

Strategic Public Shaming: Evidence from Chinese Antitrust Investigations

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Abstract

This article examines strategic public shaming, a novel form of regulatory tactics employed by the National Development and Reform Commission (NDRC) during its enforcement of the Anti-Monopoly Law. Based on analysis of media coverage and interview findings, the study finds that the way that the NDRC disclosed its investigation is highly strategic depending on the firm's co-operative attitude towards the investigation. Event studies further show that the NDRC's proactive disclosure resulted in significantly negative abnormal returns of the stock prices of the firm subject to the disclosure. For instance, Biostime, an infant-formula manufacturer investigated in 2013, experienced -22 per cent cumulative abnormal return in a three-day event window, resulting in a loss of market capitalization that is 27 times the antitrust fine that it ultimately received. The NDRC's strategic public shaming might therefore result in severe market sanctions that deter firms from defying the agency.

Keywords: China; reputation; shaming; antitrust; competition; regulation

On 9 November 2011, the antitrust bureau of the National Development and Reform Commission (NDRC), formally known as the Anti-Monopoly and Price Supervision Bureau, made a surprise announcement on China Central Television (CCTV). The NDRC's representative disclosed that the agency had been investigating two large telecommunication firms – China Telecom and China Unicom – for allegedly conducting price discrimination against rival companies (China Telecom and China Unicom Case).¹ This announcement caused a sensation in China and triggered a public debate in the Chinese media about the regulation of these state-owned enterprises (SOEs). But the NDRC's high-profile televised announcement stands in sharp contrast to its practice in other investigations, where the agency has kept its investigations quite low-key. Indeed, on a few occasions, the agency announced its decision directly, without any prior disclosure, and in a few cases, the agency even concealed its decision. So what is the explanation for the NDRC's varied disclosure practice, and what is the impact

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¹ CCTV 2011.

on the market value of firms subject to disclosure? Based on analysis of media coverage and interview findings, I find that the NDRC has employed strategic public shaming, a novel form of regulatory tactics: if a firm does not co-operate and quickly yield to the agency's demand, the NDRC could act as a whistleblower and proactively leak such information to leading party media outlets, which exposes the firm to a high level of negative publicity and can adversely influence their stock performance. This exerts pressure on firms to conform and deters them from defying its orders.

Chinese antitrust enforcement presents us with an ideal setting in which to observe the transient stage when a newly created administrative agency tries to quickly establish its legal authority by strategically leveraging shaming sanctions. China only began to enforce the Anti-Monopoly Law (AML) in 2008. As there were very few precedents available during the first few years of its enforcement, businesses were just starting to learn about the impact of the legal sanctions under the AML. For the same reason, businesses had not fully understood the impact of a market sanction as a consequence of a regulator's high-profile media announcement. As the NDRC's pattern of enforcement was not well established at that time, businesses were not deterred so much by the sanction under the AML. Thus, the first few cases in which the NDRC applied shaming sanctions set important precedents for subsequent cases, and they have become the focal points for compliance for businesses and practitioners.

This study is related to several strands of literature. Previous research on the market reactions to antitrust investigations has identified negative abnormal returns, though the magnitude is much less than those in financial misconduct cases.² This study is the first to estimate the impact of the announcement of the antitrust investigation on the stock prices of firms subject to investigation in China. Moreover, the fact that Chinese antitrust agencies would strategically utilize the state media to make a public announcement of their antitrust investigations is a unique phenomenon that has not been observed in any other major antitrust jurisdictions. While public disclosure of an antitrust investigation is routine for enforcement agencies in other jurisdictions, Chinese antitrust enforcement agencies employ it strategically as a mechanism for reputation sanction.

This study also contributes to the literature on the use of shaming sanctions in China. Scholars observed that Chinese administrative agencies have applied shaming tactics in a wide range of administrative enforcement, including securities law,³ environmental law⁴ and intellectual property law.⁵ Similar to these studies, this article provides another concrete and contextualized example of how Chinese government agencies utilize the reputational mechanism to achieve their policy objectives. However, the strategic use of such shaming sanctions has

2 Bosch and Eckard 1991; Aguzzoni, Langus and Motta 2013; Van den Broek et al. 2012, 231–258; Günster and Dijk 2016, 20–33.

3 Liebman and Milhaupt 2008.

4 Shapiro 2017, 52.

5 Yu 2006, 952–55.

not yet been studied. In earlier literature, a reputation sanction is imposed independently of a firm's response to the regulatory action. Because the damage would occur anyway, the sanction should not affect a firm's incentive to challenge the regulatory act. In the context of Chinese antitrust, public shaming takes place before the agency formally imposes a legal sanction and the imposition of such a shaming sanction is conditional on the firm's cooperative attitude.

Lastly, this research contributes to the institutionally oriented studies on Chinese antitrust law. In earlier studies, I identified how extralegal factors such as bureaucratic politics play an important role in driving the enforcement outcome in Chinese antitrust.⁶ In this article, I have found that the NDRC can strategically utilize shaming sanctions to exert pressures on firms to cooperate with the agency. This innovative form of regulation helps the NDRC overcome the poor governance institutions in China in order to propel active antitrust enforcement in China. Meanwhile, the findings in this article refute the long-standing belief that the AML is solely targeted at foreign firms and will never be seriously applied to its SOEs. The utility function of the Chinese government is highly complex and it is misleading to attribute its motivation to enforce the AML as solely driven by protectionist ground.

While this study focuses on stock market reactions in response to the NDRC's strategic shaming sanction, it is worth noting that share prices may be reacting to a broad range of consequences for the firms. Thus, there is potential opportunity to further analyse and disaggregate the regulatory effects from the reputational effects. However, due to length limitation, I leave this question for future inquiry. Similarly, an analytical study of the implications beyond market reactions would be very valuable but is beyond the scope of this article.

