

# Political Network and Muted Insider Trading

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# Motivation

- The benefits and costs of political network
  - Benefits: Better firm performance (Faccio 2006; Cooper, Gulen, and Ovtchinnikov 2010), lower cost of capital (Francis, Hasan, and Zhu 2014), greater gov't investment and preferable policy (Goldman, Rocholl, and So 2009; Cohen, Coval, and Malloy 2011), etc
  - Costs: political contribution and lobbying, to use corporate resources to enhance politicians' agendas (Faccio, 2006; Bertrand et al., 2018)
- The situation can be more prominent yet subtle in China due to the void of political campaign and explicit political contribution.
  - The manager-politician partnership in China relies on the long-term cultivation and reciprocity
  - Benefits and costs of political network in the context of insider trading

# Research question

- The benefits and costs of political network in the context of insider trading
  - Whether political network empowers and enhances insider trading, from the perspective of legal protection, or discourages the insider trading, from its potential negative reputational and career impact on connected politicians.
  - How are the effects different in state-owned firms or non-state-owned firms?

# Our paper

- *New measure of political network* (a comprehensive picture of the connections between the private sector and government)
  - CVs of listed-firm chairmen and politicians (national, provincial, city- and county-level)
  - In addition to the existing measure of *state ownership* and *CEO's political affiliation* (Fan, Wong and Zhang, 2007)
- Understanding how private sector patrons protect the political interests of their connected politicians
  - Novel evidence that in China, having political connections *suppresses* insider trading, contrary to previous evidence in the US and other western countries where political connections provide legal protections and increase insider trading
- A *first* overview of insider trading and its enforcement in China

# Preview of findings

- **New measure of political network**
  - On average, a listed-firm chairman is connected to **36 politicians** through education, and **21 politicians** through work experience.
- On average, stronger political networks **discourage** insider trading.
  - One-standard-deviation increase in total network link (or being connected to 164 more politicians) is associated with **21.8 percent decrease** in trading shares
  - The effect is more prominent for long-standing connections, connections to high-level politicians, and connections to the central bank/financial regulatory bodies
- The effect of political network on insider trading is mitigated for central and local SOEs
  - Political network is more valuable for non-SOEs
- When there is private information
  - Right before **M&As**
  - Shortly after the announcement of “*Four trillion*” *stimulus plan* (when politically connected managers may be informed on the details of the plan)
  - In both cases, insiders with stronger political network are willing to forgo capital gain when possessing private information.
- Endogeneity
  - Chairman turnover
  - Turnover of provincial party-secretaries
- Mechanisms
  - Rewarding or disciplining

# Outline of the rest of the talk

- Insider trading and its enforcement in China
- Data
  - Political network
  - Insider trading
- Empirical results
- Conclusion

# Background on insider trading in China

- *Securities Law* of the People's Republic of China (*Securities Law, amended in 2005*)
  - *Article 47* indicates if that any director, supervisor, or senior manager of a listed company, or any shareholder who holds more than 5% of the shares of a listed company, sells shares less than six months after purchase or purchases shares sold within six months thereafter, the proceeds are company property.
  - *Article 195* states that those in violation of Article 47 shall get a warning and pay a fine of ¥30,000 RMB up to ¥100,000 RMB.
  - Article 74 details the scope of insiders
  - Article 75 classifies the information that falls into the scope of insider information.
- *Criminal Law* of the People's Republic of China (*Criminal Law, amended in 2009*)

# Insider trading enforcement in China

Year	No. Cases	Profit/Loss (Median)	Tipper Fine (Median)	Tippee Fine (Median)
2004	2	90,000	25,000	N/A
2007	1	N/A	200,000	N/A
2008	4	41,357	52,553	N/A
2009	4	21,110	67,023	40,000
2010	11	98,632	60,000	118,204
2011	11	25,693	N/A	110,000
2012	14	96,194	75,000	167,600
2013	35	54,632	30,000	164,096
2014	47	171,013	67,900	200,000
2015	20	223,337	150,000	262,204
2016	55	320,391	100,000	616,748
2017	32	644,693	2,748,649	921,159
2018	44	30,376	333,555	400,000
2019	54	118,640	594,566	200,000

The SEC reported 51 insider trading cases in 2018



# Corporate scandals and outcomes of connected politicians in China

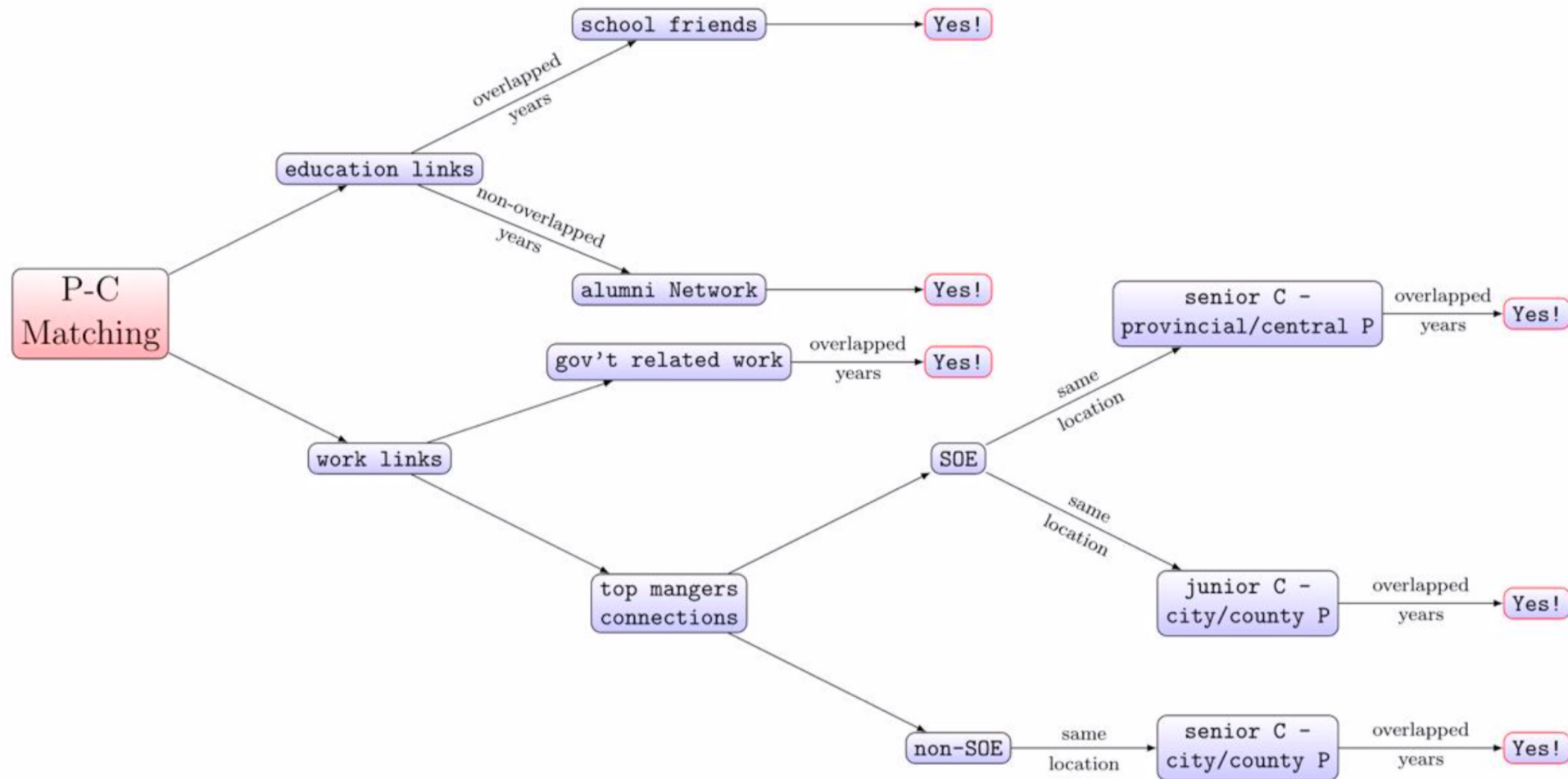
- 22 cases: legal investigations starting from corporate executives led to the investigations and charges of their connected politicians

