



Governance by Uncertainty: Changing Patterns in China's Environmental Enforcement

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Abstract

Governance in China is often characterized as dualistic. On the one hand, the state invests in stable, rule-based institutions to support effective policy implementation. Yet the state also engages in sudden regulatory campaigns, overstepping its own laws to implement rapid changes in key sectors. Businesses in China have developed coping mechanisms to weather these uncertainties; they cultivate political ties or learn to accommodate unexpected disruptions. Yet in the sphere of environmental policy implementation, businesses across the spectrum are starting to complain that local environmental enforcement feels unpredictable, even arbitrary. What constitutes unpredictable enforcement in an environment already characterized by high levels of regulatory uncertainty? What changes in environmental enforcement are driving these complaints? Using original data on nine years of city-level enforcement measures, I show that both campaign-style and rule-based enforcement have been increasing in intensity and frequency since the mid-2010s. Through qualitative evidence, I show how these two approaches work at cross purposes, generating mixed signals on which strategies businesses should use to reduce pollution or to mitigate regulatory uncertainty. Data shows that this is a nationwide pattern, which explains why business—even experienced, well-connected businesses—are complaining about arbitrary state action. This study draws attention to emerging stress tests of China's dualistic governance, while delving into what these changes portend for state-business relations in China.

Introduction

A founding assumption of modern markets is that states must build strong, independent regulatory institutions as a “credible commitment” to businesses that their investments will be protected from arbitrary state intervention (North 1990). This assumption is

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being challenged in China. Politicians are unconstrained by independent courts or regulators, yet businesses (both foreign and domestic) continue to invest in Chinese markets.

Scholars argue that this is because in the absence of strong institutional protections, *predictability* in the government's behavior can act as a substitute for formal property rights guarantees (Clarke 2003, 106; Benson 1988). In China, political leaders have cultivated this predictability through internal mandates that reward local officials for economic growth above all policies, thereby reducing incentives for corruption (Birney 2014; Landry 2008). Businesses themselves have cultivated predictability by building ties with influential politicians at all levels of the state. They use these connections to lobby for a continued focus on growth or to gain protection against unexpected taxation or confiscation (Deng and Kennedy 2010; Huang and Chen 2020). China's case therefore shows that so long as informal practices constrain arbitrary state intervention, businesses will invest, even when market institutions are weak (Clarke 2003; Tsai 2011).

However, when predictability is built on a web of half-hidden networks, semi-sanctioned collusion, and bureaucratic mandates known only to insiders, it can be hard for outsiders to discern when a state's enforcement practices have crossed over from the expected into the arbitrary. In more advanced institutional environments, laws demarcate what is legal versus illegal and independent courts establish when state interventions constitute a violation. Informal norms may exist, but they are not the primary means for determining when state officials have broken their commitments to investors. In contrast, in contexts where expected behaviors are not openly defined, and where formal institutions play a lesser role in enforcing compliance, how do we know when there has been a change in the predictability of state-business interactions? When can we believe businesses when they say that the state has broken their side of the bargain?

Take the case of pollution enforcement in China. In recent years, polluting business have started to cry out against the government's erratic approach to enforcing pollution regulation. Reports document complaints from across the spectrum of polluters, including large, state-owned conglomerates in the steel sector,¹ foreign-owned firms in the chemical sector,² and small, private enterprises in export sectors.³ Chief among their complaints is the state's use of indiscriminate crackdowns to clean up pollution. These actions (also known as campaign-style enforcement (运动型治理)) are often extra-legal, imposed by political fiat rather than through the established policy process. Moreover, they are implemented alongside an increasingly stringent institutionalized enforcement

¹ In 2019, the Hebei Steel Industry association publicly decried the MEE's use of "sudden stop" shutdowns to temporarily improve air quality. See 《关于报送钢铁企业 对限产和环保相关问题意见的函》, 河北省冶金行业协会, 5 November 2019.

² See case details in "Why Businesses Complain" section, drawing on the *European Business in China Position Paper*, European Chamber of Commerce, Petrochemicals, Chemicals and Refining Working Group, 2019/2020, 248.

³ See, for instance, *New York Times*, 27 September 2021, "Power Outages Hit China, Threatening the Economy and Christmas". This is one of multiple reports on this topic.

approach, where local officials use legally sanctioned interventions (such as regular inspections) to motivate polluters to meet emission standards. This two-track enforcement approach—where both campaign-style and institutionalized enforcement are used simultaneously—leads to a situation where polluters who clean up their production to avoid sanctions may still be forced to stop production during an unexpected “blue sky” campaign. This cycle happens repeatedly, generating mixed signals about which strategies businesses should use to protect themselves against the state’s enforcement actions. Thus, businesses are starting to complain that the state’s enforcement actions have become unpredictable, even arbitrary.

But is it fair to call these enforcement methods “arbitrary”? Drawing on Weber’s definition of arbitrary state action—that is, interventions that go against stable expectations of how state officials carry out their duties (Weber et al. 1978)—can polluting businesses truly claim that there has been a rupture in the predictability of state-business interactions in the environmental sphere? After all, the simultaneous use of campaigns and institutionalized enforcement should come as no surprise to polluters in China. Experienced businesses know that central leaders’ promises to institutionalize regulatory enforcement will only go far: A regime that consolidated its rule through discretionary powers will not surrender to the rule of law simply to bring greater predictability to policy enforcement (Heilmann and Perry 2011; Shirk 1993).

Moreover, environmental policy has been implemented in an ad hoc and extra-legal fashion in China for decades. Local officials turn a blind eye to rampant pollution, only to impose restrictions suddenly or shutter polluting companies out of the blue (Tilt 2007; van Rooij 2009). In response, business learns to develop coping mechanisms for uncertainty: They use political connections to mitigate the impact of campaigns (Li and Zhan 2023) or comply with forced shutdowns initially, and then over-pollute later to make up for lost time (Tian and Tsai 2020). Given this context, is the state’s approach to enforcing pollution regulation truly as unpredictable or arbitrary as businesses’ claim, or is this mere bellyaching by unscrupulous businesses that are finally being held accountable to environmental laws?

To address this challenge, this study investigates two inter-related questions: First, why are polluting businesses in China complaining about arbitrary state action? Second, what constitutes arbitrary state behavior in a context where ad hoc, extra-legal enforcement is the norm, even expected?

Using qualitative data (including interviews with 35 business representatives, as well as two case studies from different regions), I show that businesses are not complaining about violations of the law; in fact, businesses are accustomed to extra-legal enforcement by the state. Nor is campaign-style enforcement (taken by itself) considered arbitrary. Rather, businesses feel that enforcement becomes unpredictable when the state repeatedly uses campaign-style and institutionalized enforcement at the same time, against the same actors, and to regulate the same type of activity—or what I call “two track enforcement.” I further highlight how Beijing’s anti-corruption campaign, combined with its growing resolve to control pollution since 2013, has undermined the coping mechanisms that businesses once used to mitigate unpredictable enforcement. This is why complaints are emerging across the polluting sector.

