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Authoritarian Elasticity: How Autocracies May Effectively Mobilize for Crisis Management

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ABSTRACT

Current studies on authoritarian resilience have yet to fully explain how autocracies can effectively cope with crises that threaten regime survival. To fill the gap, we introduce the concept of “authoritarian elasticity” to theorize how an autocracy may dramatically transform, expand, and repurpose its institutions for crisis management, fine-tune its response to crisis development, and scale back mobilization when conditions permit to sustain the crisis management mode for an extended time. We argue, the agile institutional maneuvering capacity, which differs from the long-term institutional adaptability highlighted in the current literature, explains not only how an autocracy can swiftly mobilize its resources during a crisis, but more importantly why such exhaustive mobilization may last longer than one would normally expect. We illustrate our theory empirically by examining how China elastically mobilized its Grid Management System during different phases of the COVID-19 pandemic.

1 | Introduction

Modern autocracies can survive challenges and severe crises, remaining “enduring” or “resilient” for an extended time (Gandhi and Przeworski 2007; Magaloni and Kricheli 2010; Nathan 2003). Such resilience is often associated with strong authoritarian institutions and institutional adaptation (Dimitrov 2025). These institutions include an extensive party network (Geddes et al. 2018), an orderly, peaceful, and stable succession rule (Nathan 2003), a carefully managed higher education system (Perry 2020), information-gathering institutions (Dimitrov 2022), and participatory institutions that allow citizens to voice and/or address their concerns (X. Chen 2012). These studies, while insightful, are better at explaining long-term adaptations of autocracies than how they react to sudden and threatening crises. Various types of crises such as pandemics (Gingerich and Vogler 2021; Lipsky 2020), financial crises (Pepinsky 2009), natural disasters (Drury and Olson 1998;

Nel and Righarts 2008), or outbreaks of war (N. Ritchie and Rogers 2007) often also result in “an acute legitimacy problem” (Boin et al. 2016), and generate extreme social and political pressures demanding timely response from the government (Chan 2013). For authoritarian regimes, in particular, crisis moments are critical to their survival (Chan 2013).

Crisis management theories have shed light on crisis decision-making (Rosenthal and Kouzmin 1997; 't Hart et al. 1993), public leadership in crisis (Boin and 't Hart 2003; Boin et al. 2016), and crisis communication (Coombs 2020; Sellnow and Seeger 2021). However, they focus mainly on democracies where electoral dynamics heavily influence government responses (Chan 2013), thus often not directly applicable to non-democracies, which typically have a stronger fear of losing political stability due to legitimacy deficits while also operate with fewer constraints due to lack of viable opposition, independent media, and public scrutiny over government actions.

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Authoritarian crisis management has attracted more scholarly attention lately (Thornton 2009). It is argued that high-capacity autocracies may enjoy certain advantages in this realm. To Schwartz (2012), who coined the term “authoritarian advantage,” centralized decision-making, public support, and media control have helped China handle the 2003 SARS outbreak more effectively compared to the democratic Taiwan. Similarly, Hui (2009) argues that China’s crisis response to the 2008 Sichuan Earthquake was effective because of its swift mobilization of state agencies and the People’s Liberation Army, and its governance strategy to incorporate more transparency and responsibility while taking advantage of popular voluntarism.

These studies are inspiring. However, some questions deserve further exploration. First, these studies all suggest that autocracies can promptly mobilize in cases of crisis, yet they rarely examine the functional adaptations of authoritarian institutions in the process. How exactly do involved institutions switch from their routine procedures to the crisis management mode and gain needed functions? Second, authoritarian regimes, even high-capacity ones, face resources and capacity constraints. Crises typically exacerbate such problems as it often involves massive mobilization of resources and capacity in crisis management. If authoritarian regimes can overcome the challenge in relatively brief crises, such as the SARS outbreak and earthquakes that current studies have examined, how can they effectively cope with longer-term crises? Will “authoritarian advantage” disappear when the crises become prolonged? The COVID-19 pandemic, which triggered a three-year crisis management period in China, provides an excellent opportunity to examine how high-capacity autocracies survive longer-term crises and what the process informs us about authoritarian state capacity in crisis management. We introduce the concept of “authoritarian elasticity”—the quality or ability to adeptly expand and transform existing institutions upon a threatening crisis, adjust the level of mobilization as the crisis develops, and scale back to its normal status when exiting crisis management—to theorize the institutional maneuver of a high-capacity regime as an effort to cope with prolonged crises. This quality allows an autocracy to promptly mobilize and adjust the functions of its institutions when facing acute crises and fine-tune its mobilization strength across time and space to more efficiently contain crises and sustain the crisis management mode longer. While we build on existing literature on adaptive or flexible authoritarianism as well as studies on campaign-style governance, especially in the Chinese context, our analytical focus differs in important ways, offering a novel conceptual framework to explain why autocracies can survive even highly threatening perennial crises. The state’s capacity to elastically mobilize and deploy resources, capabilities, and functions also potentially enriches the scholarly discussion on state capacity.

The following sections elaborate on the definition of authoritarian elasticity before drawing on China’s COVID-19 response to empirically illustrate the concept, especially how the “grid system” was activated, with its functions transformed upon the pandemic and then resumed its normal functions and mobilization level when the crisis was under control. We further test

the system’s temporal and spatial elasticity by examining its adjustments to local outbreaks. Note that while the paper is empirically based, we aim more at theory building than theory testing with China’s COVID-19 response being a heuristic tool to illustrate “authoritarian elasticity.” However, this is by no means the first or only time when China (and perhaps other autocracies) has demonstrated elasticity, as we discuss briefly in the conclusion.