	Scandals/Cases
# of total cases	22
# of cases related to insider trading	9
# of cases related to disclosed trading	2
# of cases related to undisclosed trading	9
# of cases related to other wrongdoings	17
Other wrongdoings include:	
1) Bribery and corruption	14
2) Abuse of power	2
3) Property crimes of unknown origin	2
4) Raising funds by means of fraud	1
5) Illegal business operation	1
6) Fraudulent issuance of bonds	1
7) Corporate mismanagement	1
8) Illegally absorbing public deposits	1
9) Misappropriation of property on duty	1
Outcomes of the connected politicians:	
# of cases in which politicians were fined	18
# of cases in which politicians had criminal charges	17
# of cases in which politicians' career was discontinued	22

# Data

- Chinese Political Elite Database (CPED)
  - includes politicians' personal features, education background, and work experience;
- iFinD
  - Chairmen's CVs
- CSMAR and WIND
  - Firm financial information
  - Insider trading info
- Procuratorial Yearbook of China
  - Provincial-level corruption data
- 4,057 politicians
- 74,397 transactions for 2,687 listed firms
  - 61% of the transactions are sales; 39% are purchases.
- Firm-year panel of 2,216 listed firms in China from 2007 to 2017

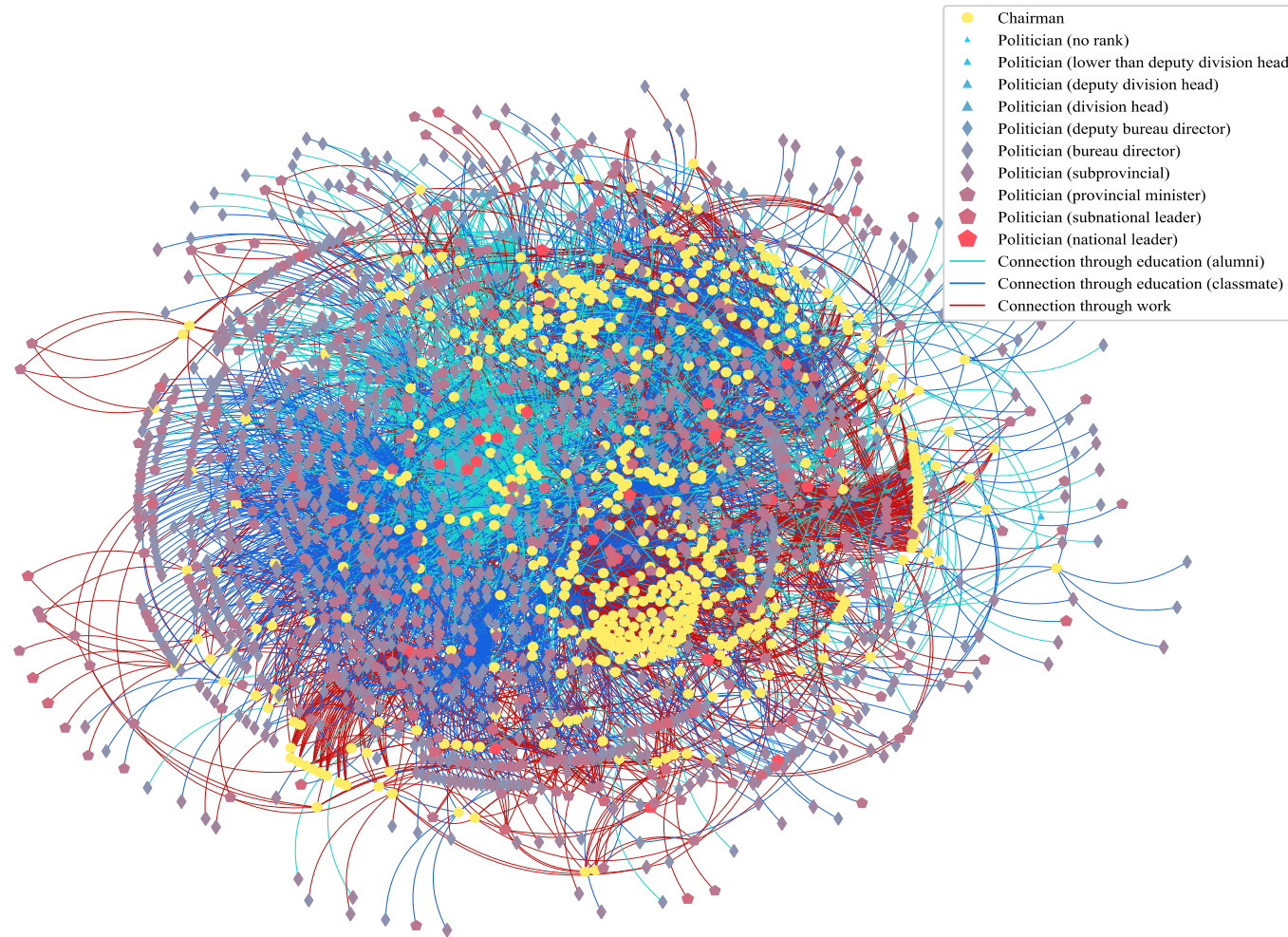
# New measure of political network



# New measure of political network

- An education link exists if a chairman and a politician attended the same university, either through years of studying together or via an alumni network.
- A working link exists if chairman and politician have **overlapping** working years.
- Over 2.3 million links from 1990 to 2015 within 2,834 firms
- Each firm has on average 36 connections through education and 21 connections through work.

# Chairman's political network



# Summary statistics

Variable	Obs	Mean	STD	Min	Max	Variable	Obs	Mean	STD	Min	Max
<b><u>Insider trading</u></b>						<b><u>Firm network</u></b>					
Trading shares (thousands)	18,547	2,181.521	12,531.911	0	588,512.35	Education link	18,547	36.140	139.731	0	2,367
Trading amount (k RMB)	18,547	26,165.00	134,498.01	0	5,354,282.3	Work link	18,547	21.491	66.137	1	937
Trading permille (‰)	18,547	4.401	20.951	0	1,350.040	Network link	18,547	57.631	163.917	1	2,417
Log trading shares (thousands)	18,547	2.556	3.344	0	13.285	Network link (long)	18,547	55.167	156.895	0	2,258
Log trading amount (k RMB)	18,547	3.725	4.416	0	15.493	Network link (short)	18,547	2.464	15.862	0	289
Log trading permille (‰)	18,547	0.530	1.084	0	7.209	Network link (high)	18,547	50.322	151.363	0	2,103
<b><u>Firm characteristics</u></b>						Network link (low)	18,547	7.309	20.500	0	390
Central SOE	18,547	0.134	0.340	0	1	Alumni link	18,547	34.751	138.178	0	2,366
Local SOE	18,547	0.240	0.427	0	1	School friends link	18,547	1.389	6.190	0	306
Total asset	18,547	21,095.18	315,282.52	0.05	19,570,060	<b><u>Chairman characteristics</u></b>					
Firm size (Log total assets)	18,547	8.090	1.346	0.05	16.790	List 985	18,547	0.077	0.267	0	1
Net cash flow	18,547	0.082	0.153	-0.401	0.573	Education abroad	18,547	0.015	0.120	0	1
EBITDA	18,547	0.078	0.050	0.008	0.355	Work abroad	18,547	0.039	0.193	0	1
Leverage	18,547	0.438	0.220	0.034	1.000	Female	18,547	0.043	0.203	0	1
Stock volatility	18,547	0.034	0.021	0.000	0.728	Age	18,547	51.974	7.091	23	85
Herfindahl-Hirschman index	18,547	0.493	0.228	0.101	1.000	Foreign citizenship	18,547	0.022	0.146	0	1
Annual market returns	18,547	0.085	0.388	-0.921	0.813	Educational level	18,547	2.502	0.857	1	4

# Network characteristics: central SOE, local SOEs vs. non-SOEs

- This table reports the difference of the network variables, including **Education link**, **Work link** and **Network link**, among **central SOE**, **local SOE** and **non-SOE**.
- Is political network more *valuable* to non-SOEs?

