Risk Perceptions, Board Networks, and Directors' Monitoring

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Boards of Directors as Monitors of Management

- Idea Dates to Adam Smith’s *Wealth of Nations*

- Much evidence that boards do monitor (at least some of the time)

- Less clear why boards monitor

Reasons Why Boards Might Monitor

- Direct Incentives
- Develop Reputation as good manager
- Threat of Regulatory Penalties
    - Paper focuses on this possible explanation

Measuring how Potential Penalties affect Directors' Monitoring

- Must be able to measure variation in directors' perceptions of the risk of future penalties

- Must be able to observe directors' monitoring

Unique features of Chinese corporate governance allow us to do both!

Chinese Institutions

1) Regulatory Penalties for Directors who do not perform fiduciary duty

   - Penalties are public information!!

2) Votes of Directors are public information

   - Dissensions are rare but provide strong public signal against management

3) Possible to determine which directors are "connected" directors with public information

How Penalties Affect Directors

- Penalized directors pay penalty themselves
- Non-Penalized Directors increase their assessment of the likelihood they will be penalized if they do not perform
- Indirect Effect of Penalties – they induce non-penalized directors to perform their fiduciary responsibilities and monitor managers
  - Depends on the change in a director's assessment of the likelihood of a penalty when another director is penalized.
  - Indirect incentives depend on *perceptions* of risks (Holmstrom 1982)

Perceptions of Penalty Risk and Salience

- “Salience”: Individuals update their priors more depending on how “close” they are to the event.

- Tversky and Kahneman (1974): “[...] the impact of seeing a house burning on the subjective probability of such accidents is probably greater than the impact of reading about a fire in the local paper.”

- In our context, this means that when someone known to a director is penalized, the director’s perceived risk rises more than when a stranger is penalized.

Two reasons for salience

1) An independent director overreacts to her observations and overestimates the actual penalty risk due to the salience of the event. (Bordalo/Gennaioli/Shleifer 2012)

2) The director increases her previously too low estimate of the penalty risk when her attention is directed to the salient penalty event. (“observational learning” Bikhchandani/Hirshleifer/Welch 1998)

Research Questions

- How do penalties to one director affect other directors' perceptions of the likelihood they will be penalized?

- Do changes in perceptions of potential penalties affect directors' actions?

Paper’s Goals

- Measure shocks to perceptions of directors about the likelihood of being penalized.
- Use salience to identify impact of changed perceptions on directors’ actions cross-sectionally.
- Data: Director-level network & director-level voting records.
  - 2.8 million votes from 19,209 independent directors from 3,728 China listed firms in 2004-2019.
  - Use regulatory penalties as exogenous shocks to the network.

Summary of Findings

- Being connected to a penalized director substantially increases the likelihood that a director dissents against a management proposal.
- Effect is stronger when penalized director is “more similar” to the director in question, and when the firm is likely to be penalized.

Conclusion: Potential regulatory sanctions appear to be an important factor affecting directors’ monitoring.

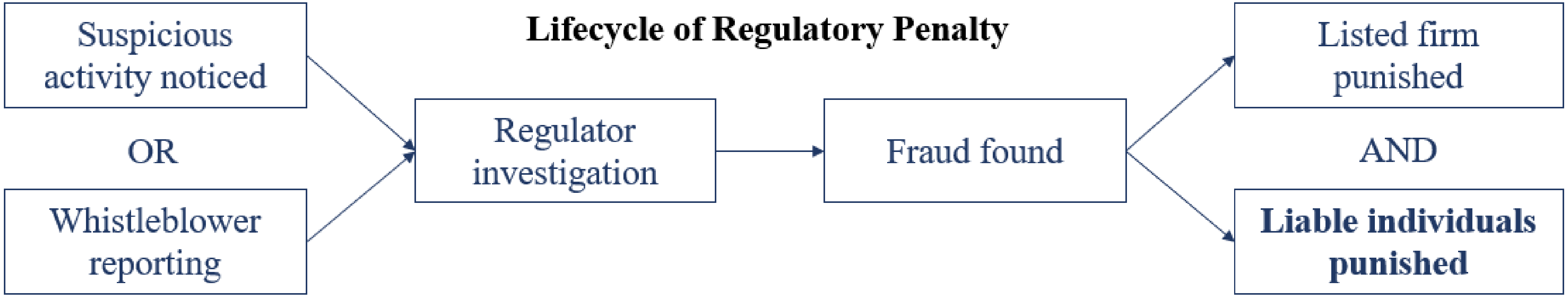
Board Reforms in China

- 1990-2000: No legal obligation for listed firms in China to hire independent directors.
- 2001: Listed firms should have at least 1/3 directors to be <u>independent directors</u>.
- 2004: Listed firms must disclose <u>board meeting proposals</u> and <u>dissension votes</u> regarding material business decisions, right after the board meeting.
- 2004: Listed firm must disclose the <u>dissension opinions of independent directors</u> in the previous fiscal year in annual reports.

→ Every listed firm has independent directors & their voting behavior can be observed.

