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

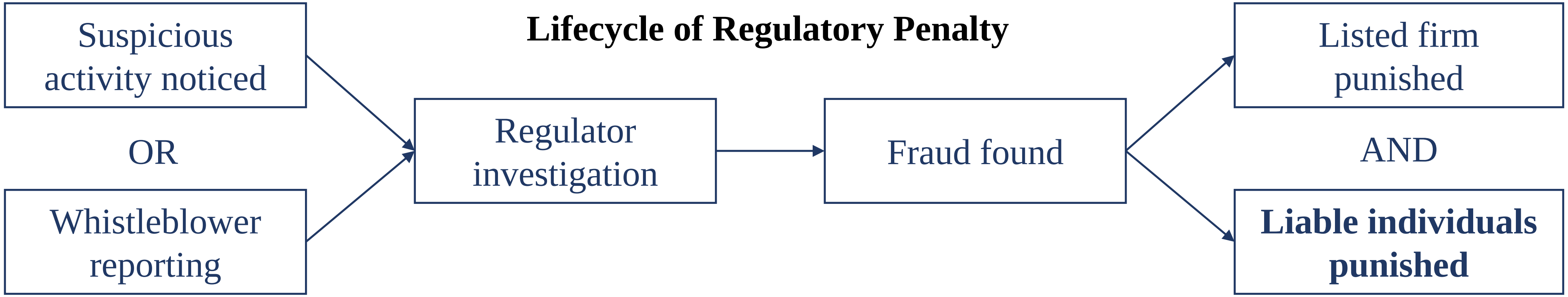
- 1990-2000: No legal obligation for listed firms in China to hire independent directors.
- 2001: Listed firms should have at least 1/3 directors to be <u>independent directors</u>.
- 2004: Listed firms must disclose <u>board meeting proposals</u> and <u>dissension votes</u> regarding material business 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.