Pattern of Disclosure

In China, the responsibility to enforce the AML is shared among three administrative agencies. In particular, the Ministry of Commerce (MOFCOM) is primarily responsible for merger control, whereas the NDRC and the State Administration for Industry and Commission (SAIC) concurrently share the responsibility of enforcing against anti-competitive conduct. More specifically, the NDRC is in charge of enforcing against price-related anti-competitive conduct, whereas the SAIC is in charge of enforcing against non-price-related anti-competitive conduct. This article focuses on the behaviour of the NDRC, for two reasons: first, the NDRC is the only agency among the three main ones that has proactively employed a media strategy during its enforcement. While the other two agencies also routinely disclose their enforcement activities, neither of them has been seen to adopt strategic shaming sanctions (i.e. proactively announcing the investigations in the leading party media outlets).

6 Zhang 2014, 671, 684; Zhang 2015, 195.

Second, the NDRC has made constant headlines at home and abroad by bringing actions against prominent domestic and foreign targets in recent years, and its hectic enforcement allows us to identify a pattern of disclosure and examine the impact of public shaming.

According to the AML, antitrust enforcement agencies can publicly disclose their decisions after their investigations.⁷ However, for non-merger decisions, the law does not make it mandatory for agencies to disclose their decisions, nor does it obligate the agencies to disclose their investigations before releasing their decisions. Thus, the lack of detail in the AML leaves significant discretion in the hands of the agencies in deciding whether, when and how to disclose their investigations. Even after a decision is imposed, they can use their discretion not to make it public. To investigate the pattern of disclosure by the NDRC, I collected all the antitrust cases that were investigated by the NDRC from the inception of the enforcement of the AML until the end of 2015. I included only closed cases, excluding those that were still pending. This is because there was often no public disclosure of a case until the decision was announced, as explained below. As the purpose of this study is to investigate the stock market reactions to firms subject to disclosure, I exclude those cases that do not involve publicly listed companies. This leaves me with a sample of ten antitrust investigations involving 95 companies.

Several features of the cases in the sample are noteworthy. First, all these cases were brought to investigation during the period of 2011 to 2015 because the NDRC was preoccupied with capacity building in the first three years after the enactment of the AML and needed to gather the momentum for large investigations. Second, these cases are the most visible cases brought by the NDRC during that period due to the prominence of the targets involved and the harsh penalties imposed by the NDRC. Notably, the SAIC, the other major antitrust enforcement agency, had only initiated two large antitrust investigations by the end of 2015. Thus, the first few cases that the NDRC brought set important precedents for subsequent enforcements of the AML. Third, all these cases were brought during the tenure of Xu Kunlin 许昆林, who served as the director general of the antitrust bureau from December 2009 to February 2015. Xu, a veteran in charge of price monitoring and supervision in China, is a highly ambitious and resourceful technocrat.⁸ After the conclusion of the Qualcomm Case, Xu was quickly promoted to other departments within the NDRC. Interviewees note that Xu is adept at using the media to help push forward a case when the investigation reaches a stalemate.⁹

To examine how the NDRC disclosed its investigations in these cases, I conducted an exhaustive search of public disclosures of the NDRC's investigations using two Chinese-language databases. The first is WiseNews, a leading database

7 The Anti-Monopoly Law, Article 44.

8 Martina and Miller 2014.

9 Interview with BJ01, BJ02, BJ03, BJ04, NDRC officials, Beijing, May–June 2016.

Table 1: **The NDRC's Disclosure Pattern during Antitrust Investigation**

NDRC		Cases
Proactive public announcement on state media		China Telecom/China Unicom; Gold Retailer; Infant Formula
Passive disclosure	Reactive disclosure after firms' self-disclosure.	InterDigital; Qualcomm; Auto Part
	Disclosure without naming individual firms involved.	Japanese Auto Cartel
	No prior disclosure and announcing the decision directly.	Eye Vision; White Liquor
	No prior disclosure and long delay in announcing the decision.	Zhejiang Insurance
No public disclosure of either investigation or decision.		Some Chinese SOEs

Source:

Various news articles obtained from WiseNews and Baidu.

provider of general Chinese news. WiseNews collects news reports from 110 general-interest Chinese newspapers published in mainland China. To complement the search results obtained from WiseNews, I conducted the same search for each case using Baidu, the largest Chinese-language search engine. This allows me to identify the first time that the media covered the NDRC's investigation and the first player that made such a disclosure. I supplemented the analysis of the media reports with interviews that I conducted over the past few years with NDRC officials, legal scholars, and lawyers who worked on some of these cases. The interviews that I conducted are open-ended, with some over the phone and some face to face in China. Given the sensitive nature of the topic, all these interviews were conducted anonymously. Table 1 summarizes the NDRC's disclosure pattern during its antitrust investigations.

Passive disclosure

In the majority of cases, the NDRC adopted a passive approach in disclosing its investigations. For instance, it revealed its investigations after firms' self-disclosures in two abuse of dominance cases involving InterDigital (InterDigital Case) and Qualcomm (Qualcomm Case), as well as a resale price maintenance case involving a number of luxury-car manufacturers and their dealers (Auto Part Cases). In a cartel case involving 12 Japanese auto companies (Japanese Auto Cartel Case), the NDRC disclosed its investigations prior to the firms' self-disclosures, but did not specify the names of the individual companies involved. In two resale price maintenance cases, one involving Maotai and Wuliangye (White Liquor Case) and the other involving premium optical manufacturers (Eye Vision Case), the NDRC announced its decisions directly without any prior disclosure of its investigations. In both cases, companies were seen to

have actively co-operated with the NDRC's investigations and agreed to rectify their behaviour before the NDRC announced its decisions. Notably, the decision of Maotai only appeared on Guizhou DRC's website briefly and was then quickly removed overnight. NDRC officials noted that because Maotai is a local state-owned champion, local officials faced significant pressures to announce this case.¹⁰ In one case, the NDRC delayed announcing the decision until months after the case was completed. On 2nd September 2014, the NDRC announced that it had imposed a fine of approximately 110 million yuan on a number of insurance companies and an insurance association (Zhejiang Insurance Case).¹¹ However, the decision had in fact been made more than nine months earlier.