Regulatory Penalties in China

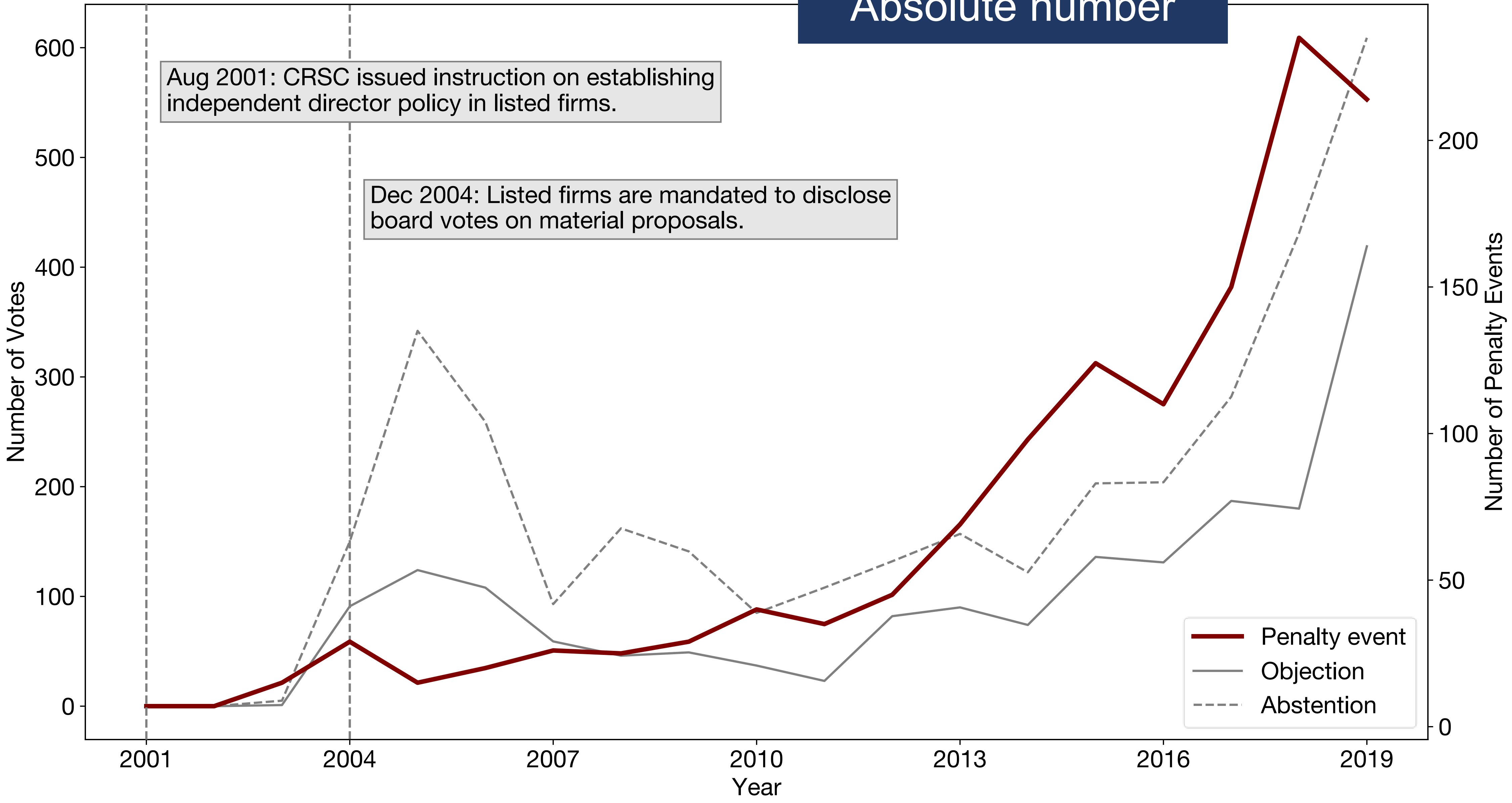
In China, investors mainly rely on the regulators to protect their interests, instead of shareholder litigation.