2 | Defining Authoritarian Elasticity

Existing literature has long recognized the importance of regime adaptability and flexibility in explaining authoritarian resilience. The central idea is that authoritarian regimes such as China and Russia can be flexible, practical, and adaptive in order to achieve their strategic goals especially to survive (Lai 2016; Schwenck 2024). For instance, Schwenck (2024) uses “flexible authoritarianism” to depict how contemporary Russia combines neoliberal techniques and authoritarian practices to achieve growth and cultivate loyalty while repressing political freedom. In their recent study, Taylor and Garlick (2025, 190) examine how China exemplifies “flexible authoritarianism” in its foreign policy, which is defined as “the use of agents of the state such as companies and the military to achieve broad, long-term strategic goals by granting actors a considerable degree of autonomous decision-making in policy implementation.” Many studies have also used “flexible” to depict authoritarian regimes such as the early republican Turkey (Metinsoy 2011) and contemporary China (Lai 2016), often without explicitly definition but instead have only loosely alluded to their adaptability to challenges and responsiveness to the public. These studies speak well to the authoritarian resilience literature that explains the enduring authoritarianism phenomenon (e.g., Gerschewski 2013; Heydemann and Leenders 2011; Ngoun 2022; Scoggins 2021). In particular, the role of institutional adaptation is highlighted. As Nathan (2003) has highlighted, China underwent a series of institutional adaptations in order to maintain social and political stability and improve governance in the reform era, especially after the Tiananmen democratic movement in 1989. Others have noted that constant adaptation is a salient feature of Chinese economic reform as well as policy adoption in other realms in the reform era (Dimitrov 2025; Heilmann 2008; Naughton 2007).

These studies help explain why some authoritarian regimes can be enduring and resilient, yet only partially because they tend to focus on how autocracies adapt in a non-crisis setting. This means they can take the time to do research, calculate, and even experiment with policies before fully implementing them. This gradual process allows the state to gauge and improve policy effectiveness while reducing risks or costs that are often associated with policy setbacks or political turbulence, therefore further contributing to regime resilience and stability. However, flexibility or adaptability of this kind does not fully explain why and how autocracies manage to survive crises. These moments, as noted, pose a greater threat to authoritarian rule because they not only create immense social and political pressure and exacerbate legitimacy issues, but also often catch the

government off guard. After all, during crises, there is little room for gradual policy learning and experimentation. For instance, Nathan's seminal work on authoritarian resilience mentioned above explains more how China has maintained authoritarian rule afterward rather than how it survived the Tiananmen Movement. Similarly, China established its epidemic reporting system after the 2003 SARS pandemic with the hope to prevent similar future public health crises. This very case of institutional adaptation fits authoritarian resilience but tells us little regarding how China actually dealt with SARS as it happened.

The "authoritarian advantage" thesis, despite its limitations, is a more direct explanation to how autocracies can deal with and survive crises, especially through effective mobilization. This capacity to promptly react to crises clearly relies on centralized decision-making as well as capable state institutions (e.g., an effective bureaucratic system), which may be deployed for crisis management. The ability to conduct massive mobilization, in the China case, speaks well to the literature on campaign-style governance that has been used to manage both short-term and more extended focused goals by the Party-state in both the Maoist and reform eras, though as scholars have noted, campaigns in the reform era have become more "managed" (e.g., N. N. Liu et al. 2015; Perry 2011; Sun 2020; Yin and Mou 2023). As a centrally coordinated approach to address specific policy issues through concentrated efforts with increased resources and public engagement, campaigns often aim to get impactful results rapidly. And unlike routine governance, campaign-style mobilization can effectively "induce shifts among different modes of governance," according to Zhou (2022, 81). The mobilizational nature of campaign-style governance makes it a ready strategy for the state in response to various crises (Qin and Owen 2023). In fact, Perry (2024) has linked China's COVID-19 response to its earlier Patriotic Health Campaigns, suggesting that the campaign approach may help explain why China could mobilize its pandemic response with relative speed and efficiency.

The "authoritarian advantage" and campaign-style mobilization arguments help explain how autocracies can mobilize upon crises. But some questions deserve further exploration. First, crisis management is often not just about making quick decisions and responses. Various types of crises may require different expertise, capacity and resources far beyond routine governance. For instance, besides alleviating negative impacts on citizens' socio-economic lives, autocracies such as China are often also forced to enhance social control due to stability and legitimacy concerns (Y. Liu and Christensen 2022). This is especially the case under President Xi Jinping when the regime attaches significantly more importance to social control (Esarey and Han 2024; Qiang 2019). Therefore, it is important to examine how state agencies actually adapt and gain necessary functions to effectively manage the crises. Second, large-scale crisis management is costly and even high-capacity regimes like China face resources and capacity constraints. While this is less an issue when the crises are of limited scale or last only briefly, capacity- and resource-overstrain can be a major problem when a large-scale crisis becomes prolonged. Thus, in addition to swift mobilization, autocracies may need to fine-tune the strength and scale of crisis mobilization to make crisis management more sustainable. Current studies on

campaign-style governance, though note the cost issue, have yet addressed it.

