The Paradox of Responsive Authoritarianism: How Civic Activism Spurs Environmental Penalties in China

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Abstract. Recognizing the need to better understand institutional change processes in authoritarian states, which play an increasingly prominent role in the world economy, we examine the efficacy of civic activism aimed at spurring governmental action concerning the environmental performance of firms in China. We highlight the paradox of “responsive authoritarianism” on display in China: to avoid needing to rule by coercion alone, the government seeks citizens’ feedback and tolerates pressures for change, but at the same time it resists the associated legitimacy threats regarding its capacity to rule. Local governments and the media play crucial and dual roles in this system: they mitigate change pressures from civic activism that takes place within the state’s systems, but they magnify change pressures from publicly visible civic activism occurring outside those systems. We test our conceptual model using a unique data set of environmental penalties imposed on Chinese publicly listed firms from 2007 to 2011. Our findings contribute to understanding processes of institutional change and outcomes of social movements.

Keywords: civic activism • authoritarianism • China • regulation • corporate sustainability

Introduction

Because governments are the embodiment of coercive institutions, their organization and decision-making structures have a profound impact on economies and organizations (Scott 2014). In liberal democracies, the government is frequently influenced by nonstate actors such as civic associations and activists, resulting in institutional change such as the regulation of business activities (Schneiberg and Soule 2005). Although there is a burgeoning research literature on these processes in Western democracies (King and Pearce 2010, Briscoe and Gupta 2016), there is limited understanding of the distinct mechanisms that effect changes in the governmental oversight of business in authoritarian regimes, which are characterized by a high level of government intervention in business (Hillman et al. 2004) and by elaborate political controls over civic participation and activism (Spires 2011, Lee and Zhang 2013). In particular, whereas political organization is a hallmark of such activities in the West (McAdam et al. 1996), authoritarian regimes try to restrict any form of political or social movement organizations (Zhou 1993, Mertha 2009, King et al. 2013). Given these differences between liberal and authoritarian regimes, the existing literature on the interaction among states, firms, and civil society may not easily be extended to understanding institutional change processes in authoritarian states, which are taking on an increasingly prominent role in the world economy (Marquis and Raynard 2015).

In this paper, we examine institutional change processes in one important authoritarian country: China. Although traditional authoritarian rule is based on coercion and control (Schatz 2009, Zhao 2009), recent research has also shown the importance of legitimacy as a basis of rule for many authoritarian states that have undergone economic development, such as China, Singapore, Malaysia, and a number of African and Latin American countries (Levitsky and Way 2010, O’Donnell et al. 2013). These states have become more open (e.g., loosened control over the media) and rely more on the performance of bureaucratic governance to bolster their legitimacy (Means 1996, Li and Zhou 2005, Zhao 2009). At the same time, they also implement elaborate political tactics—especially via the media—to maintain legitimacy and political stability (Means 1996, Brady 2009, Zhao 2009). Resolving these conflicting forces creates a significant management challenge for these states in their day-to-day operations and regulation of business.

Over the past two decades, China has seen a shift toward “responsive authoritarianism”: the state allows for a limited degree of public participation and has been increasingly responsive to appeals from nonstate actors to improve governance over societal issues such as labor rights and environmental degradation (Cai
Yet this opening up has created a paradox: the government solicits public opinion and tolerates change efforts to improve governance, but it also resists associated legitimacy threats that may raise doubts about its capacity to rule. We unpack the effects on business of this paradox of responsive authoritarianism by examining how different types of civic activism raise governmental attention, spur enforcement campaigns, and increase firms’ regulatory risks. We theorize that when civic activism occurs within the system and is thus less visible to the public—such as when citizens complain to governmental bureaus—to avoid drawing widespread attention to the underlying issues, local governments with stronger bureaucratic capacities can deal with the issues behind the scenes without systematically affecting the existing governance system, and so the effects of the activism are attenuated. We also argue that when a state has more developed media—when reduced governmental regulation leads to increased privatization and commercialization—the state can use media (both traditional media and the internet) to distract attention from civic concerns, further alleviating pressure on the government to change. But when civic activism occurs outside the system and thus is more visible to the public, such as when activists hold protests, the government and media act in more visible and systematic ways to maintain their legitimacy, which amplifies the impact of the activism.

Examining these contrasting processes, our theoretical framework sheds light on a contentious context in which repression and tolerance are intertwined: though the state may work behind the scenes to mitigate effects of activism through private channels, once activism becomes public, it must appear to address citizens’ appeals to maintain its performance legitimacy. Understanding these paradoxical dynamics also resolves the seemingly contradictory roles of the media in authoritarian states: destabilizing authoritarianism, as proposed by one strand of literature (e.g., Lerner 1968, Diamond 2002, Olukotun 2002), and sustaining authoritarianism, as proposed by another (e.g., Chen and Chan 1998, Zhao 2008, Stockmann 2013).

To test our theory, we examine environmental regulatory enforcement in China, a suitable context to study institutional change in a responsive authoritarian regime. Even during its recent period of unbridled economic growth, China had stringent environmental protection laws, but they were not consistently enforced because of a lack of coercive measures, incentives, and resources, among other reasons (Van Rooij and Lo 2010, Marquis et al. 2011). However, the public’s awareness of environmental protection and corporate environmental responsibility has been rising as citizens increasingly express their concern for the natural environment via various media platforms (Lo et al. 2006, Van Rooij 2010). The state is thus under various pressures to go beyond simple symbolic gestures, such as creating policies or regulations but not enforcing them, and to take more substantive actions to punish polluting firms via means including mandatory treatment, fines, and production suspensions. Furthermore, because local governments play a prominent role in policy implementation and enforcement, since 2006, the central government has threatened to use an environmental “career veto,” whereby provincial leaders’ careers will be sidetracked if they do not meet certain environmental performance targets (Marquis et al. 2011). Thus, we examine the severity of environmental penalties given to firms by local governments, which reflect the closing gap between regulation and enforcement—a change of coercive institutions in China. Our study covers all publicly listed Chinese firms in three heavily polluting industries from 2007 to 2011.

Our research contributes to the literature on social movements and institutional change, shedding light on the distinct characteristics of governmental operations and social movement conditions in responsive authoritarian regimes. These regimes rely on elaborate political tactics by leveraging tools to respond to public demands without compromising state legitimacy. Underlying these dynamics, we find that in China, the state’s interest in balancing control with the appearance of openness results in different types of civic activism having distinct political implications and regulatory consequences. Whereas in Western contexts, social movements are typically organized (McCarthy and Zald 1977), in contrast, in China, civic activism is more atomized (Zhou 1993, Fu 2017). By comparing within-the-system and outside-the-system civic activism, we contribute to a better understanding of the influence of civic activism in the absence of formal social movement organizations. Our study also goes beyond an overly simplistic view of the media in civil society activism by highlighting that under different circumstances, media can be both a catalyst for change and sustain the existing system. By exploring the interplay of the media with these different types of civic activism, our study contributes to resolving the seemingly contradictory dual role of media under responsive authoritarianism. Furthermore, delving into this paradox helps us understand change efforts that have been a challenge for the political liberalization processes that have occurred or are occurring in many areas in the world where authoritarian regimes attempt to maintain a delicate stance between opening and suppression.

**Theory and Hypotheses**

Even though only a limited number of organizational studies have systematically theorized about and examined business conditions in authoritarian regimes,
a significant amount of global economic and organizational activity occurs in countries with authoritarian rule. According to a recent report published by the independent human rights organization Freedom House (2017), 4.5 billion people (61% of the world’s total population) in 108 countries currently live under various types of nondemocratic, authoritarian regimes. There is a spectrum of authoritarianism, from the more “traditional” states, such as North Korea and Saudi Arabia, in which rule hinges on repression (e.g., harassment, imprisonment, and violence) and restrictive regulation (e.g., ordinances and guidelines; Stern and Hassid 2012), to modernized or “responsive” authoritarian states, such as those in Africa (e.g., Uganda, Tanzania, and Ethiopia), Asia (e.g., China, Singapore, and Malaysia), and Latin America (e.g., Mexico), that have undergone varying degrees of political and economic liberalization in recent decades (Levitsky and Way 2010, Stern and Hassid 2012, Gallagher 2016).