Building on this analysis, I identify two characteristics that would indicate a breakdown in predictable patterns of local environmental enforcement in China, namely, (1) an increased *frequency* and *intensity* in campaign-style implementation and (2) the *sustained* and *simultaneous* use of campaign style and institutionalized enforcement methods. I then use quantitative data to assess if these patterns of arbitrary enforcement are happening nationwide. I draw on an original dataset which records city-level environmental enforcement measures against all polluting sectors in all 283 prefectural-level cities in China for the years 2009–2017, coded by whether enforcement was undertaken through campaign-style or institutionalized measures. Through descriptive statistics, I show that campaigns have increased in frequency since 2014 and that throughout China, local officials are practicing two-track enforcement with greater intensity than ever before. This indicates that polluting businesses' complaints are valid; in sectors subjected to pollution control policies, there has been a growing unpredictability around local officials' implementation of environmental policy.

To be sure, there will be variation in how businesses experience these changes. Larger state-owned enterprises (SOEs) may weather unpredictable enforcement without complaint, because protective government policies help smooth over disruptions to business. Conversely, in sectors targeted for excessive pollution (such as steel or chemicals), polluters may experience contradictory enforcement signals more acutely. In cities where local officials are under intense scrutiny from Beijing's anti-corruption campaign, businesses may lose protective allies in local government and experience the full force of unpredictable enforcement for the first time.

The goal of this study is not to explore that variation, but to examine whether the individual experiences of polluting firms add up to a broader shift in how local officials are regulating and interacting with businesses in China. Has environmental enforcement become more unpredictable overall, even by the standards of China's highly ad hoc approach to regulatory enforcement? If so, what might this portend for the future of state-business relations in China?

Campaigns and Arbitrary Enforcement in China

As China's economy matures and market activity becomes more complex, central leaders have transferred their attention to managing the externalities of growth, such as pollution. Beijing's new emphasis on environmental protection has precipitated a shift in local officials' enforcement behavior. Until the mid-2000s, efforts to implement pollution regulation were half-hearted. Central leaders recognized that environmental protection came at the expense of economic growth and (amidst the drive to develop the economy) would generally turn a blind eye to local officials who neglected environmental policies (Ang 2016; Economy 2014; Zhang et al. 2010; van Rooij 2006). For polluters, this emphasis on economic growth also helped to stabilize the enforcement environment; polluting businesses learned that (barring occasional, short-lived campaigns to address environmental or social issues) they could rely on local officials to protect their investments or downplay illegal polluting activity, so long as their business contributed to local revenue.

Yet since the mid-2010s, the central government has signaled that it will no longer tolerate an overwhelming focus on the economy at the expense of environmental protection. To this end, Beijing has reweighted bureaucratic performance targets to emphasize emission reduction, with studies showing that in richer areas, local officials must now distinguish themselves through achievements on pollution control instead of just GDP growth (van der Kamp et al. 2017). Local officials now pressure polluters to clean up their production processes or require factories to install in costly pollution abatement infrastructure. Unsurprisingly, polluters want assurances from local governments that these large investments in pollution control will be rewarded. Instead, they are being subjected to frequent regulatory campaigns.

Campaigns are a longstanding feature of Chinese policy implementation and typically exhibit four features: (1) a sudden influx of fiscal and administrative resources from the center; (2) an unusually high degree of coordination between normally combative local government agencies (Liu et al. 2015, 87; Shen and Ahlers 2019; (3) clearly defined short-term enforcement targets—such as doubling inspections and penalties against polluting firms (Biddulph et al. 2012, 383–385; van Rooij 2006, 67); and (4) widespread national media coverage to encourage public participation in monitoring non-compliant actors (van Rooij 2009; Biddulph et al. 2012).

While the Chinese government uses campaigns for a variety of reasons (such as introducing major new policy initiatives (Strauss 2006, 899), signaling loyalty to political superiors in the bureaucracy (Wang 2013, 420–422; Wang 2018, 898), or demonstrating new red lines to bureaucrats or society (Strauss 2006, 907, Zhang 2022, p.6)), in the case of environmental policy implementation, businesses are mainly opposed to the use of “regulatory enforcement campaigns” (Biddulph et al. 2012). This is when central or local regulators ratchet up enforcement measures to rectify longstanding implementation failures (Liu et al. 2015; Hsueh 2016, 135–7). We see this in China’s 2016–2017 Central Environmental Inspections campaign (中央环境保护督察), where Beijing sent teams of inspectors around the country to investigate pollution violations, leading to a 20-fold increase in enforcement activity.⁴

To outsiders, these concentrated enforcement efforts can seem extreme, even counterproductive. Yet a long view of Chinese history shows that environmental campaigns are an established feature of China’s governance model, and both businesses and local officials have become accustomed to these interruptions in the status quo (van Rooij 2006; Strauss 2009). Inspecting officials sweep in, issue a raft of sanctions, and then retreat, leaving businesses to return to their old habits of non-compliance (Tian and Tsai 2020). Given this history, campaigns are often portrayed as an expected part of the state’s enforcement behavior (Shue 1988, 139), an occasional disruption that businesses must factor into their long-term planning.

Moreover, some scholars argue that while regulatory enforcement campaigns may come across as a demonstration of power—where political leaders use sudden, shocking interventions to scare society into respecting their authority—this is not their overriding purpose. Rather, campaigns are undertaken to cut through

⁴ Based on numbers reported by Ministry of Environment and Ecology.

bureaucratic fragmentation and improve the governance environment (Strauss 2006, 899–900). Fragmentation is a notorious feature of China’s bureaucracies, where an unclear delegation of authority leads to frequent squabbling over who is responsible for which tasks, resulting in inadequate or unpredictable policy implementation (Lieberthal and Lampton 1992; Mertha 2005, 2009). Campaigns are designed to break this bureaucratic impasse, forcing quarreling agencies to act towards one goal—such as pollution reduction—while restoring predictability to enforcement (Manion 2004; Mei and Pearson 2014; Heilmann and Melton 2013, 33–34). In short, the state undertakes campaigns, not out of arbitrary or despotic impulses, but to offer more predictable, stable policy implementation in the long term (Zhou 2012, p.120–121).

If campaigns represent such an indelible feature of China’s economic governance, and if they are aimed at improving consistency in local officials’ behavior, why do businesses complain that environmental enforcement campaigns are starting to feel arbitrary? By arbitrary, I refer to state actions that undermine stable expectations of how local officials carry out their duties (Weber et al. 1978).⁵ In the following sections, I draw on interviews with 35 representatives of businesses from all over China (conducted between 2015 and 2021) and two case studies from Guangdong and Jiangsu provinces (conducted in 2016 and 2019, respectively) to illustrate why environmental campaigns are challenging stable expectations around regulatory enforcement.

Why Businesses Complain

Frequency

Businesses have noticed a change in the *frequency* and *intensity* of environmental enforcement campaigns since the mid-2010s. Compared to past trends—where local or central officials launch large-scale, disruptive campaigns every few years (van Rooij 2009; Liu et al. 2015)—businesses complain that campaigns are happening every year and sometimes every few months.

