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Government Incentives and Financial Intermediaries: The Case of Chinese Sell-Side Analysts

Sheng Cao, Tongji University

Xianjie He, Shanghai University of Finance and Economics

Charles Wang, Harvard University

Huifang Yin, Shanghai University of Finance and Economics

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Research Questions

- How do government incentives influence the financial analysts' informational role in China?
- What are the consequences of the government's influence on analysts in capital markets?

Motivation

- Understanding the nature of institutional weaknesses is critical to the development of emerging-market economies (Khanna and Palepu, 2010).
- China is now home to the second largest equity market in the world, however, its market institutions are not robust.
- Government influence is prevalent in financial market of China (Piotroski and Wong, 2012).

Motivation (Contd.)

“As China’s most important political event in years draws nearer, regulators have made it clear to the nation’s top financiers that they don’t want to see any major turbulence in markets.”

-----**Bloomberg 13th Sep 2017**

(shortly before 19th National Congress of CPC)

“Traders and brokers say regulators are increasingly stepping in to influence trades and make the China’s market appear less volatile, especially when Beijing wants to project stability.”

-----**WSJ 31th May 2018**

Motivation (Contd.)

- A burgeoning stream of literature has examined how government intervenes in financial intermediaries' information production.
 - Piotroski et al. (2012): Government intervention facilitate government-owned brokerage firms gain control over the restructure of brokerage industry.
 - You et al. (2017): State-controlled media is less critical, less accurate, less comprehensive, and timelier than market-oriented media.
 - Piotroski et al. (2017): Conglomeration reform in newspaper industry makes official (business) newspapers more concentrated on political (commercial) goals.
 - Hope et al. (2017): There exists newspaper censorship. Government restrict the dissemination of bad news on firms essential for economic and social incentives.
- Sell-side analysts are preeminent market information intermediaries.

Preview of main findings

- Analysts at state-owned brokerage firms issue forecasts that are relative more optimistic during government intervention periods.
- The relative optimism of state-owned brokerage analysts is concentrated in large stocks and SOEs, and is consistently observed across various type of analysts.
- The relatively more optimistic forecasts of state-owned brokerage analysts during government intervention periods are less accurate, and do not appear to be discounted by investors.

Contribution

- Contribute to the growing literature on the role of the central government in shaping the information environment in China (e.g. Chen and Yuan, 2004; Piotroski, et al. 2015).
- Complement the literature on state-owned and private enterprises (e.g. Megginson, 2016; Fan and Wong, 2002; Faccio, et al., 2006; Hung et al., 2012).
- Add to research on analysts' incentives in the production of information for capital markets (e.g. Francis and Philbrick, 1993; Michaely and Womack, 1999; Gu et al., 2013).

Institutional Background



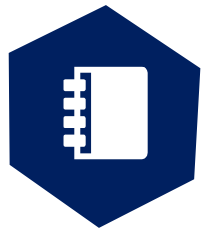
1991-2001

- **Brokerage industry emerged, and are controlled by SOEs.**

2001.11



- **CSRC permitted non-state-owned enterprises to invest in or control brokerage firms.**



2003-2008

- **Regulator restructured brokerage industry through sanctioning and closure of brokerage firms.**

NOW



- **15% of brokerage firms are Non-state-owned brokerage firms.**

Hypothesis Development

- Government has a significant incentive to stabilize the stock market.
 - Government needs to demonstrate strengths to maintain power (Tullock, 1987; Piotroski et al. 2015).
 - A stable stock market is a necessity of social harmony.
 - Retail investors amount to 135 million by April 2018 and account for 85 percent of trades.

Hypothesis Development (Contd.)

- Government influence on China's brokerage industry (mostly through CSRC)
 - Formal Power
 - Granting license to market access
 - Approval of IPO and new business
 - Investigation and enforcement
 - Informal Power
 - Window guidance
 - Phone calls, meetings and invited tea talk

Hypothesis Development (Contd.)

- Window guidance is effective and non-compliance may trigger regulatory actions.
 - 21 brokerage firms vowed to stabilize the market on July 4, 2015, after meeting with CSRC.
 - The general manager of CITIC securities, Boming Cheng was arrested on suspicion of illegal insider trading in September 2015.
 - CITIC was suspicious of engaging in short-selling when “national team” of state financial institution was injecting cash in the market.
 - Boming Cheng was sentenced to more than three-year imprisonment for **bribery** in December 2016.