Responsive authoritarian states still maintain substantial autonomy in their decision making, and their paramount objectives are maintaining control and reducing the uncertainty of power transitions (Levitsky and Way 2010, Stern and Hassid 2012, Gallagher 2016). For instance, either political competition is entirely outlawed or they may have pseudodemocratic elections with predetermined outcomes. But these regimes do not control the population through “naked coercion” (Schatz 2009, p. 208), as doing so is too costly and inefficient to maintain order in the long run (Levi et al. 2009). Instead, they have developed alternative, softer control strategies to generate cooperation and more effective governance (e.g., Schatz 2009, Levitsky and Way 2010, Lee and Zhang 2013). For instance, such states typically expend significant energy and resources in establishing and maintaining legitimacy. State legitimacy—the public’s belief that the regime is rightful and should be obeyed (Lipset 1981, Nathan 2003)—can generate genuine cooperation and effective governance, and thus is critical for a state’s survival. State legitimacy originates from multiple sources, but at a particular time, one source of legitimacy tends to dominate (Zhao 2009). Compared with liberal democratic states whose state legitimacy is largely based on legal/electoral rationality, authoritarian states rely more on performance or ideology. In many authoritarian countries such as China, Vietnam, and Singapore, the state relies primarily on robust economic performance (Zhao 2009); that is, by ensuring continued economic growth, the government demonstrates to citizens its capacity to rule, which forestalls challenges to its legitimacy.

These states have developed rational and meritocratic bureaucratic and governance systems to manage economic and social developments, and the performance of these systems sustains their legitimacy (O’Donnell 1973, Remmer and Merkx 1982, Crone 1988, O’Donnell et al. 2013). For example, since the late 1980s, local bureaucracies in Mexico have become pillars for implementing the state’s antipoverty program (National Solidarity Program), modernizing the regime, and broadening its social base (Fox 1994, Fox and Hernández 1992). Governance goals such as maintaining economic growth, resolving social issues, and responding to citizens’ appeals are implemented by local bureaucracies, and thus the capacity of local bureaucratic systems becomes increasingly important in sustaining performance legitimacy. This is a notable feature of China, where the local governments have enormous discretionary power over social issues, such as economic growth, public health, and environmental protection (Walder 1995, Li and Zhou 2005).

In addition to building local bureaucratic governance systems, responsive authoritarian states also leverage the media in one of two ways. In some cases, the state partially opens up the media, resulting in greater information flow and public discussion of social issues, because demonstrating a noticeable tolerance of the press and maintaining a façade of a free press lends legitimacy to the state (Lawson 2002, Ocitti 2005). For example, in Uganda and in Mexico under the Institutional Revolutionary Party, the media could act independently to some degree, even though this political tolerance unlocks the door for scrutiny such as increased coverage of government corruption and abuse (Lawson 2002). In other cases, the state may limit press freedom and closely monitor the development of the media, especially the internet, and guide it to serve the state’s interests (King et al. 2013, 2017). For example, the Singaporean government has maintained strict control over information circulated on various media platforms (Paul and Tan 2003).

Another important feature of responsive authoritarianism is that the state establishes institutions for political participation by which citizens’ opinions can be conveyed to officials, which has the dual function of providing feedback to the state and allowing citizens to air their grievances (Means 1996, Nathan 2003, Dimitrov 2009, Heurlin 2016). However, the state is responsive to people’s voices “only insofar as their actions enhance stability and remain controllable” (Van Rooij et al. 2016, p. 8), so the targets of such civic action are typically nongovernmental actors (such as corporations), and the grievances usually focus on narrow issues (Gallagher 2016). In China, for instance, the central government has set up offices in every locale to receive environmental complaints from citizens, channel those issues to the appropriate government offices to settle the complaints, and report the complaints and corresponding settlements to upper-level bureaus (Minzner 2006). If citizen complaints on similar topics occur repeatedly over time, they can draw governmental attention to local issues.
In 2011, Chinese environmental protection agencies at the local and central levels received 701,073 environmental complaint letters, reflecting a growth rate of 190% from 369,712 in 2001 (National Bureau of Statistics of China 2011).

This within-the-system civic activism through formalized complaint processes set up by the state involves private, individual actions, which contrasts with protests that are contentious, collective actions involving more than one participant and occurring in public or in meetings open to the public (O’Loughlin and Soule 2009). Environmental protests are an example in our context of such outside-the-system civic activism. Compared with complaints shared through formal state processes, environmental protests deviate from the institutional arrangements set up by the state, draw public attention, and exert public pressure on the government (Shirk 2007, Whyte 2010). Under authoritarianism, public confrontations against the state are prohibited, as are the formal social movement organizations typically found in liberal democracies. In 2009, for example, the Singapore government promulgated the Public Order Act, which allows it to force individuals or groups suspected of organizing a protest to leave the specific location (Ortmann 2011). In China, even though there are increasing numbers of nongovernmental actors (Saich 2016, Van Rooij et al. 2016), a broadly supported popular movement coordinated by formal social movement organizations against the established order is virtually absent; thus, any civic activism is fragmented, spontaneous, and atomized (Ho and Edmonds 2008, Mertha 2009).

Responsive authoritarian states thus create a delicate circumstance in which repression and tolerance are intertwined. The framework we develop, which is represented in Figure 1, focuses on how both within-the-system and outside-the-system civic activism can increase governmental regulatory attention and potentially spur enforcement campaigns, and furthermore how local bureaucratic systems and the media bifurcate their effects. We theorize that when change pressures occur within the system and so are less visible to the public, their effects are mitigated by strong local governments via a complaint-response model, whereby the state responds only to specific complaints and does not address the underlying issues. But when change pressures occur outside the system—when they are public—the state, in an effort to retain its legitimacy as a responsive regime, may enact high-profile enforcement campaigns and impose more severe penalties on firms; that is, although the state may work behind the scenes to soften effects of criticism and activism, once such outbreaks occur, to maintain its performance legitimacy it must appear to be addressing the underlying social and environmental issues that have generated the discontent. Media and online platforms are other tools the government can use to give this appearance. Thus, the paramount goal of maintaining performance legitimacy leads to a paradox of responsive authoritarianism: the government solicits public opinion and tolerates change efforts to improve governance, while at the same time, it also resists legitimacy threats from that information to retain control and sustain authoritarianism.

Civic Activism in Authoritarian Regimes

Significant research in the context of liberal democracies has shown the important influence of organized civic activism on governmental policies (for reviews, see King and Pearce 2010, Briscoe and Gupta 2016). Civil society movements raise public awareness of and government attention to environmental issues and industry misconduct (Dunlap and Mertig 2014) and can spur institutional change (Hoffman 1999, Schneiberg and Soule 2005). More stringent regulation and enforcement are typically expected to result from civic activism in these contexts.

But unlike liberal democracies, authoritarian states are known for strong coercive control and repression over any type of civic participation (Levitsky and Way 2010), such that most social feedback typically occurs through individual and atomistic mechanisms (Zhou 1993, Fu 2017). This suggests that civic activism in an authoritarian state is unlikely to significantly change the regulatory landscape, and bottom-up challengers are likely to be silenced or even treated violently. It is thus not surprising that studies of Chinese environmental organizations have shown that they focus on “education rather than activation” (Yang and Taylor 2010, p. 350) and that they consciously eschew involvement with any type of collective action (Tang and Zhan 2008, Spires 2011). One might assume that environmental complaints and protests that directly articulate social or policy demands may be seen as a direct threat to the legitimacy of the state and so have limited impact on environmental enforcement.

In China, however, the current leadership recognizes that high-profile coercion can exacerbate diplomatic tensions, escalate public grievances, and even radicalize environmental activists, and therefore, the state seeks public feedback on societal issues such that a certain degree of public discussion and participation is allowed (Nathan 2003). This political tolerance provides space for individualized forms of activism, such as complaints and protests, to stimulate change (Steinhardt and Wu 2015). Under these political circumstances, the rise of environmental activism has begun influencing the government’s attention to environmental issues and to tightening up regulatory enforcement.

Environmental activism in general, including both citizen complaints and protests, directs government attention to environmental issues, and so where there is more environmental activism, firms are more likely to
receive more severe environmental violations. For example, in 2007 there was a large-scale public protest against the construction of a plant in Xiamen that would produce PX (paraxylene), a toxic chemical used in the production of many plastics. The protest, like many other civic engagement events in China, was not organized by any formal social movement organization and was mostly spontaneous (Steinhardt and Wu 2015), but it drew significant public attention. Afterward, the Xiamen government revised local environmental protection regulations to better specify the fines and penalties for firms with environmental violations.

It is important to recognize that when activism generates tightening of the overall governance systems, nontargeted firms are also more likely to receive penalties. Research has shown that when the public’s grievance accumulates to a certain degree, especially when it attracts widespread attention, it can spur ad hoc law enforcement campaigns, a common governance technique in China (Zhou 2012, Liu et al. 2015, Ding 2016). During such campaigns, local environmental protection bureaus (EPBs) increase the number of inspections, issue more violations, and impose more severe penalties. Reports show that in the early 2000s, half of all closings, suspensions, or relocations of enterprises in China occurred during these campaigns (Organisation for Economic Co-operation and Development 2006). For example, in 2004, the Yunnan government initiated an enforcement campaign targeting production related to the pollution of Dianchi Lake, shutting down dozens of factories within months (Van Rooij 2006). These campaign-led inspections are an example of high-profile, legitimacy-seeking responses to the public’s grievances about environmental issues; they not only effectively appease the public, but also demonstrate to the central authority a local government’s commitment to environmental protection (Van Rooij 2006). Firms are put in the government’s spotlight because of increased scrutiny during these enforcement campaigns, regardless of whether they are directly targeted by civic activists.

