PAC INVITED CONFERENCE
CORPORATE MISCONDUCT, FRAUD & WHISTLEBLOWING

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Social Media and Corporate Misconduct

Discussant: Alexander Dyck

University of Toronto

Will shown own slides

Professional Accounting Centre
UNIVERSITY OF TORONTO
MISSISSAUGA

Does Social Media Reduce Corporate Misconduct?
by
Heese and Pacelli

Discussion

Alexander Dyck

Manulife Financial Chair in Financial
Services, Rotman School of
Management

"Publicity is justly commended as a remedy for social and industrial diseases. Sunlight is said to be the best of disinfectants; electric light the most efficient policeman."

—U.S. Supreme Court Justice Louis D. Brandeis, "What Publicity Can Do," *Harper's Weekly*, December 20, 1913

Important Topic

Media form of involuntary disclosure, should have beneficial impact.

Why much to like in the paper

- 'Modern' take on Media
  - Social Media, mobile. Matters for firms!
- Great Methodology to study media impact
  - Avoids 'mirror' problem with media. Plausibly exogenous staggered variation.
- Intriguing results
  - Improvement in deterrence, lower misconduct

Review of paper, highlighting key details

Exploits exogenous variation in media

- 3G expansion, driven by technology, occurs at different times geographically, provides exogenous variation in exposure to social media.
  - Largely 2007-2012 (82% of total), 2/3 completed by 2010
- Since technology indirect, to increase confidence provide one indicator of increased social media activity that correlates with technology (Twitter tweet volume), where can track geographically and over time.

Uses new measure of misconduct

- Not material financial misrepresentation
  - financial misrepresentations rarely observed (e.g. AAERs, ~1%), or are noisy (e.g. restatements, 13%).
- Largely non-financial misconduct
  - Violation Tracker, cases from largely federal regulatory agencies, with some private litigation
  - Data shows workplace health and safety, environmental together account for 75% of obs.
  - Much more common than financial misrepresentations ~ Mean of 1 obs/firm year

Approach and Findings

Approach

- Main tests use State-of-Art identification
  - Facility level data with facility level fixed effects and controls.
  - Balanced window around 3G introduction.

- Supportive tests to show twitter volume correlates with increase 3G, using twitter, where can geo-locate (much harder to identify impact)

Findings

- Significant decrease in penalties (13%) and violations (1.8%),
  - on average, comparing 3 yrs before to 3 years after 3G expansion (Tab 4)
  - Robust to alternative FE

- Complementary evidence of mechanism from (more weakly identified) twitter
  - Tweet volume increase with 3G (Tab 5)
  - Twitter activity associated with lower penalties and violations (Tab 6)

Comments

Taking results as given, what else would I like to see?

1. Could be more impactful if expand scope and framing from:
   - 'to what extent social media <u>*reduces*</u> corporate misconduct' to
   - what is the impact of social media on deterrence of corporate misconduct?

How to make results more convincing?

2. Much more on misconduct data from violation tracker

3. Much more on materiality

4. Econometric questions

Social Media (mobile) impact targets non-financial misconduct. More on this.

Social media from internet to mobile, expect different effects. Make a feature

'Newsworthiness' changes with small number of words, pictures. Likely extreme events, violate social norms
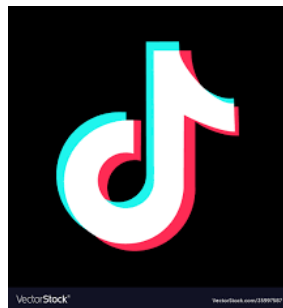
- More on non-financial misconduct (less boring)
- Talk about, show more context
  - E.g. has always been an element in security class actions, appears to be increasing; increasingly associated with exec turnover.
- ***Social Media only works for non-financial misconduct (Tab 6 result) should be headline not Tab 4?***

Acknowledge and Address Negative Aspects of Social Media At Same Time

Potential interactions....

- Diversion of ad dollars from traditional to social media

- Downside of social media is thus loss of misconduct deterrence provided by newspapers, loss of local newspapers

- Who knows this well?