	Central SOE		Local SOE		Non-SOE		Diff:	Diff:
	Mean (std. dev.)	Obs.	Mean (std. dev.)	Obs.	Mean (std. dev.)	Obs.	Central-NonSOE Mean (std. err.)	Local-NonSOE Mean (std. err.)
Education link	75.900 (228.614)	2,478	46.346 (179.323)	4,447	23.758 (84.775)	11,622	-52.1422*** (2.7196)	-22.5884*** (2.0935)
Work link	62.431 (111.311)	2,478	21.638 (59.588)	4,447	12.705 (50.465)	11,622	-49.7260*** (1.4469)	-8.9329*** (0.9371)
Network link	138.331 (269.121)	2,478	67.984 (199.991)	4,447	36.463 (101.305)	11,622	-101.8682*** (3.2205)	-31.5213*** (2.3977)

# Baseline results

- One-standard-deviation increase in total network link (or being connected to **164** more politicians) is associated with **21.8** percent decrease in trading shares
- Compared to non-SOEs, central SOEs have lower trading shares by **164.1%**, and local SOEs have lower trading by **149.7%**.

Dep. Var.	Log trading shares			Log trading amount			Log trading permille		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Log educ link	-0.0462**			-0.0781***			-0.0201***		
	(0.0200)			(0.0268)			(0.00597)		
Log work link		-0.0611**			-0.0735**			-0.0245***	
		(0.0261)			(0.0361)			(0.00757)	
Log network link			-0.0765***			-0.118***			-0.0298***
			(0.0223)			(0.0301)			(0.00682)
Central SOE	-1.641***	-1.578***	-1.566***	-1.955***	-1.894***	-1.845***	-0.426***	-0.402***	-0.399***
	(0.118)	(0.125)	(0.121)	(0.163)	(0.172)	(0.168)	(0.0314)	(0.0330)	(0.0321)
Local SOE	-1.497***	-1.461***	-1.463***	-1.844***	-1.802***	-1.792***	-0.421***	-0.407***	-0.408***
	(0.0963)	(0.0969)	(0.0967)	(0.131)	(0.132)	(0.132)	(0.0269)	(0.0271)	(0.0269)
Obs.	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.182	0.182	0.183	0.190	0.189	0.190	0.156	0.156	0.156

Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES



# Baseline results: Chairman's characteristics

Dep. Var.	Log trading shares (3)	Log trading amount (6)	Log trading permille (9)
Log network link	-0.0765*** (0.0223)	-0.118*** (0.0301)	-0.0298*** (0.00682)
List 985	0.327** (0.134)	0.469*** (0.178)	0.104** (0.0403)
Education abroad	-0.664*** (0.253)	-0.901*** (0.344)	-0.191*** (0.0648)
Work abroad	0.164 (0.179)	0.330 (0.229)	-0.0371 (0.0540)
Female	0.0250 (0.160)	-0.0697 (0.207)	-0.0188 (0.0515)
Log age	0.321 (0.263)	0.482 (0.353)	0.0142 (0.0838)
Foreign citizenship	-1.053*** (0.236)	-1.518*** (0.310)	-0.303*** (0.0730)
Educational level	0.0176 (0.0449)	0.0335 (0.0602)	-0.0129 (0.0138)
Obs.	18,547	18,547	18,547
adj. R-sq	0.183	0.190	0.156
Cons./Firm Controls/Industry FE/Province FE/Year FE: YES			

# Education connection and insider trading: Alumni vs school friends

- Decompose the education links and construct the variables *Log school friends link* and *Log alumni link*.
- One-standard-deviation increase in the school friend connections is associated with **40.2 percent** decrease in trading shares, while one-standard-deviation increase in alumni connections is associated with **21.7 percent** decrease in trading shares.

Dep. Var.	Log trading shares		Log trading amount		Log trading permille	
	(1)	(2)	(3)	(4)	(5)	(6)
Log alumni link	-0.0487** (0.0199)		-0.0814*** (0.0267)		-0.0205*** (0.00595)	
Log school friends link		-0.101** (0.0511)		-0.114* (0.0678)		-0.0522*** (0.0149)
Central SOE	-1.640*** (0.118)	-1.651*** (0.118)	-1.954*** (0.163)	-1.982*** (0.163)	-0.426*** (0.0314)	-0.429*** (0.0314)
Local SOE	-1.497*** (0.0963)	-1.499*** (0.0963)	-1.844*** (0.131)	-1.848*** (0.131)	-0.421*** (0.0269)	-0.422*** (0.0270)
Obs.	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.182	0.182	0.190	0.189	0.156	0.156

Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES

# Influence of the connections: *long-term vs short-term*, and *high-level vs low-level*

- One-standard-deviation increase in *Network link (long)* or *Network link (high)* is associated with **22.2 percent** or **23.2 percent** decrease in trading shares.

Dep. Var. (Log)	Trading Shares	Trading Amount	Trading Permille	Trading Shares	Trading Amount	Trading Permille	Trading Shares	Trading Amount	Trading Permille
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<b>Long-term connections</b>									
Log network link (long)	-0.0789*** (0.0220)	-0.119*** (0.0295)	-0.0286*** (0.00670)				-0.0780*** (0.0240)	-0.113*** (0.0320)	-0.0286*** (0.00729)
Log network link (short)				-0.0598** (0.0293)	-0.107** (0.0429)	-0.0200*** (0.00761)	-0.00469 (0.0320)	-0.0265 (0.0459)	0.000246 (0.00837)
Chi-sq (P-value)							2.361 (0.1244)	1.750 (0.1858)	4.656** (0.0310)
Obs.	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.183	0.190	0.156	0.182	0.189	0.155	0.183	0.190	0.156
<b>High-level connections</b>									
Log network link (high)	-0.0735*** (0.0191)	-0.110*** (0.0258)	-0.0248*** (0.00584)				-0.0790*** (0.0208)	-0.114*** (0.0283)	-0.0242*** (0.00624)
Log network link (low)				-0.0268 (0.0333)	-0.0546 (0.0449)	-0.0186** (0.00891)	0.0246 (0.0364)	0.0197 (0.0493)	-0.00287 (0.00949)
Chi-sq (P-value)							4.561** (0.0327)	4.101** (0.0429)	2.675 (0.1020)
Obs.	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.183	0.191	0.156	0.181	0.189	0.155	0.183	0.191	0.156

Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES

# Weighted measure of political network

- Weighted measure: **Squared value of politician's position rank multiplied by the length (in years) of the connection between chairman and politician as weights**
- One-standard-deviation increase in the *Network link (weighted)* is associated with **16.6** percent decrease in trading shares