Consider the case of factory A in city X, a mid-tier industrial town in Southern China. Local officials had recently shuttered vast numbers of recycling factories in city X during an intensive anti-pollution campaign, but factory A had survived the cull. I assumed this was a cause for celebration because so long as factory A complied with pollution laws, they could expect to operate undisturbed in the future. However, factory A’s owner explained that due to the growing frequency in campaigns, surviving earlier closures did not guarantee stability in the future. As he explained:

⁵ In contrast to traditional definitions (which focus on illegal taxation or confiscation of property), this definition accounts for longstanding, informal practices that make a market environment more predictable. Thus arbitrary action might include sudden sanctions against bribes—even though bribes have become the de facto means for businesses to grease the wheels of commerce (Campos et al. 1999, Wedeman 1997, Ang 2020, p.10)—or extraordinary enforcement activity that upends long-standing norms in state-business interactions.

“We’re one of the biggest companies in the area. We’re doing well, profits are good, so we invest in pollution control equipment because we can afford it. There’s also pressure from the local government to become less polluting, because with this [city] leadership change it seems like the next priority will be tourism. But then the government asks us to stop production (停产) [during a campaign]. First it is just 10 days, then one week per month, then 2 out of every 3 days. So we lose our orders, we can’t make money, and it becomes hard to keep operating the pollution control equipment [because it costs extra money].”

With the increasing frequency of campaigns, factory A’s owner was nervous of making further investments out of fear that his business would not survive in this new, high enforcement era. He was even considering moving to Southeast Asia, stating “our competitors are in Southeast Asia or other countries where government enforcement is more stable. Those places are starting to seem a lot more attractive.”⁶

I was initially suspicious of this statement because I knew that factories had a pattern of making up for lost time by over-producing (and over-polluting) in the aftermath of a campaign. In northern China, for instance, factories had become accustomed to stop production orders that could last for weeks or months and had learned to use this downtime to make repairs to equipment. Once the ban was lifted, they would compensate for lost time with a surge in production, knowing that local officials would turn their attention to another policy issue.⁷ As a result, it seemed unlikely that repeat campaigns would be a serious threat to business. Yet as I interviewed more business around China, it became clear that amidst the nationwide anti-corruption campaign (which targeted collusion between local officials and businesses), this strategy of over-polluting to make up for lost business was becoming more difficult to maintain.

Once upon a time, large, profitable polluting companies such as factory A could have leveraged their political connections as protection against repeat campaign-style enforcement. For instance, they might have secured seats in local legislatures to gain early information on sudden policy shifts (Hou 2019) or negotiated with local regulators to gain protection from a second or third round of regulatory crack-downs (Li and Zhan 2023; Lorentzen et al. 2014).⁸

Yet, recent evidence shows that since the advent of the anti-corruption campaign in the mid-2010s, firms (especially those that rely on city- or county-level connections)

⁶ Interview X7a190416c with owner of large recycling factory, Guangdong Province (April 2016).

⁷ Interviews X2140515b, X2140515a, X2160715, X3230615 with consultants or representatives of polluting enterprises in Hebei province (May–July 2015).

⁸ Of course, the value of these connections varies according to firm size and type, as well as the rank and background of the political protector (Deng and Kennedy 2010; 106–13; Huang 2013, 12–14, Wang 2015a, b). Small, private firms are much less likely to gain substantial protection through connections in comparison to large state-owned enterprises. Likewise, foreign firms complain that compared to their domestic counterparts, local officials are much less likely to keep them abreast of new policy interventions. Moreover, due to home country laws against corruption, foreign firms may see less value in cultivating political ties as protection (interview X10260722). Nevertheless, it is generally accepted that businesses in China cultivate political ties to allay fears of arbitrary intervention by the state.

are finding it harder to protect themselves through political connections, because local officials are under much greater scrutiny than ever before. Where once city or county cadres were monitored and assessed by their immediate superiors, now the CCDI (a powerful central disciplinary body) is bypassing local party hierarchies to inspect, investigate, and discipline cadres directly (Shih 2020 p.159–160). Data shows that CCDI investigations into city-level cadres in Environmental Protection Bureaus (EPBs) began to take off in 2013 and 2014, accelerating around 2016 with the central environmental inspection campaign (see Fig. 5 in the Appendix).⁹ Thus, environmental cadres have also come under greater scrutiny through the party system, which makes them reluctant to continue shielding firms (Shen and Jiang 2021).

Recent evidence show that the anti-corruption campaign is successfully tackling state-business collusion at the local level (Bulman and Jaros 2021). Local officials are now less likely to offer favorable transactions or special (corrupt) deals to real estate companies seeking to develop new land (Wang 2022). Firms that used collusive relationships to benefit from lower effective tax rates have also seen these advantages eroding amidst the anti-corruption campaign (Chen and Hollenbach 2022). Finally, firms are finding that connections to city officials no longer provide the same insurance against sudden factory closures during environmental campaigns.¹⁰

In sum, an increasing frequency in environmental enforcement campaigns is leaving businesses with a sense a paralysis, unable to decide whether major investments are worthwhile. Meanwhile, the anti-corruption campaign is weakening collusive ties, making it harder for businesses to use political connections to protect themselves from unexpected policy implementation, or to treat campaigns as an occasional disruption. This suggests that businesses (especially those that rely on connections for protection) are not only experiencing campaigns more *frequently* but feeling the effects more *deeply*. This is the first reason why campaigns are starting to feel arbitrary.

Mixed Signals

Those who take a more cynical view of polluting businesses may still argue that this is not a case of unpredictable enforcement or unjust state behavior. Rather, polluters are complaining because after years of playing cat and mouse with the regulators, the government is finally forcing them to respect pollution laws. However, further interviews revealed that polluters are not merely objecting to the fact that pollution is now punished (though there is certainly a lot of grumbling about the rising cost of business amidst new pollution laws). Instead, they are objecting because even when businesses give up on trying to use political connections and choose instead to comply with pollution laws, they are not rewarded for their efforts. This is due to the rise in two-track enforcement.

⁹ This is based on data from the Wang (2020) “China’s Corruption Investigations Dataset” (2020) as well as CCDI and MEP reports.

¹⁰ Interview X10231019 with company executive, Hong Kong (October 2019).

This phrase—two-track enforcement—describes the use of campaign-style enforcement alongside more institutionalized enforcement practices. By institutionalized enforcement, I refer to the legally sanctioned measures that local regulators (EPBs) undertake to control polluter behavior (such as regular inspections and evidence-based pollution fees or sanctions), which are modeled on the enforcement methods found in OECD countries.

Institutionalized enforcement differs from campaigns in the manner of enforcement and the incentives it creates. Campaigns are designed to clean up corruption or correct flaws in the governance system by cutting through established norms or overriding institutional constraints. In contrast, institutionalized enforcement aims to improve compliance by improving transparency and trust in the enforcement process. This requires government officials to follow norms and respect institutional constraints in their interactions with businesses, such as explaining when and why businesses will be punished in advance of these interventions. In effect, regulators promise to uphold their end of the bargain (by refraining from corruption or over-enforcement) in return for businesses making an effort to respect standards and reduce pollution violations.