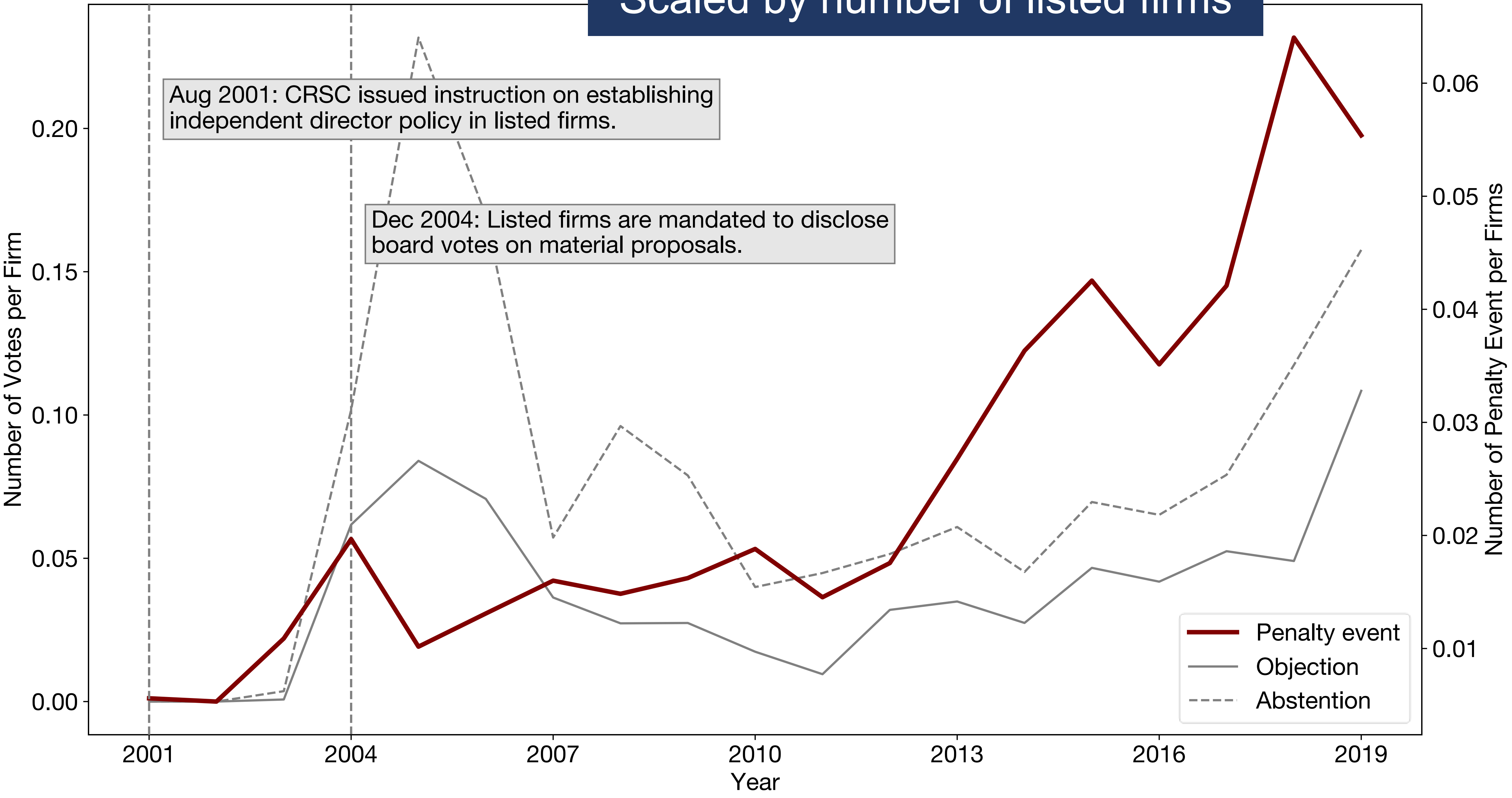
"[d]irectors should be responsible for the consequences of any proposal passed in the board meeting, unless there is explicit evidence showing that he/she dissented"

Company Law of China 2013, § 112

Absolute number



Scaled by number of listed firms



Data – Independent Directors

- Source: CSMAR Corporate Governance Database

- 20,655 independent directors covered
- Average number of positions per person: 1.8.
- Average duration of position: 3.8 years.
- Average compensation for each position: \$3,900 in 2004 and \$12,100 in 2019.

Data – Regulatory Penalty Events

- Source: CSMAR Event Study Database

- 7,607 penalty events from 1994 to 2019.
- 4,438 persons received monetary fine, on average $23,955.
- 244 persons are banned temporarily, on average 6.6 years.
- 113 persons are banned from the securities market forever.

Data – Director-level Votes

- Source: Machine read and manually check
  - Search for: “反对”, “弃权”, “提出异议”, and “表示反对”
  - From 39,355 annual reports and 263,276 board meeting disclosures.

- 878,193 proposals.
- 2.8 million independent directors’ votes.
- 3,494 dissension votes on 2,394 unique proposals.

Data – Director-level Votes

- Source: Machine read and manually check
  - Search for: “反对” (objection), “弃权” (abstention), “提出异议” (raising dissension), and “表示反对” (expressing objection)
  - From 39,355 annual reports and 263,276 board meeting disclosures.