A few insiders indicated that the NDRC had investigated many more cases than those that it disclosed in public.¹² For instance, in April 2009, several media outlets reported that five large domestic state-owned airline companies were suspected of fixing the prices of airfares.¹³ The NDRC never made any announcement about any related investigation. But acute observers found that this case was briefly mentioned in an obscure Chinese magazine entitled *Price Supervision and Check* (*Jiage jiandu yu jiancha* 价格监督与检查).¹⁴ The magazine is not widely circulated and is mostly read by government officials responsible for price monitoring and control. According to the reports in the magazine, the NDRC representatives investigated these domestic airlines and requested rectification of their conduct in August 2009.¹⁵ It further disclosed that the NDRC submitted a report of its investigation to the State Council, which was subsequently reviewed by the then vice-premier Li Keqiang 李克强.¹⁶ According to an NDRC official, no public sanction was imposed on these airlines because the case was "harmonized," i.e. resolved inside the bureaucracy.¹⁷ Such a phenomenon of "internal dispute resolution" is not uncommon. A scholar's close examination of the reports published in *Price Supervision and Check* between 2009 and 2013 revealed more mysterious omission by the NDRC of its antitrust investigations.¹⁸ These cases involved a wide range of domestic targets, including regional monopolies and large central SOEs. As later acknowledged by Xu Kunlin during a TV interview, the NDRC had kept a low profile of many cases that it had

10 Interview with BJ04, an NDRC official, Beijing, June 2016.

11 NDRC 2014.

12 Interview with BJ01, BJ02, BJ03, BJ04, four NDRC officials, June 2016; phone interview with a Chinese antitrust scholar, December 2013.

13 "Hangkong gongsi lianshou budazhe xianlu longduan" (Airline companies colluded to fix prices). *Travel Daily*, 24 April 2009, <http://www.traveldaily.cn/article/30018>. Accessed 20 March 2017; "Wu da hangkong gongsi beibao lianshou zhangjia" (Five large airline companies were revealed to have colluded to fix prices). Sina, 22 April 2009, <http://news.sina.com.cn/c/2009-04-22/040117659240.shtml>. Accessed 20 March 2017.

14 Zhang 2015.

15 Ibid. (The original Chinese report is published in Issue 4 of *Price Supervision and Check* in 2010.)

16 Ibid.

17 Interview with BJ04; phone interview with a Chinese antitrust scholar.

18 Zhang 2015 (noting such coverage of antitrust enforcement was suspended after 2013).

investigated out of concern of “double penalty.”¹⁹ He explained that many firms requested the NDRC not to publicize its case for fear of the reputational sanction on these firms.²⁰

Proactive disclosure

In contrast to the low-key approach that it took in most cases, on three occasions the NDRC acted as a whistleblower by strategically leaking information to state media. When the NDRC publicizes the case through highly influential state-media outlets such as CCTV and the *People’s Daily*, the media coverage exposes the firm to a high level of publicity.

On 9 November 2011, Li Qing 李青, a deputy director general at the antitrust unit of the NDRC, announced on CCTV that her agency had been investigating two large telecommunication firms – China Telecom and China Unicom – for antitrust violations.²¹ Ms Li claimed that the two SOEs had a dominant market position and together held over two-thirds of the market share in the internet access market.²² According to her, these two SOEs had conducted price discrimination against rival companies – if the facts were ultimately proven true, these two firms could be subject to a fine of 1–10 per cent of the fiscal revenue, potentially up to 8 billion yuan for both SOEs.²³ In addition to the antitrust allegations, Ms Li asserted that the two SOEs had not achieved full integration, thus increasing the cost of internet access for internet service providers.²⁴ The CCTV programme also referred to a recent report prepared by the National Telecommunication Expert Committee, noting that China’s internet speed ranked 71 in the world, less than one-tenth of the average speed of OECD countries while costing two or three times more.²⁵ The CCTV programme showed quoted estimates from the report, noting that the internet access price would decrease by 27 per cent to 38 per cent in five years if the relevant market became truly competitive, saving 10–15 billion yuan for Chinese consumers.²⁶ The NDRC announcement caused a sensation in China and public opinion was overwhelmingly negative for the two SOEs. A survey conducted by Sina Weibo, the Chinese version of Twitter, on the day of NDRC’s announcement shows that 96 per cent of the participants believed that these two SOEs held dominant positions in the broadband market and that 86 per cent of the participants were dissatisfied with their performance.²⁷

19 “Fanlongduan zhenxiang” (The truth of antitrust). CCTV, 16 February 2015, <http://jingji.cntv.cn/2015/02/16/VIDE1424029494651330.shtml>. Accessed 21 March 2017.

20 Ibid.

21 CCTV 2011.

22 Ibid.

23 Ibid.

24 Ibid.

25 Ibid.

26 Ibid.

27 Yue 2011.

As later revealed by Xinhua News, the NDRC's investigation of these two SOEs was met with significant opposition from various ministries who were concerned about the controversy over the matter and urged the NDRC not to reach its conclusion hastily before gathering solid evidence.²⁸ Thus, the NDRC's announcement on CCTV not only sent a shock to the SOEs, but also to the other government departments who were involved and consulted before the investigation.²⁹ According to Xinhua News, the surprise announcement on CCTV was a deliberate tactic adopted by the NDRC in response to the arrogant attitude displayed by these two SOEs.³⁰ Interviews with NDRC officials corroborate the news report. Insiders note that the NDRC faced significant opposition from bureaucratic departments including the State-Owned Assets Supervision and Administration Commission (SASAC), which was concerned about the potential loss of state assets, and the Ministry of Industry and Information Technology (MIIT), which was concerned that NDRC was encroaching on its turf.³¹ By leaking the news to CCTV, the NDRC hoped that public opinion against the two SOEs would in turn exert pressure on these two firms, making it more difficult for other bureaucratic departments to intervene in the matter.³²