Since the introduction of the New Environmental Law (新环境保护法) in 2015, Beijing has shown a real commitment to improving institutionalized enforcement measures. Central leaders have clarified pollution standards, strengthened the regulatory capacity of local EPBs, and punished cadres who under- (or over-) enforce regulation (Wang 2015a, b, 279–280). These changes accord with Beijing's push to stabilize the business environment, signaled in (then Premier) Li Keqiang's 2022 statement that “we will improve our regulatory approaches to ensure that market entities can truly compete and grow in a fair and just environment.”¹¹ But if Beijing is trying to improve the business environment by making environmental enforcement more transparent and predictable, why are businesses complaining that environmental enforcement is becoming more *unpredictable*, even *arbitrary*?

These complaints arise because even as local officials improve institutionalized enforcement measures, they are continuing to conduct regulatory enforcement campaigns. When the state switches between these two enforcement styles in rapid succession, it becomes difficult for polluters to decide how to react in order to protect their investments.

Consider the case of the chemical industry in Jiangsu province, where throughout the late 2010s, chemical companies were subjected to frequent anti-pollution campaigns. Every few months, local officials would force factories to stop production to control summer ozone levels, ease winter pollution levels, or clear skies for major political events. Businesses could not easily predict the timing or scale of these interventions, nor could they protect themselves by complying with pollution laws, because temporary shutdowns would be imposed on an entire region, without exempting companies that were compliant.

¹¹ Li Keqiang speaking at the fifth session of the 13th National People's Congress in March 2022. See www.gov.cn “Premier Li Keqiang Meets the Press: Full Transcript of Questions and Answers,” March 11 2022.

This is why, at the end of 2019, a group of large chemical companies at the European Chamber of Commerce in China released a position paper condemning the Chinese government's "sudden stop policies" to control pollution. In particular, they objected to state officials' failure to recognize "key differences between multinational corporations and domestic companies with respect to their maturity on health, safety and environment matters."¹² After years of trying to set themselves apart by complying with higher environmental standards, these companies were furious that instead of being rewarded for their compliance, they were being shut down alongside their highly polluting counterparts. The new environmental law (and Beijing's pledged commitment to clean up pollution) had led these companies to believe that rule-following would be their best protection against enforcement unpredictability. Instead, they found that past compliance counted for little once campaign measures were initiated.

This group of businesses also noted that imposing a sudden stop on furnaces can "cause a huge amount of carbon monoxide to burn in flare and be released, ironically resulting in *increased* carbon emissions."¹³ In other words, compliance with campaign-style measures (stopping production) would force businesses into actions (shutting down furnaces) that would, perversely, *increase* pollution, causing a factory to violate pollution standards. These violations might then be used to punish businesses with pollution fines during regular inspections. Thus, the simultaneous and stringent application of both campaign-style and institutionalized enforcement had created a fraught and contradictory enforcement environment.

Faced with such a scenario, polluting businesses might decide to give up on compliance altogether. Instead of expending resources to clean up production (and then face punishment anyway), business owners might decide to invest in political connections, because powerful politicians could shield them from all types of ad hoc state interventions. Yet in the case of Jiangsu, non-compliant companies found that amidst an increasingly stringent enforcement regime, not only were political connections less effective, non-compliance could also become a very costly strategy. This is because, following the deadly explosion of a chemical plant in 2019, central and provincial officials signaled that they would no longer tolerate lax enforcement in Jiangsu's chemical industry.¹⁴ Provincial officials ordered chemical factories to relocate into industrial parks so that they could be closely monitored as a group, and decided on a draconian strategy to prevent non-compliance: If just one factory in an industrial park committed a major violation, the entire industrial park (including compliant factories) would be shut down.¹⁵

¹² European Chamber of Commerce, Petrochemicals, Chemicals and Refining Working Group, *European Business in China Position Paper, 2019/2020*, 248.

¹³ Ibid.

¹⁴ "Devastation at blast site after China chemical plant explosion leaves at least 64 dead, 640 injured," March 22, 2019, <https://www.scmp.com/news/china/society/article/3002772/jiangsu-chemical-plant-explosion-death-toll-reaches-44-3>.

¹⁵ See *China Business Review*, "The Chinese Province of Jiangsu: Shutdown of Nine Chemical Parks," February 10, 2019, <https://www.chinabusinessreview.com/navigating-the-aftermath-of-the-jiangsu-chemical-plant-explosion-four-months-on/>.

Suddenly, politically connected chemical companies found that unless they dramatically improved emissions standards or joined a heavily monitored industrial park, there was no guarantee that political connections could protect them as it did in the past. If a neighboring factory was found to be violating standards, local connections were not enough to spare them from these sudden interventions.¹⁶ In this spirit, the managers of one Jiangsu-based industrial park tried to recruit new companies by boasting that the park had proactively shut down 35 factories for pollution violations in recent years.¹⁷ While it may seem perverse to attract companies by promising a zero tolerance for pollution, the park manager believed that the only way to offer protection against a park-wide shutdown was to ensure that not a single accident would occur.

In sum, amidst two-track enforcement, businesses find that there are no clear pathways for avoiding unexpected closures and protecting long-term investments. Faced with a scenario where both compliance and non-compliance are risky strategies, and where political connections are less effective in mitigating these uncertainties, enforcement grows more and more unpredictable.

The polluting industry may be distinctive in this respect because compliance with the law (that is, installing and using abatement infrastructure) requires business to undertake high up-front costs and concentrated, short-term sacrifices. As a result, polluting businesses need greater assurances from the state that major upfront investments will be rewarded in the future (McAllister 2008). This also makes them more sensitive to potential contradictions in the state's enforcement approach.

Why Environmental Enforcement Is Distinctive

The Chinese government's simultaneous use of campaign and institutionalized enforcement methods is not new. In fact, scholars argue that the party-state has always governed through a "dualistic" (Pils 2019) or "bifurcated" (Stern 2013) system, in which ad hoc, discretionary interventions are used alongside rational, rule-based enforcement methods (Birney 2014, Heilmann and Perry 2011).

This dualistic approach can be seen in China's legal system. The state (largely) respects judicial autonomy in the commercial sphere, which means that Chinese courts act through the law to resolve disputes on private or commercial issues between citizens (Fu 2019). However, when it comes to administrative law (which adjudicates relations between citizens and the state), political leaders will override

¹⁶ Interview X10231019 with company executive, Hong Kong (October 2019) and Interview X12190619 with industry insider in Shanghai (June 2019).

¹⁷ Interview X11171219 with long-time chemical industry manager, Shanghai (December 2019). See also *China Business Review*, "The Chinese Province of Jiangsu: Shutdown of Nine Chemical Parks," February 10, 2019, <https://www.chinabusinessreview.com/navigating-the-aftermath-of-the-jiangsu-chemical-plant-explosion-four-months-on/>.

judicial authorities to defend the party's interests (Hurst 2018; Wang 2015a, b). In other words, in the legal realm, dualistic governance “manifests itself as a division of labor between the political sphere directly dominated by the Party and a legal sphere with a degree of autonomy operating in the long shadow of the Party” (Fu 2019, pp.4–5). This suggests that dualistic governance works well when the sphere between campaign-style and institutionalized governance are clearly demarcated. Of course, the boundaries in this division of labor may blur occasionally (Stern 2014), but lawyers and litigants generally know which governance logic applies to which sphere, which helps them avoid the mixed signals and conflicting governance logics facing polluting firms.