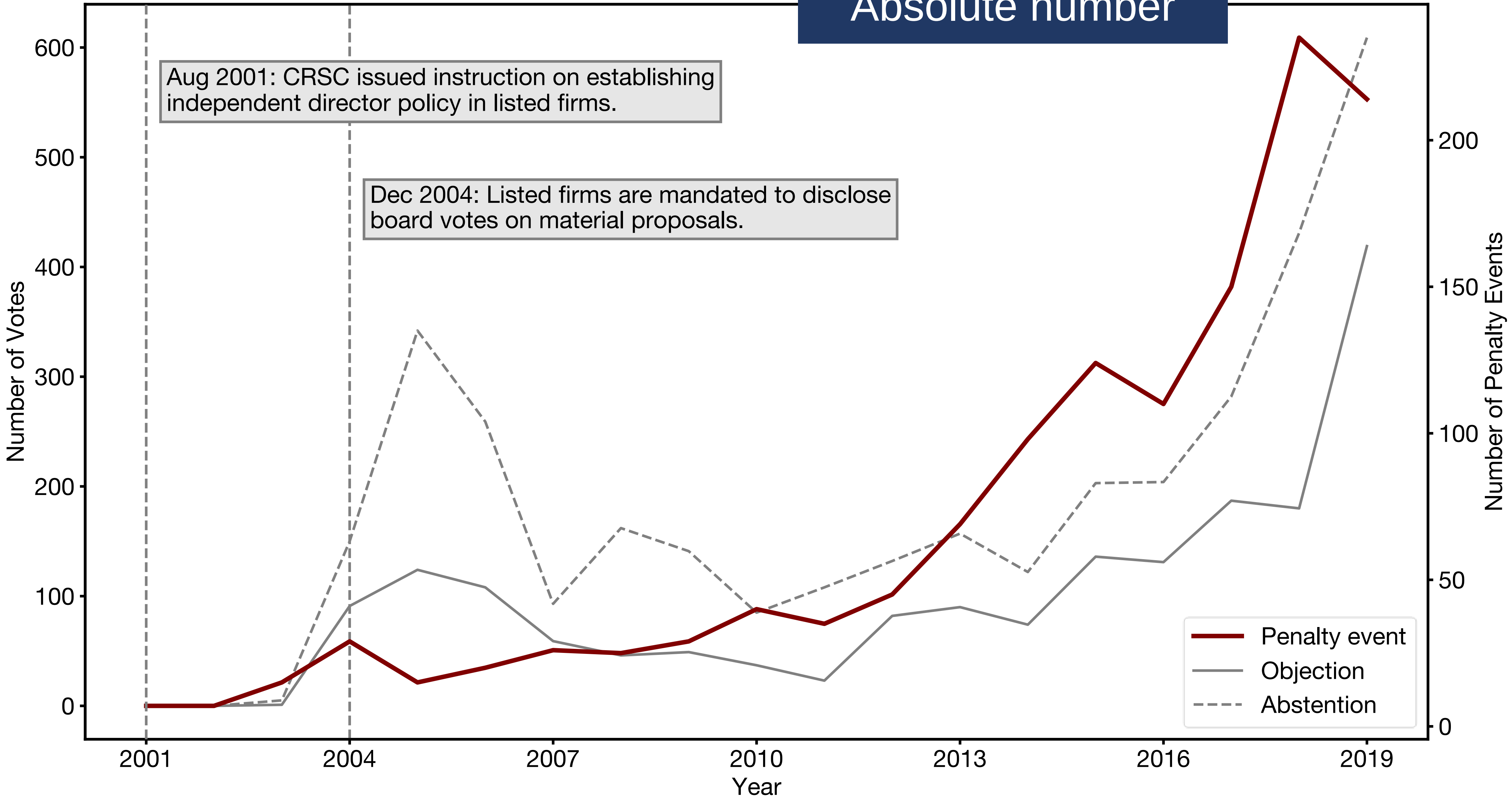
Lifecycle of Regulatory Penalty



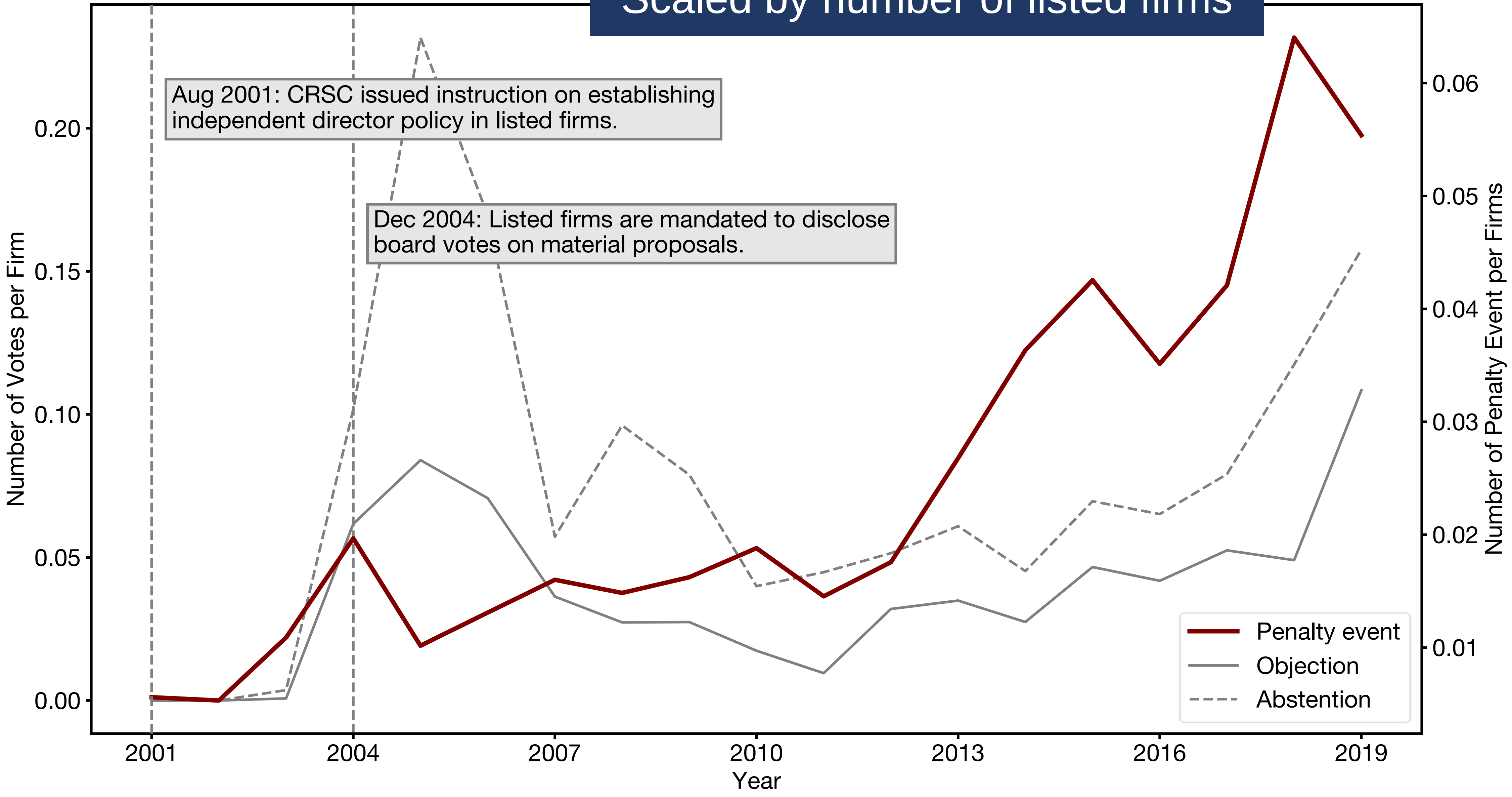
"[d]irectors should be responsible for the consequences of any proposal passed in the board meeting, unless there is explicit evidence showing that he/she dissented"