Dep. Var.	Log trading shares			Log trading amount			Log trading permille		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Log educ link (weighted)	-0.0254** (0.0103)			-0.0411*** (0.0137)			-0.0109*** (0.00309)		
Log work link (weighted)		-0.0455*** (0.0167)			-0.0528** (0.0226)			-0.0167*** (0.00518)	
Log network link (weighted)			-0.0595*** (0.0173)			-0.0847*** (0.0231)			-0.0219*** (0.00546)
Central SOE	-1.642*** (0.118)	-1.546*** (0.127)	-1.539*** (0.124)	-1.960*** (0.163)	-1.860*** (0.174)	-1.819*** (0.171)	-0.427*** (0.0314)	-0.394*** (0.0341)	-0.391*** (0.0329)
Local SOE	-1.499*** (0.0962)	-1.431*** (0.0984)	-1.432*** (0.0974)	-1.847*** (0.131)	-1.768*** (0.134)	-1.752*** (0.133)	-0.422*** (0.0269)	-0.397*** (0.0276)	-0.398*** (0.0272)
Obs.	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.182	0.182	0.183	0.190	0.189	0.190	0.156	0.156	0.156

Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES

# Heterogeneity: state ownership

- The effect of political network on insider trading is **mitigated** for central and local SOEs

Dep. Var.	Log trading shares			Log trading amount			Log trading permille		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Log educ link	-0.0572** (0.0291)			-0.0955** (0.0383)			-0.0283*** (0.00935)		
Log work link		-0.128*** (0.0402)			-0.156*** (0.0532)			-0.0469*** (0.0128)	
Log network link			-0.108*** (0.0311)			-0.164*** (0.0407)			-0.0436*** (0.0100)
Central SOE	-1.751*** (0.141)	-1.812*** (0.201)	-1.879*** (0.222)	-2.143*** (0.200)	-2.235*** (0.279)	-2.391*** (0.320)	-0.485*** (0.0383)	-0.511*** (0.0520)	-0.572*** (0.0581)
Local SOE	-1.500*** (0.116)	-1.743*** (0.150)	-1.657*** (0.160)	-1.842*** (0.157)	-2.115*** (0.207)	-2.029*** (0.218)	-0.434*** (0.0331)	-0.481*** (0.0408)	-0.475*** (0.0457)
Link×Central SOE (edu/work/network)	0.0550 (0.0478)	0.115* (0.0611)	0.0950* (0.0550)	0.0930 (0.0660)	0.160* (0.0852)	0.163** (0.0784)	0.0298** (0.0127)	0.0488*** (0.0170)	0.0513*** (0.0148)
Link×Local SOE (edu/work/network)	0.00437 (0.0401)	0.161*** (0.0599)	0.0770* (0.0462)	0.00263 (0.0555)	0.181** (0.0851)	0.0965 (0.0643)	0.0104 (0.0114)	0.0441*** (0.0163)	0.0275** (0.0130)
Obs.	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.182	0.183	0.183	0.190	0.190	0.191	0.156	0.156	0.157

- Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES

- Columns of the SOE interaction: (1) (4) (7) for education link, (2) (5) (8) for work link, (3) (6) (9) for network link

# Insider trading when there is *private* information

- Firm-related private information: M&A
- Macro-level private information: “*Four-trillion*” Stimulus in 2008

# Political network, insider trading and M&As

- M&A* is defined as one if within 15 days before M&A announcements, and zero if within 30-90 days before M&A announcements.

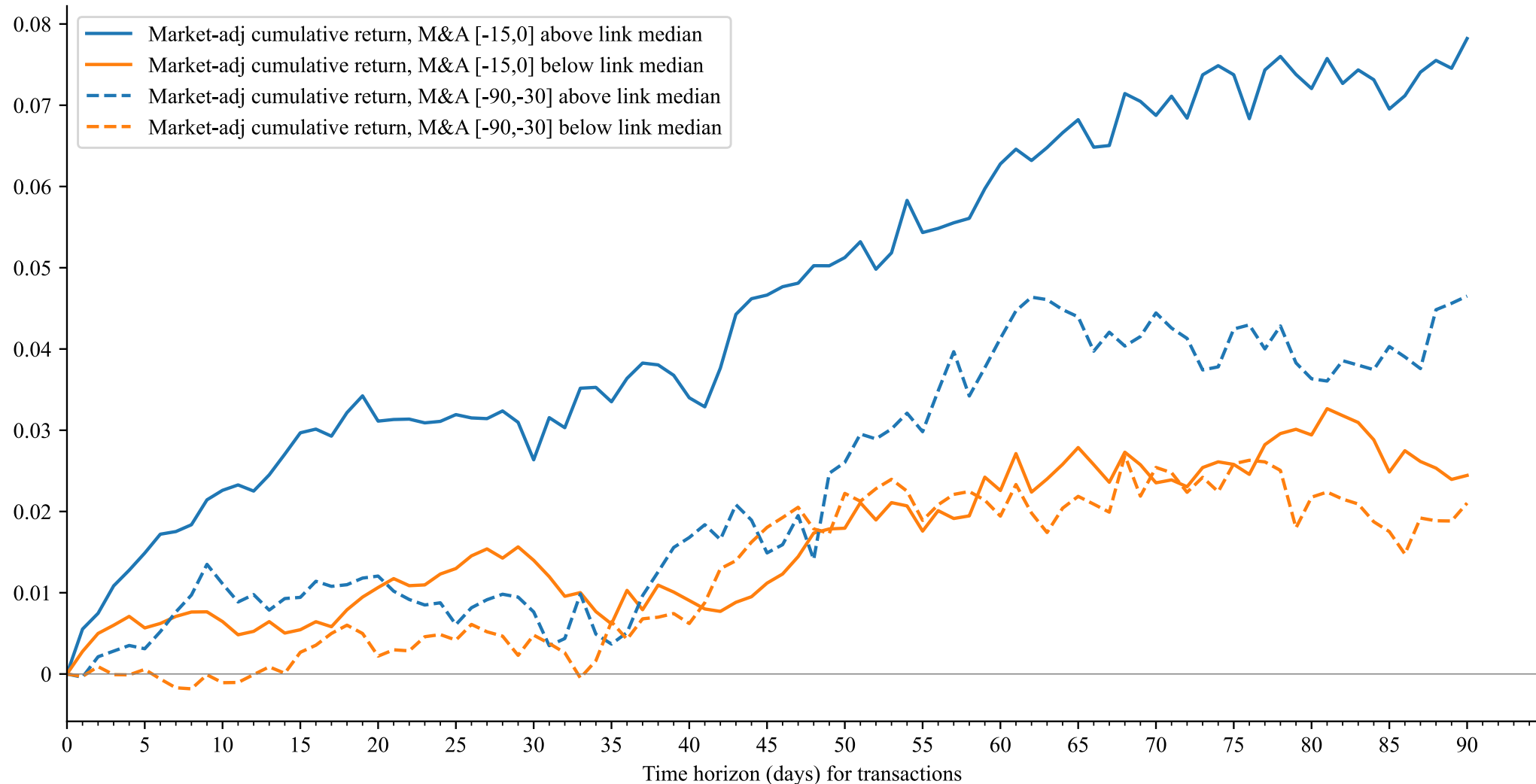
Dep. Var.	Log trading shares		Log trading amount		Log trading permille	
	(1)	(2)	(3)	(4)	(5)	(6)
Log network link	0.0420 (0.0331)	0.0290 (0.0420)	0.0192 (0.0441)	0.00145 (0.0554)	0.0157 (0.0114)	-0.00123 (0.0148)
<i>M&amp;A</i>	1.762*** (0.138)	1.999*** (0.156)	2.026*** (0.178)	2.296*** (0.200)	0.807*** (0.0532)	0.882*** (0.0619)
Log network link× <i>M&amp;A</i>	-0.244*** (0.0469)	-0.221*** (0.0608)	-0.300*** (0.0615)	-0.255*** (0.0781)	-0.101*** (0.0169)	-0.0790*** (0.0229)
Central SOE		-0.812** (0.367)		-0.913* (0.517)		-0.341*** (0.109)
Local SOE		-0.382 (0.240)		-0.334 (0.335)		-0.192** (0.0754)
Log network link× <i>M&amp;A</i> ×Central SOE		0.242* (0.144)		0.208 (0.198)		0.0975** (0.0407)
Log network link× <i>M&amp;A</i> ×Local SOE		0.244** (0.114)		0.265* (0.158)		0.0472 (0.0330)
Obs.	10,778	10,778	10,778	10,778	10,778	10,778
adj. R-sq	0.0728	0.0770	0.0655	0.0695	0.112	0.118

