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THE DETERMINANTS OF SECURITIES REGULATION: A QUANTITATIVE APPROACH

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What determines the outcomes of securities regulation? There exists a large body of literature that highlights the complex set of incentives and constraints facing the securities regulators and the potential problems of regulatory capture/biases (Macey, 1994; Choi and Pritchard, 2003; Seligman, 2003; Langevoort, 2006). Many recent empirical studies have extended this line of research, showing that in the context of the US the SEC's choice of enforcement targets is sensitive to considerations other than just the merits of the case. These considerations typically include the characteristics of the regulated firms and individuals, more specifically, the size (Gadinis, 2012), the level of financial distress (Cox et al, 2003), and the place of incorporation (Shnitser, 2010) of the firm, as well as the political connections of the firm and its individual executives (Correia, 2012). They also include external factors, e.g., the level of media scrutiny of the alleged violations (Choi et al, 2012). Thus, a firm that is bigger and a top executive who is more politically connected, for instance, may face a lower level of enforcement risk, i.e., a lower probability of being investigated and prosecuted by the SEC.

Little, however, is known about what motivates primary Chinese securities regulators – the China Securities Regulatory Commission, the Shanghai Stock Exchange, and the Shenzhen Stock Exchange – who oversee the world's second largest securities market. Filling this knowledge gap is particularly important for Western investors, who have invested hundreds of billion dollars into the Chinese stock markets.

This research draws on a unique, hand-collected dataset on all 7,372 disclosed securities enforcement actions, both formal and informal, taken against securities violations by the Chinese securities regulators during the period from 1998 through 2016. It offers, first of all, a rare glimpse into the intensity of enforcement actions, both market-level and firm- level, in China. Table 1 shows that 7,372 enforcement actions have been taken against 1,396 sample firms. Just over 10 percent of the enforcement actions are defined as "formal", in which case the regulated firms are provided under Chinese law with a due process right to a hearing before an enforcement action is taken against them. The rest of the sample enforcement actions are otherwise categorized as "informal". In general, formal enforcement actions are more consequential on the sample firms than those that are informal. Tables 2 and 3 provide summary statistics on the firm level.

Table 1

	Firms	Total Enforcement		
Formal	Informa	Actions Taken		
Total	1,396 (84.30%)	7,372	777 (10.54%)	6,595 (89.46%)
SHSE	935 (80.88%)	4,376	424 (9.69%)	3,952 (90.31%)
SZSE	461 (92.20%)	2,996	353 (11.78%)	2,643 (88.22%)

Table 2

	Firm-level Enforcement Actions: Total	Formal	Informal
Max	45	13	38
Min	1	0	0
Mean	5.28	0.56	4.72
Median	4	0	4

Table 3

	Firms subject to Enforcement Actions: Total	Formal	Informal
Once	199 (14.26%)	225 (16.12%)	208 (14.90%)
Twice	232 (16.62%)	98 (7.02%)	262 (18.77%)
Three times or more	965 (69.13%)	89 (6.38%)	921 (65.97%)

In order to ascertain the determinants of Chinese securities enforcement, this research devises two dependent variables – (a) the *ae* ratio and (b) the *ie* ratio – to measure (a) enforcement risk and (b) leniency of enforcement actions, respectively.

The *ae* ratio measures the likelihood of a sample firm being targeted by Chinese securities regulators. The higher the ratio, the more likely a sample firm finds itself subject to enforcement actions; and vice versa.

$$ae_i = \frac{\sum_{t=1998}^{2016} \frac{The\ number\ of\ enforcement\ actions\ taken\ against\ firm\ i\ in\ year\ t}{The\ per-firm\ average\ of\ enforcement\ sanctions\ in\ year\ t}}{}$$

The *ie* ratio measures how leniently sample firms are treated by Chinese securities regulators. The higher the ratio, the more likely informal, less consequential enforcement actions are taken against a sample firm; and vice versa.
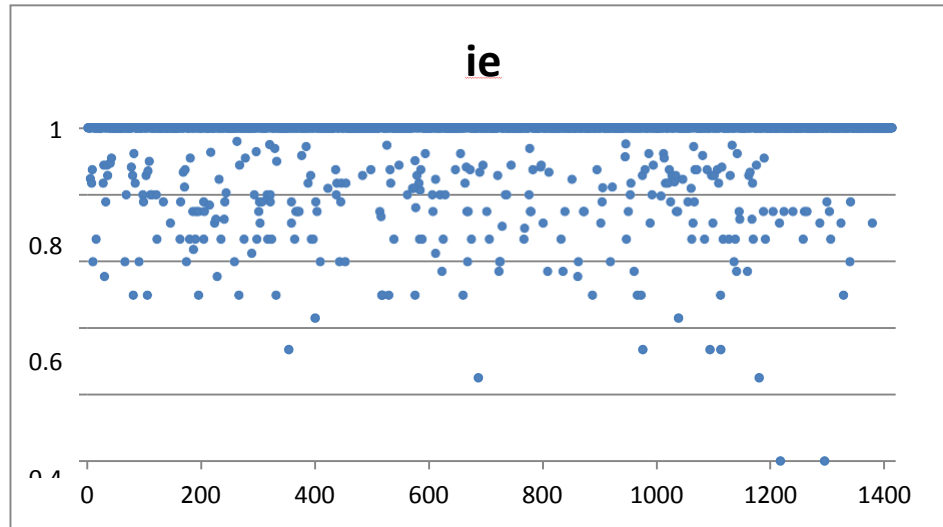
$$ie_i = \frac{The\ number\ of\ informal\ enforcement\ actions\ taken\ against\ firm\ i}{The\ aggregate\ number\ of\ enforcement\ actions\ taken\ against\ firm\ i}$$