Thus, we posit that environmental activism spurs government attention to environmental issues, the general tightening up of regulatory enforcement, and the implementation of enforcement campaigns that affect all local firms. Under these circumstances, both targeted and nontargeted firms face higher regulatory risks. We hypothesize the following:

**Hypothesis 1 (H1).** Firms in localities with more vibrant environmental activism (complaints and protests) will face more severe environmental penalties.
How Local Government and the Media Bifurcate the Effects of Civic Activism in Authoritarian Regimes

To manage the delicate balance between repression and tolerance, responsive authoritarian regimes rely on both local bureaucratic governance systems and on media platforms. Thus, whereas civic activism provides pressure for change, its influence is likely to be affected by both the local government and the media. The local government is the regulatory agency that directly interacts with citizens and responds to change pressures (Lo et al. 2009, Van Rooij and Lo 2010, Van Rooij et al. 2016), and it has to walk a fine line between tolerating societal input and consolidating control to enhance its performance legitimacy. The media is also quite important, as it not only disseminates the state’s goals to society but also delivers input to the state from its citizens (Zhao 2008, Yang 2011).

We theorize that under responsive authoritarianism, the local government and the media have dual roles, which shapes the regulatory consequences that stem from civic activism. The model we develop shows that when civic activism occurs within the system and thus is less visible to the public, its effects are reduced in localities with greater governmental bureaucratic capacity and media development. Although the general pattern of governmental response to the feedback from civic activism is enhanced governance, when the government has the opportunity and tools available to decrease the associated legitimacy threat, it may act differently.

As discussed above, there are several different ways the government can respond to environmental complaints and associated activism. First, it can develop new laws and regulations to address the underlying root causes of the environmental grievance more effectively. Second, it can engage in public enforcement campaigns whereby governmental commitment to cleanup is visibly displayed. Third, it can address the environmental grievance in a one-off fashion. We argue below that the extent to which the government uses each of these strategies depends on (1) whether the activism is public or private and (2) the development of the local governmental bureaucracy and media. In general, the former two strategies draw more public attention to the underlying issues, whereas the latter complaint-response model draws less public attention. We argue that in locations with enhanced bureaucratic capacity and media development, when the government receives criticism that can be hidden, it more effectively follows this later strategy as opposed to the former two strategies, which has the effect of fragmentizing issues and dissolving the pressure behind the scenes without systematic changes to the existing governance system that could attract public attention. Conversely, the effects of more visible events that gain widespread public attention, such as outside-the-system civic activism, are enhanced in areas with better-developed government and media because the government is compelled to respond in a more public and systematic way to maintain legitimacy, and as a result, the enforcement affects a wide range of firms with increased severity of penalties.

Government’s Bureaucratic Capacity. Striking the delicate balance between tolerance for change efforts and resistance to legitimacy threats requires a responsive authoritarian regime to demonstrate a fair amount of governance skill and effort. These political dynamics should be more pronounced in regions with greater governmental bureaucratic (or administrative) capacity—the ability to implement its functions (Cohen 1995, Grindle 1997, Tendler 1997). The literature has shown that secure property rights (Campbell and Lindberg 1990), effective judicial systems (Skowronek 1982), and efficient public administration (Skocpol and Finegold 1982) are key indicators of high governmental bureaucratic capacity. And governments with greater bureaucratic capacity can effectively cope with chaos and crisis (Farazmand 2007). Research on authoritarian states, such as those in Latin America as well as Singapore and Malaysia, has also shown that in these countries that have greater economic development, authoritarian governance hinges on the state building its bureaucratic capacity, which emphasizes key performance indicators including policy and law enforcement (O’Donnell 1973, Remmer and Merkx 1982, Crone 1988, O’Donnell et al. 2013).

We argue that in regions with high governmental bureaucratic capacity, all firms are under higher regulatory risks. High bureaucratic capacity can signal stronger environmental governance and stricter environmental regulatory enforcement (Lo and Tang 2006, Van Rooij and Lo 2010). First, these governments are better able than others to gather and process environmental information effectively by applying more advanced monitoring technologies and programs to detect polluting sources and to assess corporate environmental performance (Potoski and Woods 2002, Mol and Carter 2006, Lu 2015). Second, governments with greater bureaucratic capacity are more adept at utilizing legal and administrative frameworks to enforce environmental policies. For instance, studies have shown that some local governments in China are better able than others to disseminate the idea of rule of law to the public and motivate the public to use legal means to constrain firms’ misconduct (Mol and Carter 2006, Gallagher 2016). By maintaining judicial systems and market order through effective public administration, governments with higher bureaucratic capacity are better able to improve their environmental governance and more effectively enforce regulations. Thus, firms in these localities are subject to greater scrutiny, which...
increases their regulatory risks and the likelihood of receiving more severe penalties.

**Hypothesis 2a (H2a).** Firms in localities with greater development of the government’s bureaucratic capacity will face more severe environmental penalties.

Although governments may in general want to improve citizens’ lives through more effective environmental governance, they also aim to reduce legitimacy threats associated with criticism about those issues. Even in liberal democracies, powerful states are less receptive to pressure from civil society and have more mature social control strategies (Walker et al. 2008). The situation is even more pronounced in an authoritarian state like China, where the state leverages various social control channels—such as the government-sponsored complaint systems—to internalize citizens’ grievances, hoping to resolve the social issue whereas at the same time minimizing any potential legitimacy threats stemming from public criticism.

As noted above, the government has several ways to respond to civic activism, and when it receives criticism that is not visible to the public, it more effectively follows the complaint-response model by offering case-by-case solutions to citizens’ specific environmental complaints, which lets off steam without triggering widespread grievances. Prior research on China’s environmental governance has shown the effectiveness of this model—when citizens perceive that their individual grievances are properly addressed, they frequently are satisfied with their local government’s performance even if there is a lack of substantive improvement in overall environmental quality (Ding 2016). In contrast, overhauling the whole environmental governance system or engaging in enforcement campaigns can attract public attention to the local environmental issues and potentially trigger more questions about the government’s accountability and legitimacy. Thus, when dealing with environmental complaints, using the complaint-response model as opposed to enforcement campaigns is the most predictable approach for the government to address issues whereas avoiding publicity that can lead to legitimacy threats.

Effectively implementing this complaint-response model requires a fair amount of local governmental capacity and skill, especially efficient administration and effective judicial systems to appease citizens’ individual grievances in a timely manner to avoid the issues becoming publicly known. Thus, it is more commonly used and better implemented under more capable governments (Lo et al. 2006, Van Rooij and Lo 2010). For these governments, the complaint system combined with the complaint-response model enables them to manage the tension between legitimacy and accountability behind the scenes by fragmentizing environmental issues and shielding the public from information about any systematic governance issues.

As a result, the overall effects of complaints in better-run provinces may essentially backfire—governments use this information as a way to protect their legitimacy as opposed to dealing with the underlying environmental problems. Consistent with this, prior research has shown that in some localities of China where the local environmental administration system is more developed (e.g., Guangdong Province), environmental complaints can generate a surprising adverse effect on the proper deployment of enforcement resources. That occurs because complaints steer EPBs away from regular but important enforcement duties to those that most directly cease citizens’ complaints, such as limiting noise pollution from construction sites (Lo et al. 2006, Van Rooij and Lo 2010, Ding 2016). As well, addressing environmental complaints on a case-by-case basis results in greater workloads for local EPBs, which takes up administrative resources and fatigues the bureaus. Thus, as capable local governments use this complaint-response model to fragmentize environmental issues, it impedes strict enforcement of the systematic environmental regulations.

Taken together, our arguments suggest that in localities where the government’s bureaucratic capacity is more developed, change pressures from within the system, such as environmental complaints, can generate unanticipated adverse effects—stronger governments employ the complaint-response model, an effective tool to minimize legitimacy threats, and accumulated complaints further steer governmental resources away from systemic and strict action, which limits more wide-ranging enforcement that could affect other firms that are not direct targets of criticism.

**Hypothesis 2b (H2b).** The effect of environmental complaints on spurring governmental action differs depending on the government’s bureaucratic capacity: in localities with higher bureaucratic capacity, more environmental complaints will result in less severe environmental penalties.