- Cons./Firm Controls/Chairman Controls/Industry FE/Province FE: YES; Year FE: NO

- The coefficients of the two-way interaction terms are not presented in this table

# Buy-and-hold abnormal return for M&As

BHAR around M&A, Median Purchase Transactions





# “Four-trillion” stimulus in 2008 in China

- Timeline:
  - **November 8, 2008:** announcement of the Stimulus Plan, in response to the GFC
  - **Mid-November 2008:** it was revealed that the central government would only provide 1.2 trillion RMB funds, with the rest reallocated by provincial and city local governments.
  - **March 2009:** a revision of the stimulus and published a breakdown of how the funds would be distributed, announced by National Development Reform Commission (NDRC)
- Outcome: majority of the loans flowed to and supported **SOEs** (Cong, et al. 2019)

# The “Four-trillion” Stimulus in 2008

- *Stimulus*, is defined as one for 60 days (i.e. [0,60]) after November 8, 2008 and zero for the 90 to 150 days before that (i.e. [-150, -90]).

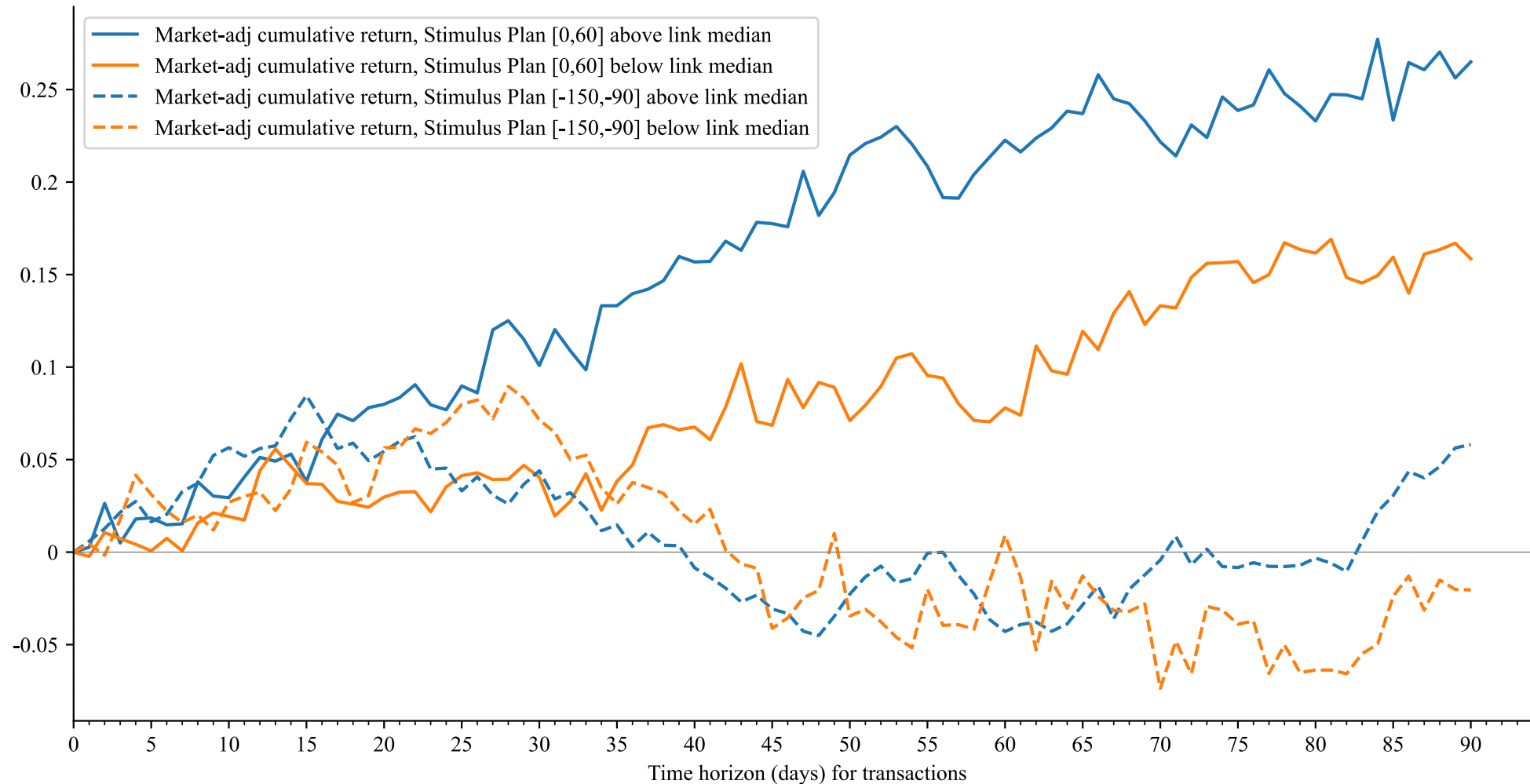
Dep. Var.	Log trading shares		Log trading amount		Log trading permille	
	(1)	(2)	(3)	(4)	(5)	(6)
Log network link	0.125 (0.146)	0.203 (0.237)	0.0565 (0.186)	0.0387 (0.294)	0.0738 (0.0529)	0.0933 (0.0840)
<i>Stimulus</i>	<i>2.236***</i> (0.692)	<i>2.876***</i> (0.898)	<i>2.541***</i> (0.849)	<i>3.213***</i> (1.072)	<i>0.769***</i> (0.230)	<i>0.973***</i> (0.319)
Log network link× <i>Stimulus</i>	-0.332 (0.212)	-0.648* (0.335)	-0.314 (0.247)	-0.608 (0.382)	-0.140** (0.0612)	-0.221** (0.103)
Central SOE		-0.325 (1.637)		-1.035 (2.318)		-0.273 (0.370)
Local SOE		-1.370 (0.974)		-2.110 (1.311)		-0.461 (0.316)
<i>Log network link×Stimulus×Central SOE</i>		<i>1.095*</i> (0.607)		<i>1.198</i> (0.768)		<i>0.300**</i> (0.122)
Log network link× <i>Stimulus</i> ×Local SOE		0.531 (0.459)		0.453 (0.566)		0.166 (0.122)
Obs.	300	300	300	300	300	300
adj. R-sq	0.0729	0.0626	0.0706	0.0587	0.0952	0.0793

- Cons./Firm Controls/Chairman Controls/Industry FE/Province FE: YES; Year FE: NO

- The coefficients of the two-way interaction terms are not presented in this table

