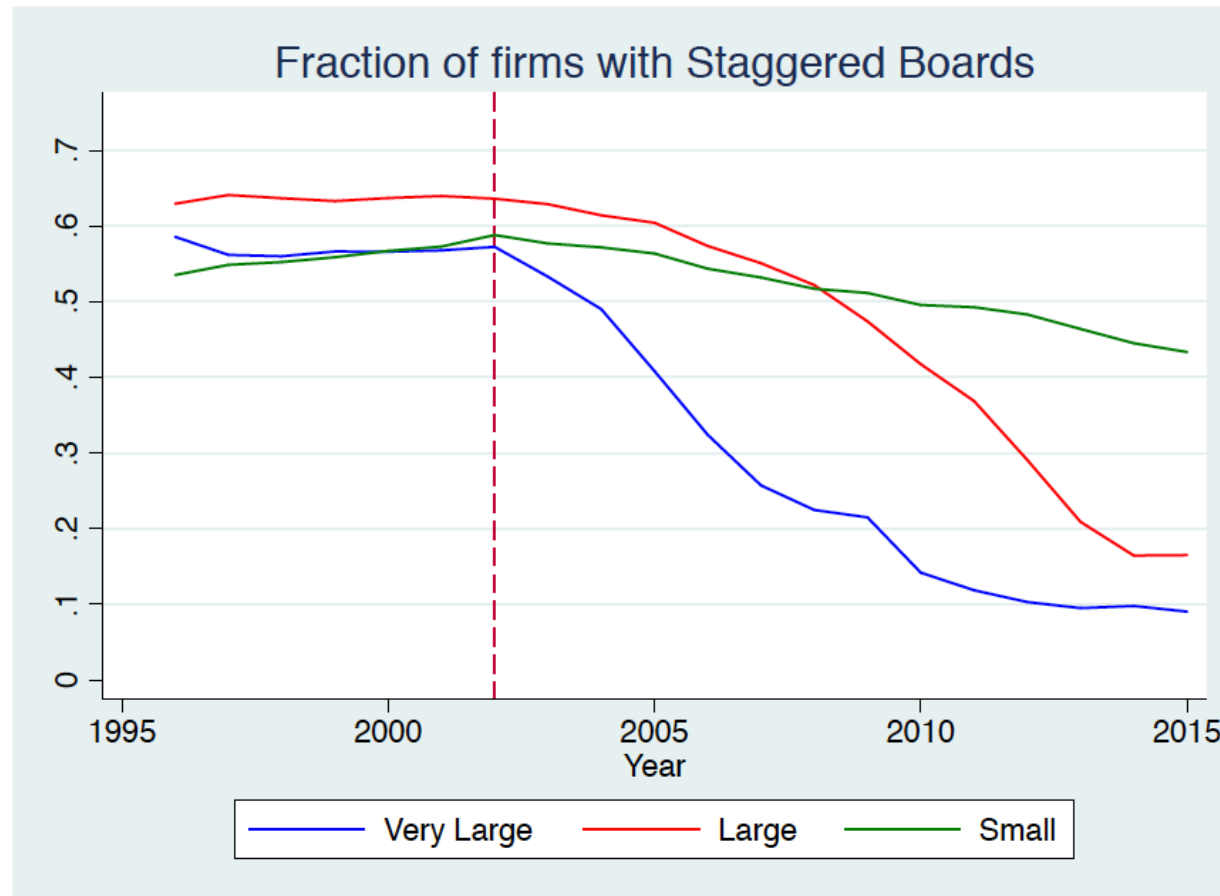
$Tobin's Q_{it} = \alpha_i + \theta Staggered Board_{it} + \gamma_t + \eta_{it} + \varepsilon_{it}$	
VARIABLES	(1)
	Tobin's Q
Staggered Board	0.137** (0.0561)
Observations	28,274
R-squared	0.583
Year FE	Yes
Years since Public FE	Yes
Firm FE	Yes

6.5% of average Q  
(or around \$350B  
in value)