- 878,193 proposals.
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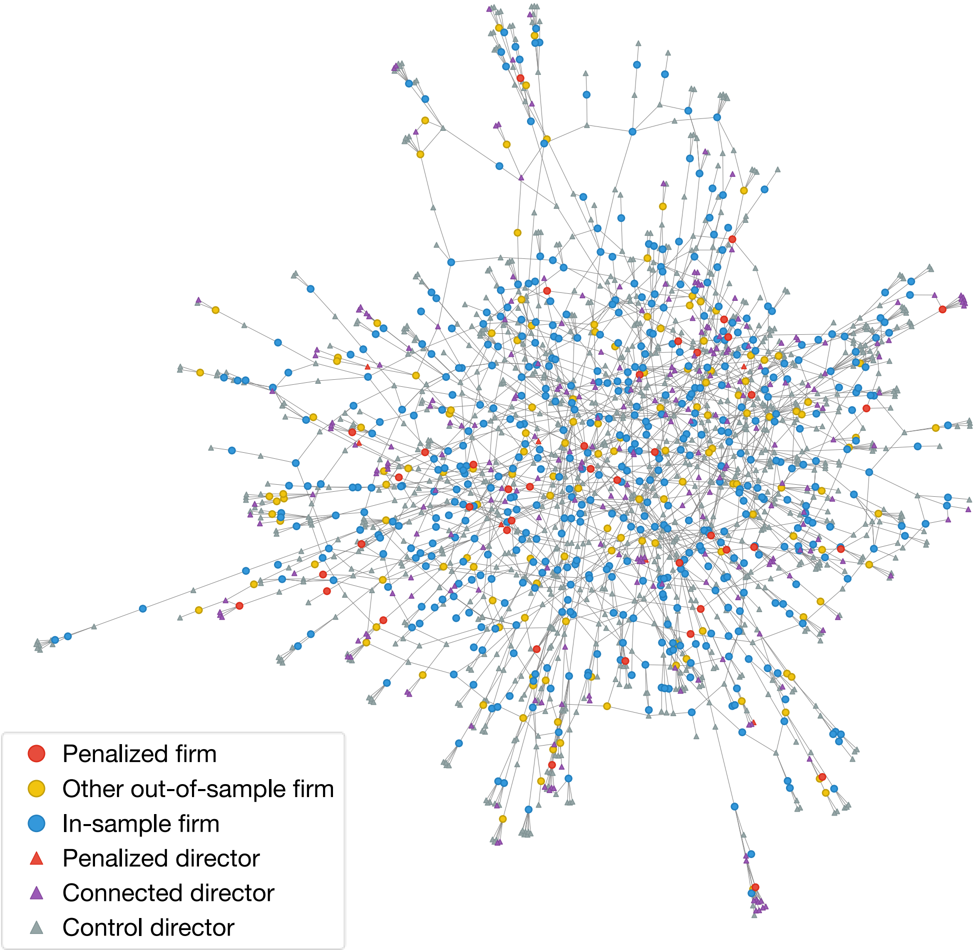
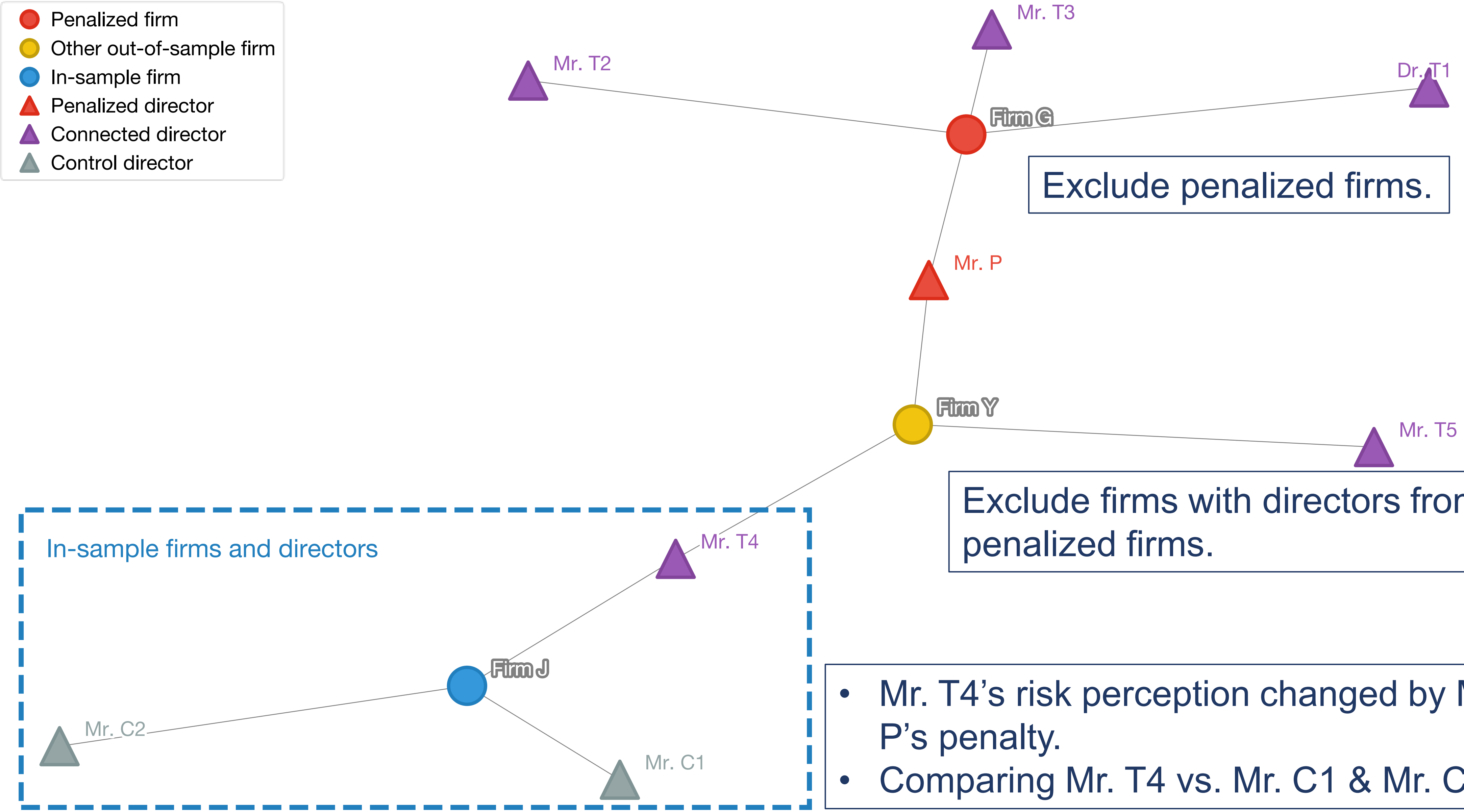
Dissension and Proposal Distribution