Two years later, the NDRC applied the same tactic again when it investigated a number of domestic and foreign infant-formula manufacturers (Infant Formula Case). On 1 July 2013, CCTV claimed that it had obtained confirmation from the NDRC that the agency had been investigating Biostime and a few other infant-formula manufacturers for conducting resale price maintenance (RPM) in China.³³ Notably, CCTV only named Biostime but omitted the names of the other manufacturers. CCTV News specifically highlighted that Biostime had a large market share in the premium infant-formula market and had been charging abnormally high prices for its products. The day after CCTV's announcement, the *People's Daily* disclosed the names of five more companies which were also involved, claiming that it had obtained confirmation from the NDRC.³⁴ Mysteriously, Meiji, Fonterra, and Beingmate, who were at that time also being investigated by the NDRC, were not mentioned in the news. It therefore appears that within the same case, the NDRC exposed the firms under investigation to three different levels of publicity, as shown in Table 2.

According to an NDRC official, such differential disclosures have to do with the firms' level of cooperation rather than the severity of their conduct.³⁵ That is, if a firm vigorously defended itself and did not quickly admit its guilt, the NDRC

28 Xinhua Net 2011.

29 Ibid.

30 Ibid.

31 Interview with BJ02, BJ04, two NDRC officials, June 2016.

32 Ibid. See also Xinhua Net 2011.

33 "Fazhan gaigewei dui Heshengyuan deng rufen qiye fanlongduan diaocha" (NDRC launched an anti-trust investigation into Bostime and other milk powder companies). CCTV, 2013, <http://tv.cntv.cn/vodplay/015c07df1972448e915602c6c74c20b2/860010-1102010100>. Accessed 21 March 2017.

34 Zhu 2013.

35 Interview with BJ04.

Table 2: Disclosure Pattern of Investigation in Infant Formula Case

Company	CCTV*	People's Daily**	Severity of penalty***	Grounds for fine
Biostime	Yes	Yes	6%	Severe violations; failed to rectify its behaviour.
MeadJohnson	No	Yes	4%	Being uncooperative during investigation but proactively rectified its behaviour.
Abbott	No	Yes	3%	Cooperative during investigation and rectified its behaviour.
Fonterra	No	No	3%	
Dumex	No	Yes	3%	Proactively provided important evidence and rectified its behaviour.
Wyeth	No	Yes	0	
Beingmate	No	No	0	
Meiji	No	No	0	

Source:

Based on official penalty decisions by the NDRC and various news articles about these cases kept on file by the author.

Notes:

*CCTV: indicates whether the firm was mentioned on the CCTV programme.

***People's Daily*: indicates whether the firm was mentioned in the *People's Daily*.

***Severity of penalty: measured by the percentage of the revenue used to calculate the fines imposed on the individual firms.

would expose the firm to more negative publicity and impose a higher penalty on the company. In this case, Biostime was the most difficult to deal with, as the firm fiercely defended its conduct during the investigation.³⁶ This contrasted with other firms involved in the investigation – an example that the official gave is Meiji, which readily cooperated with the agency and even volunteered to submit all the evidence of its resale price maintenance practices to the agency.³⁷

The third case involved a number of gold retailers in Shanghai who allegedly colluded to fix prices for gold retailing (Gold Retailer Case) in 2014. The *People's Daily*, a Party mouthpiece, was the first to disclose the investigation, claiming that it had obtained confirmation from the NDRC as exclusive coverage.³⁸ Similar to the above two cases, the NDRC appeared to have been met with strong resistance during its investigation. During a TV interview, an NDRC official recalled a direct confrontation with the chairman of the trade association, who had orchestrated the cartel.³⁹ Notably, some of the gold retailers are partly state-owned and, in fact, the Shanghai government used to own all of them.⁴⁰ A lawyer involved in this case noted that some of the gold retailers were initially contemplating filing an administrative appeal against the NDRC but ultimately relented due to the pressures from the government.⁴¹

36 Ibid.

37 Ibid.

38 Wan 2014.

39 Yuan 2013.

40 “Laofengxiang deng jingdian longduan jin jia huoli chao 10 yi, fagaiwei jin fa 1% yi qian wan” (Laofengxiang and other gold retailers monopolized gold prices, reaping profits over 1 billion yuan, the NDRC only fined 1%, i.e. 10 million yuan). *Discovery*, 2013, <http://special.stockstar.com/topic/hj>. Accessed 21 March 2017.

41 Phone interview with a lawyer involved in this case, October 2013.

A potential alternative explanation of the NDRC's high-profile announcement in these cases is that the agency was seeking to raise awareness among the Chinese public about antitrust compliance. After all, the AML had only been promulgated a few years ago and businesses and citizens were only starting to learn about the law. A closer look at these cases, however, suggest that education was unlikely to be the main motivation for the NDRC's proactive disclosure. First, the NDRC could have achieved the purpose of increasing public awareness through the publication of its final decisions, which might have achieved a greater deterrent effect, as the case outcome would have been known and the penalty would have been imposed at that point. Moreover, if the primary purpose of such proactive announcement was to educate the public, there would have been no need for the agency to expose the firms subject to its investigation to different levels of publicity, as shown in the Infant Formula Case. Furthermore, interview findings with the NDRC officials in these cases show that they tried to leverage public opinion to push forward difficult investigations. This increased the cost to firms from defying the agency and significantly reduced the NDRC's cost of prosecution.