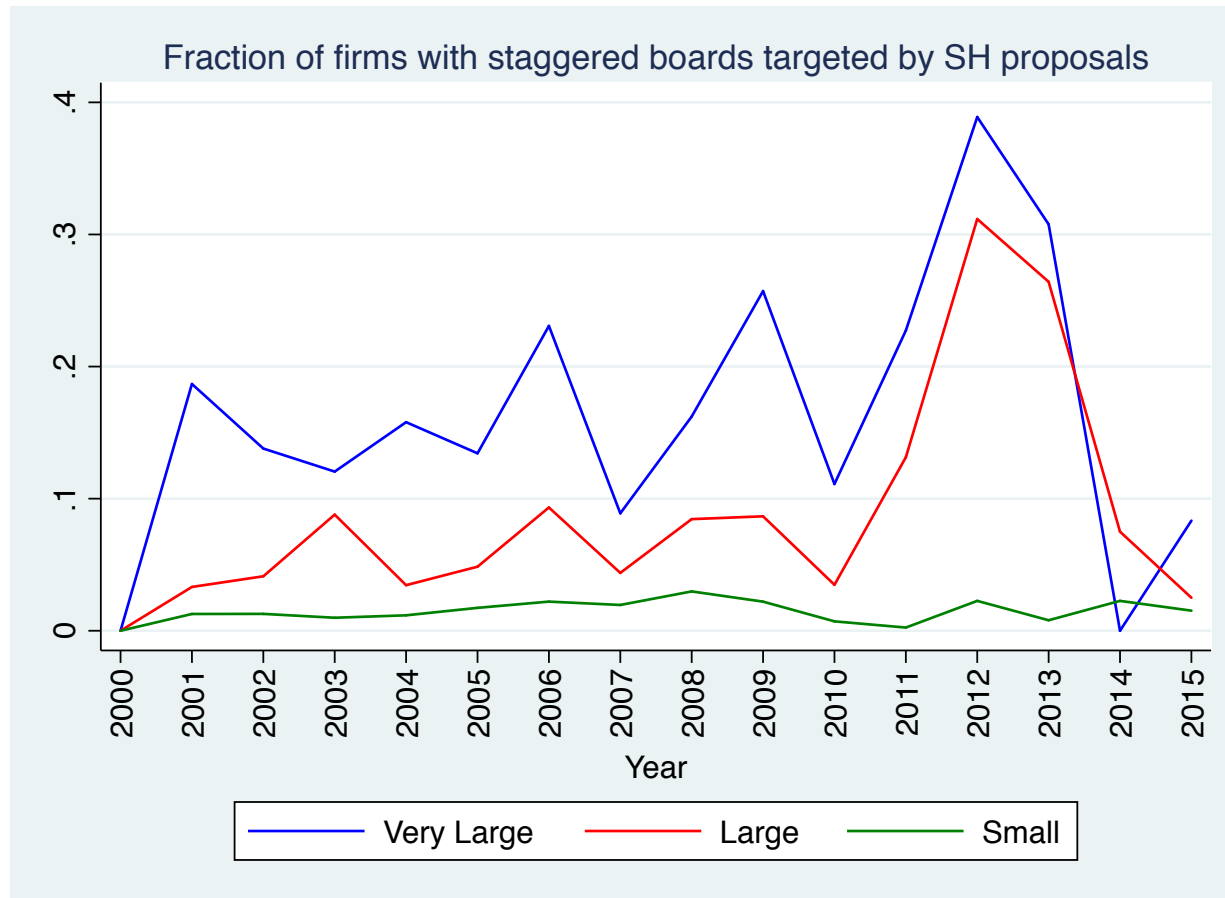
# Potential source of concern



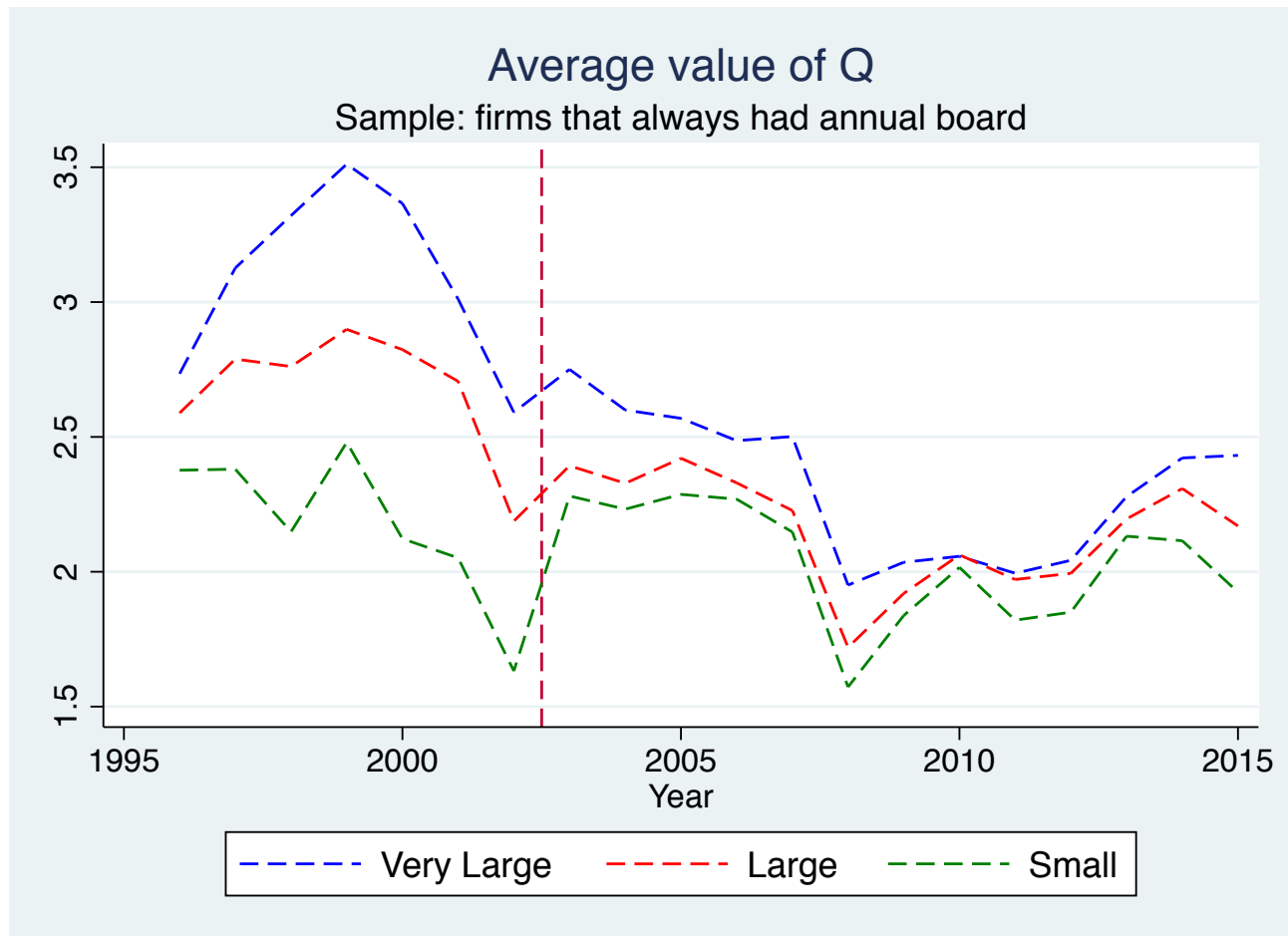
# Potential source of concern



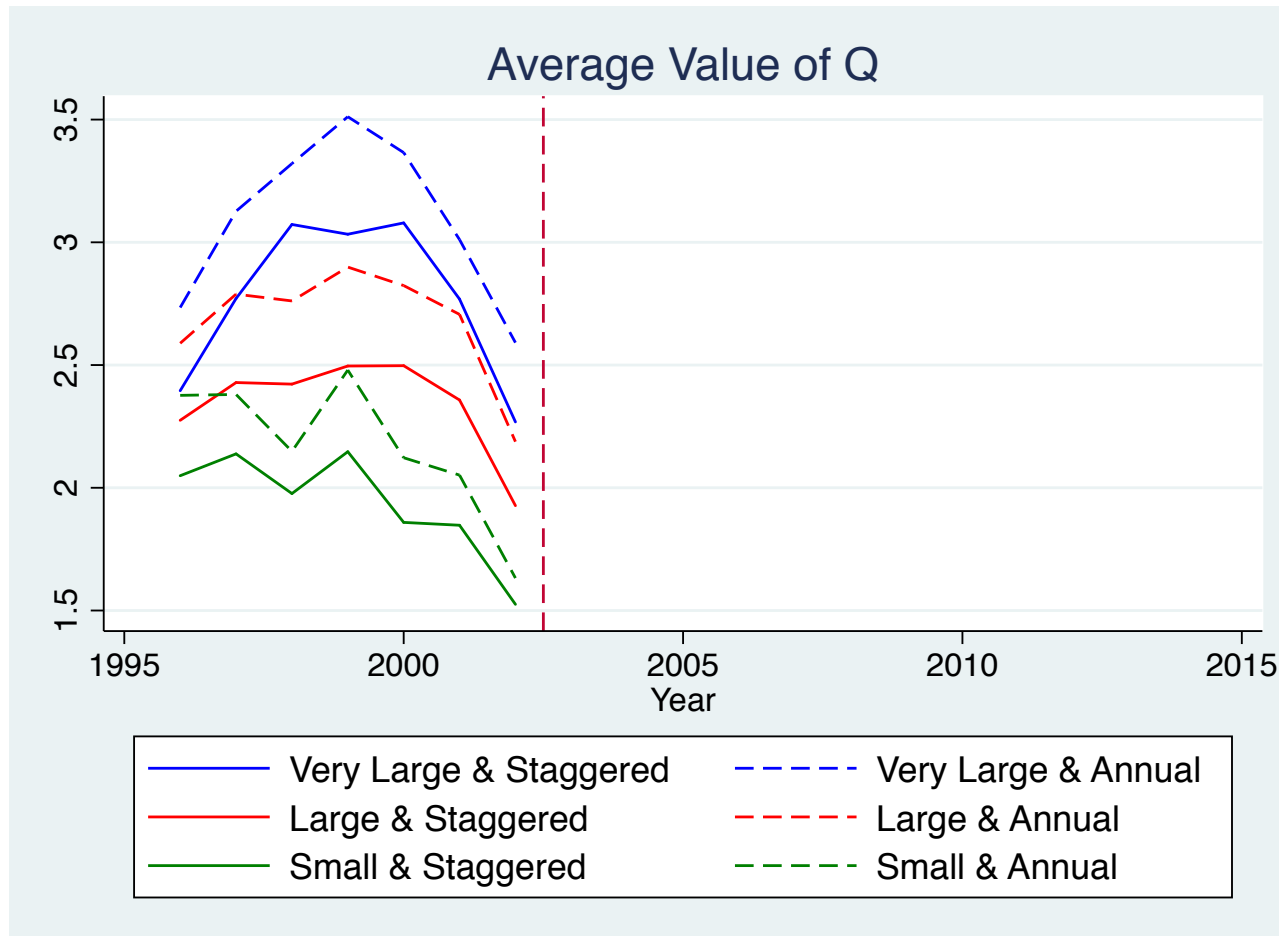
# Potential source of concern



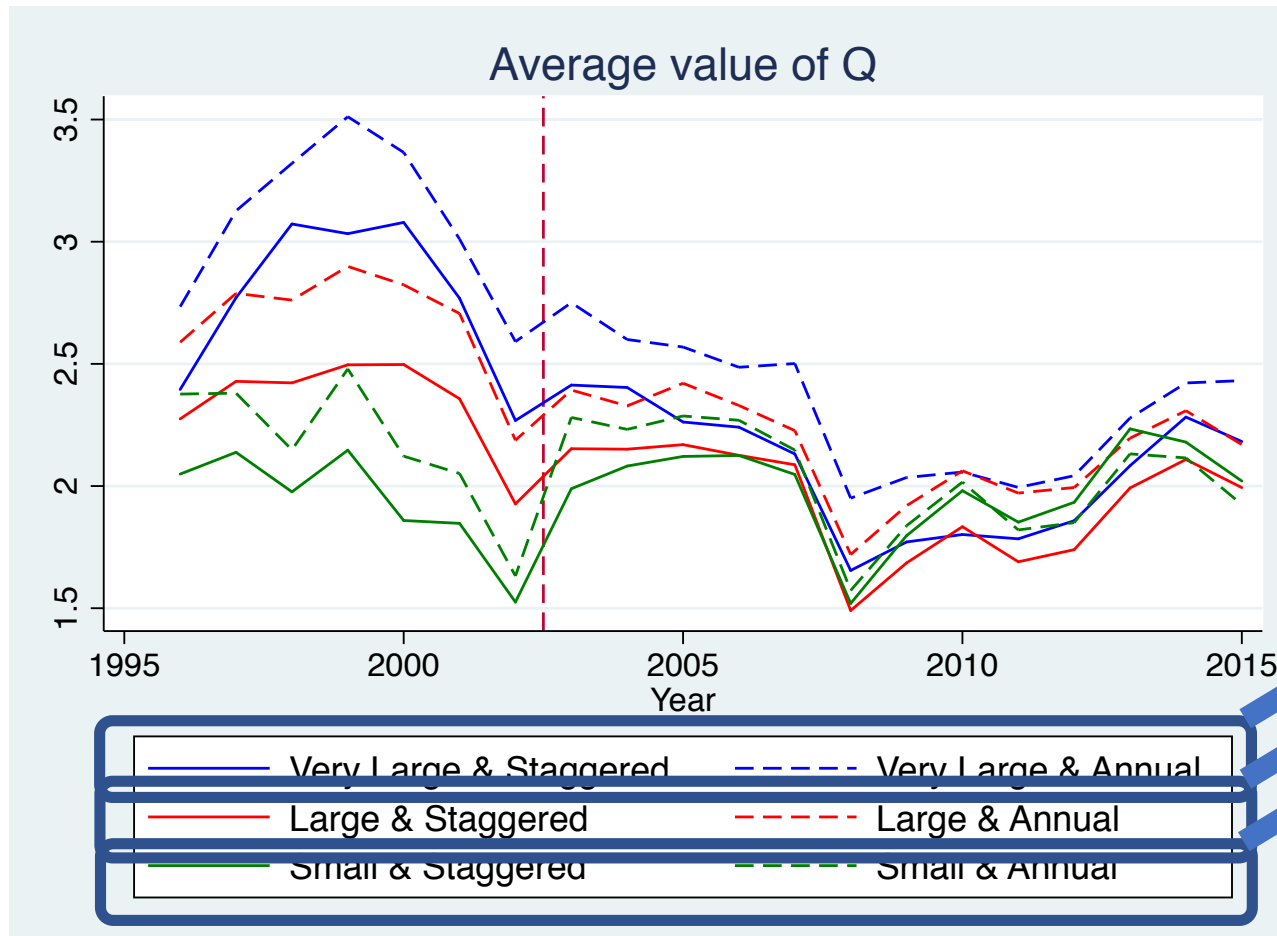
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~10% of the sample

~20% of the sample

~70% of the sample

If our conjecture is right...

- Naïve regression should suggest that most of the ostensible effect of declassifications is driven by the very large firms (and show substantial pre-treatment trends).
- That statistical association between staggered boards and  $Q$  should be attenuated in a regression that compares apples to apples.