In the bureaucracy, by contrast, campaign-style and institutionalized enforcement are applied *sequentially*. Leaders manage bureaucrats of all ranks through both rational, institutionalized performance targets and campaign-style shake-ups (Naughton 2016; Mertha 2017). There is no clear demarcation for which spheres or which cadres will face sudden campaigns. However, in this case, campaign-style interventions are used occasionally and completed quickly, with an eye to restoring regular policy implementation after the campaign has passed (Zhou 2012; Strauss 2006, 900). They follow a pattern of short spikes in campaign-style disciplinary action interspersed with longer periods of institutionalized bureaucratic management. Thus (at least until the start of the 2013 anti-corruption campaign, which scholars have since dubbed a “sustained campaign” (Ang 2020, p.159)), bureaucrats knew that campaigns would pass quickly and stable norms and incentives would be restored, reducing the chances of mixed signals.

Yet, the evidence in the “[Why Businesses Complain](#)” section above suggests that polluting businesses in China are experiencing a different scenario when it comes to environmental governance. The use of campaign-style and institutionalized governance is neither demarcated, nor sequential. Sudden shutdowns and regularized pollution fines are being used against the *same* entities to regulate the *same* problem with similar frequencies. Moreover, both styles are being used over extended periods, with businesses describing frequent bouts of campaign and institutionalized policy implementation repeating over the years.

In sum, campaigns in and of themselves are not considered arbitrary by polluting businesses in China. Moreover, taken alone, increased institutionalized enforcement is welcomed, not repudiated, especially by more compliant members of the polluting industry (van der Kamp [n.d.](#)). However, the intermingling of the two styles has made the overall enforcement environment highly unpredictable for polluting businesses. It generates mixed signals and makes it difficult for businesses to decide what can be done to protect against unexpected enforcement measures. This is why polluters claim that the state's enforcement actions feel arbitrary.

Bringing together the above the analysis, I conclude that two changes are causing polluting businesses to feel that local environmental enforcement is growing increasingly arbitrary:

1. Greater *frequency* and *intensity* in campaign-style implementation, especially since the start of the anti-corruption campaign. This makes it harder for polluters

to commit to long-term investments or factor campaign-induced disruptions into their business plans.

2. *Sustained* and *simultaneous* use of campaign-style and institutionalized governance methods against the same polluting entities. This generates mixed signals, making it harder for firms to decide how to respond to pollution regulation, or how to build protections against unexpected state interventions.

Measuring Institutionalized and Campaign-Style Enforcement

So far, evidence for arbitrary enforcement comes from case studies and qualitative data. To what extent do these complaints reflect a system-wide change in local officials' approach to environmental enforcement? And how widely is two-track enforcement practiced in the environmental sphere?

To provide a systematic assessment of patterns in local environmental enforcement, I collected data at the city level, examining whether local officials are enforcing environmental policy through *institutionalized* or *campaign-style* methods. I focus on the years 2009–2017 to assess patterns in policy implementation before and after 2013 (when the anti-corruption campaign first reached the environmental bureaucracy) and 2015 (the passing of the new environmental law).

Broadly, I define “institutionalized policy implementation” as the regular enforcement actions that local officials carry out to incentivize polluters to change their behavior. These actions must be carried out in accordance with pre-agreed rules (or through formal institutions) to deliver a known policy goal (such as emissions reduction). Institutionalized policy implementation is characterized by stability and transparency, because bureaucrats expect to be assessed on these actions as part of their performance evaluations, and polluters know that bureaucrats are expected to enforce these measures.

In contrast, “campaign-style policy implementation” refers to unpredictable or extra-legal enforcement actions undertaken without prior warning, to carry out a specific, short-term policy goals. These actions may be undertaken by regulators, local political leaders, provincial officials, or central government officials. Specifically, any policy exhibiting the following four characteristics would classify as one count of “campaign-style policy implementation”:

1. *Short-term implementation*: Implementation lasts no more than a year, and usually begins immediately after the program is announced. In some cases, a program might be announced and implemented in a mere few months, such as the 2012 “Hundred-Day Inspection of Environmental Safety” (环境安全百日大检). Pilot sites (试点) are not included in this definition, as they are usually the initial stage of a much longer term program.
2. *Specific issue*: Implementation is focused on a specialized issue or a one-off case and is not part of the stated evaluation criteria or environmental law. For instance, the Special Program to Prevent Air Pollution (大气污染防治专项检查)—conducted exclusively in November 2013—would be considered a campaign. In con-

trast, actions undertaken as part of a multi-year, nationwide emission reduction programs are not classified as a campaign.

3. *Influx of resources and high inter-agency coordination:* Implementation involves an unusually high degree of coordination between different local agencies. For instance, electricity agencies that normally ignore the EPB will suddenly agree to cut off electricity to perpetrators identified by environmental bureaus, or local business bureaus that normally protect polluting firms will suddenly refuse licenses to polluters.
4. *Use of extra-legal or discretionary powers:* Implementation bypasses the formal, protracted administrative process to deliver outcomes quickly. For instance, while enforcement for the regular environmental inspection program (环境保护大检查) would involve “enhanced supervision” (挂牌督办), “fines and penalties” (罚款), or submitting cases for “administrative processing and punishment” (立案处罚), campaigns are conducted through “rectifications” (政治) or “crackdowns” (取缔).

My main source of data on environmental policy implementation is the city yearbooks (城市年鉴), a descriptive almanac that city governments compile every year. In each yearbook, city officials will write a report on the city’s progress in environmental protection, as well as progress in other issue areas. These reports contain rote descriptions of the local Environmental Protection Bureau (EPB)’s goals, but are interspersed with specific details on the policy issue, enforcement approach, location, duration, and the implementation bodies involved, presenting a much richer picture of how environmental policy is implemented at the local level.

Descriptive value aside, there are three reasons why I use the city yearbooks as my main source of data: First, these yearbooks report the universe of policies implemented that year, not just the most attention-grabbing or headline-worthy efforts. For instance, in 2017, reports on the coal-to-gas campaign¹⁸ dominated newspaper headlines. However, a glance through a 2017 yearbook report of a city where this took place (Tangshan) shows that coal-to-gas was only one of five campaign-style policies in Tangshan that year. Yearbook reports therefore offer a more complete picture of local environmental governance that year. Second, the implementation of environmental policies really begins at the city level. City and county officials are responsible for implementing most environmental policies, including monitoring and controlling polluters. In contrast, provincial- or central-level officials are primarily responsible for ensuring compliance in local EPBs. City yearbooks therefore offer the most comprehensive record of implementation actions carried out at the city level and below. Finally, environmental enforcement statistics in these yearbooks are reported in prose form only (not in tables) and are not made public by the National Bureau of Statistics (NBS) or Ministry of Environmental Protection (MEP)—the two government bodies that are most likely to report enforcement data.