Thus far, we have only observed three cases in which the NDRC applied the strategy of proactive disclosure. It is possible that in subsequent investigations, companies became aware of the strategic shaming sanction and thus were deterred from challenging the NDRC. Another possibility may have to do with the personal style of the political leader. Xu Kunlin, who is known to use media tactics to push forward difficult cases, left the antitrust bureau in early 2015. The new Director General, Zhang Handong 张汉东, is near retirement and is not as keen to apply the shaming sanction to compel enforcement.⁴²

Impact of Disclosure

To estimate the effect of the government's disclosure on the value of a firm, I apply the standard event study methodology.⁴³ I particularly focus my analysis on the three investigations in which the NDRC proactively announced its investigation. Despite the limited number of observations, these cases set important precedents for subsequent cases. As the NDRC has shown in these early cases that it could also leverage shaming sanctions, firms subject to investigation would not only need to be concerned about the legal consequences, but also the potential adverse market reactions in response to NDRC's proactive announcement. Indeed, after these three cases, businesses rarely launched a vigorous defence and no firm dared to challenge the NDRC in court. Rather, they quickly surrendered to the NDRC's request during an investigation. A recent example illustrates this: between 2014 and 2015, several regional offices of the NDRC launched their investigation into the auto industry and conducted

42 I thank an anonymous referee for suggesting this point.

43 Campbell et al. 1996; MacKinlay 1997.

dawn raids on a number of premium car manufacturers and their dealers in China. Companies including Chrysler, FAW-Volkswagen, BMW, Mercedes-Benz, and Dongfeng-Nissan, as well as their dealers, were investigated and received hefty fines for conducting RPM in their sales of auto parts. All the companies involved not only readily admitted their guilt and promised to rectify their behaviour immediately, but also announced significant price cuts for their auto parts even before the agency made its decisions.⁴⁴

Admittedly, there might be possible leakage of the NDRC's investigation before the government's official announcement and this could have an impact on the stock prices of firms subject to its investigation. However, the focus of the inquiry in this article is to examine the impact of the NDRC's strategic use of public shaming sanction, rather than the impact of any public disclosure of a firm's involvement in an antitrust investigation. This is because the high-profile announcement in leading party media outlets is an unexpected event, and the gesture itself carries valuable information for investors. As demonstrated in the following analysis about the Infant Formula Case, even if a firm has made prior disclosure, investors can still glean new information from the regulator's proactive announcement of its investigations and this can also adversely influence the firm's stock performance.

The market model

According to the efficient market hypothesis theory, the price of stocks reflects the value of all publicly available information about the company to investors. Therefore, any news about the fundamentals of the company is immediately absorbed and reflected in the share price. To examine the market reaction to the government's announcement of an investigation, it is important to estimate the stock price that would have prevailed in the absence of the news at the time that the investigation was announced by the NDRC. The difference between the counterfactual return and the actual return represents the abnormal return. Following existing literature on the study of the impact of an antitrust investigation on market value, I use a simple market model of returns to calculate a counterfactual return.

The market model is defined as:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

Where R_{it} is the return of security i at period t , i.e.

$$R_{it} = \frac{P_{i,t}}{P_{i,t-1}} - 1$$

and R_{mt} is the return of the market index at period t . The error term ε_{it} is expected

44 "BMW cuts spare-part prices in China amid antitrust investigation." *Bloomberg News*, 7 August 2014, <http://www.autonews.com/article/20140807/GLOBAL03/140809814/bmw-cuts-spare-part-prices-in-china-amid-antitrust-investigation>. Accessed 21 March 2017.

to be mean zero, and the variance equals to σ_e^2 . $P_{i,t}$ and $P_{i,t-1}$ are the closing prices for security i at time t and time $t-1$ respectively.

The abnormal return can therefore be defined as:

$$AR_{it} = R_{it} - E(R_{it}|X_i)$$

The daily abnormal returns are summarized over the event window to derive the cumulative abnormal returns (CARs):

$$CAR_{i(T_1-T_2)} = \sum_{T_1}^{T_2} AR_{it}$$

where $CAR_{i(T_1-T_2)}$ is the cumulative abnormal return for firm i over the event window (T_2, T_1) . I examine four event windows: a three-day event window $[-1, 1]$, a seven-day event window $[-1, 5]$, an 11-day event window $[-5, +5]$ and a 31-day event window $[-20, +10]$. The estimation window dates from T_0 ($t = -140$) to T_1 ($t = -21$) relative to the announcement date $t = 0$, including 120 trading days.

Stock reactions

The previous literature suggests that the negative abnormal returns experienced by a firm upon the disclosure of an antitrust investigation reflects investors' prediction of the firm's value loss from three sources: the estimate of the fines that the company would receive, the loss of profits resulting from the price reduction, or other behavioural remedies offered to the regulator, as well as reputation sanctions.⁴⁵ In the Chinese context, however, a high-profile public announcement by an antitrust agency sends another important signal to the market – the firm's loss of political capital. In China, political connection with the government is a particularly important and valuable asset for a firm.⁴⁶ This is especially the case for SOEs, which have close ties with the Chinese government and enjoy convenient channels for lobbying its various bureaucratic departments.

As set out in Table 3, in both the China Telecom/China Unicom Case and the Gold Retailer Case, companies experienced significant negative abnormal returns either on the day of or the day after the NDRC's announcement. Notably, China Telecom and China Unicom are two of the three largest telecom companies in China and they are both directly owned by the central government. Yu Yuan Tourist Mart and Lao Feng Xiang were both formerly owned by the Shanghai government but the former was privatized, while the latter remained owned by the state. Thus, in addition to investors' prediction of the loss of fundamental value of these firms, investors may also predict a loss of political capital of these firms. The NDRC's announcement on CCTV or in the *People's Daily* may signal that the SOEs involved in these cases have fallen out of political

45 Van den Broek et al. 2012, 234–35.

46 Ang and Jia 2014.

Table 3: **Impact on Stock Prices in China Telecom/China Unicom Case and Gold Retailer Case**

Investigation	Company	AR (T = 0)	AR (T = 1)	CAR (-1, +5)	CAR (-1, +1)
China Telecom/	China Telecom	-0.02*	0.01	0.02	0.00
China Unicom	China Unicom	-0.08***	0.03	-0.05	-0.04
Gold Retailer	Yuyuan Tourist Mart	-0.03*	-0.02*	-0.01	-0.06**
	Lao Feng Xiang	-0.01	-0.04*	-0.11**	-0.07**

*** significant at 1%; ** significant at 5%; * significant at 10%.

favour, hence they lack the political clout to avoid such investigation or to stop the disclosure by the agency in the first place. Indeed, as discussed in the previous section, NDRC officials acknowledged that they did not disclose some cases due to the political pressures that they faced in investigating these firms.