## Results 2 (naïve)

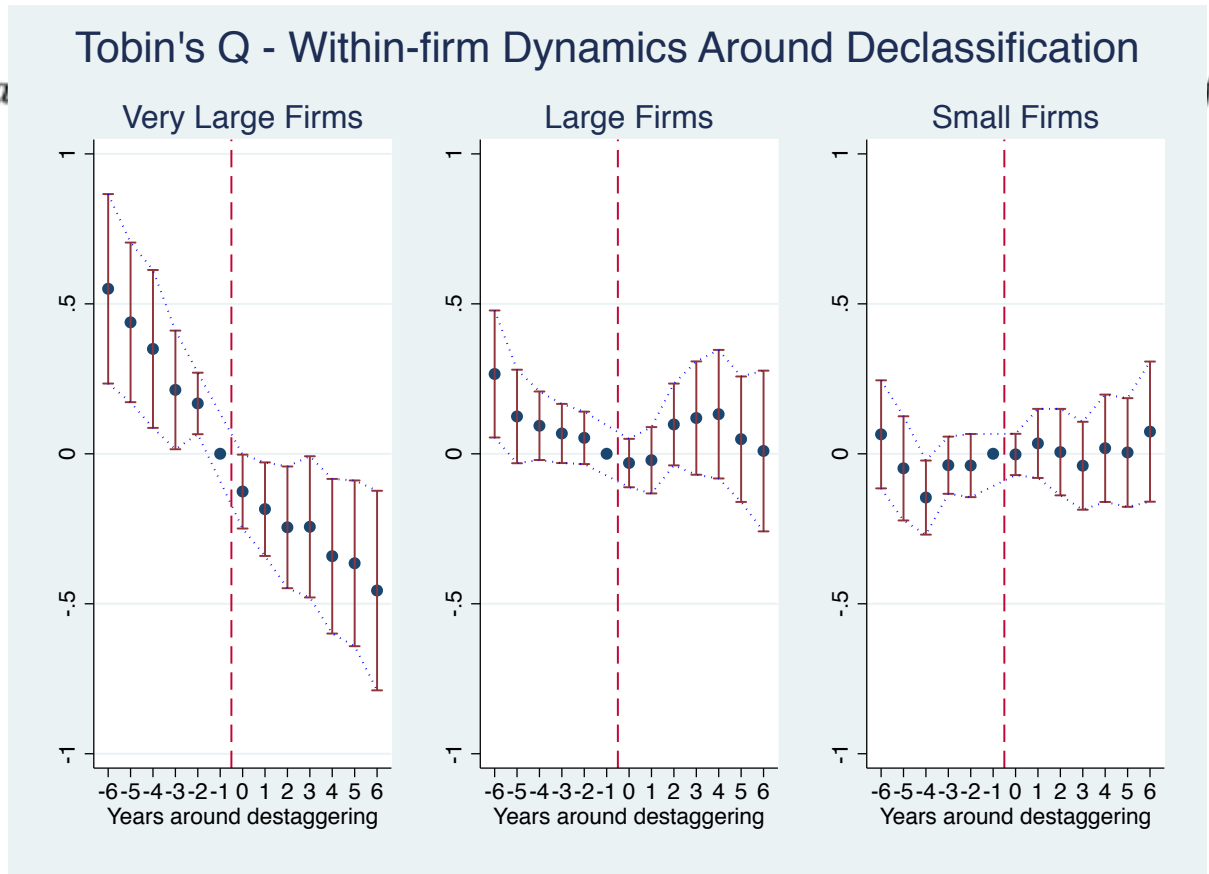
$$\begin{aligned} \text{Tobin's } Q_{it} = & \alpha_i + \theta \text{Staggered Board}_{it} + \mu \text{Staggered Board}_{it} * \text{Large}_i \\ & + \delta \text{Staggered Board}_{it} * \text{VeryLarge}_i + \gamma_t + \eta_{it} + \varepsilon_{it}, \end{aligned}$$

## Results 2 (naïve)

VARIABLES	(1) Tobin's Q	(2) Tobin's Q	
Staggered Board	0.137** (0.0561)	-0.115* (0.0640)	Sum=0.62 Sum=0.156 p-value p-value<.05 <.001 (or 7% of firm value) (or 29% of firm value) \$ 1 trillion!!!
Staggered * Large		0.271*** (0.0981)	
Staggered * VeryLarge		0.735*** (0.159)	
Observations	28,274	28,274	
R-squared	0.583	0.585	
Year FE	Yes	Yes	
Years since Public FE	Yes	Yes	
Firm FE	Yes	Yes	