¹⁸ A 3-month campaign to destroy coal stoves and replace them with gas-fired stoves in 300 million households and factories. See the Initium, December 6 2017, 《中國強推煤改氣惹民怨，為什麼環保與溫暖不可兼得？》

This suggests that the data in city yearbooks is not intended for public consumption and may therefore avoid the biases of enforcement statistics that are made available to the public, such as provincial-level environmental enforcement statistics.¹⁹

To build a picture of implementation at the local level, I collected the environmental section of the yearbook reports for every prefectural-level city (地级市) for the years 2009–2018, producing a dataset of approximately 2200 city-year observations.²⁰ I, together with my research team, would go through each report and gather statistics on the number of enforcement measures (against polluters) that took place each year. Enforcement actions included:

1. Number of inspections conducted
2. Total pollution fines issued
3. Number of administrative punishments issued
4. Number of factories closed

For each type of enforcement action listed, we would identify the goals, duration, and general characteristics of the policy this action was serving. Using these characteristics, we would then classify whether the policy represented a more (1) institutionalized or (2) campaign-style approach to implementation. In the following section, I use this raw data to develop measures that capture variation in local policy implementation *over time* and *across space*. I then use this descriptive data to assess if (1) campaign-style enforcement has increased in frequency and intensity nationwide and (2) campaign-style and institutionalized enforcement are being implemented in a sustained and simultaneous manner, sending mixed signals to polluting firms.

Assessing National Patterns in Enforcement

National-level Patterns

I begin by examining national trends in campaign-style enforcement over time, focusing on the years 2009–2017.²¹ For each year from 2009 to 2017, I sum the total number of inspections carried out in *campaign-style* across all 283 prefectural-level cities in China to create a national statistic for *campaign-style*

¹⁹ Data released by the NBS and MEP only includes *provincial* enforcement data for the years covered in this study. It was only through reading city yearbooks closely that I discovered that statistics on environmental enforcement is available at the *city* level, and only in prose form. This suggests that these numbers are not intended to be shared widely or used for analysis by non-government actors. In general, city yearbooks are published for internal government records and not intended for public consumption. Thus, there is less pressure on local officials to appease the public when reporting these statistics, (for instance, by underreporting the severity of campaigns.

²⁰ Not including city-year observations with missing data.

²¹ I drop 2018 from the analysis because there is a lot of missing data in 2018.

enforcement (national total).²² I then repeat this process for each remaining type of enforcement action (pollution fines, administrative punishments, factory closures) to create four different measures of campaign-style enforcement for each year.

Figure 1 illustrates national levels of campaign-style enforcement in China between 2009 and 2017, with each line corresponding to a different measure (that is, inspections, fines, administrative punishments, and closures). It shows that all four measures of campaign-style enforcement have been increasing steadily from 2015. Increases started earlier (in 2013) for fines and administrative punishments. Meanwhile, inspections peaked in 2010 and again in 2012. However, all four measures show a sharp spike in enforcement from 2016 to 2017. Some might attribute these sharp increases to the Central Environmental Inspections campaign, which also took place in 2016–2017. However, this dataset excludes all enforcement actions that were conducted under the Central Environmental Inspections, focusing exclusively on enforcement actions initiated by local officials (not central officials). This graph therefore provides preliminary evidence that campaign-style policy implementation has increased in intensity, especially after the anti-corruption campaign reached city-level EPBs in 2014.

Note that 2015 was also the year that Beijing passed the New Environmental Law and began to push for more pollution control. Thus, increases in campaign-style enforcement (as illustrated in the graph) may be dwarfed by much larger increases in institutionalized enforcement since 2015. If so, this would challenge polluters' claims that they were facing an equal intensity in both styles of enforcement. To assess if this is the case, I plot national levels of campaign-style enforcement against national levels of institutionalized enforcement.

The four graphs in Fig. 2 illustrate the comparisons between levels of campaign-style enforcement (red lines) and institutionalized enforcement (blue lines) for 2009–2017. On all four measures (that is, inspections, fines, administrative punishments, and closures), campaign-style and institutionalized enforcement are being implemented at similar levels of intensity. This provides preliminary evidence that local officials *are* practicing two-track enforcement in environmental policy implementation, and that firms *are* experiencing mixed signals from local officials.

However, it is difficult to assess if institutionalized and campaign-style enforcement are implemented in a bifurcated or simultaneous fashion with this summed national data. For instance, local officials in regions with limited resources may respond to Beijing's pressure to clean up pollution with greater campaign-style implementation, because environmental campaigns only require a one-off injection of resources. Alternately, local officials in regions with higher institutional capacity may respond with more institutionalized enforcement. This would mean that—similar to dualistic governance in the legal sphere—campaign-style and institutionalized enforcement are being directed at different actors or issues, but would still show up as parallel

²² This includes all prefectural cities, but does not include the four province-level cities (直辖市) of Beijing, Tianjin, Shanghai, and Chongqing.

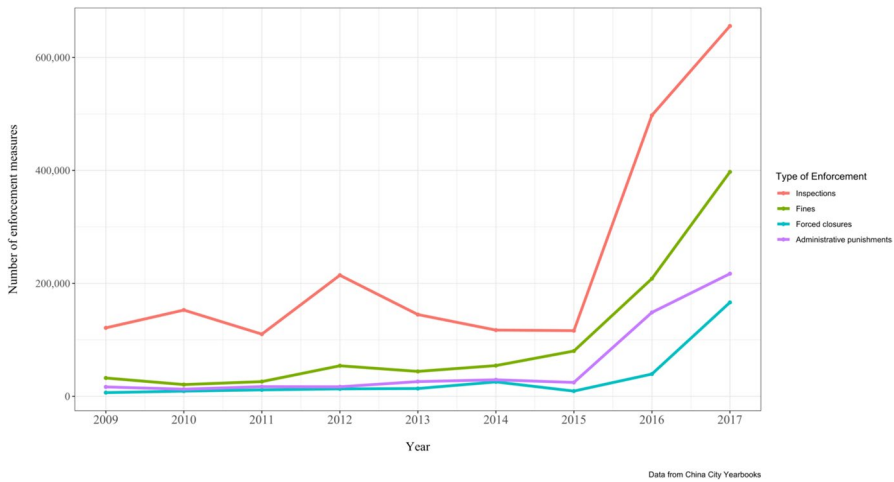


Fig. 1 Campaign-style enforcement intensity, national level (2009–2017). Data source: author dataset

enforcement trends in summed national data. Again, this would challenge businesses' claims that they are facing two-track enforcement. To assess if this is the case, I turn to a city-level analysis of the data.

City-level Patterns

I create the variable *institutional enforcement (city)* where for each city, I sum the total number of (1) inspections, (2) fines, (3) administrative punishments, and (4) closures carried out through institutionalized measures between the years 2015 and 2017. I create a parallel variable for *campaign-style enforcement (city)*. I focus on the years 2015–2017, because 2015 was the year that the new environmental law was introduced, providing local officials with greater authority and impetus to conduct institutionalized enforcement (provided they have the resources). Thus, if enforcement styles are diverging based on a region's resource capacity (campaign style for poorer regions, institutionalized for richer), we would expect this divergence to become especially pronounced starting in 2015. I use these measures to plot the relationship between institutionalized and campaign-style enforcement at the city level (visualized in Fig. 3a–d). Each figure corresponds to a different type of enforcement action, while each dot in these scatterplots represents one city. The dots illustrate how the level of institutionalized enforcement (*x*-axis) compares to the level of campaign style enforcement (*y*-axis) in each city for the years 2015–2017. I add a linear trend to all plots and calculate the correlation statistic (printed below the plot) to assess whether the overall relationship between the two styles is negative (where, for instance, an increase in institutionalized enforcement in a city is associated with a decrease campaign-style) or positive (where an increase in one style is associated with an increase in the other).