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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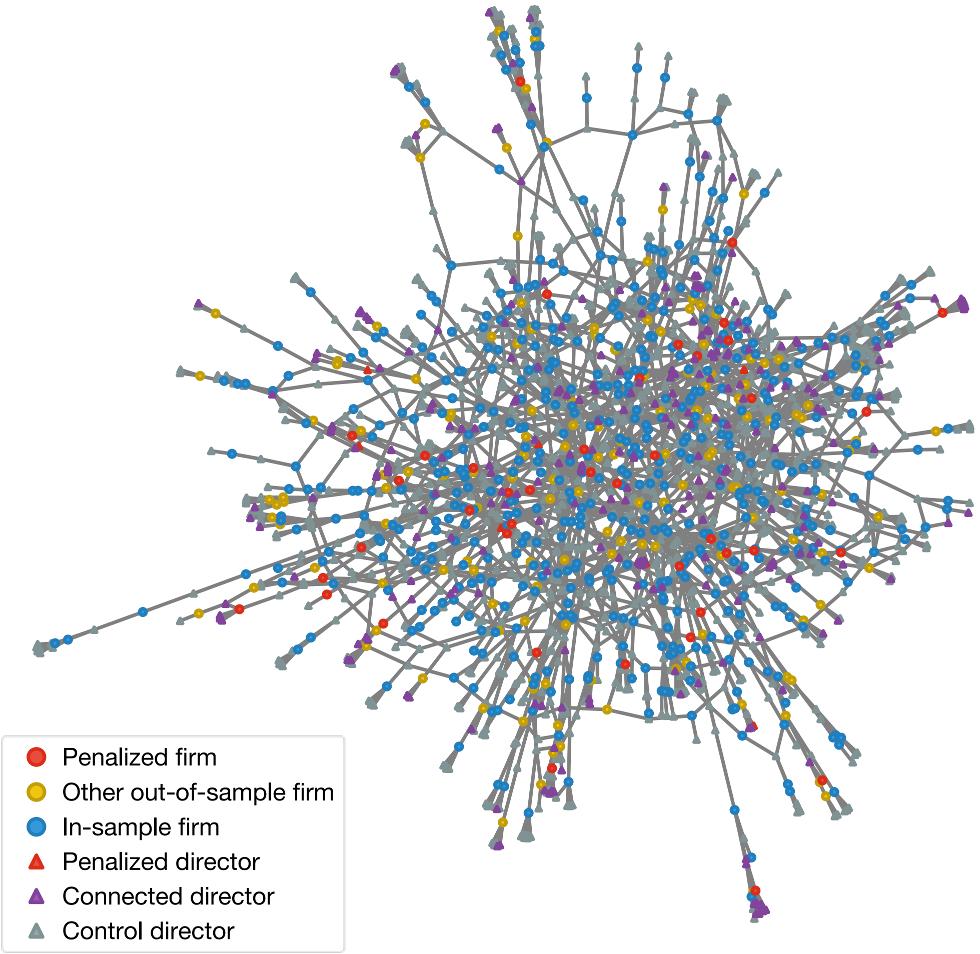
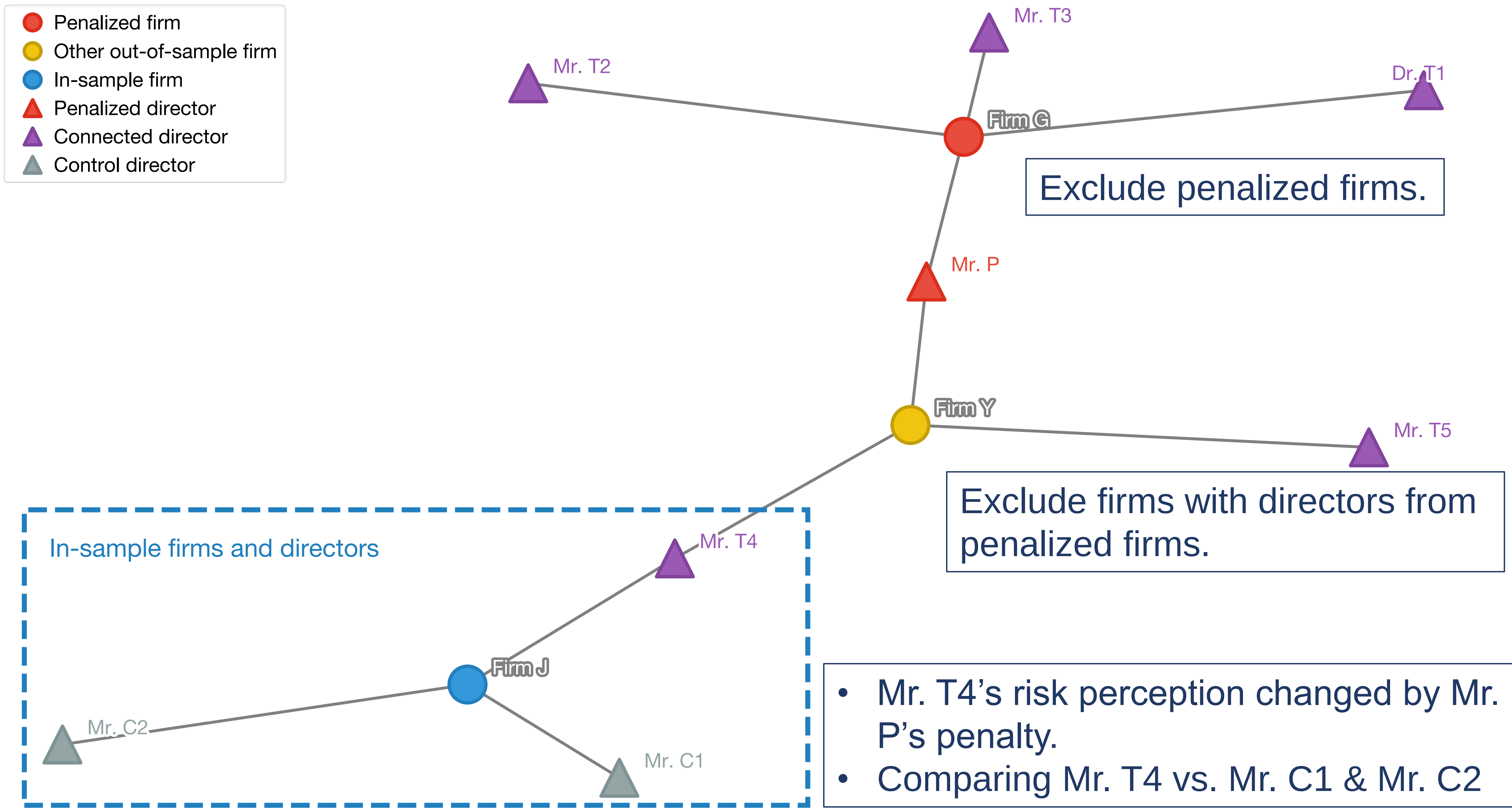
Dissension and Proposal Distribution