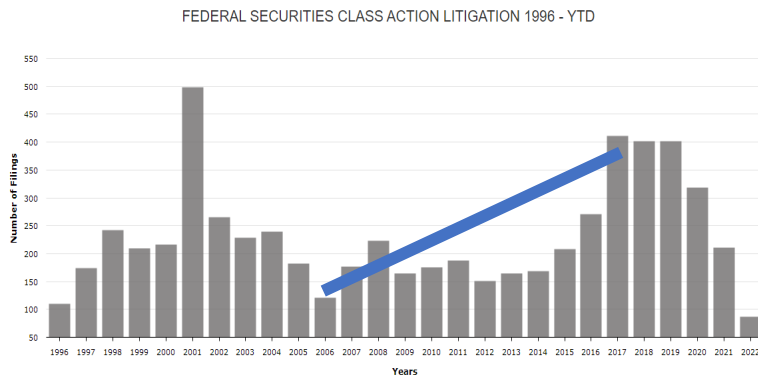# 2. Much more on misconduct data from violation tracker

- Raw time trends in violations consistent with huge impact of social media, drive results.

- Not consistent with security class actions trends.

FEDERAL SECURITIES CLASS ACTION LITIGATION 1996 - YTD

- violations
  - changes in enforcement intensity,
  - lag in reporting (only after suit resolved?),
  - tracking by data collector

Table 1, Panel C

2006	738	0.4%	1,851.1	21.7%
2007	1,093	9.5%	513.1	6.0%
2008	1,227	10.7%	178.7	2.1%
2009	1,610	14.0%	511.5	6.0%
2010	1,698	14.8%	1,153.9	13.6%
2011	1,548	13.5%	649.0	7.6%
2012	986	8.6%	38.3	0.4%
2013	576	5.0%	220.9	2.6%
2014	278	2.4%	34.8	0.4%
2015	126	1.1%	81.1	1.0%
2016	142	1.2%	102.9	1.2%
2017	88	0.8%	1.8	0.0%
Total	11,508	100%	8,511.9	100%

Most of the entries in Violation Tracker involve actions by government agencies, but we are also gradually adding private litigation in the form of class action lawsuits and multi-district litigation…More categories will be added periodically.

3. Much more on materiality

- Penalties show massive variation.
  - Modal violation – health and safety accounts for 2/3 of sample, appears to be a $5,000 fine.
  - Massive penalties for very small fraction of data, 0.6% of violations account for almost 50% of penalties.

To connect with misconduct literature, materiality has to be a primary concern.
Needs to be addressed by restricting sample, or convincing otherwise.
Social media catches things that don't matter (much) has a different ring to it

- Almost all violations captured by violation tracker don't appear to be material, (see McDonald's, top fine $20k)

Company	Parent	Parent Major Industry	Primary Offense Type	Year	Agency	Penalty Amount
MCDONALDS RESTAURANT	McDonald's	restaurants and foodservice	wage and hour violation	2004	MN-DLI	$20,750
McDonalds	McDonald's	restaurants and foodservice	wage and hour violation	2001	CA-LCO	$14,000
McDonalds Restaurant	McDonald's	restaurants and foodservice	environmental violation	2009	TN-ENV	$11,998
MCDONALDS RESTAURANT	McDonald's	restaurants and foodservice	wage and hour violation	2003	MN-DLI	$11,000
MCDONALDS RESTAURANT INC.	McDonald's	restaurants and foodservice	workplace safety or health violation	2001	OSHA	$8,000
MCDONALDS	McDonald's	restaurants and foodservice	workplace safety or health violation	2007	OSHA	$8,000
MCDONALDS CORP	McDonald's	restaurants and foodservice	wage and hour violation	2020	IL-DOL	$6,211
MCDONALDS #1228	McDonald's	restaurants and foodservice	workplace safety or health violation	2003	OSHA	$5,680
McDonalds	McDonald's	restaurants and foodservice	wage and hour violation	2018	WA-DLI	$5,650

4. Econometric Questions

Choices

- Industry x year FE (or year) seems much more compelling. Why not baseline?
  - Note, estimated economic impacts almost halved
- Median splits for twitter tests appear odd
  - Median in zip codes in year makes more sense to me than across whole sample period.

Limitations of Twitter tests/ other ways to validate mechanism?

- Twitter tests don't do much for me
  - All data 2010 on, so not nearly as good for changes brought on by 3G, as 2/3 of sample would already have 3G
- Look at alternatives (like in my whistleblower paper?)
  - Study sub-sample of worker health and safety. See if any ex ante complaints on twitter or other platforms?

Summary

- Paper well worth reading. You'll learn a lot

- Important topic, careful study, with many intriguing elements.

- Opportunities to make results more convincing
  - Validity of misconduct measure, materiality

- Opportunities to make results more impactful
  - Broaden evaluation and identify weaknesses and limits, along with strengths