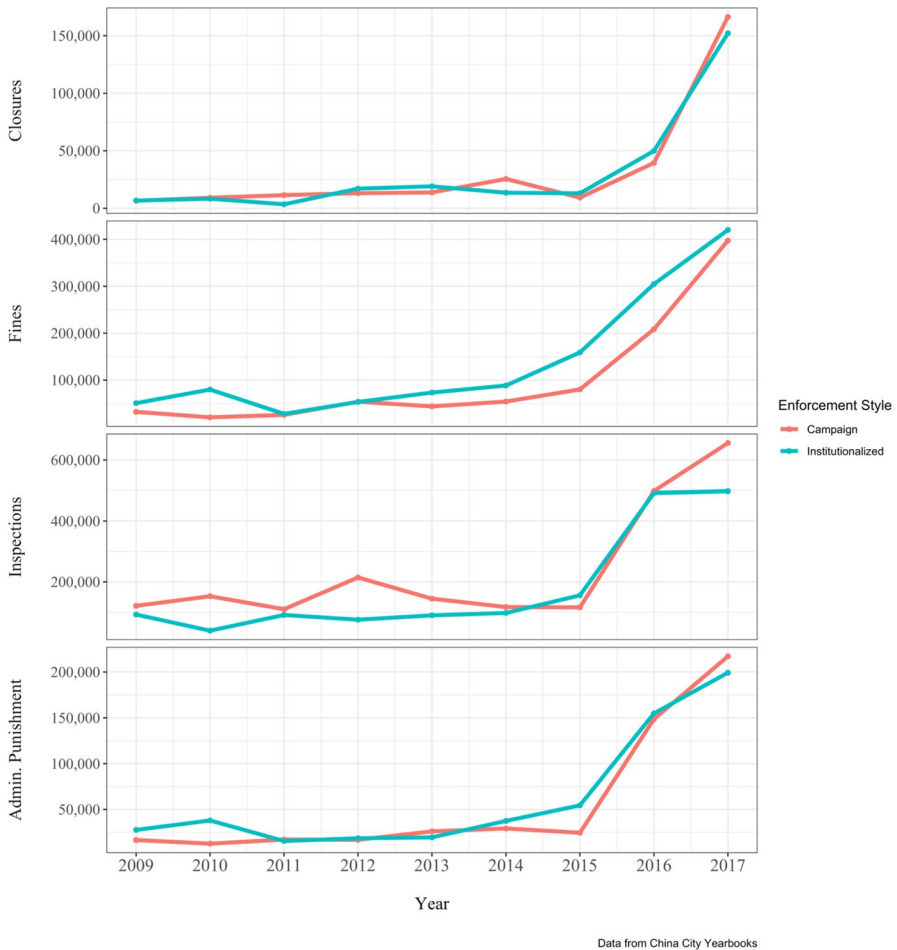
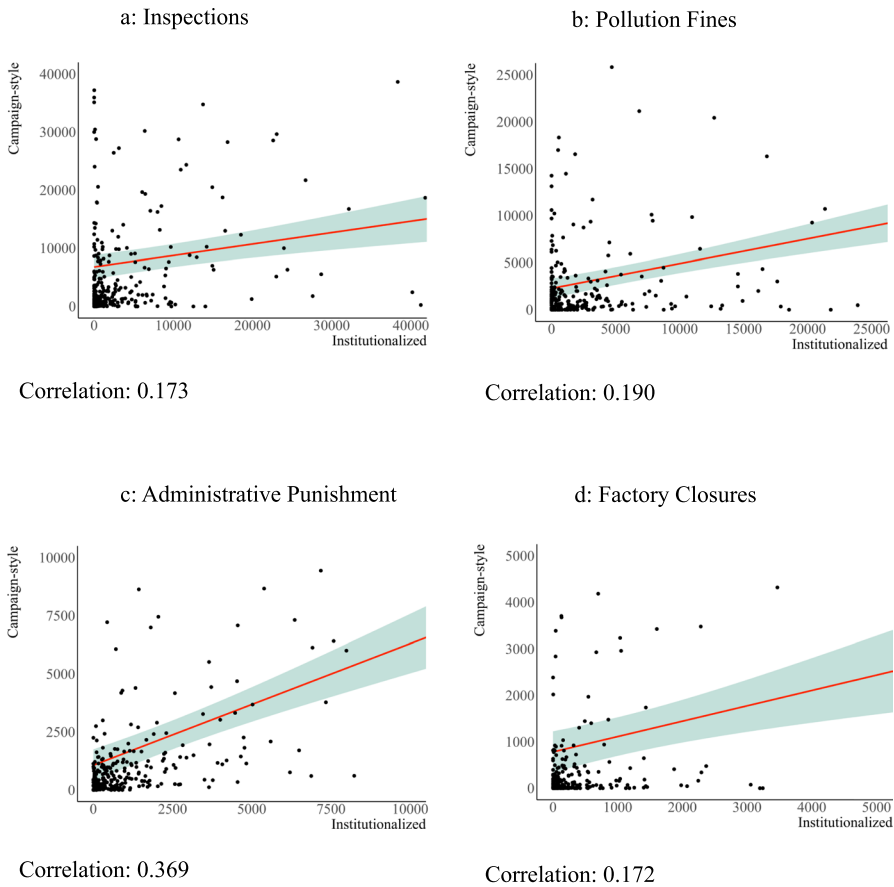


Fig. 2 Campaign vs. institutionalized enforcement intensity, national level (2009–2017). Data source: author dataset

In all four figures, the linear slope and correlation statistic are positive and statistically significant.²³ This suggests that local officials are using both campaign-style and institutionalized measures to implement environmental policy *in the same place*. Overall, it is *not* the case that campaign style is deployed in some regions, while institutionalized is deployed in others. Moreover, the plots for inspections, fines, and administrative punishments show several cities falling close to the 45° line, which would mean that local officials are undertaking almost equal levels of campaign-style and institutionalized policy implementation in that city during the period of 2015–2017. This indicates that

²³ Note that similar tests were conducted on enforcement data for the period *before* the new environmental law (2009–2014) and also show a positive, statistically significant correlation. The correlation coefficient for these years was generally higher than for the years 2015–2017.



Note: Shaded areas around the line indicate 95% confidence intervals. All plots have been zoomed in (leaving out extreme observations) to aid visualization of the data, but the linear slope, correlation statistic, and confidence intervals are calculated (and display trends) using all available observations in the dataset

Fig. 3 Ratio of institutionalized to campaign-style enforcement, city level (2015–2017). Data source: author dataset

local officials are not replacing campaign-style with more institutionalized enforcement over time. Rather, they are continuing to use both styles at once.