Compared with environmental complaints, environmental protest is visible, outside-the-system civic activism that deviates from the institutional setup of the government. Although an authoritarian state may exert formidable control over the reporting of protests, protests are public and so inevitably draw a fair amount of attention, which raises questions about the government’s environmental governance. To maintain its performance legitimacy, the government must respond when such criticism is widely visible to the public. To maintain their image and regain the public’s trust in the face of such protests, local governments in China typically initiate campaign-style environmental enforcement that targets a wide range of firms with higher levels of scrutiny and increased penalties, and
can even overhaul the existing regulation and inspection systems. Governments with stronger bureaucratic capacity are better able to achieve these ends by obtaining feedback from the public, identifying the root causes of problems, and improving their level of environmental governance. Thus, after problems are publicly identified through protests, these governments can defend their legitimacy by making public demonstrations of enforcing stricter environmental regulations, by greatly increasing the regulatory scrutiny and inspection intensity over firms (Zhao 2009). Thus, firms in these localities are more likely to receive more severe penalties. For these reasons, we argue that the effect of outside-the-system civic activism such as environmental protests on governments’ responses to environmental issues is more pronounced in regions with strong governmental bureaucratic capacity.

**Hypothesis 2c (H2c).** The effect of environmental protests on spurring governmental action differs depending on the government’s bureaucratic capacity: In localities with higher bureaucratic capacity, more environmental protests will result in more severe environmental penalties.

**Media Development.** In normative theories of democracy, the media are expected to produce critical news reports to identify societal problems and influence the public’s opinion, therefore facilitating an effective public sphere and critical political culture (Habermas 1989). Many political scientists and political sociologists have expressed the view that the media play an important role in destabilizing authoritarian regimes (e.g., Olukotun 2002). In authoritarian states in which the media have traditionally been tightly controlled, the development and commercialization of traditional media (e.g., newspapers, radio, TV) and social media (e.g., internet) provides citizens with more independent information sources, which can subvert state control over the flow of information (Eickelman and Anderson 2003), encourage citizens to become politically active (Lerner 1968), erode a state’s legitimacy (Olukotun 2002), and bring about the liberalization of a political system and even regime change (Diamond 2002). Examples abound, such as the democratization of Poland (Curry 1990) and the Arab Spring (Khondker 2011).

However, another school of social scientists posits the opposite view: that the media are manipulated by political and economic elites who erode the public sphere (Bourdieu 2001, Habermas 1989, Mills 1956), and that this situation is exacerbated in authoritarian regimes (Freedom House 2017). China is listed as having very low press freedom, and during our period of observation it was typically in the bottom 20 of approximately 190 countries (Freedom House 2010); its 2017 ranking was 176 out of 180. Research has shown that the media in such states are used to consolidate power, stabilize the regime, and sustain authoritarianism (Chen and Chan 1998, Zhao 2008).

Since the 1990s, the Chinese government has deregulated the media, a process of increasing privatization of media firms and commercialization of media outlets, which has spurred market competition and the flourishing of mass-appeal news reporting (Zhao 1998, 2000, 2008). The media now can touch on a wide range of societal problems and even criticize corrupt governmental officials, but they shun violating the Communist Party of China’s core principles of maintaining stability and legitimacy; thus, a “propagandist-commercial model” has been created (Zhao 2000, p. 12). Furthermore, various online platforms (e.g., Sina.com and Tianya.cn) enabled by governmental deregulation, privatization, and the development of internet technologies have mushroomed in recent years, which ostensibly provide citizens with civic participation opportunities (Stockmann 2013; Luo et al. 2017b; Yue et al. 2018). Mass-appeal commercial media and internet platforms have gained trust from the general public in this model, and researchers have shown that in provinces with a greater level of media development, the public generally perceive the media as more trustworthy than other political institutions such as the police (Stockmann 2013).

Yet it is important to emphasize that this process of media development is distinct from true media independence. Although the Chinese state may appear to tolerate the development of the public sphere, research has shown that it most often uses the media to guide public opinion in a direction beneficial to government rule (Zhao 1998, 2000, 2008). The state still employs strict censorship, and the media tend to circumscribe their coverage and tone to boundaries defined by the state and avoid uncovering systematic root causes of societal problems (Chen and Chan 1998, Zhao 2008). The state has also demonstrated a strong will and a capacity to regulate internet platforms by closely monitoring information circulated through the internet and coercing internet companies into complying with the political rules or otherwise be forced out of the market (e.g., Google’s withdrawal from the China search engine business in 2010). Furthermore, the state deliberately deletes seditious blog posts and even generates favorable online comments about itself (King et al. 2013, 2017). Because more developed media, as reflected by commercialization and internet development, are viewed as more independent and credible by the public, but are essentially controlled by the state, they in fact serve as effective communication tools for the authoritarian state to manipulate discussions about social issues, manage its public image, and bolster its rule (Chen and Chan 1998, Stockmann and Gallagher 2011, Zhao 2008).
In China, environmental issues have become a societal problem that is recognized by the public and the state, and the government has been shown to take advantage of media development and manipulate various media channels to silence negative commentary and symbolically burnish its environmental governance. In regions with more developed media, local governments can leverage more diverse media platforms to manage their public image, including both traditional (e.g., newspapers) and new media (e.g., online blogs and social media). Studies have shown that Chinese governments not only hold back newspapers’ criticism but also invest heavily to censor social media, fabricate online comments to regularly distract the public and change the online discussion subject, avoid arguing with skeptics of the state, and cheerlead for the regime (King et al. 2017). As a result, in areas with a higher level of media development—such as more commercialized traditional media and expansive online media—governments benefit from the greater credibility of the media and are likely to have greater public approval of their governance (Stockmann 2013).

Thus, the media can play a prominent role in sustaining authoritarianism by bolstering governments’ legitimacy. The media can be a powerful tool for local Chinese governments to guide public opinion behind the scenes, appease public grievances about environmental issues, and gain greater approval for environmental protection efforts. These processes alleviate the public pressure on a government’s environmental leadership and weaken the government’s motivation to enforce regulations in a more systematic and strict way. Thus, in localities where governments benefit from the greater credibility of the Chinese media and gain greater approval for their current environmental governance achievements, firms likely face less severe regulatory risks.

**Hypothesis 3a (H3a).** Firms in localities with a greater level of media development will face less severe environmental penalties.

As noted, the environmental complaint system is an institutional structure for the Chinese government to solicit citizens’ feedback on social issues without triggering widespread grievances. The accumulation of environmental complaints signals citizens’ concerns to local governments, which can act in various ways, including the complaint-response model or enforcement campaigns to appease grievances without creating legitimacy threats, contingent on the tools and opportunities available to them. As we argued previously, local governments with greater bureaucratic capacity will employ the complaint-response model effectively, which will reduce the extent to which a wide range of firms are affected by increased severity of penalties via high-profile enforcement campaigns.

We posit that in areas in which the media are more developed, local governments have a powerful tool—the media—to appease citizens’ grievances via propaganda about their environmental responses and achievements to the public. Researchers have found, for example, that local governments have started to actively promote their environmental work through various media channels, especially when they have accumulated public grievances and questions over pollution issues, and these responses are generally symbolic such that they often are decoupled from the actual local environmental situation (Ding 2016). Through media promotion, these governments can effectively enhance the public’s approval of their governance and the environmental status quo. Under these circumstances, the government is also more likely to employ the complaint-response model to address the specific environmental issues quietly behind the scenes. In contrast, enforcement campaigns can be costly and attract more attention to the local environmental problems, making environmental issues a public topic and potentially triggering further questions about the root causes of the problems. Thus, when the media are an available and effective tool, governments in these areas will engage in more environmental propaganda to promote their environmental governance to the public, as opposed to enforcement campaigns such that firms in these areas should face less regulatory risks.

**Hypothesis 3b (H3b).** The effect of environmental complaints on spurring governmental action differs depending on media development: in localities with greater media development, more environmental complaints will result in less severe environmental penalties.

Compared with environmental complaints, environmental protests are more visible civic activism that cannot be easily hidden away. And as discussed, responsive authoritarianism requires a certain degree of tolerance of public voice to solicit public opinion and feedback about its governance. This limited but real political tolerance exists such that discussions over social issues are allowed, as long as they do not cross the line of challenging the government’s legitimate monopoly on political power. In addition, market competition motivates the Chinese media to report events that are politically sensitive but are eye catching, are salient, and will attract consumers’ attention. By constantly pushing the boundaries set by the state, commercialized media outlets can brand themselves as credible news products and attract more consumers (Zhao 2000, Lei 2016).

Thus, although environmental protests generally deviate from the institutional arrangements set up by the state, the media can still push political boundaries by disseminating diverse information sources, which in turn results in more open discussion among the public.
When key events occur, the interaction of media, civil society, and the market can sometimes counter the authoritarian state’s control of information flow. As a result, although the usual effect of developed media in China is to mitigate effects of criticism and activism behind the scenes (H3a and H3b), once environmental issues become public, as they do through protests, to protect its legitimacy as a responsive regime, the government must act in a way such that it appears to be addressing the underlying social and environmental issues that have generated the discontent. Therefore, we argue that in areas with greater media development, the more visible outside-the-system civic activism, such as environmental protests, tends to break through governmental information control, counteracting the government’s ability to cover up crises and forcing it to respond in a more public and systemic way to save face, such as through high-profile enforcement campaigns.