# Lags & Leads (naïve)

$$\begin{aligned}
 & \text{Tobin's } Q_{it} \\
 & = \alpha_i + \sum_{\substack{\tau=-5 \\ \tau \neq -1}}^{\tau=+5} \lambda_{\tau} \text{Decla} \\
 & + \eta_{it} + \varepsilon_{it}
 \end{aligned}$$



*fied\_VeryLarge*<sub>tit</sub> +  $\gamma_t$

## Results 2 (*apples-to-apples*)

$$\begin{aligned} \text{Tobin's } Q_{igt} = & \alpha_i + \theta \text{Staggered Board}_{it} + \mu \text{Staggered Board}_{it} * \text{Large}_i \\ & + \delta \text{Staggered Board}_{it} * \text{VeryLarge}_i + \gamma_{gt} + \eta_{it} + \varepsilon_{igt}, \end{aligned}$$

## Results 2 (*apples-to-apples*)

	(1) Tobin's Q	(2) Tobin's Q
Staggered Board	0.0143 (0.0520)	-0.00409 (0.0656)
Staggered * Large		-0.00596 (0.106)
Staggered * VeryLarge		0.0999 (0.169)
Observations	28,274	28,274
R-squared	0.595	0.595
Year FE	No	No
Years since Public FE	Yes	Yes
Firm FE	Yes	Yes
Size-Group x Year FE	Yes	Yes

# Lags & Leads (*apples-to-apples*)

$$\begin{aligned}
 \text{Tobin's } Q_{ibt} & \\
 &= \alpha_i + \sum_{\substack{\tau=-5 \\ \tau \neq -1}}^{\tau=+5} \lambda_{\tau} De \\
 &+ \eta_{it} + \varepsilon_{ibt}
 \end{aligned}$$

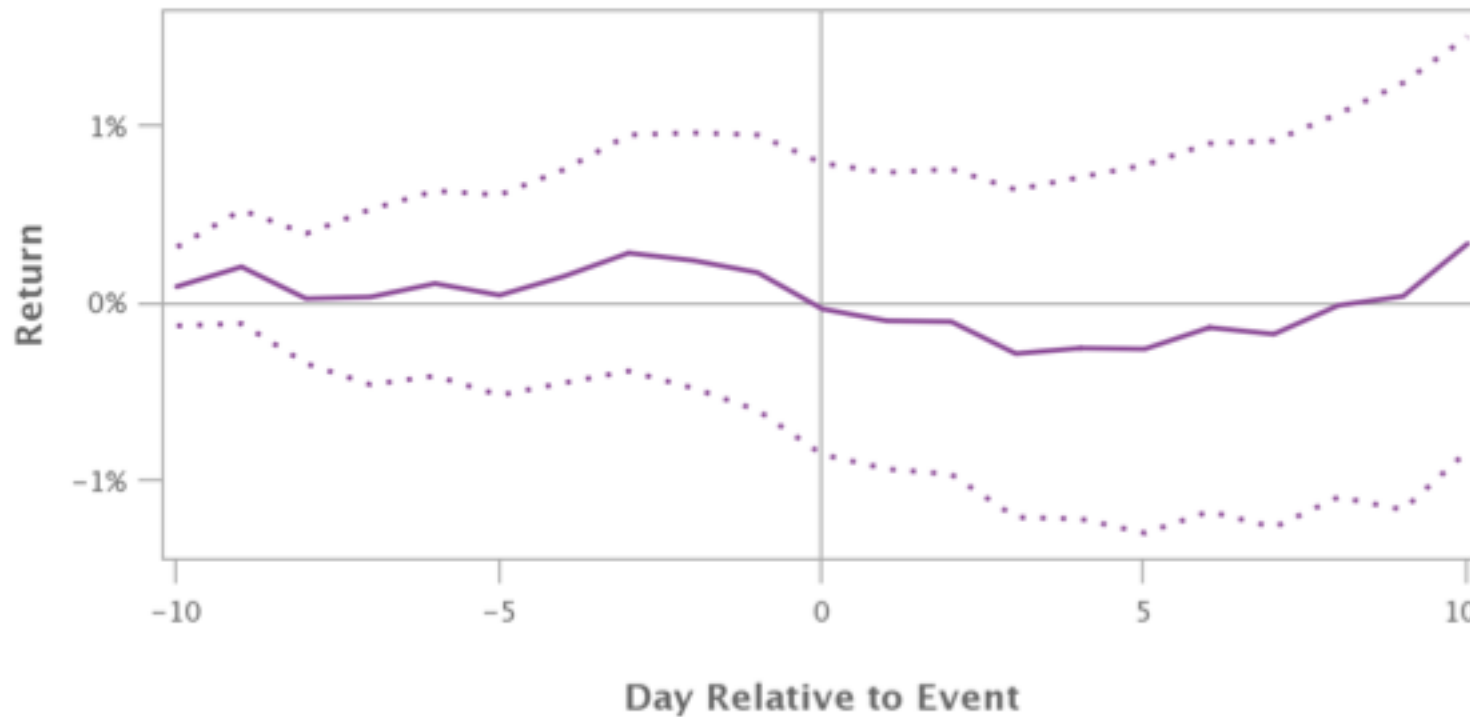
Tobin's Q - Within-firm Dynamics Around Declassification



$y_{Large_{tibt}} + \gamma_{bt}$

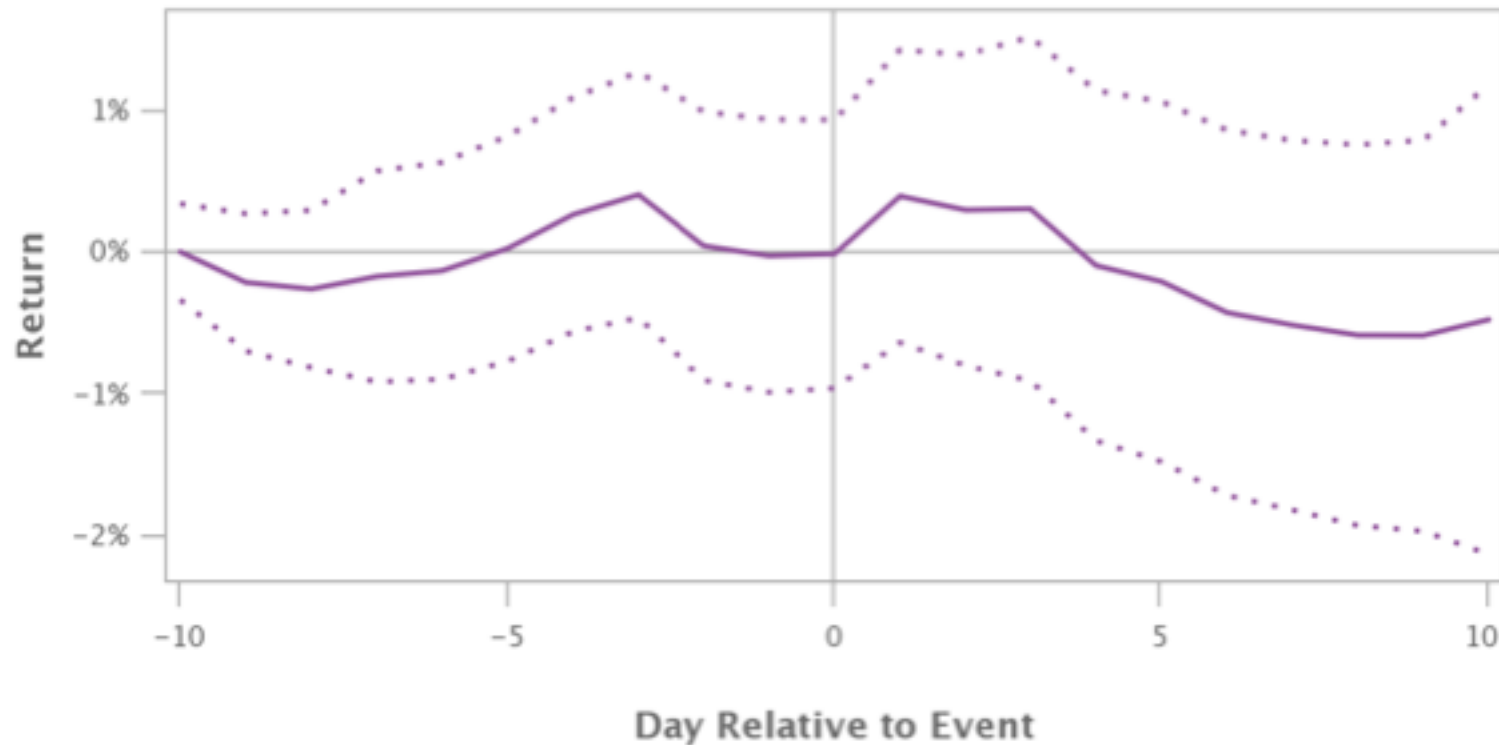
## Event study: management declassification proposals