Hypothesis Development (Contd.)

- State-owned brokerage firms are likely to be more sensitive to political influence than non-state-owned brokerage firms.
 - State-owned brokerage firms are controlled by central government or local government.
 - Senior managers of state-owned brokerage firms are appointed and dismissed by the government.
 - State-owned brokerage firms have stronger political connections with regulators.
 - State-owned brokerage firms are usually larger in size and more influential in capital markets than their non-state-owned counterparts.
- However, analysts may also attempt to balance between external reputations and internal pressure.

Sample Selection

- We construct a comprehensive dataset by combining data from five data vendors (CSMAR, WIND, HIBOR, RESSET, CBAS).
- Our final sample consists of 234,328 one-year ahead earnings forecasts covering 2,112 unique listed firms between 2005 and 2015.
 - Forecasts are issued by 5,056 analysts at 94 distinct brokerage firms; over 80% are state-owned.

Methodology

- DID approach
 - Treatment analysts: analysts employed by state-owned brokerage firms
 - Government intervention events: market rescue, National Congress of CPC and 2008 Beijing Olympic Games

Table A1. Government Intervention Events and Periods

Government Intervention Events	Intervention Periods	Notes
1st rescue	1/23/2005–6/6/2005	
2nd rescue	4/24/2008–10/30/2008	
3rd rescue	4/1/2012–12/4/2012	
4th rescue	7/1/2015–12/31/2015	
1st National Congress of CPC	8/1/2007–1/31/2008	The meeting was held 10/15/2007–10/21/2007
2nd National Congress of CPC	9/1/2012–2/28/2013	The meeting was held 11/2012–11/14/2012
Beijing 2008 Olympic Games	6/1/2008–11/31/2008	The games took place 8/8/2008–8/24/2008

Methodology (Contd.)

- Model

- $Optimism_{ijtT} = \beta_0 + \beta_1 Event_{iT} * Govbro_i + \beta_2 Event_{iT} + \beta_3 GovBro_i + \gamma' X_{itT} + f_T + \varepsilon_{ijtT}$

- Measure of forecast characteristics following prior literature (Clement and Tse, 2005)

- $Optimism_{ijtT} = \frac{Raw\ Optimism_{ijtT} - \min_{jT}(Raw\ Optimism_{ijtT})}{\max_{jT}(Raw\ Optimism_{ijtT}) - \min_{jT}(Raw\ Optimism_{ijtT})}$

Descriptive Statistics

Table 2.
Descriptive Statistics: Earnings-Forecast Optimism by Intervention Events

	(1) <i>N</i>	<i>Optimism</i>			
		(2) Total Sample	(3) <i>GovBro=0</i>	(4) <i>GovBro=1</i>	(5) <i>Diff(0-1)</i>
<i>Panel A: All Events</i>					
<i>Event=0</i>	174,440	0.4669	0.4702	0.4664	0.0038*
<i>Event=1</i>	59,888	0.4190	0.4055	0.4214	-0.0159***
<i>Diff(0-1)</i>		0.0479***	0.0647***	0.0450***	0.0197***
<i>Panel B: Individual Events</i>					
<i>1st Rescue</i>	593	0.5947	0.5767	0.5955	-0.0188
<i>2nd Rescue</i>	8,487	0.4451	0.4400	0.4457	-0.0056
<i>3rd Rescue</i>	28,211	0.4373	0.4292	0.4391	-0.0099**
<i>4th Rescue</i>	11,520	0.3630	0.3468	0.3654	-0.0186**
<i>National Congress</i>	19,577	0.3709	0.3390	0.3774	-0.0384***
<i>Olympic</i>	7,845	0.4076	0.3901	0.4093	-0.0192*