**Hypothesis 3c (H3c).** The effect of environmental protests on spurring governmental action differs depending on media development: in localities with greater levels of media development, more environmental protests will result in more severe environmental penalties.

**Data and Methods**

**Sample and Data Collection**

The Ministry of Environmental Protection of China publicizes a list of strictly regulated industries that includes the mining, manufacturing, and power-generation industries. These industries are thus under intensive monitoring by the central and local governments. But despite this strict regulation—and the heavy pollution firms in such industries can create—there is significant variation in enforcement across localities. Some local governments are forced to shut down local plants as the result of various pressures, whereas others have lax enforcement to protect the local economy (Marquis et al. 2011). The tension between environmental sustainability and economic advancement, regulation, and enforcement is especially pronounced in these industries, so they offer a particularly appropriate setting to test our hypotheses. Our sample covers all listed firms in these industries on the Shanghai and Shenzhen Stock Exchanges from 2007 to 2011. Table A1 in the online appendix presents the number of listed firms per year in each industry.

Our data sources include archival data from the China Stock Market and Accounting Research (CSMAR) database, the National Bureau of Statistics of China, the Media Marketization Index (Stockmann 2013), the National Economic Research Institute (NERI) Index of Marketization of China’s Provinces (Fan et al. 2011), China Environment Yearbooks, environmental penalty reports from the Institute of Public & Environmental Affairs (IPE; see http://www.ipe.org.cn), and corporate social responsibility (CSR) reports from the CSR rating agency Runling (Marquis and Qian 2014). The CSMAR database is the primary source for financial data on Chinese listed firms. After merging these databases and removing observations that were missing key explanatory variables (of 1,080 observations, 19% have missing values), our data set has 4,511 company-years, approximately 900 firms per year on average.

**Dependent Variable**

In China, the Ministry of Environmental Protection has issued *Measures for Environmental Administrative Punishment,* which outlines the seven types of administrative punishments that local EPBs can give firms that violate environmental law. These include (in order of severity) (1) warning (requiring mandatory treatment of the issue), (2) fine, (3) operation suspension for rectification, (4) production suspension/shutdown, (5) revocation of the firm’s business license, (6) confiscation of firm property and equipment, and (7) administrative detention of the firm’s leaders. When these occur, local EPBs publish the penalty records online. IPE, an environmental nonprofit organization, collects these penalty records reported by local EPBs and publishes them on the IPE website.

We manually coded these penalty records for each firm-year from 2007 to 2011 from the IPE website and created a categorical variable, *environmental penalties,* that reflects the level of severity of these sanctions. In our sample, all environmental penalties fell into the first three categories. Thus, according to the government decree, we coded the dependent variable as follows: 0 indicates no penalties; 1 indicates a warning (mandatory treatment), meaning a firm was required to complete some treatment within prescribed time limits; 2 indicates a fine, meaning a firm was required to not only rectify its violations but also pay some amount of fine ranging from hundreds to thousands of renminbi; and 3 indicates an operation suspension for rectification, meaning a firm was fined and its production lines were brought to a halt until the environmental violation issues were properly addressed. For firms subjected to multiple penalties within a given year, we coded it as the highest-level penalty that occurred; for example, one firm was penalized three times with two warnings and one fine, and we coded the penalty level as 2.

In our data set, approximately 62% of penalties occur in firms’ headquarter provinces, and among these firms, 92% of them have all penalties in their headquarter province, indicating that these firms’ main production activities are typically in their headquarter locations. Because our key explanatory variables are about environmental and governmental conditions in firms’ headquarter provinces and because prior research has shown that Chinese firms are more socially and politically integrated in their headquarter provinces than in branch locations (Luo et al. 2017a), we
focused on environmental penalties that occurred in a firm’s headquarters province and so would be a result of the processes we theorize. As a robustness check, we ran these analyses exclusively on firms that have all penalties in their home provinces, which yielded substantively identical results. For firms that have penalties in nonheadquarter provinces, 85% of them have all penalties in nonheadquarter provinces, indicating that for these firms, their operations are predominantly in nonheadquarter localities, suggesting a different theoretical process than our focus on local governments and media. We encourage future research to examine how these local dynamics influence non-local firms.

**Independent Variables**

Our key explanatory variables include environmental complaints, environmental protests, government’s bureaucratic capacity, and media development at the provincial level. In China, provincial governments have relative autonomy from the central government and can formulate local developmental goals and regulative priorities (Li and Zhou 2005). But as an important part of a hierarchical authoritarian system, provincial governments are also held accountable for implementing central government policies and maintaining state legitimacy (Xu 2011). Thus, previous research has focused on the province level as a site at which complex institutional dynamics and tensions unfold (Luo et al. 2017a, Stockmann 2013). Furthermore, many data are available only at the provincial level, such as those on environmental complaints, the government’s bureaucratic capacity, and media development, which limits the potential to conduct more fine-grained research at lower administrative levels.

**Environmental complaints** is measured by the total number of letters of environment-related complaints/reporting received by local environmental protection bureaus aggregated at the provincial level as recorded in the China Environment Yearbooks published by the Ministry of Environmental Protection of China and China Environment Yearbook Press, standardized by provincial total population. We then log transformed this variable to reduce skew. During the period of this study, there was an average of 4.58 petition letters per 10,000 people per province year, with a high of 21.56 petition letters per 10,000 people in Guangxi and a low of 0.016 letters per 10,000 people in Guizhou.

For **environmental protests**, we systematically searched approximately 50 leading media outlets that had wide readership and thus were high impact either internationally or domestically from 2006 to 2011 (see Section A4 of the online appendix for the list of search terms). Different media outlets have various degrees of media reach—those with wider readership typically have higher impact (Köbel et al. 2017). We searched 5 leading international media outlets (the New York Times, Reuters, Bloomberg, the Guardian, and the South China Morning Post), 5 key social media and news sites that cover environmental issues (China Digital Times, chinadialogue.net, Sinocism, Radio Free Asia, and IPE), 10 leading domestic Chinese social media sites and newspapers (e.g., sina.com, Southern Weekly, People’s Daily), and the largest newspaper in each of the 31 Chinese provinces based on readership (e.g., Xinmin Evening News in Shanghai, Yangzi Evening News in Jiangsu). To take into account the magnitude of events, we counted and aggregated the total number of reports at the provincial level, under the assumption that bigger events will draw attention from more media outlets. We log transformed these variables to reduce skew. The number of environmental protest reports was 12 on average, but peaked in 2009 with 32 protest reports in total. Of all the provinces, the highest number was in Fujian (nine environmental protest reports in 2009). Some provinces, such as Hainan and Ningxia, did not report any protests during this period.

We acknowledged the possibility that newspaper data can suffer from selection bias because news agencies do not report on all events that occur, particularly in China, where media publications can be censored. Because not all protests that occurred were reported, our approach is conservative, and so we do not believe these issues would bias our analyses. First, our intention was to collect “hard news” (i.e., who, what, when, where) that is less subject to multiple sources of bias (McCarthy et al. 1999). Second, although there is variance across regions regarding the degree of censorship (Lei 2016), this is consistent with our theory that media reporting is one of the underlying mechanisms through which these events can have political impacts. In areas with higher degrees of censorship, these events are less likely to be reported widely, and thus they are likely to have limited impact.

We used data collected for the NERI Index of Marketization, a set of measures frequently used by researchers to gauge China’s institutional development across provincial regions (Fan et al. 2011). To measure government’s bureaucratic capacity, we used the index’s legal framework development measure, which assesses the protection of property rights, effectiveness of judicial systems, and efficiency of public administration (Campbell and Lindberg 1990, Skowronek 1982). Because the NERI has updated the index only up to the year 2009, we extrapolated data for 2010.

For **media development**, we employed two measurements. The first is the Media Marketization Index developed by Stockmann (2013), which assesses the marketization of traditional media and new media by incorporating media income from advertising (instead of government funding) and the penetration of the internet (percentage of internet users). The index ranges...
from 0 to 1, with 1 indicating the highest level of media development in China. The second measurement is the China Media Development Index published by People’s Daily Press, incorporating media production, profitability, audience’s consumption, advertising competition, and local economic conditions. These measurements reflect the privatization of media firms and media commercialization in Chinese provinces.