- **Event date:** date of filing of proxy statement
- **Model:** four factor



## Event study: first precatory declassification proposal targeting firm

- **Event date:** date of filing of proxy statement
- **Model:** four factor





# Robustness + Additional Details

- Results are robust:
  - More accurate construction of size-buckets by using “stacked cohort approach” (Gormley & Matsa, RFS 2011)
  - NN-matching
  - Calendar-time portfolio analysis

## Conclusion

- The sky is probably not falling.
- We should have some healthy skepticism about recent claims suggesting that declassifications destroyed hundreds of billions of dollars in value.
- Methodologically, scholars running panel regressions where  $Q$  is the outcome variable should be cautious about differential secular trends in stock prices.

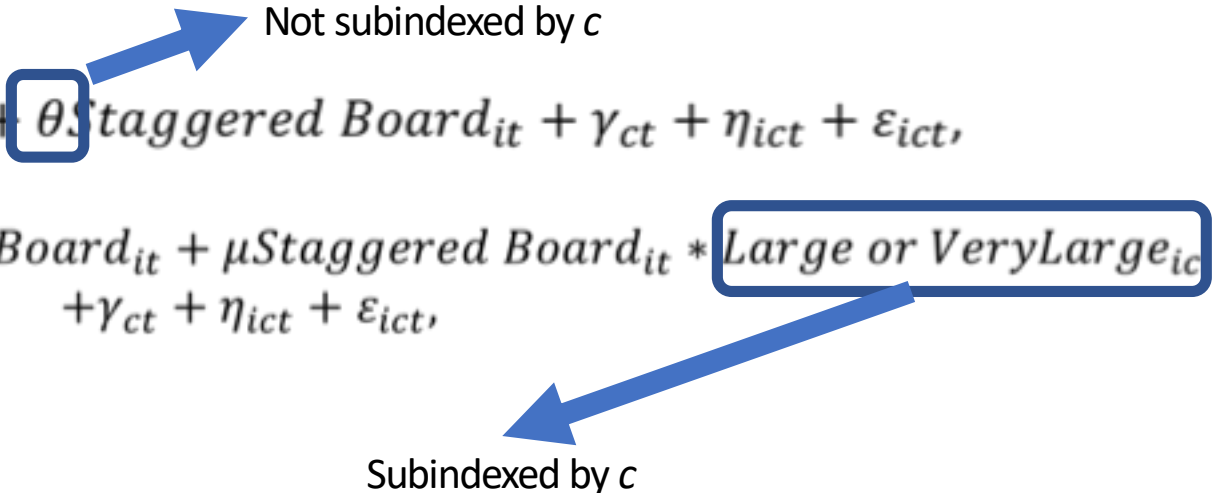
# Additional Materials

## Do results depend on when the size buckets were formed?

- Cohort-based approach (Gormley & Matsa, RFS 2011)
- For each year  $c$ , we could separately estimate the effect of declassifications of firm value for firms that destaggered during  $c$ .
- Treatment firms: firms that destaggered in year  $c$
- Control firm-years: firms that were part of the sample in  $c$  and  $c-1$  and
  - Never switched board structure (all firm-year observations)
  - Switched board structure at some year  $c' > c$  (firm-year observations until  $c'-1$ )
- We sort treatment and control firms into size buckets according to their decile of market capitalization as of  $c-1$
- Call all those firm-year observations “cohort  $c$ ”

## Do results depend on when the size buckets were formed?

- Although we could estimate one separate estimate reflecting the effect of declassifications for firms in cohort  $c$ , we want to aggregate all those estimates into one.
- To do that, we form a database that "stacks" the different cohorts, and estimate

$$Tobin'sQ_{it} = \alpha_{ic} + \theta Staggered\ Board_{it} + \gamma_{ct} + \eta_{ict} + \varepsilon_{ict},$$


$$Tobin'sQ_{it} = \alpha_{ic} + \theta Staggered\ Board_{it} + \mu Staggered\ Board_{it} * Large\ or\ VeryLarge_{ic} + \gamma_{ct} + \eta_{ict} + \varepsilon_{ict},$$

etc.

## Do results depend on when the size buckets were formed?

VARIABLES	(1) Tobin's Q	(2) Tobin's Q
Staggered Board	0.137** (0.0561)	-0.115* (0.0640)
Staggered * Large		0.271*** (0.0981)
Staggered * VeryLarge		0.735*** (0.159)
Observations	28,274	28,274
R-squared	0.583	0.585
Year FE	Yes	Yes
Years since Public FE	Yes	Yes
Firm FE	Yes	Yes

Do results depend on when the size buckets were formed?

VARIABLES	(1) Tobin's Q	(2) Tobin's Q
Staggered Board	0.126** (0.0583)	-0.0762 (0.0680)
Staggered * Large		0.114 (0.100)
Staggered * VeryLarge		0.579*** (0.139)
Observations	365,766	365,766
R-squared	0.574	0.574
Cohort-Year FE	Yes	Yes
Cohort-Years since Public FE	Yes	Yes
Cohort-Firm FE	Yes	Yes

Do results depend on when the size buckets were formed?

VARIABLES	(1) Tobin's Q	(2) Tobin's Q
Staggered Board	0.0280 (0.0582)	-0.0107 (0.0689)
Staggered * Large		0.116 (0.108)
Staggered * VeryLarge		0.0217 (0.160)
Observations	365,766	365,766
R-squared	0.585	0.585
Cohort-Year FE	No	No
Cohort-Years since Public FE	Yes	Yes
Cohort-Firm FE	Yes	Yes
Cohort-Size Bucket - Year FE	Yes	Yes



## Another robustness check: N-N matching

- For every firm that destaggered, we look (with replacement) for the nearest neighbor that within the same 2-digit SIC industry that did not declassify in that year or any earlier year along the following dimensions:
  - $Q_{t-1}$
  - $Q_{t-2}$
  - $Q_{t-3}$
  - $Q_{t-4}$
  - $Q_{t-5}$
  - $Market\ cap_{t-1}$
  - $(R\&D/Sales)_{t-1}$
  - $Firm\ age$
- We follow both members of the matched pair between year -5 and year +5 surrounding the destaggering (or pseudo-destaggering).
- If either firm drops out of the sample (or the control firm destaggers), the matched pair is also dropped at that point in time.