We argue authoritarian elasticity helps fill the gaps in existing literature. The term "elasticity," which commonly refers to the ability of an object or material to be stretched or compressed but can resume its normal shape afterward, is widely used in social scientific fields. For economists, it describes the degree to which buyers and sellers react to market fluctuations (Mankiw 2018). In political science, Werlin (1988) uses "political elasticity" to assess the political leaders' ability to delegate power and responsibility to their followers. For organizational theory scholars, "elasticity" indicates ability of a firm to stretch existing processes and structures during uncertain times (Reuschl et al. 2022). We understand "elasticity" similarly as a state's ability to stretch its institutions in response to crises, including promptly activating them upon a crisis, adjusting their functions and mobilization levels as the crisis develops, and scaling back when the crisis is under control. This quality explains the time-, space- and case-sensitive ability of states to mobilize for crisis control while avoiding draining their resources and capacity too quickly.

Clearly, "authoritarian elasticity" here is different from "authoritarian responsiveness," which often highlights how autocracies can accommodate citizens' complaints and needs. In the context of Chinese politics, this is the result from more long-term institutional adaptation to preserve social stability and legitimacy (e.g., J. Chen et al. 2016; Jiang et al. 2019; Wang and Han 2023). It also differs from authoritarian "adaptability" and "flexibility" that typically highlight how autocracies can employ less rigid and more pragmatic policies and governing tactics instrumentally to prolong their rule in non-crisis settings, rather than their time-, space- and case-sensitive capacity to implement policies to cope with severe crises. Even when "flexible authoritarianism" is defined as a strategy to achieve broad long-term strategic goals by granting agents implementation autonomy (Taylor and Garlick 2025),¹ it differs from our conception, which focuses on mobilization in crises, paying special attention to the changes in levels of mobilization and institutional functions across time and space in response to the rapid development of a given crisis.

In addition, "authoritarian elasticity" is inherently different from "authoritarian advantage" and "campaign-style governance." While all three concepts are about swiftly mobilize to undertake urgent policies, "authoritarian elasticity" emphasizes more a quality of the regime that enables prompt and effective mobilization. The relationship between the three concepts is like: elasticity is one of the contributing factors why the state can quickly launch a crisis-management campaign, which in turn manifests "authoritarian advantage." More importantly, "authoritarian elasticity," compared to the other two concepts, better highlights the ability of the state to optimize resources and capacity deployment to sustain costly mobilization, which is critical in prolonged crises. After all, the regime would rapidly deplete its energy and resources should it constantly maintain full-scale mobilization. In other words, "elasticity" can help explain why autocracies can respond to crises promptly (by quickly activating and mobilizing elastic institutions for crisis management), but it is better exemplified in longer-term crises as they allow us to observe changes in the levels of mobilization

and functional transformations that are absent in short-term crises.

Such elasticity builds on some necessary pre-conditions, including but not limited to (1) a high-capacity state with centralized decision-making power that can activate elastic mobilization upon crises and (2) the presence of “elastic” institutions that can multitask or quickly adjust its functions and scale-up or down, enabling the state to customize its mobilization strength and scope to effectively manage crises without resource- and capacity-overstretching.

Ultimately, elasticity can be seen as a form or dimension of state capacity, which generally refers to the state's power or ability to perform its functions, enforce its policies, and achieve its goals, especially with regard to society (Chang and Wang 2024; Cingolani 2013; Hanson and Sigman 2021; Mattingly 2020). Scholars have attempted to better conceptualize and measure the concept. Mann (1984) suggests that state power includes both “despotic power” that the state exercises without routine institutionalized negotiation with the society, and “infrastructural power” that enables the state to penetrate society and actually enforce its policies and decisions. Hanson and Sigman (2021), however, approach the concept for a functional angle, suggesting state capacity has three core dimensions, including administrative, extractive, and coercive capacity. These useful frameworks are related to “authoritarian elasticity,” but do not capture the latter well. For instance, “infrastructural power” is a critical for “authoritarian elasticity”: the former can contribute to the later by facilitating functional transformation as well as time-, space-, and case-sensitive adjustments in crisis management mobilization. However, it (or “administrative capacity” and other state capacities and resources) does not automatically translate into “elasticity,” as the latter is not just about the state's capabilities and resources themselves, but about *whether, why, when, and how* the state mobilizes them. In addition, the conception of elasticity also suggests that the state can *transform* its various capabilities and resources. In this sense, we highlight a new dimension of while also proposing a more fluid and dynamic conceptualization of “state capacity.”

While democracies can demonstrate elasticity, we focus on authoritarian elasticity because (1) democracies, while are more responsive to the public, face constraints over power concentration, state mobilization and social control, or to maintain powerful ready-to-deploy elastic institutions; (2) it is theoretically more interesting to examine elasticity of autocracies because they are more rigid and less responsive to citizens (Pei 2020). In doing so, we enrich the authoritarian resilience literature, highlighting that beyond deliberate and calculated institutional adaptations to address known challenges, there are autocratic institutions that can instantly mobilize, improvise and alter functions for sudden crises.

Below, we empirically examine how China mobilized its grid system and repurposed it to enforce the Zero-COVID policy in response to the outbreak and development of the pandemic. We argue such mobilization demonstrates both temporal and spatial elasticity of the Chinese regime, which helped to effectively control the virus for an extended time.