**Control Variables**

To control for the underlying environmental processes that may affect our predictions of interest, we controlled for the provinces’ general environmental situation, potential for environmental crises, and environmental accidents. In provinces with severe pollution, local governments might become stricter with regulation enforcement to curb the environmental degradation. Severe pollution might also be a result of local governments’ leniency with firms and lax enforcement. These competing concerns drive us to include this control variable. **Environmental pollution** is measured by the amount of sulfur dioxide emission per gross domestic product (GDP). It is frequently used to assess general environmental degradation (Frank et al. 2000), because atmospheric sulfur dioxide comes directly from fossil fuel combustion in industrial processes and has severe adverse effects on human health according to the U.S. Environmental Protection Agency. We standardized this measure by GDP to control for the amount of hazardous waste per GDP, a common reason for environmental activism (Szasz 1994). We collected data on **environmental accidents** from media outlets following the same method used to scrape and code environmental protest reports described previously.

We also controlled for local industrial characteristics at the provincial level. Provincial industry structure may influence local environmental regulation enforcement. For example, some industries generate more pollutants than average, and so provinces with a higher proportion of these firms are likely more vigilant. In 2008, the Ministry of Environmental Protection released a list of 14 pollution-intensive subindustries (all of which are subcategories of the mining, manufacturing, and power-generation industries). We manually coded each firm’s subindustry as a dummy variable, using 1 to indicate pollution-intensive industry and 0 otherwise. We then calculated the **local industry structure** (the number of local listed firms in pollution-intensive industries divided by the total number of local listed firms) to control for the potential concern that our results just reflect the distribution of pollution-intensive industries across Chinese provinces.

We also included several firm-level variables to control for relevant financial and ownership characteristics of the firms under study that may affect both their susceptibility to governmental scrutiny and propensity to pollute. Larger firms face intensive regulatory pressure from the government because of their larger and/or multiple manufacturing sites and their higher potential environmental risks and social costs. We thus controlled for **firm size**, operationalized as the natural log of a firm’s total assets. Firms with more financial resources can invest in environmental protection such as adopting cleaner technologies, so we controlled for ROA, the return on assets calculated as net income over total assets. Cash flow is seen as the most appropriate means to capture the available resources for discretionary purposes, so we calculated **slack resources** as the sum of cash flows from a firm’s operating, financing, and investing activities, and we scaled it by total assets, following previous research (Marquis and Qian 2014). Controlling for firm size and financial performance also takes into account the possibility that the government may have greater economic dependence on some firms (Bai et al. 2004).

In China, the government maintains considerable ownership and control of approximately 60% of publicly listed firms, and state-owned enterprises (SOEs) may receive support from or be protected from government agencies (Li and Zhang 2007). To control for the influence of ownership structure, consistent with prior literature (Luo et al. 2017a), we identified which companies have the state as the controlling shareholder and included a dummy variable, **state ownership**, in the models. In addition, significant research has shown that a firm’s political connections can lead to preferential treatment (Faccio 2006). Therefore, we controlled for whether a firm has **political connections** by coding for whether the chief executive officer/chairman/party secretary is during the period of study or was formerly an officer of the government, is or was a delegate to the People’s Congress or People’s Political Consultative Conference, or has a military background (Fan et al. 2007). Firms’ annual reports provide a biographical sketch of the top management team, including their previous work experience. Following prior research (Fan et al. 2007), we manually coded **political connections** as a dummy variable, with 1 indicating that the firm has a political connection and 0 otherwise.

Finally, we also included a few control variables to specifically account for firms’ underlying environmental performance. Companies with newer equipment and cleaner technologies are inclined to have better environmental performance (Clarkson et al. 2007), and therefore they are less likely to receive severe environmental penalties. Thus, we controlled for the average age of a firm’s equipment. Following prior studies, **asset newness** is measured as net properties, plant, and equipment over the gross properties, plants, and equipment (Clarkson et al. 2007). Similarly, companies with higher sustaining capital expenditures are
expected to have newer equipment. Following prior studies, we measured capital intensity by calculating capital spending over total sales revenues (Clarkson et al. 2007). Moreover, socially responsible companies are more likely to care about the environment and therefore have better environmental performance. It is also plausible to assume that they are inclined to release CSR reports to let the market and shareholders know about their superior performance (Hughes et al. 2001). Therefore, we included the dummy variable CSR report as an indicator of firms’ social/environmental performance.

**Estimation Method**

Our dependent variable, environmental penalties, is a categorical variable, so an ordered logit model suits the data. Furthermore, our data are an unbalanced panel and contain multiple observations over time for the same firm, and firms are nested in provinces. Unobserved heterogeneity may occur because each firm contributes to multiple observations (i.e., serial correlation within firms), and firms within the same provinces may be correlated with each other (i.e., nonindependence within provinces). But bias from serial correlation is more of a concern for panels with long time series (over 20–30 years) and is less of a problem for short panels with very few years (Baltagi 2008). For our data set, the number of years is limited (T = 5), and the number of individual units is large (n > 900). In addition, because firms are nested in provinces, we clustered standard errors at the provincial level and reported robust standard errors for all models. We also included year fixed effects to control for any unobserved-time effects. We also included industry fixed effects by including dummy variables for the industries we examine. Finally, there is a one-year lag between all independent variables and the dependent variable. To facilitate interpretation, we standardized the four variables included in interaction terms: environmental complaints, environmental protests, government’s bureaucratic capacity, and media development.

**Results**

Tables A2 and A3 in the online appendix report descriptive statistics and correlations, respectively. We computed variance inflation factors (VIFs) to ensure the intercorrelations between variables did not bias our results. The VIFs range from 1.05 to 3.53, and the mean VIF is 1.64, all below the rule-of-thumb cutoff of 10 (Greene 2003). Therefore, our analysis is unlikely to suffer from multicollinearity.

Table 1 presents the results. Model 1 includes all the control variables. Firm size, state ownership, political connections, and pollution-intensive industry significantly affect firms’ environmental penalties. Models 2–6 test our hypotheses. Model 2 tests the main effects of our independent variables. Because these events (environmental complaints and protests) are potentially interrelated, it is important to interpret our hypotheses in this model with all the main effects such that the effect of each estimated coefficient is effectively net of the other factors. Environmental protests have significant positive effects on firms’ environmental penalties, but environmental complaints do not (which we will discuss later), partially supporting H1. Specifically, the coefficient on the standardized environmental protests variable indicates that a one-standard-deviation increase in environmental protests (standardized logged value) is associated with a 0.217 increase in the log odds of firms receiving more severe environmental penalties.

The standardized coefficient on government’s bureaucratic capacity is statistically significant and indicates that a one-standard-deviation increase in government’s bureaucratic capacity (standardized value) is associated with a 0.509 increase in the log odds of firms receiving more severe environmental penalties, supporting H2a. Model 2 also provides evidence to support H3a for the prediction that firms located in regions with a higher level of media development are less likely to be subject to more severe environmental penalties. The coefficient on the standardized media development variable indicates that a one-standard-deviation increase in media development (standardized value) is associated with a 0.659 decrease in the log odds of firms receiving more severe environmental penalties.

Models 3 and 4 test the moderating role of government’s bureaucratic capacity on the effects of civic activism. We found support for H2b. As shown in Model 3, the coefficient for environmental complaints × government’s bureaucratic capacity is negatively significant. Figure 2, panels (A)–(C), illustrates that the effect of within-the-system civic activism differs in regions with different bureaucratic capacity; in particular, as predicted, firms headquartered in regions with more environmental complaints receive less severe penalties in regions with greater bureaucratic capacity. We do not find support for H2c that the environmental protest effect is stronger in provinces with higher bureaucratic capacity. The standardized coefficient for environmental protests × government’s bureaucratic capacity is positive but not significant in Model 4, which we will discuss later.

Models 5 and 6 test the moderating effect of media development on the impacts of different events on firms’ environmental penalties. The coefficient on environmental complaints × media development is negatively significant in Model 5. Furthermore, as shown in Figure 2, panels (D)–(F), the effect of environmental complaints differs in localities with different levels of media development; in particular, in localities with high media development, more environmental complaints result in less severe levels of environmental
penalties. This supports H3b. Regarding H3c, the coefficient on environmental protests × media development in Model 6 is positively significant, and as shown in Figure 2, panels (G)–(I), the slope of the dashed line (high media development) is the steepest, indicating that media development enhances the effect of protests.