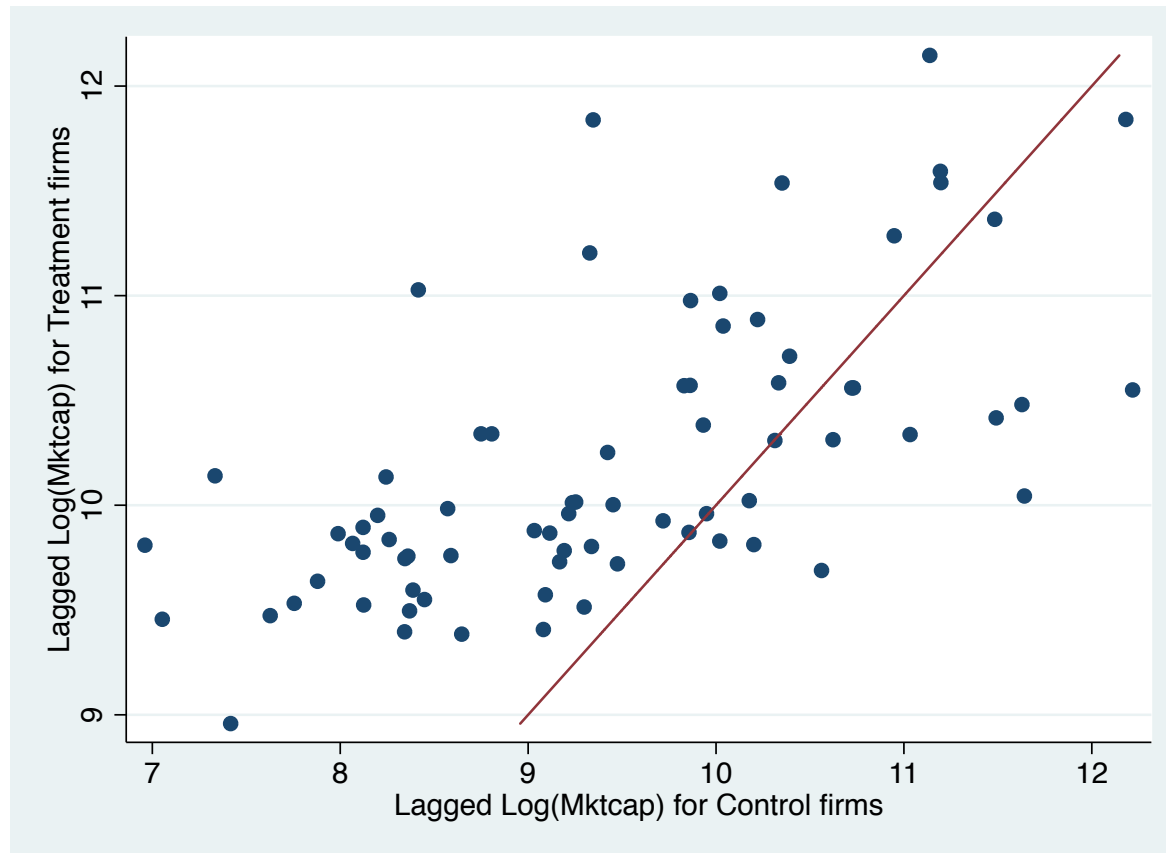
## Some examples

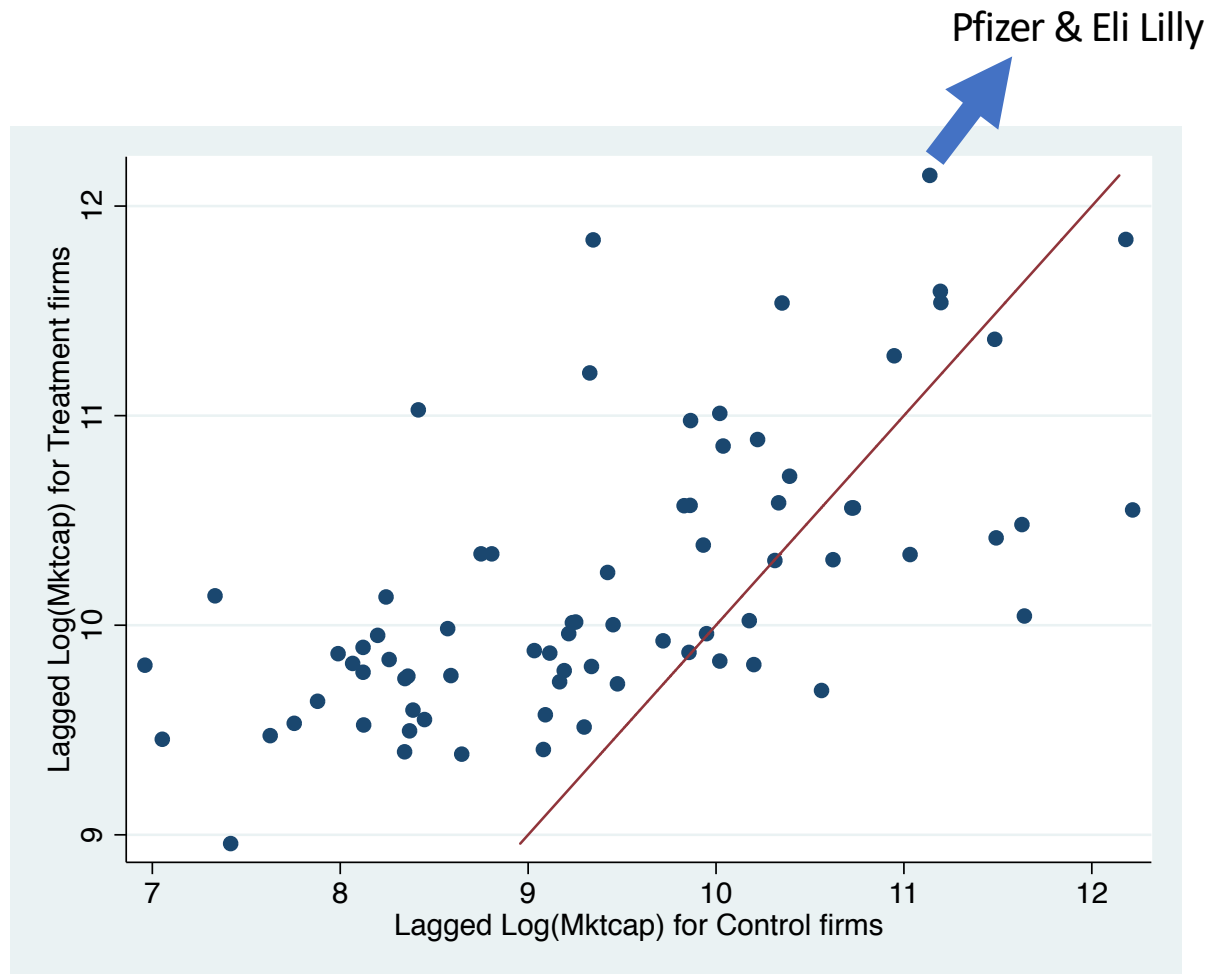
Treatment	Matched control	Cohort
ROBERT HALF INTL INC	HENRY (JACK) & ASSOCIATES	2003
BRISTOL-MYERS SQUIBB CO	SCHERING-PLOUGH	2003
COCA-COLA CO	PEPSICO INC	2003
OMNICOM GROUP	ELECTRONIC DATA SYSTEMS CORP	2003
GREAT LAKES CHEMICAL CORP	FERRO CORP	2003
HASBRO INC	KID BRANDS INC	2003
TENET HEALTHCARE CORP	HEALTHSOUTH CORP	2003
PFIZER INC	LILLY (ELI) & CO	2003
REEBOK INTERNATIONAL LTD	APTARGROUP INC	2003
DELL TECHNOLOGIES INC	NETAPP INC	2003
MIDWAY GAMES INC	ANSYS INC	2003
BELLSOUTH CORP	DIRECTV	2004
DOW CHEMICAL	DU PONT (E I) DE NEMOURS	2004
EDO CORP	CUBIC CORP	2004
FEDEX CORP	SOUTHWEST AIRLINES	2004
GERBER SCIENTIFIC INC	MILACRON INC	2004
STARWOOD HOTELS&RESORTS WRLD	HILTON WORLDWIDE HOLDINGS	2004
MERCK & CO	ABBOTT LABORATORIES	2004
SAFEWAY INC	KROGER CO	2004
AT&T INC	VERIZON COMMUNICATIONS INC	2004