3 | The China Case of Authoritarian Elasticity

On January 23, 2020, two days before Chinese New Year, Wuhan—the capital of Hubei Province with 11 million people—was put under complete lockdown with public transportation and all businesses closed and residents required not to leave home but for emergent medical purposes. On March 18, 2020, 56 days after the lockdown was announced, China claimed the nation had reached “zero infection” with no new local cases reported nationwide. The lockdown practice of Wuhan later evolved into the “zero-COVID” policy which entailed mass testing, travel restrictions, and localized lockdowns when breakouts were identified (Yang 2024).

China's approach to COVID-19 was quite radical. Aiming at completely eliminating the virus, it was resource-intensive, capacity-demanding and costly. This is why many other resourceful and high-capacity states have opted for different strategies (Yan et al. 2020). For instance, the United States and United Kingdom quite soon decided to “live with the COVID.” Even those adopted a similar zero-COVID policy such as Australia, Canada, New Zealand, and Singapore gradually phased out in 2021 when more transferable variants like Delta and Omicron appeared. China only gave up the policy at the very end of 2022 and arguably more due to popular protest than the virus going out of control. While the authoritarian nature of the regime might explain why it did not phase out Zero-COVID sooner, it still begs the question how China could (quite effectively) sustain the policy for so long, especially given its 1.4 billion population.

Scholars studying China's response to the pandemic have noted the grid system (Habich-Sobiegalla and Plümmer 2023; Thornton 2023). Introduced in 2004 and gained prominence under President Xi Jinping, this multi-layer system was designed not for managing crises, not to say a prolonged pandemic, but to enhance grassroots governance. Building on existing administrative structure (Mittelstaedt 2022), the system leverages China's already impressive infrastructural power (H. Chen and Greitens 2022; Xu and He 2022) and latest information and communication technologies to enhance the Party-state's presence at the community level. It divides urban and rural communities into grids (and sub-grids) that are connected to regional data centers that coordinate government agencies to implement governance tasks and respond to citizens.

The grid system, as a grassroots governance institution, is elastic in nature, as reflected in its functions. While many scholarly studies have depicted it as a social control institution (Bandurski 2018; Tang 2020), official media consistently highlights its service functions. For instance, the official Xinhua News reported on November 1, 2023 commending a district in Jining City, Shandong Province, for establishing a grid-based service system to meet public needs, highlighting specifically how it had served the local elderly.² Instead of joining the debate, we see the system as elastic and can undertake multiple tasks across time and space and adjust its primary focuses in different circumstances. How the Chinese state mobilized the grid system provides us with an excellent opportunity to probe how “elastic” an autocracy could be during a crisis, especially through how the system was activated upon the pandemic, its functional

transformations, under what circumstances it scaled back and resumed normal functions, and when it was re-activated.

3.1 | Data Sources

Data availability is always a challenge when studying authoritarian regimes (Ahram and Goode 2016). But fortunately, media coverage can often help address this issue (Ban et al. 2019). China scholars have long utilized official media reports to study topics such as state propaganda, information strategy, elite power dynamics, and so on (Hong and Yang 2024; Huang et al. 2019; Jaros and Pan 2018; Jiang and Zeng 2020; Shih 2008; Stockmann and Gallagher 2011). In the digital age, Chinese state agencies at all levels have established online outlets for purposes such as propaganda, public service provision, and public engagement (J. Chen et al. 2016; Jiang et al. 2019; Roberts 2018). In particular, many state agencies have set up official accounts on popular social media sites, such as WeChat (Repnikova and Fang 2019).

This project relies on articles published by various government agencies on their WeChat accounts to study how the state has mobilized during the COVID-19 pandemic. While one may question whether these sources, which are inherently propagandistic and selectively curated, will reliably measure grid activities, we believe this is not an issue. First, state-run media outlets in autocracies serve not only as major channels for authorities to disseminate propaganda messages to the public, but also as a communication tool that enables lower-level officials to signal to higher authorities (Brady 2009; Carter and Carter 2023; Shambaugh 2007; Shih 2008; Wu 1994). Therefore, official media reports often can be seen as playing the informal “score-keeping” function through which local authorities tell upper levels what they have done (Zeng 2023). Second, while media reports are clearly curated by the authorities, thus introducing pro-government biases, this will not invalidate our findings. We are interested in the changing levels of mobilization and functional transformations of the grid system, not whether it is depicted positively or negatively. Should the state only cover its

positive functions (e.g., service provision), this bias will work against us as in this case we should not be able to observe functional transformations. If this potential bias does exist, one should have more rather than less confidence in our findings. We will detail our data in the following analysis.

3.2 | Activating Elasticity: Mobilizing Grids for Pandemic Control

We first explore how China mobilized the grid system to transition into crisis management mode.³ We first gathered all articles from the official WeChat accounts of all but four of China’s 31 provincial-level Political and Legal Affairs Committees from December 31, 2018, to December 31, 2020.⁴ We then searched the database with the keyword “grid” (wangge), identifying a total of 5034 articles that mentioned the grid system after data cleaning (see Supporting Information S1: Appendix A).

The daily distribution of the articles mentioning the grid system, as Figure 1 shows, reveals a sudden surge upon the lockdown of Wuhan on January 23, 2020, followed by a gradual decrease when the virus got under control. A RDD (Regression Discontinuity Design) analysis finds an average jump of 45 weekly grid-related articles shortly after the outbreak from only 35 per week prior to the pandemic (see Supporting Information S1: Appendix E). The findings show not only a swift activation of the grid system upon the pandemic but also a trend of returning to normal, in line with the authoritarian elasticity argument.