Main Results

	(1)	(2)	(3)	(4)
	Optimism	Optimism	Optimism	Optimism
<i>GovBro X Rescue</i>	0.0119*** (0.002)			
<i>Rescue</i>	-0.0460*** (0.009)			
<i>GovBro X Meeting</i>		0.0263*** (0.010)		
<i>Meeting</i>		-0.0386 (0.027)		
<i>GovBro X Olympic</i>			0.0136*** (0.001)	
<i>Olympic</i>			-0.0446*** (0.007)	
<i>GovBro X Event</i>				0.0170*** (0.003)
<i>Event</i>				-0.0390* (0.023)
<i>GovBro</i>	-0.0056*** (0.002)	-0.0057** (0.003)	-0.0033 (0.002)	-0.0077** (0.003)
<i>Control variables</i>	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	234,328	234,328	234,328	234,328
Adj R^2	0.1105	0.1097	0.1097	0.1100

Heterogeneity in Optimism by Covered-Firm Type

	(1) Covered-Firm Type: Weighted	(2) Covered-Firm Type: SOE
<i>GovBro & Type X Event</i>	0.0338*** (0.005)	0.0382*** (0.010)
<i>GovBro & Non-Type X Event</i>	-0.0039 (0.004)	-0.0008 (0.003)
<i>GovBro & Type</i>	-0.0184*** (0.004)	-0.0030 (0.006)
<i>GovBro & Non-Type</i>	0.0051 (0.005)	-0.0113*** (0.003)
<i>Event</i>	-0.0398* (0.022)	-0.0402* (0.022)
<i>Control variables</i>	Yes	Yes
Time FE	Yes	Yes
Industry FE	Yes	Yes
Observations	234,328	234,328
Adj R^2	0.1109	0.1112
F-Stat	23.76	10.16
p -Value	0.00	0.00

Heterogeneity in Optimism by Analyst Type

	(1)	(2)	(3)	(4)
	Analyst Type: Inexperienced Analyst	Analyst Type: Star Analyst	Analyst Type: Frequent Analyst	Analyst Type: High Commission
<i>GovBro & Type X Event</i>	0.0169*** (0.004)	0.0157*** (0.006)	0.0173*** (0.003)	0.0171*** (0.005)
<i>GovBro & Non-Type X Event</i>	0.0174*** (0.005)	0.0173*** (0.004)	0.0159*** (0.004)	0.0226*** (0.008)
<i>GovBro & Type</i>	-0.0053 (0.004)	-0.0081* (0.005)	0.0028 (0.005)	-0.0062 (0.004)
<i>GovBro & Non-Type</i>	-0.0105** (0.004)	-0.0076** (0.003)	-0.0144*** (0.003)	-0.0186*** (0.006)
<i>Event</i>	-0.0391* (0.023)	-0.0390* (0.023)	-0.0386* (0.023)	-0.0400* (0.022)
<i>Control variables</i>	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	234,328	234,328	234,328	234,328
Adj R ²	0.1100	0.1100	0.1104	0.1101
F-Stat	0.01	0.04	0.14	0.25
p-Value	0.94	0.85	0.71	0.61

Optimism Type: Stock Recommendation

	(1) REC	(2) REC	(3) REC	(4) REC
<i>GovBro X Rescue</i>	0.0090*** (0.003)			
<i>Rescue</i>	-0.0106 (0.011)			
<i>GovBro X Meeting</i>		0.0100** (0.005)		
<i>Meeting</i>		-0.0158** (0.007)		
<i>GovBro X Olympic</i>			0.0173*** (0.003)	
<i>Olympic</i>			-0.0491*** (0.003)	
<i>GovBro X Event</i>				0.0087** (0.004)
<i>Event</i>				-0.0098 (0.009)
<i>GovBro</i>	-0.0250*** (0.004)	-0.0241*** (0.004)	-0.0234*** (0.004)	-0.0253*** (0.004)
<i>Control variables</i>	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	291,090	291,090	291,090	291,090
Adj R ²	0.0796	0.0797	0.0802	0.0796

Earnings Forecast Frequency

	(1)	(2)	(3)	(4)
	Forecast Gap	Forecast Gap	Forecast Gap	Forecast Gap
<i>GovBro</i> × <i>Rescue</i>	0.0134*** (0.004)			
<i>Rescue</i>	-0.0547 (0.043)			
<i>GovBro</i> × <i>Meeting</i>		0.0128** (0.006)		
<i>Meeting</i>		-0.0804*** (0.017)		
<i>GovBro</i> × <i>Olympic</i>			0.0011 (0.004)	
<i>Olympic</i>			-0.0179*** (0.004)	
<i>GovBro</i> × <i>Event</i>				0.0114** (0.005)
<i>Event</i>				-0.0536 (0.050)
<i>GovBro</i>	-0.0109*** (0.002)	-0.0096*** (0.001)	-0.0078*** (0.002)	-0.0110*** (0.003)
<i>Controls</i>	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	136,032	136,032	136,032	136,032
Adj <i>R</i> ²	0.0031	0.0035	0.0024	0.0030