# Buy-and-hold abnormal return for the Stimulus Plan

BHAR around Stimulus Plan, Median Purchase Transactions



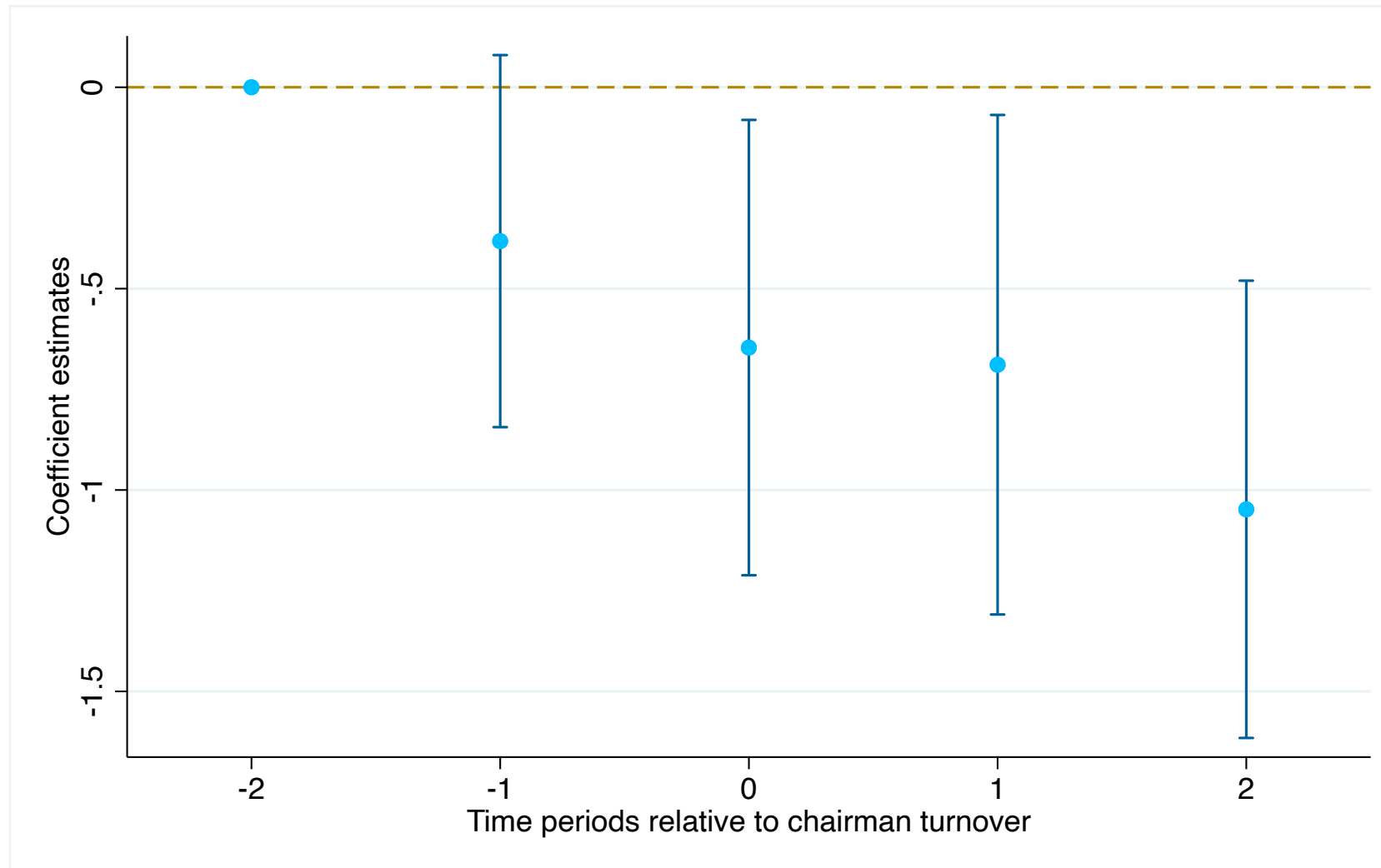
# Identification 1: Chairman's turnover

- *Link increase*: = 1 for a firm's turnover when the mean values of the chairman's high-level work connections in the two years after a turnover is higher than those in the two years before the turnover, = 0 otherwise
- *Turnover* is a time indicator, = 1 for the two years after the chairman turnover, = 0 for the two years before

Dep. Var.	Log trading shares		Log trading amount		Log trading permille	
	(1)	(2)	(3)	(4)	(5)	(6)
Link increase	0.108 (0.260)	-0.217 (0.378)	0.0600 (0.349)	-0.259 (0.518)	0.0502 (0.0721)	0.0462 (0.105)
Turnover	0.0384 (0.148)	0.367** (0.151)	-0.0215 (0.196)	0.336* (0.201)	-0.0382 (0.0445)	0.0560 (0.0453)
<i>Link increase</i> × <i>Turnover</i>	<i>-0.670**</i> <i>(0.280)</i>	<i>-0.543*</i> <i>(0.282)</i>	<i>-0.906**</i> <i>(0.375)</i>	<i>-0.758**</i> <i>(0.358)</i>	<i>-0.137*</i> <i>(0.0771)</i>	<i>-0.0930</i> <i>(0.0746)</i>
Firm FE	NO	YES	NO	YES	NO	YES
Industry FE	YES	NO	YES	NO	YES	NO
Province FE	YES	NO	YES	NO	YES	NO
Obs.	2,879	2,879	2,879	2,879	2,879	2,879
adj. R-sq	0.163	0.0359	0.165	0.0454	0.127	0.0155

- Cons./Firm Controls/Chairman Controls/Year FE: YES

# Dynamic effects of political network on insider trading around chairman turnover

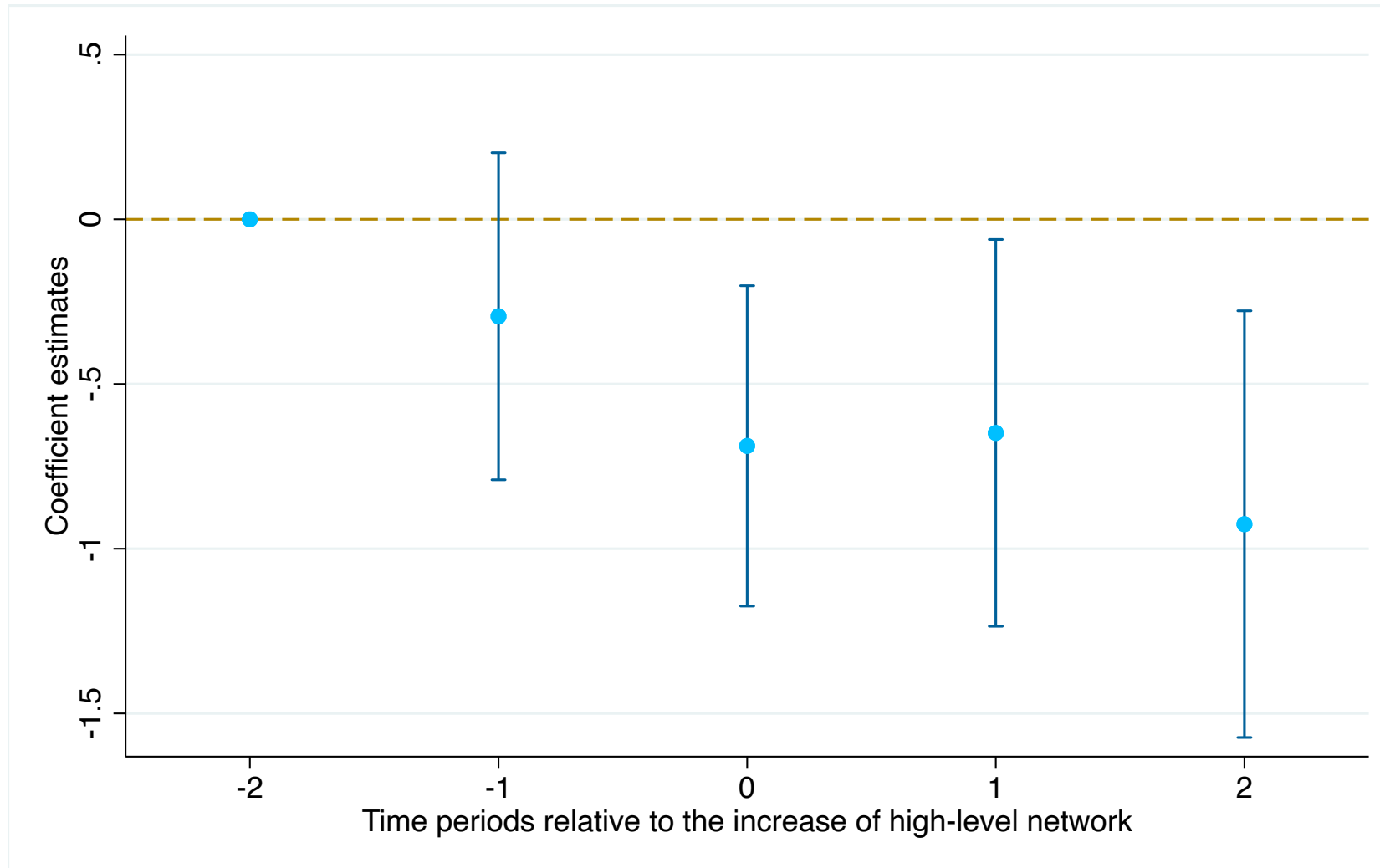


## Identification 2: Increases of high-level political network within a chairman's tenure

- *Treated\_chairman*: = 1 for the chairmen whose high-level network increased in the sample, = 0 otherwise
- *Post high-level increase*: time indicator = 1 for the two years after the increase of high-level political network, = 0 for the two years before
- Define control group of chairmen: one-to-one propensity score matching with the caliper of 0.015 based on chairman and firm characteristics