3.3 | The Elastic Grid: Functional Transformations During the Pandemic

Everyday governance and crisis management clearly require different functions and capabilities. While the grid system might be designed as a foundational governance infrastructure capable of both routine social service delivery and emergency mobilization, it still requires functional transformations upon crises.

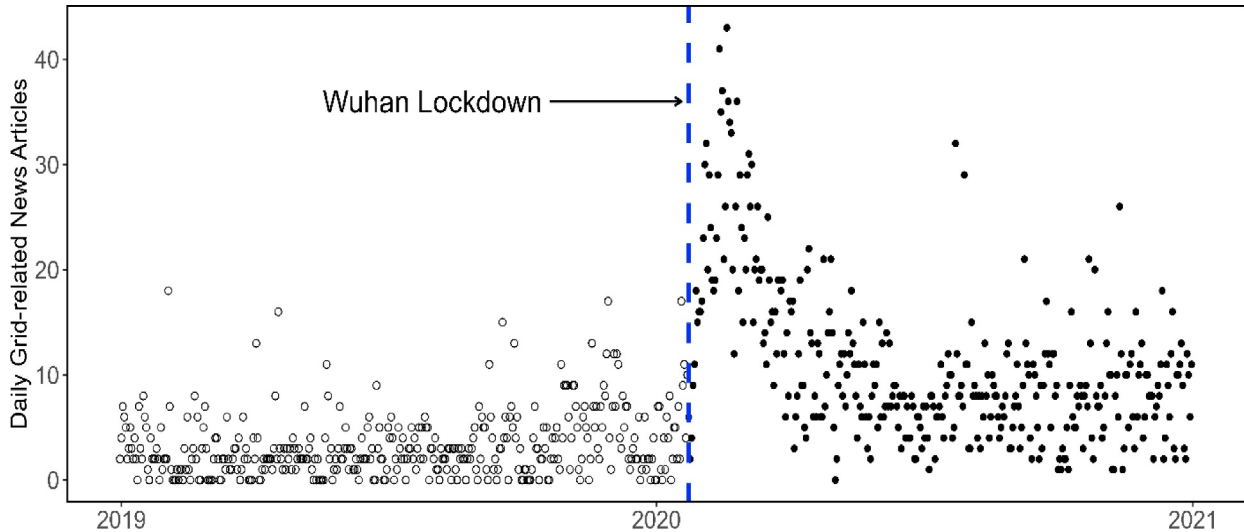


FIGURE 1 | Daily distribution of grid related articles.

To explore whether and how the grid system elastically adjusted its functions in response to the COVID-19 pandemic, we conducted content analysis of articles published by official WeChat accounts of local grid centers. We decided not to use data from the provincial Political and Legal Affairs Committees because local grid centers are closer to the ground and were tasked to perform specific functions.

To identify local grid centers, we searched “grid center” (wange zhongxin), “social governance center” (shehui zhili zhongxin), and “comprehensive governance center” (zonghe zhili zhongxin) using WeChat’s built-in search engine and then examined the first 200 results for each term. We found a total of 54 unique local grid centers that had set up their official accounts prior to 2020 and published at least one article from the Wuhan lockdown on January 23, 2020, to March 18, 2020, when the Party declared “zero infection.” Among these grid centers, six are municipal-level, 38 are county-level, nine are township-level, and one is community-level. Because China declared “zero infection” 55 days after locking down Wuhan on January 23, 2020, we established a timeframe of 55 days before and after that specific date and collected all 4377 articles those accounts published between November 29, 2019, and March 18, 2020. To prepare the data for supervised machine learning analysis, we applied a data-cleaning process, dropping articles without the keyword “grid” or less than 50 Chinese characters, and removing account-specific footers, etc. We then segmented the texts into keywords using the jiebaR, a widely used tool for Chinese text analysis and cleaned stop words, numbers, and single Chinese characters. Keywords appeared no more than two times are removed. The process yields a total of 8321 distinct keywords from 2834 articles, providing a foundation for feature selection that enhances the machine’s ability to capture patterns of the corpus. See Supporting Information S1: Appendix B for grid centers and the number of grid-related articles published during the period of our interest.

To investigate whether and how the grid system underwent functional transformation, we coded these articles based on the functions they represent. We are particularly interested in whether the system adjusted between focusing on service provision, as official propaganda claimed before the pandemic,

and social control, which became necessary due to the pandemic.

We follow a data-driven coding process of progressive summarizing as outlined by Schreier (2012). Specifically, we randomly selected 30% (or 851) of the 2834 articles and manually coded the various grid activities described in them. We then classify the articles into “service provision” or “social control” based on whether the activities in the article mainly aim to provide services or enforce social control. If the answer to both questions is “No,” the article goes to the “Other.” The service provision category includes the following activities: (1) improving living conditions or community environment; (2) mediating disputes among residents; (3) helping residents in need; (4) providing amenities/conveniences to residents. Social control includes: (1) personal information collection (e.g., travel history); (2) surveillance of residents’ daily activities; (3) restricting residents’ freedom such as physical mobility; and (4) conducting information control. “Other” typically includes grid managers training, recruitment ads, and grid working sessions at different levels.