Unlike the above two cases involving domestic SOEs, firms investigated in the Infant Formula Case were exposed to three different levels of publicity, as set out in Table 1. This allows us to isolate the effects of the disclosure and presents us with a unique opportunity to examine and compare the market reactions in these different scenarios.

In the Infant Formula Case, Biostime was subject to the most publicity and it clearly felt the strongest impact from the NDRC's announcement. Although the company had made a prior disclosure that it had been subject to antitrust investigation, the NDRC's subsequent announcement still sent a very bad signal to the market. Biostime's stock suffered a cumulative negative abnormal return of 22 per cent upon the NDRC's announcement in the three-day event window and 37 per cent in the seven-day event window. Both results are highly statistically significant. This shows that investors can gain new information from the NDRC's action, even though the government's announcement itself contains no more information than Biostime's own disclosure. Because Biostime was the only firm that was named on CCTV, investors may have read this message as a sign that the NDRC had obtained solid evidence of the firm's antitrust violations and that the firm's infringement was very severe. Therefore, the loss of equity may reflect investors' predictions of the legal sanctions, including the potentially high fine that could be imposed under the AML, as well as behavioural remedies (such as price reductions) formally or informally imposed by the NDRC. Furthermore, the NDRC announced the news on a CCTV programme which condemned the excessively high prices of Biostime's products, and in subsequent days Biostime found itself lambasted by a slew of Chinese media accusing it of using aggressive distribution tactics to reap abnormal profits. Investors may therefore predict a loss from the reputation sanction – that the overwhelming public criticisms targeted at Biostime would result in a loss of trust from consumers and suppliers, thus affecting the firm's sales and future performance.

In addition to Biostime, Mead Johnson, which was mentioned in the *People's Daily*, also suffered a huge loss upon the announcement. Its stock suffered a

Table 4: Impact on Stock Prices in the Infant Formula Case

Investigation	Company	AR (T = 0)	AR (T = 1)	CAR (-1, +5)	CAR (-1, +1)
Infant Formula	Biostime	-0.01	-0.12***	-0.37***	-0.22***
	Mead Johnson	-0.06***	-0.08***	-0.13***	-0.05*
	Abbott	0.00	0.00	-0.04	-0.02
	Fonterra	-0.01	0.00	0.00	0.00
	Dumex (Danone)	-0.01	-0.01	-0.04	-0.01
	Wyeth (Nestlé SA)	0.00	0.00	0.01	0.00
	Beingmate	0.07**	0.05*	0.08	0.11*
	Meiji	0.00	-0.01	-0.01	0.00

*** significant at 1%; ** significant at 5%; * significant at 10%.

Notes:

1. The NDRC announced its investigation of the Infant Formula Case on 1 July 2013, a public holiday in Hong Kong. Therefore, T = 0 for Biostime is 2 July 2013.

2. The companies listed in Table 4 are listed on different stock exchanges in Hong Kong, Paris, Shenzhen, New York and Tokyo. For the purpose of examining their abnormal return, I use the stock price of their holding companies. Thus, for the purpose of analysing the abnormal returns of Dumex and Wyeth, I use the stock returns of their holding companies, Danone and Nestlé, respectively.

cumulative negative abnormal return of 5 per cent upon the NDRC announcement in the three-day event window and 13 per cent in the seven-day event window. Both results are statistically significant. However, the stock reactions of Abbott, the holding companies of Dumex (i.e. Danone) and Wyeth (i.e. Nestlé), which were also mentioned in the same newspaper, are not as strong. This may have to do with the fact that these companies are large multinational conglomerates and the Chinese investigation only affected a small part of their global businesses. Based on the disclosure from annual reports, Abbott's revenue from China accounted for 5 per cent of its global revenue in 2013, and the Chinese revenue of Danone and Nestlé only accounted for 7 per cent of their overall revenue during that year. Moreover, milk powder is not a major source of revenue for these firms. For instance, income from whole-milk powder business accounted for only 10 per cent of the total revenue of Abbott, 20 per cent of Danone, and 14 per cent of Nestlé in 2013. This contrasted with Mead Johnson, which invested heavily in China and derived almost 31 per cent of its global revenue from the mainland market in 2013.⁴⁷ Lastly, and not surprisingly, for those firms that were omitted in the news (i.e. Fonterra, Beingmate and Meiji), the NDRC's announcement had little negative effect on stock prices. Notably, after the NDRC's initial announcement on CCTV, there was much speculation about which infant formula producer was involved. As the focus of the inquiry of this article is on the impact of the NDRC's strategic shaming, the market reactions to other types of public disclosures are less relevant here.

To further investigate the impact of differential disclosure on stock prices, I compared the stock reactions of Biostime and Beingmate, the two domestic firms that were subject to two extreme levels of publicity (one was mentioned

47 Key 2016.

in both the CCTV programme and the *People's Daily*, while the other was completely omitted in the news). The business operations of these two firms are highly similar. Both companies sold exclusively to the mainland Chinese market and both derived the vast majority of their revenue from the sales of infant formula. In particular, milk powder accounted for 93 per cent of Beingmate's revenue in 2013⁴⁸ and 82 per cent of the revenue of Biostime in 2013.⁴⁹ The former is listed on the Hong Kong Stock Exchange and the latter is listed on the Shenzhen Stock Exchange. Thus, it seems that the NDRC's investigation would affect a significant portion of the businesses of both firms. Yet despite their similar exposure to the NDRC's investigation, their stocks had completely different reactions, as demonstrated in Table 5.