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.

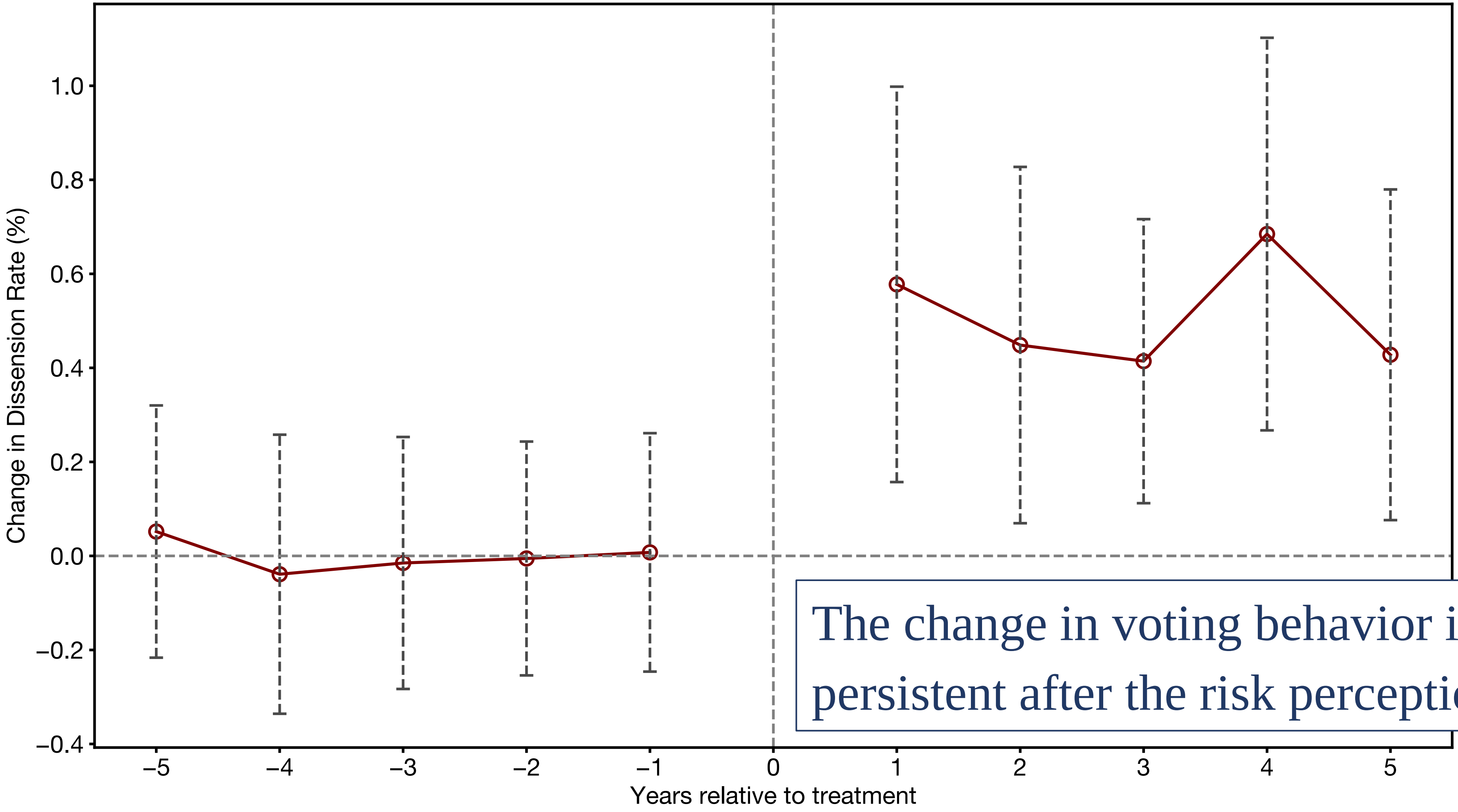
	Dissension					
	(1)	(2)	(3)	(4)	(5)	(6)
Connected	0.210**	0.235**	0.435***	0.471***	0.385***	0.396***
	(2.05)	(2.30)	(3.46)	(3.89)	(3.25)	(3.51)
Size	-0.035	-0.045				
	(-0.90)	(-1.13)				
Cash Ratio	-0.629***	-0.620***				
	(-5.16)	(-5.09)				
ROA	-1.828***	-2.047***				
	(-4.95)	(-5.25)				
Leverage	0.121	0.080				
	(0.42)	(0.28)				
Second Term		-0.007		0.004		0.007
		(-0.26)		(0.15)		(0.27)
Prior Independent		-0.247***		-0.117***		-0.119**
Directorship		(-4.72)		(-2.62)		(-2.29)
Prior Executive		0.343*		0.077		0.028
Directorship		(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

Full Baseline Results

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

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-tim		
Firm-quar		
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.

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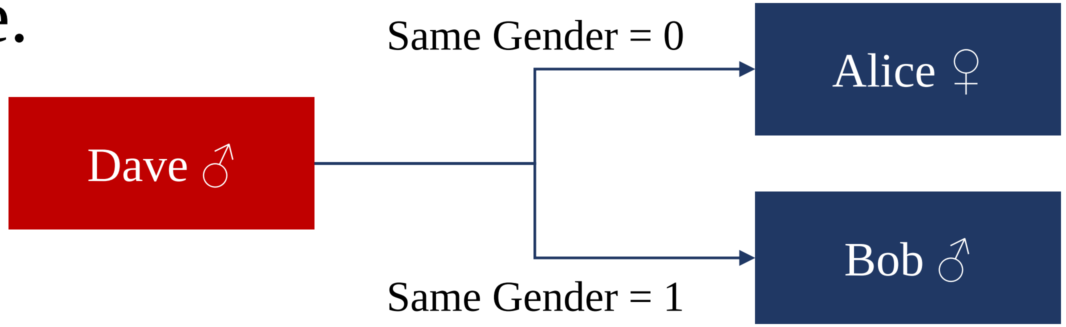

Estimates Controlling for Similarity of Directors

	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

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	(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).