Figures 1 and 2 show the distribution of the *ae* and *ie* ratios among sample firms, respectively:

Figure 1

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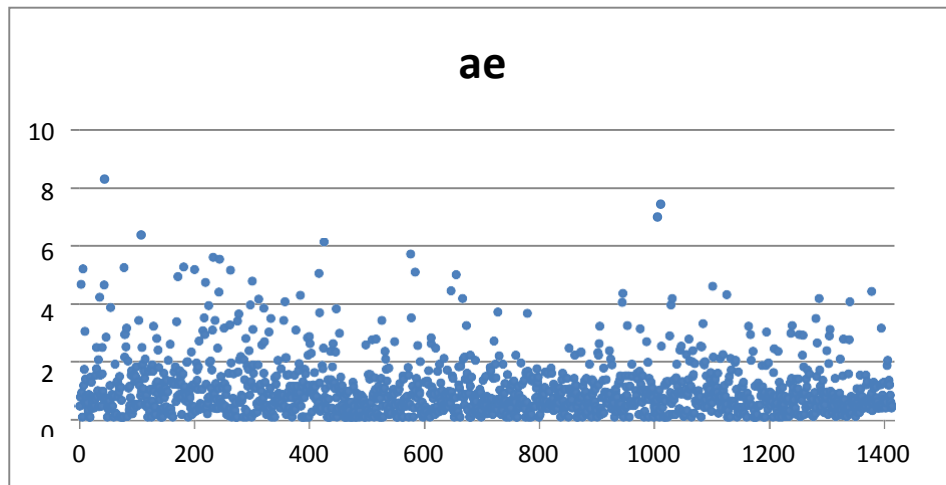
Figure 2

This research develops five hypotheses:

Hypothesis 1:
Larger firms face a lower probability of being targeted for enforcement and a higher likelihood of lenient enforcement.

Hypothesis 2:
State-owned firms face a lower probability of being targeted for enforcement and a higher likelihood of lenient enforcement.

Hypothesis 3:
Firms with a greater level of political embeddedness face a lower probability of being targeted for enforcement and a higher likelihood of lenient enforcement.

Hypothesis 4:
Firms that are more cooperative with securities regulators face a lower probability of being targeted for enforcement and a higher likelihood of lenient enforcement.

Hypothesis 5:
Firms with former enforcement officials on their board and/or as senior executives face a lower probability of being targeted for enforcement and a higher likelihood of lenient enforcement.

We control for variables that are likely to affect the chance of being targeted and the outcome of a securities enforcement action. These include firm's misconduct, financial performance, and corporate governance.

	(1)	(2)	(3)	(4)
	ae	ae	ie	Ie
csi300	-0.167***	-0.166***	0.0241***	0.0228***
	(-3.04)	(-3.01)	(2.81)	(2.64)
state_owned	-0.337***		0.0361***	
	(-6.35)		(4.34)	
central		-0.342***		0.0484***
		(-4.29)		(3.88)
local		-0.335***		0.0312***
		(-5.77)		(3.44)
dividend_ratio	-0.135*	-0.136*	0.0339***	0.0344***
	(-1.86)	(-1.86)	(2.98)	(3.02)
former_regulator	-0.00584	-0.00582	-0.00188*	-0.00195*
	(-0.70)	(-0.70)	(-1.74)	(-1.79)
restate	0.0982***	0.0982***	-0.00756***	-0.00752***
	(10.02)	(10.01)	(-4.94)	(-4.91)
roa	0.00503	0.00502	-0.000590	-0.000587
	(1.32)	(1.32)	(-0.99)	(-0.98)
tobinq	-0.00151	-0.00151	0.000194	0.000193
	(-1.11)	(-1.11)	(0.91)	(0.91)
share_concentration	-0.00139*	-0.00139*	-0.000150	-0.000137
	(-1.88)	(-1.87)	(-1.30)	(-1.18)
ind_director	1.141*	1.144*	-0.0293	-0.0373
	(1.69)	(1.69)	(-0.28)	(-0.35)
_cons	0.618**	0.617**	0.935***	0.938***
	(2.46)	(2.45)	(23.86)	(23.90)
N	1,368	1,368	1,368	1,368
R-sq	0.152	0.152	0.065	0.066

t statistics in parentheses
* p<0.1   ** p<0.05   *** p<0.01

To conclude, this research shows empirically that firms of larger size, firms that are controlled by the state, firms that are more politically embedded, as well as firms that cooperate with the securities regulators face a lower probability of being targeted for enforcement and a higher likelihood of lenient enforcement. It also shows that a closer personal bond with the securities regulators are likely to reduce the severity of enforcement actions, but are unlikely to minimize the likelihood of being targeted in the first place.