Proposal Type	Number of Proposals	Dissension	Dissension Rate
Financial	440,220	1,324	0.30%
Governance	288,148	530	0.18%
Personnel	130,340	416	0.32%
Other	19,485	124	0.64%
Total	878,193	2,394	0.27%

Methodology – Board Network

- Connected directors: Directors sit on the same board.
- Board network:
  - Nodes: Directors.
  - Edges: Colleague relationship.
- Shock: Director receive regulatory penalty.
  - <u>Change connected directors' risk perception</u>.





Exclude penalized firms.

Exclude firms with directors from penalized firms.

- Mr. T4’s risk perception changed by Mr. P’s penalty.
- Comparing Mr. T4 vs. Mr. C1 & Mr. C2

Difference In Differences Estimation

$$Dissension_{i,j,t} = \alpha + \beta Connected_{i,t} + \boldsymbol{\mu X_{i,t}} + \delta_i + \delta_{j,t} + \varepsilon_{i,j,t}$$

- $Dissension_{i,j,t}$: One if director i has dissension in firm j in quarter t
- $Connected_{i,t}$: One if director i is connected to another director who was penalized before quarter t
- Director fixed effects δ_i (plus time-varying director traits $\boldsymbol{X_{i,t}}$)
- Firm-time fixed effects $\delta_{j,t}$
- Compares how connected directors change their voting behavior over time, relative to unconnected directors in the same firm and year/quarter

Estimates

	Dissension	
	(1)	(2)
Connected	0.471***	0.396***
	(3.89)	(3.51)
Director-time Control	Y	Y
Firm-year FE	Y	
Firm-quarter FE		Y
Director FE	Y	Y
N	337,111	337,111

- Avg. dissension rate: 0.29%
- Dissension rate after connected director penalized: 0.69% (=0.29+0.396)
- Increment: 0.69 / 0.29 - 1 = 136%

→ Directors vote more dissensions in reaction to connected directors' penalties.