Supporting Information S1: Appendix F provides specific coding samples for each of the four types of activities we list here under both the service provision and social control categories. Two coders were tasked to code the 851 articles independently; only articles clearly belonging to one of the three categories were coded. Articles where two coders did not reach a consensus were excluded to create a precise training set for our machine learning model. In the end, we got a total of 516 human coded observations. We then used these articles to train a Random Forest (RF) model (see Supporting Information S1: Appendix G for details) to predict the function proportions for each of the remaining 2318 articles (including those dropped from the manual coding process). For each article, the predicted proportions of the three functions sum to 100%. We then compiled the human coded and machine predicted results, getting the whole dataset with 2834 observations.

To examine whether COVID-19 had impacted grid functions, we calculate the daily average proportion of each function across time. Figure 2 displays three LOESS curves to illustrate

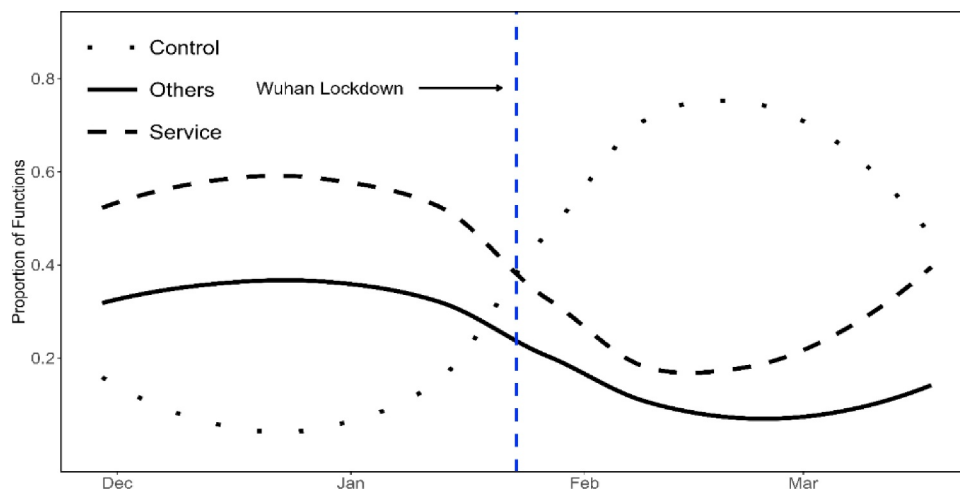


FIGURE 2 | Grid functional changes during COVID-19.

the functional change of the grid system, revealing that upon the pandemic, its primary function shifted swiftly from service provision to social control. Such functional adjustments were also seemingly temporary, with social control decreasing and service provision rebounding as the pandemic gradually came under control.

Do our findings indicate meaningful functional transformations since existing studies show (and we confirm) that the grid system had social control functions before the pandemic? This is a legitimate concern. However, logically, from the “authoritarian elasticity” perspective, we expect the level, manner, and scale of social control transform upon the pandemic. That means, we shall observe that social control takes up a heavier portion of the grid system’s functions, as our analysis confirms. It could also mean major changes in specific social control functions, which will not be recorded by our coding scheme as it lumps together various “social control” measures. However, close reading of our data sources reveal that this is indeed the case: prior to the pandemic, social control focused more on information collection; but during the pandemic, the system was mobilized to aggressively restrict citizens physical mobility and enforce quarantine and lockdown, as Thornton (2023) has observed. We believe such functional transformations are significant.

3.4 | Testing Grid Functional Transformations

To more accurately capture the grid’s elasticity in response to the pandemic, we further conduct Dirichlet regression analyses. Our dependent variables are the three grid functions identified above: Control, Service, and Others. We introduce two key independent variables, a dummy “Pandemic” to identify articles published after January 23, 2020 (“0” = before or on; “1” = after) when Wuhan was locked down, and a time variable “Day” based on an article’s publication date with reference to January 23, 2020. For example, articles published on January 24, 2020, would be “+1,” while those on January 22 would be “−1.”

We introduce several control variables. As grid functions may depend on economic development and population size, we gathered GDP and population data, and calculated GDP per capita of the localities of grid centers in our dataset.⁵ We use the average nightlight data of 2020 from the Visible Infrared Imaging Radiometer Suite (VIIRS) as a proxy of urbanization rate, which may also affect grid functions.⁶ We do not use official statistics because they may not accurately reflect the actual local population structure, especially for lower-level grids. We also included a variable indicating if the grid center is within Hubei Province where the pandemic started (Hubei; “0” = no, and “1” = yes) and the logarithm of each article’s word count as a covariate. Supporting Information S1: Appendix H provides a summary of the variables.

3.4.1 | Models and Results

Since our three dependent variables are related and the sum of their value equals one for each specific article, Dirichlet

regression is appropriate for our analysis. Dirichlet regression is useful for analyzing a group of variables within a bounded interval that sum up to a constant, especially when these variables show skewness and heteroscedasticity. This method eliminates the need for data transformation. Under Generalized Linear Model (GLM) framework, the interpretation of Dirichlet regression is akin to that of multinomial logistic regression (Maier 2014). Since estimated parameters must remain strictly positive, the logarithm function serves as an appropriate link (Douma and Weedon 2019). Assuming y_1, y_2, y_3 respectively represent the proportion of each grid-related article exhibiting the functions of “other,” “social control,” and “service provision,” with their sum equaling 1, that is $\sum_{k=1}^K y_k = 1$, and in our model, k equals to three. The probability density function of the Dirichlet distribution can be represented as:

$$f(y_1, y_2, \dots, y_K; \alpha_1, \alpha_2, \dots, \alpha_K) = \frac{\Gamma\left(\sum_{k=1}^K \alpha_k\right)}{\prod_{k=1}^K \Gamma(\alpha_k)} \prod_{k=1}^K y_k^{\alpha_k-1} \quad (1)$$