On the second trading day after the NDRC's announcement ($T = 1$), Biostime experienced an abnormal return of -12 per cent and a further return of -19 per cent on the third day. Both results are highly statistically significant. Beingmate, which was also investigated but omitted in the NDRC's disclosure, had a completely different fortune. Its stock prices reacted positively to the NDRC's announcement: the abnormal return on the first day of the announcement was 7 per cent, followed by 5 per cent and 10 per cent on the second and third trading days. All these results are statistically significant. This suggests that the market was probably unaware of Beingmate's involvement at that time. Because Beingmate is a domestic company, the market might have been mistaken in thinking that the investigation was solely targeted at foreign firms and thus domestic firms could have benefited from the NDRC's intervention. Beingmate's stock prices only started to tumble on 4 July 2013, when the firm publicly admitted its involvement in the case.⁵⁰ Indeed, Beingmate's delay in disclosing its involvement prompted some Chinese investors to accuse the firm of defrauding investors in violation of the disclosure requirements under Chinese securities law.⁵¹

On 7 August 2013, the NDRC released its decision and imposed the heaviest sanction on Biostime. Despite this, the market reacted positively to the news and the firm experienced a positive abnormal return of 7 per cent on the day of the decision. This seems to suggest that the market had earlier overreacted to the NDRC's announcement and had probably over-estimated Biostime's legal sanctions. As one executive involved in the Infant Formula Case told the newspaper after the NDRC's announcement of its investigation: "We hope the NDRC will release its decision soon. The sooner it decides, the less impact it will have on our stock performance."⁵² At the same time, Beingmate experienced a slight positive

48 Beingmate 2014.

49 Biostime 2014.

50 Hu 2013.

51 "Bei Yinmei chengren shexian fanlongduan diaocha huo shexian xingpi weigui" (Beingmate admitted it was suspected to be involved in antitrust investigation or violating securities disclosure requirements). *Jinghua Shibao*, 5 July 2013, <http://finance.sina.com.cn/stock/s/20130705/082816024813.shtml>. Accessed 6 October 2018.

52 Bihua 2013.

Table 5: Comparison of Abnormal Return and Cumulative Abnormal Return of Biostime and Beingmate

Event days	AR NDRC disclosure (1 July 2013)		AR NDRC decision (6 August 2013)	
	Biostime	Beingmate	Biostime	Beingmate
t = -1	-0.09***	0.00	-0.03	0.00
t = 0	-0.01	0.07**	0.07**	0.01
t = 1	-0.12***	0.05*	-0.02	-0.04
t = 2	-0.19***	0.10***	-0.02	-0.01
t = 3	0.03	-0.07**	-0.03	0.02
t = 4	-0.02	-0.05*	0.00	-0.02
t = 5	0.03	-0.01	-0.02	-0.03
Event window	CAR NDRC disclosure (1 July 2013)		CAR NDRC decision (6 August 2013)	
	Biostime	Beingmate	Biostime	Beingmate
(-20; +10)	-0.28*	0.12	0.22	-0.20
(-5; +5)	-0.41***	0.11	0.09	-0.05
(-1; +5)	-0.37***	0.08	-0.05	-0.09
(-1; +1)	-0.22***	0.11**	0.02	-0.03

*** significant at 1%; ** significant at 5%; * significant at 10%.

Note:

Because 1 July 2013 is a public holiday in Hong Kong, T = 0 is 2 July 2013 for Biostime.

abnormal return of 1 per cent on the day of the NDRC's decision, followed by a return of -4 per cent the next day, even though the company received full leniency and was not subject to any fine. This is another sign that the market was probably unaware of Beingmate's involvement in the investigation and the negative stock reaction reflects the investors' expectation of the loss of profits as a consequence of the need to reduce prices after the investigation.

To be sure, the NDRC officials sometimes disclosed their investigations during their press conferences or interviews. But such types of disclosures occurred after the self-disclosures by the investigated firms, and they were not publicized in highly influential media outlets such as CCTV or the *People's Daily*. Thus, the NDRC did not intend to employ the strategic shaming sanction in those circumstances of passive disclosure. For completeness, I investigated the stock-market reactions of those cases in which the NDRC took a reactive approach in disclosing its investigation. As shown in Table 6, the market reactions to the NDRC's announcements in these cases are much weaker than those observed in Tables 3 and 4. Because the NDRC did not specify the firm involved or made no disclosure through other types of passive disclosure, I cannot conduct any meaningful event study in those circumstances.

To further assess the impact of the announcement on a firm's value, Table 7 presents the loss of market capitalization during a three-day event window

upon the NDRC's announcement. It is difficult to evaluate precisely the reputation effects in these cases, but it is clear that the ultimate fine imposed on these firms is dwarfed by the value loss that these firms experienced upon the regulatory announcement. To illustrate, Biostime suffered an equity loss of almost 4.39 billion yuan upon the NDRC's announcement during a three-day event window, which is 26 times larger than the fines that it ultimately received.

As the NDRC possesses significant discretion in deciding whether, when, and how to disclose an investigation, it can potentially use this discretion to its advantage. If a publicly listed firm does not cede to the agency's demand, it could face a strategic proactive disclosure by the antitrust agency, resulting in a dramatic equity loss. On the other hand, if a firm readily gives in, the agency might not disclose its investigation, might delay announcing its decision, or might even conceal its decision, thus minimizing the negative impact on its stock performance. Such a strategic move creates powerful incentives for firms to cooperate with the agency and deters them from defending themselves or challenging the agency in public or in court.