Dep. Var.	Log trading shares (1)	Log trading amount (2)	Log trading permille (3)
Treated_chairman	0.0206 (0.193)	-0.109 (0.262)	0.00885 (0.0569)
Post high-level increase	0.260 (0.199)	0.155 (0.266)	0.0732 (0.0619)
<i>Treated_chairman</i> × <i>Post high-level increase</i>	<b>-0.576**</b> (0.244)	<b>-0.543*</b> (0.329)	<b>-0.151**</b> (0.0736)
Obs.	1,878	1,878	1,878
adj. R-sq	0.182	0.176	0.165
Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES			

# Dynamic effects of increased high-level political network within a chairman's tenure on insider trading



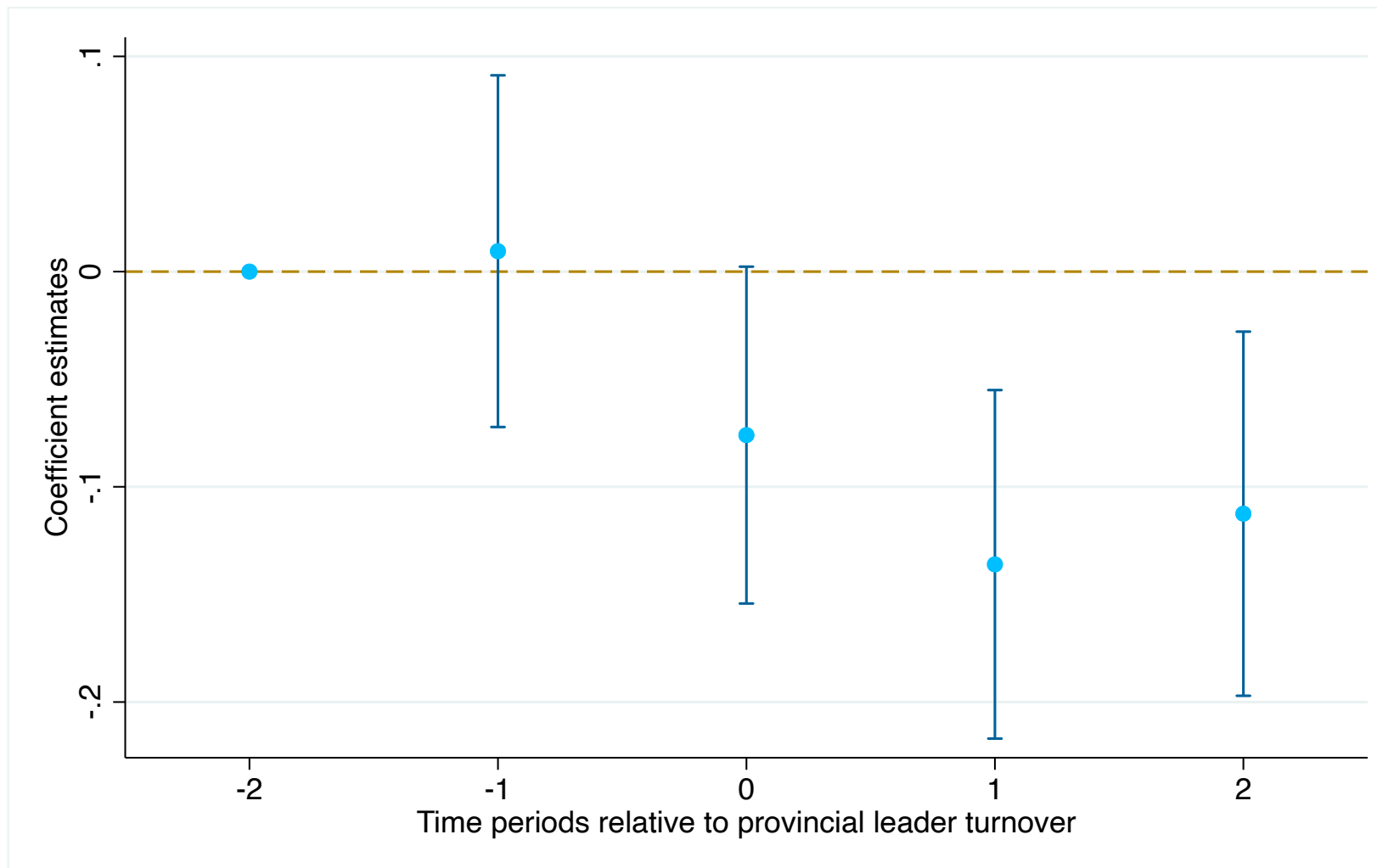
## Identification 3: Provincial leader turnovers

- *P\_Turnover*: a time indicator, defined as one for the two years after the turnovers of provincial governors or party-secretaries, or zero for the two years before

Dep. Var.	Log trading shares (1)	Log trading amount (2)	Log trading permille (3)
Log network link	-0.0278 (0.0295)	-0.0702* (0.0410)	-0.00371 (0.00933)
P_Turnover	0.383*** (0.117)	0.409*** (0.154)	0.142*** (0.0396)
<i>Log network link × P_Turnover</i>	<i>-0.120*** (0.0323)</i>	<i>-0.125*** (0.0432)</i>	<i>-0.0458*** (0.0105)</i>
Obs.	11,045	11,045	11,045
adj. R-sq	0.177	0.183	0.153
Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES			



# Dynamic effects of political network on insider trading around provincial leader turnover



# Mechanisms: “Carrot” and “Stick”

- Reward channel
  - Insiders might trade less to preserve the firm’s political connections, especially when political connections are not strong.
- Disciplining channel
  - Chinese SOEs have a two-parallel personnel system, the regular corporate management system and the party system (Lin and Milhaupt, 2013).
  - The disciplinary role of the double systems can have stronger negative effect on opportunistic behavior for insiders in SOEs than those in non-SOEs, which can lead to less insider trading.

# “Carrot”- Preferable support

Gov't subsidy is the amount of government subsidy that the firm receives in year  $t+1$ , scaled by firms' total assets.

Dep. Var.	Log trading shares			
	(1)	(2)	(3)	(4)
Log network link	-0.107*** (0.0248)	-0.135*** (0.0355)	-0.0632*** (0.0230)	-0.0876*** (0.0323)
Future gov't subsidy			2.382*** (0.695)	2.931*** (1.034)
Log network link×Future gov't subsidy			-0.402*** (0.153)	-0.508** (0.214)
Log network link×Future gov't subsidy×Central SOE				0.689 (0.576)
Log network link×Future gov't subsidy×Local SOE				0.116 (0.310)
Obs.	17,324	17,324	18,547	18,547
adj. R-sq	0.206	0.221	0.184	0.184

- Cons./Firm Controls/Chairman Controls/Industry FE/Province FE/Year FE: YES

- The coefficients of other two-way interaction terms are not presented in this table

# “Stick”- Disciplining effect

**Marketization**, is an index for market *versus* government force, from Wang et al. (2021). **Law institutions** = 1 if the number of law institutions in a province is at the top 33% of the sample, = 0 if at the bottom 33%.