The parameters α_k influence the shape of the distribution, and Γ denotes the Gamma function (Camargo et al. 2012; Teh 2010). Equation (2) is the link function, with X being a matrix that encompasses all the independent variables in our model. To identify the most effective model among alternatives, we maintain dependent variables consistent while varying the independent variables across them. We estimate three models and use the Akaike Information Criterion (AIC) minimization principle for selection (Bozdogan 1987), as detailed in Table 1.

$$A_k = \exp(X \beta_k) \quad (2)$$

Model 1 includes six independent variables: the temporal variable “Day,” nightlight (Nightlight 2020), log of GDP per capita (Log GDP Per Capita), log of population (Log Population), log of word count of each article (Log Word Count), and the location variable Hubei. Model 2 adds the dummy variable “Pandemic” that signifies whether an article was published before or after the lockdown, which splits the model into two segments resembling a Regression Discontinuity approach, allowing us to make a causal reference should we observe any significant function changes around the cutoff point.⁷ Model 3 includes an additional variable of Day.²

Table 1 presents the results. The variable “Pandemic” shows significance in both Models 2 and 3, correlating positively with “social control” and negatively with “service provision” and “other” functions. The variable “Day” demonstrates statistical significance across all fitted models, except in the “other” category of Models 2 and 3. It correlates positively to “social control” and negatively to “service provision” and “other” in Model 1; but the directions of the correlations for all three functions are reversed in Models 2 and 3 when “Pandemic” is included, suggesting that “Pandemic” captures the most significant functional changes of the grid system. The results also suggest that the variable “Day” may have captured the dynamics of the system’s functional changes over time, revealing a trend toward normality after initial drastic response to the pandemic.⁸ The “Hubei” dummy proves significant across all functions in

all models, suggesting that grids in Hubei functioned differently compared to other regions.

Figure 3 illustrates function changes of the grid system based on Model 3, with the variables nightlight, log population, and log

GDP per capita set to median values across all grid centers, the log of the word count to the median value across all grid-related articles, and “Pandemic” to its actual values for each article. The left panel of the figure captures the grid centers outside Hubei and the right panel shows those in Hubei. The proportions of

TABLE 1 | Grid’s functional adjustments to Covid-19 estimated by dirichlet regression.

Model Function	1			2			3		
	O	C	S	O	C	S	O	C	S
(Intercept)	−2.70*** (0.33)	−4.49*** (0.32)	−2.51*** (0.34)	−2.61*** (0.33)	−5.04*** (0.32)	−2.21*** (0.34)	−2.54*** (0.33)	−4.73*** (0.33)	−2.29*** (0.35)
Pandemic				−0.31*** (0.09)	1.52*** (0.10)	−0.70*** (0.09)	−0.31*** (0.09)	1.45*** (0.09)	−0.65*** (0.10)
Day	−0.002** (0.001)	0.01*** (0.001)	−0.004*** (0.001)	0.002 (0.001)	−0.01*** (0.001)	0.005** (0.001)	0.002 (0.001)	−0.01*** (0.001)	0.004* (0.001)
Day ²							−0.00004 (0.00002)	−0.0001*** (0.00003)	0.0000 (0.0000)
Nightlight 2020	0.003 (0.002)	−0.0004 (0.002)	−0.001 (0.002)	0.003 (0.002)	0.002 (0.002)	−0.001 (0.002)	0.003 (0.002)	0.002 (0.002)	−0.001 (0.002)
Log GDP Per capita	0.13* (0.06)	−0.17** (0.06)	0.20*** (0.05)	0.10 (0.06)	−0.25*** (0.06)	0.15** (0.05)	0.10 (0.06)	−0.27*** (0.06)	0.15** (0.05)
Log population	0.005 (0.02)	0.02 (0.02)	0.02 (0.02)	0.01 (0.02)	−0.01 (0.02)	0.03 (0.02)	0.004 (0.02)	−0.02 (0.02)	0.03 (0.02)
Hubei	0.23*** (0.06)	−0.29*** (0.06)	0.44*** (0.07)	0.19** (0.06)	−0.25*** (0.07)	0.37*** (0.07)	0.19** (0.06)	−0.24*** (0.07)	0.36*** (0.07)
Log word count	0.12*** (0.03)	0.52*** (0.03)	0.09** (0.03)	0.14*** (0.03)	0.57*** (0.03)	0.12*** (0.03)	0.15*** (0.03)	0.57*** (0.03)	0.12*** (0.03)
N		2834			2834			2834	
Log L		10,012.33			10,230.94			10,251.44	
AIC		−19,982.66			−20,413.88			−20,448.88	
BIC		−19,857.73			−20,271.09			−20,288.25	

Note: Standard errors are in parentheses.

*Significant at 5% level.