# NN-Matching

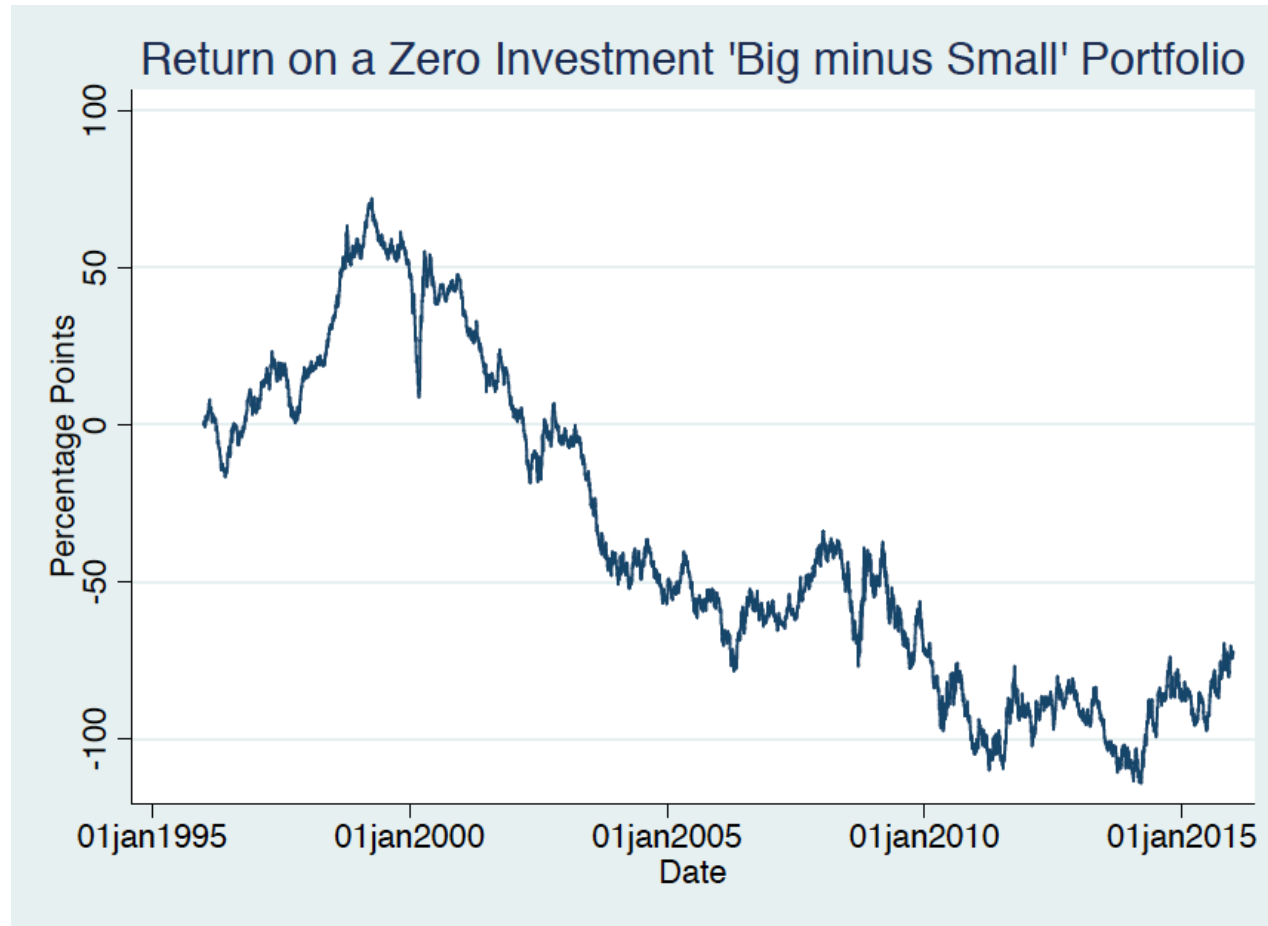
$$Tobin's Q_{ict} = \alpha_{ic} + Post_{ict} * Treatment_{ic} + \gamma_{ct} + \eta_{ict} + \varepsilon_{ict}$$

	(1) Tobin's Q	(2) Tobin's Q	(1) Tobin's Q	(2) Tobin's Q
Post * Treatment	-0.0730 (0.0567)	0.0320 (0.0622)	-0.0289 (0.0518)	-0.0337 (0.0677)
Post * Treatment * Large		-0.0431 (0.0827)		0.0369 (0.119)
Post * Treatment * Very Large		-0.383*** (0.117)		-0.0387 (0.163)
Observations	6,071	6,071	6,066	6,066
R-squared	0.788	0.790	0.806	0.806
Cohort-Year FE	Yes	Yes	No	No
Cohort-Years since Public FE	Yes	Yes	Yes	Yes
Cohort-Firm FE	Yes	Yes	Yes	Yes
Cohort-Size Bucket-Year FE	No	No	Yes	Yes





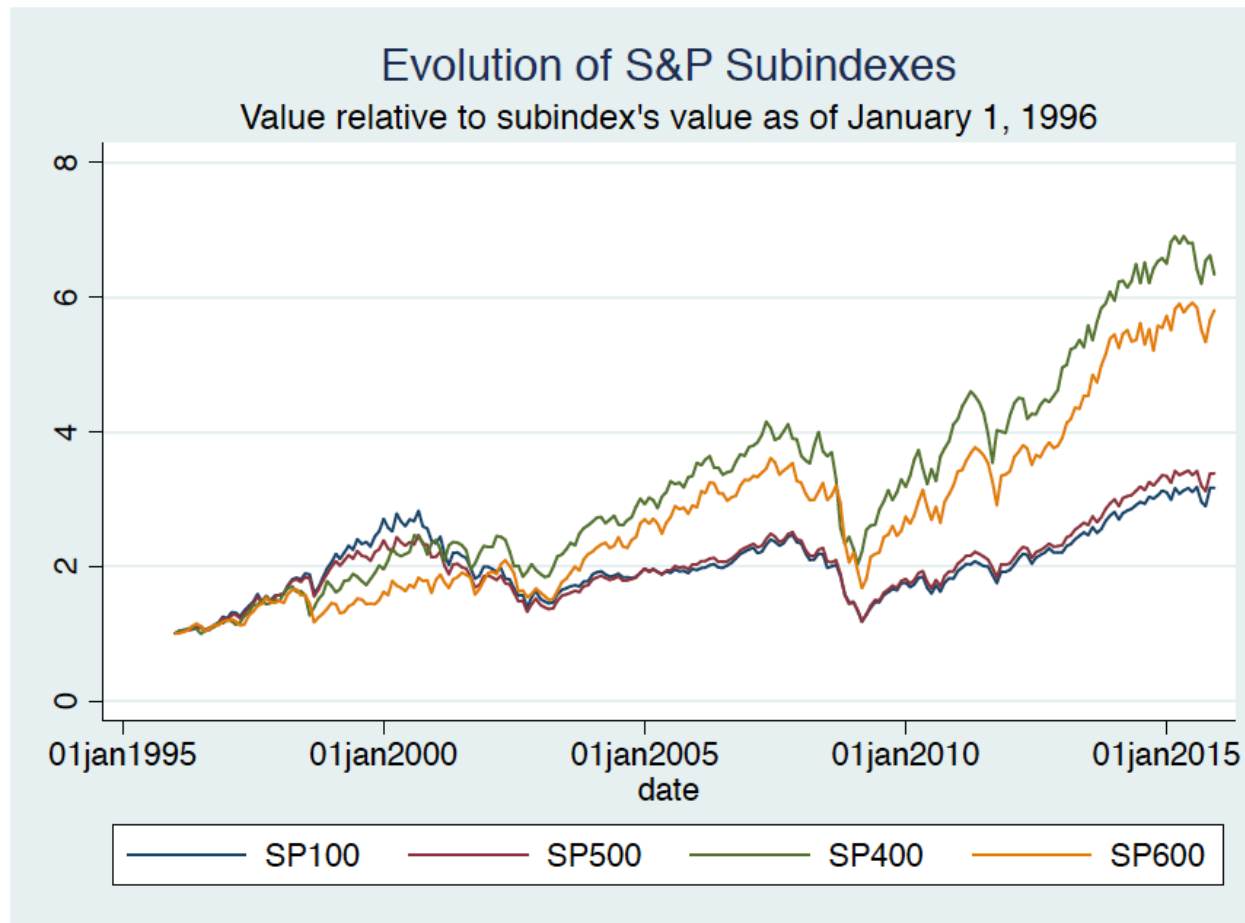
# Potential source of concern



Have management/SHs reacted to the recent findings?