Dep. Var.	Log trading shares			
	(1)	(2)	(3)	(4)
Log network link	-0.0686 (0.0745)	-0.310*** (0.112)	-0.0992*** (0.0325)	-0.191*** (0.0485)
Marketization	0.177*** (0.0361)	0.153*** (0.0469)		
Log network link×Marketization	-0.00583 (0.00956)	0.0241* (0.0141)		
Law institutions			0.502*** (0.163)	0.294 (0.209)
Log network link×Law institutions			-0.0197 (0.0498)	0.134* (0.0736)
Log network link×Marketization×Central SOE		-0.0185 (0.0252)		
Log network link×Marketization×Local SOE		-0.0601*** (0.0206)		
Log network link×Law institutions×Central SOE				-0.210 (0.129)
Log network link×Law institutions×Local SOE				-0.275** (0.113)
Obs.	14,807	14,807	12,038	12,038
adj. R-sq	0.127	0.129	0.135	0.137

- Cons./Firm Controls/Chairman Controls/Industry FE: YES; Province FE/Year FE: NO

- The coefficients of other two-way interaction terms are not presented in this table

# The network of CEO/CFO and insider trading

- The information of CEOs and CFOs are also collected, with 4,952 CEOs and 4,361 CFOs in our sample.
- Constructing the network following the same methodology

Dep. Var.	Log trading shares			Log trading amount			Log trading permille		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Log educ link (CEO)	-0.0293 (0.0787)			-0.108 (0.106)			-0.00215 (0.0238)		
Log work link (CEO)		-0.0300* (0.0171)			-0.0422* (0.0226)			-0.00450 (0.00537)	
Log network link (CEO)			-0.0295* (0.0172)			-0.0420* (0.0227)			-0.00415 (0.00537)
Central SOE	-1.627*** (0.118)	-1.620*** (0.118)	-1.620*** (0.118)	-1.959*** (0.163)	-1.953*** (0.163)	-1.953*** (0.163)	-0.425*** (0.0311)	-0.423*** (0.0312)	-0.423*** (0.0312)
Local SOE	-1.503*** (0.0954)	-1.500*** (0.0955)	-1.500*** (0.0955)	-1.851*** (0.130)	-1.848*** (0.130)	-1.848*** (0.130)	-0.419*** (0.0266)	-0.418*** (0.0266)	-0.418*** (0.0266)
Obs.	19,170	19,170	19,170	19,170	19,170	19,170	19,170	19,170	19,170
adj. R-sq	0.176	0.176	0.176	0.182	0.182	0.182	0.149	0.149	0.149

Cons./Firm Controls/CEO Controls/Industry FE/Province FE/Year FE: YES

# The network of CEO/CFO and insider trading

Dep. Var.	Log trading shares			Log trading amount			Log trading permille		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Log educ link (CFO)	0.0534 (0.113)			0.0597 (0.160)			-0.0232 (0.0375)		
Log work link (CFO)		-0.00600 (0.0190)			0.00206 (0.0251)			0.00400 (0.00609)	
Log network link (CFO)			-0.00562 (0.0190)			0.00239 (0.0251)			0.00397 (0.00611)
Central SOE	-1.707*** (0.138)	-1.708*** (0.138)	-1.708*** (0.138)	-2.082*** (0.189)	-2.083*** (0.189)	-2.083*** (0.189)	-0.440*** (0.0360)	-0.439*** (0.0360)	-0.439*** (0.0360)
Local SOE	-1.547*** (0.106)	-1.547*** (0.106)	-1.547*** (0.106)	-1.918*** (0.144)	-1.918*** (0.144)	-1.918*** (0.144)	-0.432*** (0.0295)	-0.431*** (0.0296)	-0.431*** (0.0296)
Obs.	16,844	16,844	16,844	16,844	16,844	16,844	16,844	16,844	16,844
adj. R-sq	0.168	0.168	0.168	0.175	0.175	0.175	0.139	0.139	0.139

Cons./Firm Controls/CFO Controls/Industry FE/Province FE/Year FE: YES

# Managers' Work Experience in Public Sectors

- *Chairman\_Pol* is defined as one for chairmen **who have worked in public sectors at the county, city, provincial, or higher levels**, or zero otherwise
- Same results are observed for CEO/CFO

Dep. Var.	Log trading shares			Log trading amount			Log trading permille		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Central SOE	-1.669*** (0.118)		-1.571*** (0.122)	-2.004*** (0.163)		-1.852*** (0.168)	-0.439*** (0.0314)		-0.400*** (0.0322)
Local SOE	-1.500*** (0.0964)		-1.461*** (0.0967)	-1.849*** (0.131)		-1.789*** (0.132)	-0.423*** (0.0270)		-0.408*** (0.0269)
<i>Chairman_Pol</i>		0.127 (0.251)	0.193 (0.252)		0.218 (0.321)	0.289 (0.327)		0.0511 (0.0625)	0.0636 (0.0617)
<b>Log network link</b>			<b>-0.0765*** (0.0223)</b>			<b>-0.118*** (0.0301)</b>			<b>-0.0297*** (0.00681)</b>
Obs.	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.182	0.145	0.183	0.189	0.158	0.190	0.155	0.129	0.156

Cons./Firm Controls/CFO Controls/Industry FE/Province FE/Year FE: YES

# Additional Control of Corruption

- Corruption might also be a factor influencing a firm's political network, although not all political connections are built through bribery or corruption.
- *Corruption* is defined as the natural logarithm of the number of corruption cases in each province

Dep. Var.	Log trading shares			Log trading amount			Log trading permille		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Log educ link	-0.0462** (0.0200)			-0.0781*** (0.0268)			-0.0201*** (0.00597)		
Log work link		-0.0611** (0.0261)			-0.0734** (0.0361)			-0.0245*** (0.00757)	
Log network link			-0.0765*** (0.0223)			-0.118*** (0.0301)			-0.0298*** (0.00681)
Corruption	0.0297 (0.114)	0.0287 (0.114)	0.0290 (0.114)	0.100 (0.146)	0.0998 (0.146)	0.0995 (0.146)	-0.0239 (0.0345)	-0.0243 (0.0345)	-0.0242 (0.0345)
Central SOE	-1.641*** (0.118)	-1.578*** (0.125)	-1.566*** (0.121)	-1.956*** (0.163)	-1.895*** (0.172)	-1.845*** (0.168)	-0.426*** (0.0314)	-0.402*** (0.0330)	-0.399*** (0.0321)
Local SOE	-1.497*** (0.0963)	-1.461*** (0.0969)	-1.463*** (0.0967)	-1.845*** (0.131)	-1.803*** (0.132)	-1.792*** (0.132)	-0.421*** (0.0269)	-0.407*** (0.0271)	-0.408*** (0.0269)
Obs.	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547	18,547
adj. R-sq	0.182	0.182	0.183	0.190	0.189	0.190	0.156	0.156	0.156

Cons./Firm Controls/CFO Controls/Industry FE/Province FE/Year FE: YES



# Conclusion

- New measure of political network of the private sector (i.e. listed firms)
- New evidence of potential *costs* of political connections
- **Political networks discourage insider trading**, in contrary to the findings in western countries where political connections reduce litigation risk and increase insider trading
  - The effect is more pronounced for long-standing connections, high-level connections and regulatory connections
  - The muted effect is mitigated in SOEs
  - **“Carrot” and “Stick”**: a combination of reward and discipline
    - Insiders with stronger political network may trade less in exchange for more preferable policy and financial support
    - Insider trading, solicits public attentions, and may cause unwanted reputation damage to themselves/to their connected politicians