Compliance vs. Information Hypothesis

	(1)	(2)	(3)	(4)
	Accuracy	Accuracy	Accuracy	Accuracy
<i>GovBro X Rescue</i>	-0.0081*** (0.001)			
<i>Rescue</i>	0.0163 (0.014)			
<i>GovBro X Meeting</i>		-0.0089*** (0.003)		
<i>Meeting</i>		0.0351* (0.019)		
<i>GovBro X Olympic</i>			-0.0188*** (0.004)	
<i>Olympic</i>			0.0471*** (0.006)	
<i>GovBro X Event</i>				-0.0088*** (0.002)
<i>Event</i>				0.0162 (0.022)
<i>GovBro</i>	0.0028 (0.003)	0.0021 (0.002)	0.0014 (0.002)	0.0034 (0.003)
<i>Controls</i>	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	234,328	234,328	234,328	234,328
Adj R^2	0.2161	0.2164	0.2162	0.2161

Market Reaction to Forecast Revision

	CAR(-1, 1) (%)		CAR(-2, 2) (%)	
	(1)	(2)	(3)	(4)
<i>Revision X GovBro</i>	-0.0230 (0.056)		0.0447 (0.073)	
<i>Revision & Event X GovBro</i>		0.0809 (0.056)		0.2053*** (0.073)
<i>Revision & Non-Event X GovBro</i>		-0.0710 (0.060)		-0.0298 (0.061)
<i>Revision</i>	0.4458*** (0.058)		0.4586*** (0.080)	
<i>Revision & Event</i>		0.3918*** (0.106)		0.3728*** (0.108)
<i>Revision & Non-Event</i>		0.4736*** (0.036)		0.5026*** (0.052)
<i>GovBro</i>	0.0009 (0.001)	0.0010 (0.001)	0.0012* (0.001)	0.0013* (0.001)
<i>Control variables</i>	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Observations	118,814	118,814	118,814	118,814
Adj R^2	0.0093	0.0093	0.0087	0.0087
F-Stat		4.47		14.20
<i>p-Value</i>		0.03		0.00

Conclusion

- At times when China's central government had strong incentives to prop up the stock market, government-brokerage analysts tended to issue relatively more optimistic earnings forecasts and stock recommendations.
- These optimistic forecasts are also relatively less accurate, market participants appear to respond to them more strongly than they do to revisions issued by nonaffiliated analysts.

PEAD

	(1) CAR(-1,1)	(2) CAR(3,60)	(3) CAR(3,90)
<i>Surp</i>	0.1128** (0.052)	0.1585 (0.158)	0.1577 (0.259)
<i>Govpct</i>	0.0014 (0.002)	-0.0069 (0.011)	-0.0023 (0.013)
<i>Eventy</i>	-0.0448*** (0.004)	-0.1782*** (0.018)	-0.2518*** (0.021)
<i>Govpct</i> × <i>Surp</i>	-0.1775*** (0.035)	-0.4027* (0.209)	-0.1501 (0.173)
<i>Govpct</i> × <i>Eventy</i>	-0.0045 (0.003)	0.0097 (0.016)	-0.0014 (0.021)
<i>Eventy</i> × <i>Surp</i>	0.1115** (0.052)	-0.9197*** (0.117)	-0.8410** (0.391)
<i>Eventy</i> × <i>Surp</i> × <i>Govpct</i>	-0.0623 (0.070)	1.3679*** (0.243)	1.1745*** (0.424)
<i>Control variables</i>	Yes	Yes	Yes
<i>Time FE</i>	Yes	Yes	Yes
<i>Industry FE</i>	Yes	Yes	Yes
Observations	9,522	9,522	9,522
Adj R ²	0.0504	0.1442	0.1131



Thank You!