# Puzzle: what is going on?





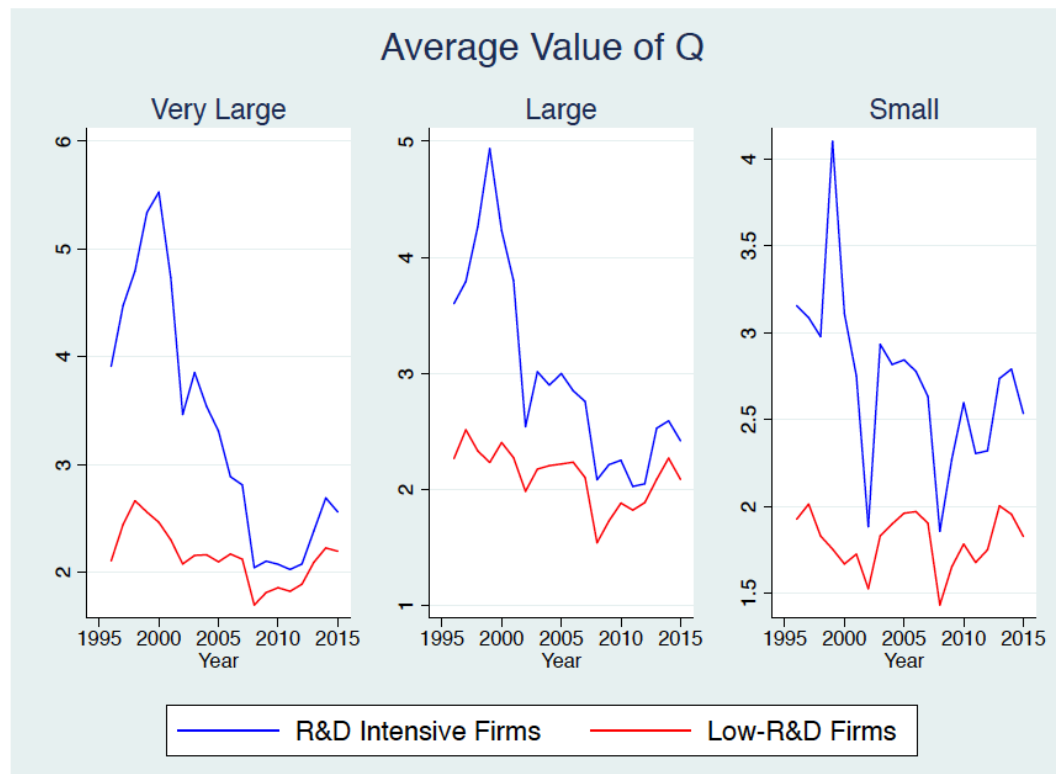
# Do staggered board configurations affect R&D-intensive firms more intensely?

	R&D Intensive	Low RD
Small		
Large		
VeryLarge	X	

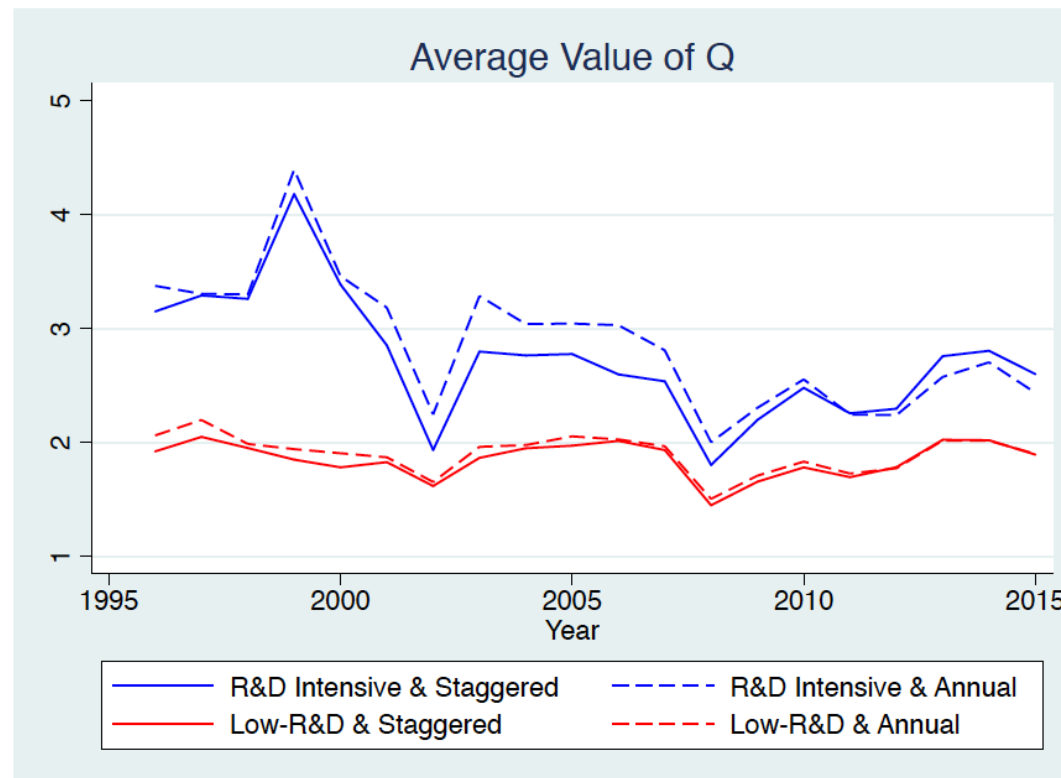
$$Y_{it} = \mu Staggered_{it} + \mu Staggered_{it} * R\&D\ Intensive_{it} + \gamma_t + \eta_{it} + \varepsilon_{it}$$

	Tobin's Q	Tobin's Q
Staggered Board	0.0145 (0.0518)	-0.104** (0.0524)
Staggered * R&D Intensive	0.739*** (0.186)	0.716*** (0.164)
Observations	28,274	28,274
R-squared	0.585	0.597
Year FE	Yes	No
Years since Public FE	Yes	Yes
Firm FE	Yes	Yes
Size-Group x Year FE	No	Yes
R&D-Intensive x Year FE	No	No
Size-Group x R&D-Intensive x Year FE	No	No

Are these results also confounded by differential secular trends in value?



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	R&D Intensive	Low RD
Small		
Large		
VeryLarge	X	

& R&D intensity: comparing *apples to*

	(1) Tobin's Q	(2) Tobin's Q	(3) Tobin's Q	(4) Tobin's Q
Staggered Board	0.0145 (0.0540)	-0.104** (0.0524)	0.00300 (0.0501)	0.0393 (0.0487)
Staggered * R&D Intensive	0.739*** (0.186)	0.716*** (0.164)	0.241 (0.168)	0.107 (0.154)
Observations	28,274	28,274	28,274	28,274
R-squared	0.585	0.597	0.615	0.619
Year FE	Yes	No	No	No
Years since Public FE	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes
Size-Group x Year FE	No	Yes	Yes	No
R&D-Intensive x Year FE	No	No	Yes	No
Size-Group x R&D-Intensive x Year FE	No	No	No	Yes