Finally, we also conducted further data collection and analysis to assess the extent to which our results

### Table 1. Regression Results of Ordered Logit Models

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<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
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<tr>
<td>H1 \ Environmental complaints&lt;sup&gt;L,S&lt;/sup&gt;</td>
<td>0.172</td>
<td>(0.118)</td>
<td>0.168</td>
<td>(0.118)</td>
<td>0.165</td>
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<td>H1 \ Environmental protests&lt;sup&gt;L,S&lt;/sup&gt;</td>
<td>0.204*</td>
<td>(0.098)</td>
<td>0.192*</td>
<td>(0.089)</td>
<td>0.196*</td>
<td>(0.086)</td>
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<td>H2a \ Government’s bureaucratic capacity&lt;sup&gt;S&lt;/sup&gt;</td>
<td>0.492**</td>
<td>(0.130)</td>
<td>0.962**</td>
<td>(0.218)</td>
<td>0.485**</td>
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<td>H2b \ Environmental complaints&lt;sup&gt;L,S&lt;/sup&gt; × government’s bureaucratic capacity&lt;sup&gt;S&lt;/sup&gt;</td>
<td>−0.564**</td>
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<td>H2c \ Environmental protests&lt;sup&gt;L,S&lt;/sup&gt; × government’s bureaucratic capacity&lt;sup&gt;S&lt;/sup&gt;</td>
<td>0.044</td>
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<td>H3a \ Media development&lt;sup&gt;S&lt;/sup&gt;</td>
<td>−0.636*</td>
<td>(0.301)</td>
<td>−0.533*</td>
<td>(0.214)</td>
<td>−0.629*</td>
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<td>H3b \ Environmental complaints&lt;sup&gt;L,S&lt;/sup&gt; × media development&lt;sup&gt;S&lt;/sup&gt;</td>
<td>−0.530**</td>
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<tr>
<td>H3c \ Environmental protests&lt;sup&gt;L,S&lt;/sup&gt; × media development&lt;sup&gt;S&lt;/sup&gt;</td>
<td>0.234***</td>
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**Province-level controls**

| Environmental pollution<sup>L</sup> | 0.395            | (0.283)          | 0.494***          | (0.297)          | 0.732*           | (0.298)          |
| Environmental crisis potential<sup>L</sup> | 0.033            | (0.095)          | 0.051            | (0.102)          | 0.059            | (0.107)          |
| Environmental accidents<sup>L</sup> | 0.171***         | (0.097)          | 0.058            | (0.084)          | 0.003            | (0.062)          |

**Firm-level controls**

| Firm size<sup>L</sup> | 0.347**          | (0.045)          | 0.388**          | (0.041)          | 0.379**          | (0.040)          |
| ROA | −0.006          | (0.351)          | −0.135          | (0.349)          | −0.070          | (0.322)          |
| Slack resources | −0.555          | (0.663)          | −0.521          | (0.647)          | −0.526          | (0.638)          |
| Asset newness | −0.469          | (0.329)          | −0.517          | (0.359)          | −0.523          | (0.349)          |
| Capital intensity | −0.101          | (0.174)          | −0.072          | (0.218)          | −0.065          | (0.224)          |
| CSR report | −0.031          | (0.172)          | −0.021          | (0.178)          | 0.007           | (0.175)          |
| Pollution-intensive industry | 0.923**         | (0.178)          | 0.923**         | (0.185)          | 0.928**         | (0.184)          |
| State ownership | 0.377***        | (0.209)          | 0.525**         | (0.205)          | 0.536**         | (0.202)          |
| Political connections | −0.544**       | (0.189)          | −0.592**        | (0.187)          | −0.610**        | (0.193)          |

**Notes.** The table shows regression coefficients of ordered logit regressions. Parentheses contain robust standard errors clustered at the provincial level. For all models, N = 4,511 firm-year observations from 2007 to 2011. Year fixed effects and industry fixed effects are included. A superscript “L” indicates logged; a superscript “S” indicates standardized; superscript “L,S” indicates logged then standardized.

* p < 0.05; ** p < 0.01; *** p < 0.10.
are robust to alternative measures for our hypothesized mechanisms. For instance, we collected EPB personnel data from China Environment Yearbooks. To assess whether the complaint-response model hinders systematic and strict enforcement, we estimated our models on two subsamples of above or below the median of EPB personnel (operationalized as the total number of local EPB staff standardized by total provincial population). We found that when the EPBs’ manpower increases, the tension between responding to individual complaints and implementing systematic and strict enforcement is alleviated. (The coefficient on environmental complaints × government’s bureaucratic capacity is significant only in localities with a low level of personnel, and not in localities with a high level of personnel.) Furthermore, to assess whether local governments leverage propaganda tools when they receive within-the-system feedback, also from the China Environment Yearbooks we collected personnel data from the Center for Environmental Education and Communication (CEEC), the government apparatus in charge of spreading environmental propaganda. We tested the interaction between environmental complaints and propaganda personnel (operationalized as the number of CEEC staff standardized by total provincial population) and found that in localities where the local EPBs have higher numbers of environmental propaganda staff, the effect of environmental complaints on firms’ penalties is reduced (the coefficient on environmental complaints × CEEC staff is negatively significant). This is consistent with our argument that local governments are more inclined to use propaganda tools, such as media and these centers, and avoid attention-grabbing enforcement campaigns when possible, to burnish their achievements and distract the public from real environmental issues.  

Overall, these empirical results support our proposition that there is a paradox of responsive authoritarianism in China’s governance: whereas the state creates social space and solicits public opinion to

Notes. Medium levels are at the mean of the measure, and high and low are calculated at the 75th and 25th percentiles, respectively. Note that some values are negative because we have standardized these variables to mitigate multicollinearity and facilitate interpretation.
improve governance and give the appearance of being open, it simultaneously resists associated legitimacy threats that may raise doubts about its capacity to rule.

**Discussion and Conclusion**

Our study investigates how various institutional change pressures spur governmental action in response to corporate environmental issues in China’s responsive authoritarian context. Our analysis of environmental penalties against Chinese public firms reveals that civic activism, local government, and media are important factors that can shape governments’ responses to environmental issues, but because of the paradox of responsive authoritarianism we identify, their interplay produces mixed regulatory results. Specifically, our findings suggest several important conclusions. Regarding civic activism, environmental protests as outside-the-system civic activism have a significant impact on government action, but environmental complaints, which are within-the-system civic activism, do not. This could be because the regime’s paramount goal is to retain control and suppress civic engagement, so it is more challenging for within-the-system activism—which is not widely known to the public—to form effective legitimacy pressures on the government to spur enforcement behaviors. Furthermore, there are more countervailing forces on the complaint processes, such that one needs to account for contingent conditions such as the local government and media development to understand how they operate. As we show in the study, within-the-system civic activism can backfire in regions with greater development of governmental bureaucratic capacity. But this is not the case with outside-the-system civic activism. This could be because protests are attention-grabbing and salient events that would have political consequences regardless of the government’s capacity.

Our findings also reveal an interesting tension underlying Chinese media between facilitating institutional change and sustaining the authoritarian regime. Our results suggest that more developed media in general attenuate pressure on local governments’ environmental governance, consistent with the view that media development can bolster the rule of authoritarian states (Chen and Chan 1998, Zhao 2000, 2008). This process has especially pronounced effects in alleviating the impact of within-the-system civic activism. Local governments in areas with more developed media can use this tool symbolically to create a positive image of their environmental governance that is decoupled from the actual environmental issues. Yet, we also find evidence suggesting that the media accentuate the effect of publicly visible, outside-the-system civic activism on spurring governmental action. We conclude with caution that under some conditions, the Chinese media can still facilitate the spreading of information to the public and accentuate the pressure on the government to act. Below, we describe the broader theoretical implications of our findings and how our study contributes to the literature on social movements and institutional change, as well as limitations and potential directions for future research.

**Contributions to the Social Movement and Institutional Change Literature**

Our research contributes to the organizations literature on market contention and social movements by highlighting the importance of political context in the interplay between private and public politics. A key part of our theory development was unpacking the governance strategies of authoritarian regimes vis-à-vis public feedback. In Western democracies, governments’ regulatory strategies are influenced not only by firms they regulate but also third-party actors such as stakeholders and peer agencies who shield agencies from legitimacy threats (Hiatt and Park 2013). Under responsive authoritarian regimes, however, enforcement strategies are influenced by the state’s delicate stance vis-à-vis nonstate actors’ political participation (e.g., Malesky and Taussig 2017). It is important to understand these governance differences given the growing economic and political prominence of these regimes. Our investigation of the case of China sheds important light on the operation of more modernized authoritarian regimes in Asia and Latin America that have undergone varying degrees of political and economic liberalization and rely on performance legitimacy and associated soft control skills for rule. Significantly, this type of governance also represents a common stage that many countries, such as Taiwan and Korea, have gone through before they transitioned to democracy. Understanding the intersection between governance and civic activism in these contexts is an important contribution to organization theory and the nexus among government, civil society, and business.

The political liberalization processes in these states typically begins with opening by the regime itself, but at the same time the regime typically attempts to limit and control the process by crafting elaborate political tactics to maintain its legitimacy and political stability (Means 1996, Brady 2009). Though such systems respond to public demands with regard to societal issues in general, they also limit citizens’ political involvement and restrict press freedom to silence critics and consolidate state control (Means 1996, Cherian 2012). For example, although the Singapore government bans any type of public assembly and has set up elaborate control processes to manage the political risks of the growing civil society (Paul and Tan 2003), our results indicate that if a focal issue receives wide public attention—to the extent that it threatens the government’s performance legitimacy—the government will
be forced to respond. Thus, in 2011, to quell the public’s vocal discontent with unpopular immigration policies, Prime Minister Lee publicly apologized for any missteps that the government had made. This paradoxical stance regarding different types of change pressure that we show in this paper demonstrates authoritarian regimes’ struggle to balance liberalization with control and how such a balance can affect the regulation of businesses.