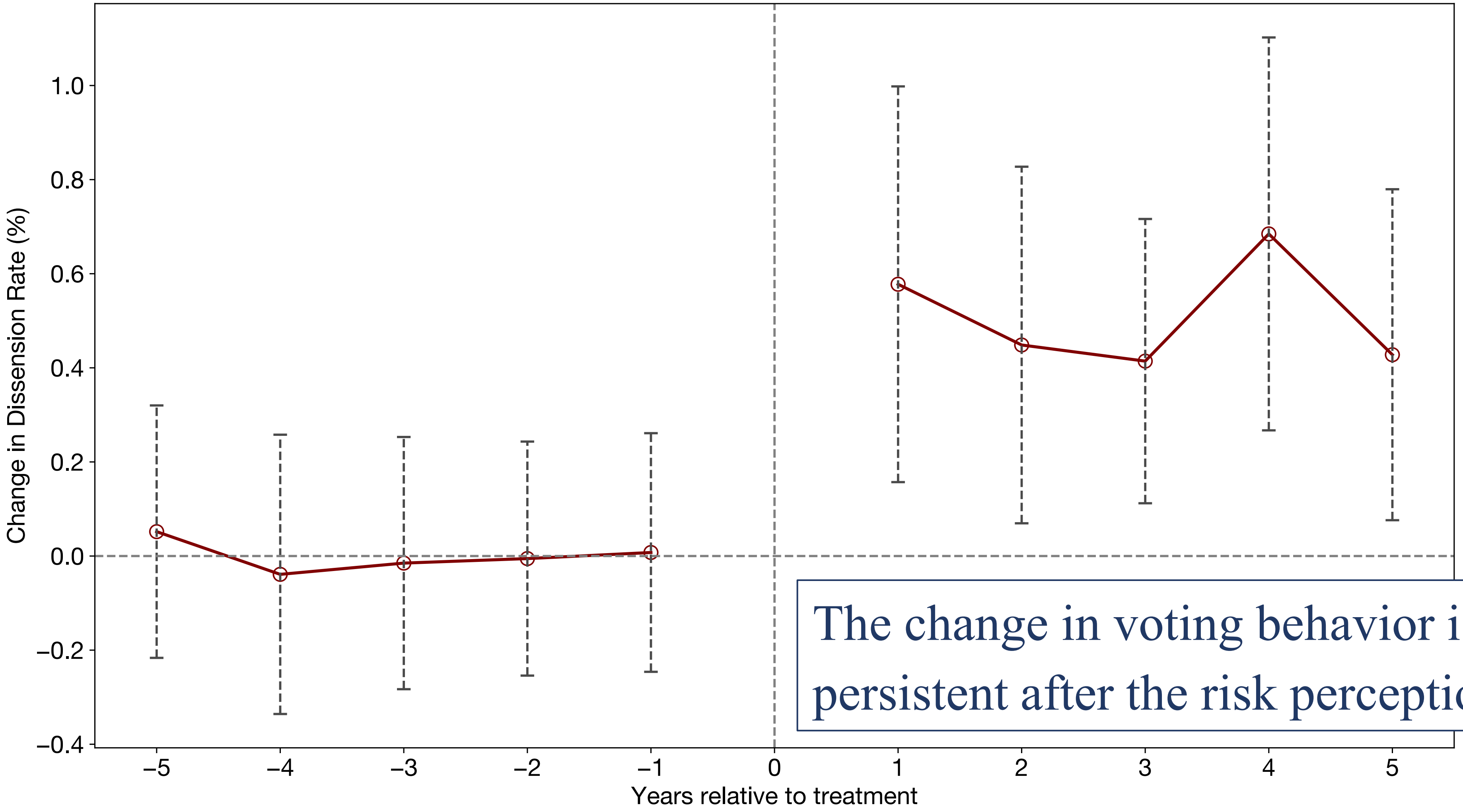
Full Baseline Results

	Dissension					
	(1)	(2)	(3)	(4)	(5)	(6)
Connected	0.210**	0.235**	0.435***	0.471***	0.385***	0.396***
	(2.05)	(2.30)	(3.46)	(3.89)	(3.25)	(3.51)
Size	-0.035	-0.045				
	(-0.90)	(-1.13)				
Cash Ratio	-0.629***	-0.620***				
	(-5.16)	(-5.09)				
ROA	-1.828***	-2.047***				
	(-4.95)	(-5.25)				
Leverage	0.121	0.080				
	(0.42)	(0.28)				
Second Term		-0.007		0.004		0.007
		(-0.26)		(0.15)		(0.27)
Prior Independent Directorship		-0.247***		-0.117***		-0.119**
		(-4.72)		(-2.62)		(-2.29)
Prior Executive Directorship		0.343*		0.077		0.028
		(1.83)		(0.49)		(0.17)
Salary		0.010**		0.017***		0.012**
		(1.99)		(3.39)		(1.97)
Total Directorship		0.026		0.010		-0.023
		(0.43)		(0.19)		(-0.41)
Firm FE	Y	Y				
Year FE	Y	Y				
Firm-year FE			Y	Y		
Firm-quarter FE					Y	Y
Director FE	Y	Y	Y	Y	Y	Y
N	339,946	325,994	351,118	337,111	351,118	337,111
Adjusted R2	0.081	0.083	0.160	0.163	0.445	0.473
Number of Directors	16,330	15,933	17,400	16,999	17,400	16,999

Robustness: Continuous *Connected*

Connected	*Dissension*		
	Number of Penalized Persons	Monetary Fine	Total Monetary Fine
	(1)	(2)	(3)
Connected	0.023***	0.028***	0.024***
	(3.37)	(3.50)	(3.51)
Director-time Control	Y	Y	Y
Firm-quarter FE	Y	Y	Y
Director FE	Y	Y	Y
N	337,111	337,111	337,111

Dynamics



The change in voting behavior is persistent after the risk perception change.

Size of Penalty Matters

	Dissension	
	(1)	(2)
Connected * High Fine	0.481***	
	(3.00)	
Connected * High Fine (Tercile)		0.512***
		(2.64)
Connected	0.179*	0.257***
	(1.69)	(2.63)
Director-time Control	Y	Y
Firm-quarter FE	Y	Y
Director FE	Y	Y
N	334,633	334,633

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	Dissension	
	(1)	(2)
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	(3.00)	
Connected * High Fine (Tercile)		0.512***
		(2.64)
Connected	0.179*	0.257***
	(1.69)	(2.63)
Director-time		
Firm-quarte		
Director		
N		

Larger monetary fine, larger connected director reaction.

- High Fine: Monetary fine is above sample median.
- High Fine (Tercile): Monetary fine is in the top tercile.

Salience Depends on "Similarity" of Penalized Director

- *Background Overlap*: Number of professional backgrounds (academic, accounting, financial, judicial, and government) shared between director and connected director.

- *Same Gender*: One if the director and connected director are in the same gender and zero otherwise.

Salience Depends on “Similarity” of Penalized Director

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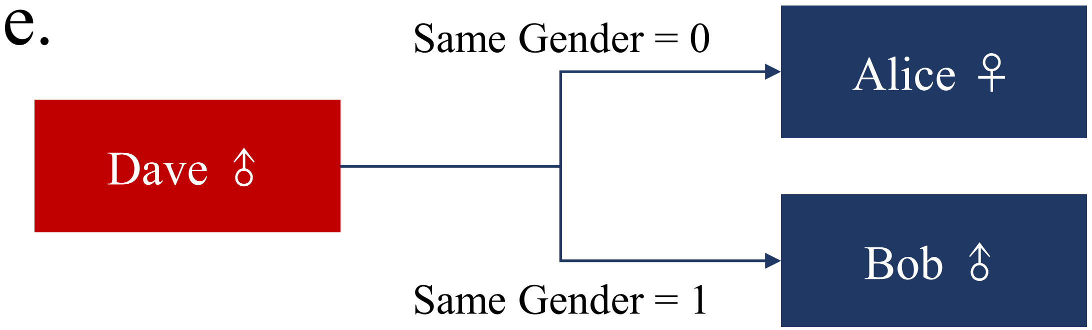