Recall, however, that two-track enforcement also means that both styles are being used *simultaneously*, not sequentially. Scholars argue that when the two styles are used sequentially (as with campaigns in the bureaucracy), we usually see short spikes in campaign-style enforcement interspersed with longer periods of institutionalized enforcement. This allows institutions to stabilize after a campaign and enables local officials to restore predictable relations with society—which is why campaigns are not seen as damaging in this context (Zhou 2012, p.120–121). Yet, this study argues environmental enforcement feels arbitrary because campaigns

are no longer one-off events in environmental enforcement. Rather local officials are using campaigns and institutionalized enforcement simultaneously over repeat years and (as the case study evidence reveals) against the same polluting firms.²⁴ This is what makes two-track enforcement distinctive.

To assess if both styles are being used simultaneously across China, I develop the measure “*two-track enforcement*” for the years 2009–2017. For each city-year observation, I create a dummy variable where 1 indicates that *both* campaign and institutionalized enforcement actions took place in that city that year, while 0 indicates that only one style of enforcement was used.

Figure 4 shows the total number of cities (out of 283) that recorded two-track enforcement for each of the years between 2009 and 2017, with the percentage of total cities each year at the top of each column. It shows that in all but two years, at least 20% of cities engaged in two-track enforcement. The map in Fig. 6 in the Appendix further illustrates how these patterns vary across regions in China. This map shows that two-track enforcement is not only widespread but is happening in repeat years in several cities across China.²⁵ Combining findings from Figs. 2 (on intensity) and 4 (on simultaneity), we can conclude that two-track enforcement is being experienced with greater intensity by polluting firms all over China. This is not an isolated phenomenon driven by rogue bureaucrats in a handful of cases.

Conclusion

Following a decade of anti-corruption campaigns, regulatory crackdowns, and growing state steerage of the Chinese economy, scholars suggest that Xi Jinping is ushering in a new normal in state-business relations (Pearson et al. 2021). In addition to longstanding crackdowns in the polluting sector, the 2021 crackdowns on tech firms seeking to list overseas²⁶ as well as the sudden ban on the online education sector²⁷ appear to have spooked foreign investors, leading to fears that Chinese markets are becoming “uninvestable.”²⁸ Beneath this claim lies the concern that the central government is rewriting the terms of state-business relations in China, using a growing opaqueness and unpredictability to give the state the upper hand.

This study assesses these concerns through the case of polluting businesses in China, where polluters claim that they are facing heightened uncertainty and arbitrary action by the state. Qualitative analysis and descriptive statistics show that these fears are rooted in two changes in local enforcement: First, campaign-style enforcement

²⁴ This is especially true for inspections, administrative punishments, and stop production orders, though my research shows that campaign-style closures are typically directed at smaller firms and private firms.

²⁵ One quarter of cities (64 cities) recorded between 4 and 9 counts of dual enforcement over the 9 years, which mean at least one instance of dual enforcement *every other year* in these cities.

²⁶ *New York Times*, “China Plans Security Checks for Tech Companies Listing Overseas” July 10 2021, <https://www.nytimes.com/2021/07/10/technology/china-didi-ipo-cybersecurity.html>

²⁷ *Reuters*, “China bans private tutors from giving online classes,” September 8, 2021, <https://www.reuters.com/world/china/china-says-private-tutors-will-not-be-able-offer-classes-online-2021-09-08/>

²⁸ See for instance, *Financial Times*, “China in ‘deep crisis’, says Hong Kong private equity chief,” 10 March 2022.

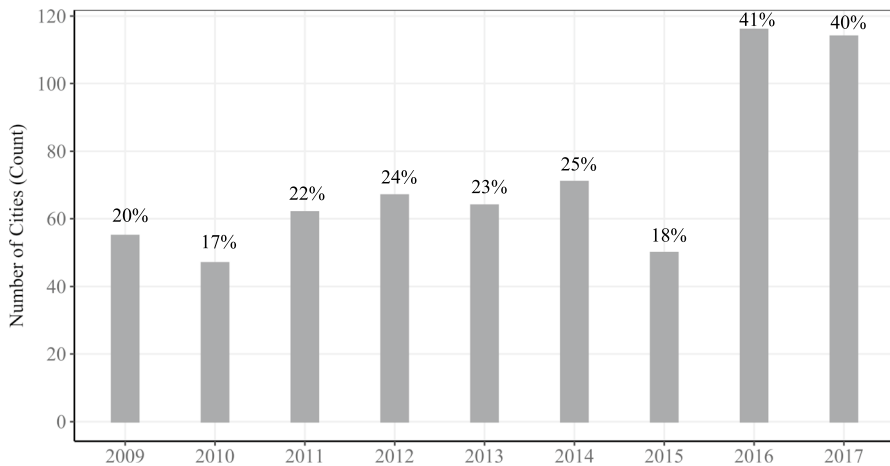


Fig. 4 Number of cities with two-track enforcement (2009–2018)

has increased in frequency and intensity, and amidst the weakening of collusive ties that once protected polluters from unexpected policies, businesses are starting to feel the effects of campaign-style enforcement more frequently and acutely. Second, two-track enforcement—where the government enforces through campaign-style and institutionalized methods simultaneously—has also increased in intensity, leading to mixed signals and high levels of uncertainty. Neither compliant nor non-compliant firms are safe from sudden shutdowns, and neither bribing nor complying with regulators can guarantee protection against the state's disruptive enforcement measures.

These two changes have altered stable expectations of how state officials carry out their duties, which is why local officials' action are increasingly seen as arbitrary, even for businesses accustomed to operating in a campaign-heavy business environment.

Using quantitative data, I demonstrate that these changes are not isolated incidents occurring in a few cities under high scrutiny. Rather, this is a nationwide phenomenon, hinting at a fundamental shift in state-business interactions around environmental policy implementation in China.

More research is needed on why the state persists with this two-track approach, despite undermining predictability in the business environment. Perhaps the CCP hopes that by using both enforcement approaches simultaneously, they can reap the advantages of both systems: Campaign-style governance overcomes the problem of fragmented bureaucracies, forcing local officials to focus on environmental issues over economic growth. Meanwhile, institutionalized governance solves pollution problems, sending signals to polluters that investments in long-term pollution reduction *are* worthwhile.

More research is also needed to understand how polluters are responding to growing unpredictability in the enforcement environment. Have the traditional coping mechanisms used by businesses (such as colluding with local officials) eroded to the point where polluters are choosing to close, move away, or sell their assets in the face of rising uncertainty? Does enforcement uncertainty discourage polluters from complying, leading to weaker performance on environmental implementation? On the other

hand, might Beijing's overall commitment to institutionalized governance reassure polluting industries that enforcement will eventually stabilize and improve, despite deep implementation uncertainties on the ground?

For now, this study shows that campaigns still have the power to disrupt in China. We cannot assume that businesses are so inured to ad hoc interventions or campaign-style governance that major changes in the state's enforcement activity will go unnoticed. Amidst Xi Jinping's anti-corruption campaign and recentralization of authority, it is especially important to assess whether businesses' claims of arbitrary state action are justified, and whether these policies are remaking the political and economic landscape of China.

Moreover, the rise in the Chinese government's use of contradictory enforcement styles suggests that—in the sphere of environmental governance at least—the regime faces a real dilemma over whether it can offer stable market regulation while exercising its discretionary powers to discipline the bureaucracy. How enforcement evolves amidst this dilemma will help us understand if Beijing is mapping out an entirely new governance approach, where governments can manage markets and implement policy despite repeatedly undermining stated promises or written rules.

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