Importantly, our examination of environmental enforcement in China enables us to distinguish and gauge the differential effects of civic activism that is and is not widely visible to the public. The latter is an important information source for the government without the significant legitimacy costs of the former. The paradox of responsive authoritarianism that we identify helps us understand how the effect of within-the-system civic activism can be attenuated, whereas outside-the-system civic activism can be magnified. A key distinction we draw is between one-off enforcement via the complaint-response model and high-profile enforcement campaigns, the latter raising much more public attention to an issue. As we theorize and find, more effective governments are better able to translate citizens’ feedback into less attention-grabbing solutions, which result in less severe penalties. Thus, unlike what we would expect in Western contexts, governments with greater capacity engage in fewer enforcement campaigns. As we argue, this is because those governments put a premium on maintaining their legitimacy, and so when they receive citizens’ feedback through the internal governmental mechanism, they can avoid engaging in activities that would attract public attention. More generally, these findings suggest that political institutions are more than just context—that we need to more fully take into account governmental processes and how the state manages its civil society relationships when applying existing theories to an authoritarian context.

Furthermore, although the significance and efficacy of social movement organizations in civic engagement has been a long-standing area of inquiry in the social movement literature (e.g., King and Pearce 2010), in many authoritarian countries such as China and Singapore, examining the effects of civic activism is particularly challenging because it is typically individualized and formal social movement organizations are suppressed (Fu 2017, Zhou 1993). Whether and how this individualized civic activism can influence market dynamics remains mostly unexamined, except for a few case studies (e.g., Lo et al. 2006, Van Rooij and Lo 2010). Our study greatly extends this strand of literature by developing theory and providing empirical evidence about how different types of individualized civic activism (complaints and protests) can influence governments’ regulation of business. This contributes to a better understanding of the influence of civic activism on governments and organizations in the absence of formal social movement organizations, and more generally shows the outcomes of the unique types of civic activism we examine (Giugni 1998).

Our research also deepens our understanding of the dual role of the media in social movement processes in general, and it specifically contributes to understanding the media’s effects in an authoritarian context. Research on liberal democracies has suggested that the media can amplify the impact of civil society movements (King and Soule 2007, King 2008). Our findings show that under responsive authoritarianism, the government can deploy the media so that it simultaneously serves as a catalyst for change and a tool for sustaining the existing system. This tension influences the efficacy of the different change pressures we examine and suggests that the relationship between the media and social movements is more complex than previously theorized. In this case, the government uses the media as a symbolic tool to offset the “confidential” feedback it gets via input institutions (e.g., the complaint system) that are created to manage the populace behind the scenes. But when the focal issue is made public on media platforms through protests, the escalated external monitoring reduces the government’s symbolic responses (e.g., propaganda), allowing the media to in some ways break free and pursue more eye-catching stories, which further enhance the pressure on the government to penalize firms. Understanding these different dynamics resolves the seemingly contradictory dual role of the media in authoritarian contexts.

**Boundaries and Limitations**

Our study is limited by several data availability issues. First, given the difficulty of collecting data to directly measure firms’ environmental performance, our measures for it are coarse. Although we did control for a set of firm characteristics that reflect the firm’s idiosyncratic environmental impact and its environmental commitment, such as a firm’s asset newness, its capital intensity, whether the firm’s industry is pollution intensive, and whether the firm discloses a CSR report, we also encourage future research in contexts where specific environmental performance measures are available. Such data collection would also allow researchers to build a more direct connection between company-level factors and penalties.

Second, environmental complaint letters are anonymous, and local governments did not fully publicize the content of these letters during the period of our study. As a result, we cannot tease out various degrees of environmental grievance, organization targets, and government actions, or the extent to which there may be overlap between complaints and protests. Regarding this latter issue, as noted, we believe that including
both these factors in the same regression equation helps to isolate our specific processes of interest. Furthermore, at a theoretical level, overlap between the variables should not be an issue because they represent different types of processes in our model. However, we encourage future researchers to collect and analyze more detailed data on the processes we examine.

Last, we relied on media outlets to collect data on environmental protests, but we acknowledge that they could be underreported because of media censorship. Although publicly disclosed events impose significant pressure on the government, we speculate that unreported events may also influence governments’ reactions. We encourage future research to investigate the effect of environmental protests more thoroughly if such data become available. Additionally, we acknowledge the possibility that public statistics released by the government, such as those on pollution and GDP, might not be completely accurate and reliable. But because no alternatives are available, virtually all studies of Chinese phenomena that use quantitative data rely on these data. Although the data limitations are beyond our control, it is important to remind readers of this potential issue.

Conclusion
This study examines a number of institutional change pressures, such as civic activism, and local factors, such as governmental bureaucratic capacity and media development, that affect government responses to firms’ environmental issues in China. We argue that because of the delicate stance of responsive authoritarianism to tolerate change pressures whereas simultaneously resisting legitimacy threats, these events and factors result in sometimes contradictory effects on shifting governments’ attention to firms’ environmental issues, which we label as the paradox of responsive authoritarianism. Specifically, our key findings are that in an authoritarian setting such as China, environmental protests matter, and they are likely amplified by media development, even though on its own, greater media development is associated with more limited enforcement, presumably because in areas with more developed media, the government can more effectively use propaganda as an environmental management tool, as opposed to systematic and strict enforcement. Furthermore, environmental complaints, which are private sources of information for government decision makers, can be used by provinces with more governmental capacity and/or developed media to manage the environmental situation behind the scenes to avoid attracting attention to underlying environmental issues. In this way, in such settings, environmental complaints effectively backfire as an activism tool to generate systematic change. By detailing this paradox of responsive authoritarianism theoretically and empirically, our approach contributes to the literature on institutional change and civic activism in authoritarian regimes.

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Endnotes
1 These are also referred to as “soft,” “hybrid,” “new,” “consultative,” “competitive,” or “bureaucratic” authoritarian states by different strands of the political science literature.
2 This is also referred to as “media marketization,” “media commercialization,” and “media reform” by different strands of literature. Our term “media development” indicates the processes resulting from governmental deregulation, increased privatization of media firms and platforms, commercialization, and market competition (Stockmann 2013; Zhao 1998, 2000, 2008). Note that “media development” describes a process where the government is still involved in the media and is not the same as “media independence,” which suggests press freedom.
3 Sixty-four percent of public firms are in these industries, and they comprise 91% of all firms’ penalty records. We also conducted robustness checks with all firms, which yielded largely similar results.
4 One control variable, asset newness, has a missing rate of approximately 15%. We did a t test to compare the distribution of the dependent variable from two samples: the one with asset newness present and the one with asset newness missing. The distributions from two samples are substantively similar, so we believe this variable is missing at random. In addition, results are substantively similar when we use multiple imputation to fill in the missing variables.

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6 Out of 4,511 firm-year observations in our sample, 4,163 (92.3%) firm-years are coded as 0, 248 (5.5%) firm-years are coded as 1, 48 (1.1%) firm-years are coded as 2, and 52 (1.1%) firm-years are coded as 3. Note that we did not conduct more fine-grained coding scales (e.g., a small amount of fine versus a large amount of fine) because its potential theoretical insight is outweighed by the heightened complexity it would introduce to our empirical analysis, given that the total number of penalties is relatively small.
7 Published by China’s National Economic Research Institute, this index measures provinces’ progress toward a market economy compared with other provinces. It is composed of 19 separate measures in the areas of (1) size of the government in the regional economy; (2) economic structure, mainly concerning the growth of the nonstate sector and the reform of the state enterprises; (3) interregional trade barriers; (4) factor-market development; and (5) legal framework development.
8 The two indexes yield largely similar results. We report regression results using the first measurement.
9 As a robustness check, we also added regional economic development (GDP per capita) to our models, which did not change our results. But it was highly correlated with the government’s bureaucratic capacity and resulted in multicollinearity. Therefore, we chose to report results without this variable.
As a robustness check, we employed zero-inflated ordered probit models to account for the possibility of overly populated zeros. As reported in the online appendix, this yielded highly similar results.

Note that, contrary to our expectation, SOEs are more likely to be penalized. One possibility is that SOEs, on average, do have inferior environmental performance compared with non-SOEs. Another possibility could be that non-SOEs are more visible and thus more vigilant about governmental regulations (Marquis and Qian 2014) and potentially even strive to reduce their online penalty records by using personal contacts in the government.

Detailed regression results for these robustness tests are available upon request.

References


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