Estimates Controlling for Similarity of Directors

	Dissension			
	(1)	(2)	(3)	(4)
Connected × Background Overlap	0.206**	0.153*		
	(2.57)	(1.81)		
Connected × Same Gender			0.420**	0.401**
			(2.13)	(2.07)
Connected	0.119	0.132	0.140	0.080
	(0.75)	(0.70)	(0.91)	(0.52)
Director-time Control	Y	Y	Y	Y
Firm-year FE	Y		Y	
Firm-quarter FE		Y		Y
Director FE	Y	Y	Y	Y
N	337,111	337,111	337,111	337,111

Estimates Controlling for Similarity of Directors

	Dissension			
	(1)	(2)	(3)	(4)
Connected × Background Overlap	0.206**	0.153*		
	(2.57)	(1.81)		
Connected × Same Gender			0.420**	0.401**
			(2.13)	(2.07)
Connected	0.119	0.132	0.140	0.080
	(0.75)	(0.70)	(0.91)	(0.52)
Director-time Control				
Firm-year FE				
Firm-quarter FE				
Director FE				
N				

Salience implies that directors with similar backgrounds or the same gender are likely to increase perceptions of penalties more, so respond by dissenting more often.

Firm-Level Variation in Likelihood of Penalties

- The impact of potential penalties on directors' behavior should depend on the *ex-ante* likelihood the firm is penalized.

- If a director is at a firm that is unlikely to be penalized, then observing a penalty for another director is unlikely to affect his behavior.

- We estimate equations with predicting factors associated with penalization.

Predicting Penalties at the Firm Level

	$Penalty_{Persons}$
ROA	-0.936***
	(-3.42)
Size	-0.060**
	(-2.23)
High Coverage	-0.047**
	(-2.11)
Low CF Volatility	-0.150***
	(-3.88)
Cash Ratio	Y
Leverage	Y
Firm FE	Y
Year FE	Y
N	27,887

High penalty risk associated with:

- Low ROA
- Small size
- Low analyst coverage
- High cash flow volatility

* Results are robust when using the number of penalty events or dummy.

Firm Level Factors and Voting Behavior

	Dissension			
Risk Indicator	ROA	Size	High Coverage	Low CF Volatility
Connected × Risk Indicator	-5.536**	-0.152***	-0.309***	-0.670***
	(-2. 37)	(-2.92)	(-2.72)	(-2.87)
Connected	0.705***	3.887***	0.595***	1.001**
	(3.79)	(3.15)	(4.06)	(3.70)
Director-time Controls	Y	Y	Y	Y
Firm-year FE	Y	Y	Y	Y
Director FE	Y	Y	Y	Y
N	337,111	337,111	337,111	239,479

Directors in riskier firms react more to connected directors' penalties.

Consequences to Directors from Penalties

	Ln(Total Salary)	*Positions*	*Ln(Salary per Position)*
Penalized	-0.858***	-0.724***	-0.511***
	(-5.98)	(-11.40)	(-3.79)
Director FE	Y	Y	Y
Year FE	Y	Y	Y
N	101,508	101,508	101,508

Directors suffer a significant loss in both quantity and quality of future employment.

- 58% $(= e^{-0.858} - 1)$ drop in total salary from independent directorship.
- 52% drop in the number of independent director positions.
- 41% drop in salary per position.

Conclusion

Being connected to a penalized director substantially increases the likelihood that a director dissents against a management proposal.

- The change in voting behavior is long-lasting.
- The effects are larger when the observing and the penalized director share the same professional background or gender.
- The effect is larger when the firm is riskier or poorly performing.
- Potential incentive of changing voting behavior: Receiving a penalty substantially decreases directors’ future income from directorships

Implication

- For stakeholders: Don’t forget to make directors countable when seeking remedies.
  - Shareholder litigation (in U.S., and in China starting from 2021)
  - Director labor market sanction (applicable to any country).
- For regulators: Make sure directors fully understand the consequence of not monitoring.
  - U.S. bank regulators do penalize bank directors and have great impact. Securities regulators can also consider.
  - Educate directors regularly to maintain a proper level of risk perception.
- For directors
  - Say “yes” all the time is not a good strategy. Be a “Rubber Stamp” will be riskier.
  - Dissenting directors are rewarded more director market opportunities (Jiang et al. 2016).