Importantly, these early precedents in Chinese antitrust enforcement have become the focal point⁵³ for future cases. Lawyers and in-house counsel used them as lessons to “educate” clients as to how they should cope with an NDRC investigation and to warn them against the consequences of a vigorous defence.⁵⁴ In subsequent investigations, particularly in those resale price maintenance cases, manufacturers proactively offered significant price reductions in response to the NDRC's investigations in order to show willingness to cooperate with the agency.⁵⁵ While this gesture would have been deemed highly risky in other jurisdictions and, indeed, has puzzled foreign antitrust experts,⁵⁶ it seems to be a rational decision in the Chinese context. Given the significant discretion that the NDRC possesses, a business subject to investigation fears not only a potentially higher legal sanction as a consequence of voicing defence, but also a significant market loss if the NDRC imposes a public shaming sanction. As such, few foreign multinational firms subject to the NDRC's investigation dared to challenge its decisions in court, despite the many grievances that they have voiced through their chambers of commerce.⁵⁷

53 Schelling 1990.

54 Interview with BJ06, an in-house legal counsel, Beijing, June 2016; interview with BJ07, an antitrust lawyer, Beijing, June 2016; interview with Lon01, a Chinese antitrust lawyer, London, February 2016; interview with Lon02, a Chinese antitrust lawyer, London, March 2016.

55 Mitchell 2014.

56 Stefan 2013.

57 US Chamber of Commerce 2014; European Chamber of Commerce 2014.

Table 6: **Impact on Stock Prices upon the NDRC's Reactive Public Announcement of Investigation by Company and Case Name**

Case	Company	AR (T = 0)	AR (T = 1)	CAR (-1, +5)	CAR (-1, +1)
InterDigital	InterDigital	-0.01	0.06	0.08	0.06
Qualcomm	Qualcomm	0.01	0.00	-0.03	-0.01
Auto Part	FAW Group	-0.01	-0.03	-0.03	0.00
	Volkswagen	0.00	0.00	-0.02	-0.02
	Chrysler	0.00	0.00	-0.02	-0.02*
	Mercedes	0.00	0.00	-0.02	-0.02*

* significant at 10%.

Note:

The companies listed in Table 6 are listed on different stock exchanges in New York, Shanghai and Frankfurt. For the purpose of examining their abnormal return, I use the stock price of their holding companies. Notably, FAW-Volkswagen is a joint venture between FAW Group and Volkswagen so their stock returns are presented separately here.

Table 7: **Comparison of Value Loss with Fine during Three-Day Event Window upon the NDRC's Announcement**

Case	Company	CAR (-1, +1)	Value loss (yuan)	Fine (yuan)	Value loss/ fine
Gold Retailer	Yuyuan Tourist Mart	-0.06**	572,978,344	5,019,600	114
	Lao Feng Xiang	-0.07**	258,654,584	3,232,900	80
Infant	Biostime	-0.22***	4,394,704,508	162,900,000	27
Formula	Mead Johnson	-0.05*	4,831,315,340	203,760,000	24

*** significant at 1%; ** significant at 5%; * significant at 10%.

Notes:

1. Market capitalization is calculated as the product of share price and the number of outstanding shares.
2. The value loss is calculated by multiplying the cumulative abnormal returns over the [-1, +1] event window by the market capitalization of the firms on the trading day before the event.
3. The value losses of Biostime and Mead Johnson have been converted into yuan using the historical exchange rate on the event date.
4. The China Telecom/China Unicom Case was excluded as the case was ultimately suspended and the NDRC did not impose any fine.

Conclusion

This article examines the pattern of disclosure by the NDRC during the first eight years of its antitrust enforcement and measures the impact of such disclosures on firms' stock performances through event studies. It finds that while the NDRC routinely took a passive approach in disclosing its investigations, it proactively announced its investigations on state media in three high-profile cases during the period of 2011 to 2013. A common feature of these cases is that the NDRC was met with significant opposition during its investigations, and the agency tried to leverage public opinion to gain political support and to exert pressures on the firms to conform to the agency's demands. Event studies show that in these cases, the NDRC's announcements led to negative and statistically

significant abnormal returns of the stock prices of investigated firms. Such a severe market sanction earns the NDRC the reputation as a tough regulator, deterring firms from defying the agency in future investigations.

The findings in this article further advance our understanding of shame as a regulatory tool in the Chinese administrative law system. In a departure from the previous literature, shaming is imposed preemptively and strategically to induce firms to cooperate with the agency. Thus, shaming is not used as an alternative to the formal legal sanction, but rather as a regulatory tool at the disposal of the NDRC.⁵⁸ Such a novel application of the shaming sanction helps the NDRC, a newly established antitrust agency with limited capacity and resources, to push forward its hectic enforcement, even on the basis of dubious legal and economic grounds.

Notably, among the three cases in which the NDRC applied the strategic shaming sanction, two of them involved domestic SOEs. These cases demonstrate that the Chinese antitrust agencies are incentivized to bring actions against SOEs, despite the strong political resistance that they might encounter in tackling those cases. Indeed, because many SOEs operate in regulated sectors, antitrust interventions help the agency expand its policy control in those areas, as evident in the China Telecom/China Unicom Case.⁵⁹ Meanwhile, Chinese SOEs are often sheltered from regulations due to their superior bureaucratic status, and they have relatively easy access to the government and convenient channels to lobby against regulation. However, as many large Chinese SOEs have been listed at domestic or overseas stock exchanges, market sanction is an important constraint faced by these SOEs when they become subject to antitrust investigation. Public shaming thus becomes an important mechanism for antitrust regulation of SOEs in China.

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58 I thank an anonymous referee for suggesting this point.

59 Zhang 2015, 219–220.

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摘要: 本文考察了国家发展和改革委员会（“发展和改革委员会”）在执行反垄断法过程中采用的一种新型监管策略 – 战略性的公众羞辱。根据对媒体报道和访谈结果的分析，作者发现国家发改委披露调查的方式是高度战略性的，取决于公司对调查的合作态度。事件研究进一步表明，国家发改委的积极披露导致受调查的公司股票价格有显著异常的负面收益。例如，2013 年受发改委调查的一家婴儿配方奶粉制造商合生元在三天内股价的累积显著异常的负面收益达到 22%，致使其市值的损失高达反垄断罚金的 27 倍。这些研究表明国家发改委的战略性的公众羞辱策略可能导致被调查企业受到严厉的市场制裁，从而阻止了企业抵抗监管者。

关键词: 中国; 声誉; 羞辱; 反垄断; 竞争; 监管

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