Discussion of “Risk Perception, Board Networks, and Directors’ Monitoring”

Xiaoyun Yu

Online Public Lecture Series on Corporate Governance

Institute for Corporate Governance (ICG), Ostrom Workshop, and ECGI

January, 2022

What is the paper about

- How to motivate board directors to exert effort of monitoring?
- Carrots and sticks
  - "Direct" sticks
    - Penalty and wealth consequences for not performing his/her job
  - "Indirect" sticks
    - The (perceived) risk of being penalized and bearing the consequences

- Observing a colleague director being penalized changes a director's incentive to monitor

Empirical evidence

- A sample of 3728 listed firms in China during 2004-2019
- A manually collected large dataset on the voting behaviors of individual independent directors
- Linking a director's observation of a "penalized" colleague to his/her voting behaviors
  - The observing director is more likely to vote against a board proposal after a colleague director in another board is sanctioned by the government (penalized director)

Comments

- Documents intuitive and robust findings on penalty spillover
  - Generate rich implications for academics and policymakers
  - How to design a penalty schedule that maximizes the disciplinary effect above and beyond individual misconduct case itself?
    - Given that government sanctions are costly and resource-depleting…
- Large, granular dataset to build director networks and (directly) link an individual's observations to his/her actions
  - A clean separation of performance of individuals from that of firms they work for
  - May be able to use the same network idea and data to explore other CF issues
- Already polished work
  - Will focus on potentially sharpening some of these tests and possible development of follow-up projects

Further thoughts on the disciplinary effect of risk perception on monitoring incentive

- Can the results say something about *when and whether the penalty is optimal*?
  - Do they capture an upper or a lower bound of the effect of risk perception?
- The spillover effect may not be linear
  - The reward of exerting effort to monitor < the cost of perceived penalty
  - The penalty may affect all directors (connected and unconnected) if it is sufficiently large
  - What about the social consequences?

The case of Kangmei Pharmaceutical

- November 12, 2021: a Chinese court ruled Kangmei Pharmaceutical for corporate fraud
  - Under the ruling, Kangmei must compensate investors for losses of 2.46 billion yuan ($385.51 million).
- Five of the firm's independent directors were ordered to assume 5%-10% joint liability
  - Three of them: 10% of 2.46 billion yuan
    - For signing the 2016-2017 annual reports, and the 2018 semi-annual report
  - Two of them: 5% of 2.46 billion yuan
    - For signing the 2018 semi-annual report
    - Only served as independent directors for three months

The five unfortunate independent directors

- The combined compensation during their tenure: 1.794 million yuan
  - The average annual pay for being a Kangmei Pharmaceutical's independent director: 120,000 yuan
- Total personal fines: 368 million yuan

Name	Tenure Period	Age	Compensation (in 000 Yuan)
Zhenping Jiang	2015.05-2020.12	65	562.6
Dingan Li	2012.05-2018.05	76	409.5
Hong Zhang	2014.04-2020.12	51	270.9
Chonghui Guo	2018.05-2020.12	48	310.1
Ping Zhang	2018.05-2020.0.6	46	241

The great escape of independent directors

- Within one week
  - A flood of resignations of independent directors of listed companies
- Many highly trained experts or academia refused to take a job of independent directors
  - Too much liabilities and work, but too little reward
- → Suggest a social cost
  - In a country with an urgent need to involve expert individuals to help improve corporate governance

The effect of penalty spillover may not be linear

- Individual trades off the benefits of exerting efforts and the costs from perceived risk (of penalty)
  - When the perceived risk and associated penalty are too high, can just walk away
    - No monitor
- Is it possible to also incorporate director turnover in this context?
- Will there be (unintended) social consequences?
  - When the perceived risk is (too) high, director turnover constrains local director market
  - When the perceived risk is high, a director exerts more effort to monitor → reducing board seats to focus
    - High-paying firms or low-risk firms attract talented directors, crowing out small (low-paying) firms or high-risk firms?

What does the variable "dissension" capture?

- *Assume* that we allow for a nonlinear effect of penalty spillover
- In this context, what does director *dissension* capture?
  - In the absence of director turnover
- Increased effort to monitor by connected directors?
  - Value-enhancing for firm
- Or, connected directors become overly risk-aversion?
  - Value-destruction for firm
  - Figure 3 seems to suggest that *abstention* increases faster than *objection*
- May be both, depending on the stage of the utility
  - Not sure if the CAR results help here
  - May want to show examples of proposals being voted down

Other potential cross-sectional tests to consider

- So far the cross-sectional tests capture *social connections*
- May also consider *professional connections* to take advantage on the data
    - Larger effect if the observing directors are in *closer* connections to the penalized ones
    - More past interactions
        - P and O attend board meetings more frequently
    - Similar/same committee functions
        - O serves on similar/same committee as P for the other firm
- The personal costs may also vary
    - Smaller effect when there is a tight local market for directors
    - Larger effect if observing directors have a higher wealth stake
        - e.g., holding high-paying board seats

Conclusion

- A nice paper with intuitive and robust results that have rich policy implications
- A nice dataset that may allow for exploring other corporate finance topics
- Look forward to the next version of the paper

Spring Lectures on Corporate Governance

- *Who Owns Your Data* (February 2, 11-noon ET)
  - Angie Raymond and Scott Shackelford, IU
- *The Future of Cyber Security* (March 10, noon-1:15 pm ET)
  - Justin Greis, Kelley alum, Partner at McKinsey & Company
- *Indexing and Corporate Governance* (April 14, noon-1:15 pm ET)
  - Todd Gormley, Washington University in St. Louis
- *Governance by Persuasion: Hedge Fund Activism and Market-Based Shareholder Influence* (May 5, noon-1:15 pm ET)
  - Alon Brav, Duke University

All events are webinars via Zoom. Announcement will follow.