**Significant at 1% level.

***Significant at 0.1% level.

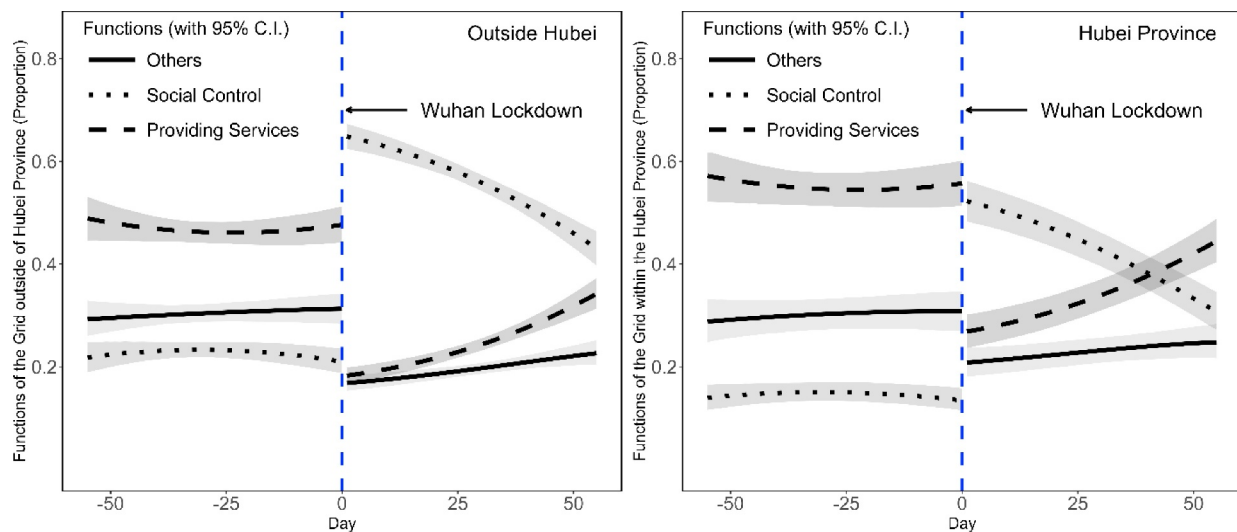


FIGURE 3 | Grid functional changes in and out of hubei.

the three functions were stable before the pandemic with service provision being the most salient. The COVID outbreak rapidly transformed the system with its primary function instantly shifted to social control while service provision decreased correspondingly. Figure 3 also reveals the decline of social control and increase in service provision as the virus was brought under control gradually, in accordance with the theoretical expectation of authoritarian elasticity. This trend of returning to normal is evident even within the relatively short period that our dataset covers. The swift activation, rapid functional transformations, and timely scaling back together showcase the elasticity of the grid system and the Chinese regime.

While there were nuanced differences, grid functional alterations in and out of Hubei were consistent, with an instant switch from service provision to social control upon the outbreak and followed by the same trend of returning to pre-pandemic status. The variations, instead of hurting our theory, add to it by indicating the regime's spatial elasticity by customizing the level of mobilization to fit local outbreaks, which will be further discussed in the next section.

3.5 | Testing the Temporal and Spatial Elasticity

Reacting to the highly transmissible new variants such as Delta and Omicron, China instead of changing its policy goal of Zero-COVID started a “Dynamic Zero-COVID” policy in August 2021 (J. Liu et al. 2022). This offers us an opportunity to test the regime's temporal and spatial elasticity to sustain its intensive and highly costly pandemic control mode. Specifically, facing frequent local outbreaks, one would expect the autocracy to elastically adjust the level and scope of mobilization to specific outbreaks depending on factors like the locality and scale to achieve zero infection while avoiding exhausting its resources and capacities too quickly.

Based on open reports, we identified a total of 16 local outbreaks from May 2021 to August 2022, among which two occurred prior to (Guangzhou in May 2021 and Nanjing July 2021) and the rest during the “Dynamic Zero-COVID” period. We compiled information on the date of the first infection, number of infections, and whether it spread for each case. We coded the outbreaks into five scales based on the number of reported infections, with thresholds set at 500, 2,000, 5,000, 10,000, and 50,000. Out of these 16 cases, 11 are “spread outbreaks,” which we define as those spreading to five or more additional cities. Detailed information on and references to these outbreaks are in Supporting Information S1: Appendix K.

We examine three levels—local, regional, and national—to test if China adjusted mobilization levels, enough to contain the virus and just enough to avoid overstretching its resource and capabilities. We expect local mobilization—mobilization of the grid system within the locality where the outbreak occurred—in each case. For large-scale outbreaks with a significant number of infections or those spreading quickly to nearby areas, we expect regional mobilization to follow soon. National mobilization, however, would only be triggered by extra large-scale or wide-spread outbreaks, or multiple concurrent local outbreaks.

We use official WeChat accounts of local governments as the data sources (see Supporting Information S1: Appendices C and D for details) instead of Political and Legal Affairs Committees or grid centers here. The choice is driven by both instrumental and methodological motives. First, it increases data availability: almost all local governments have WeChat official accounts, which is not the case for local grid centers or the Political and Legal Affairs Committees. Second, using a different source also serves the purpose of robustness check. Nevertheless, our findings are consistent when using data from the Political and Legal Affairs Committees (see Supporting Information S1: Appendix L).

We run a series of sharp RDD estimations. For the local-level test, we use data from the official account of the outbreak city. For the regional-level test, we use data from the official account of the province where the outbreak city is located. If the outbreak happened in a provincial-level municipality (such as Shanghai), we include the surrounding provinces. For the national-level test, we include all provincial accounts except those experiencing an outbreak (See Supporting Information S1: Appendix K for details). The cutoff point for each test has been set as the exact date of the first identified infection for each outbreak to make the estimations more consistent. The equation is as follows:

$$Y_t = \beta_0 + \tau \text{Day}_t + \beta_1 \text{OtherArticles}_t + \varepsilon_t \quad (3)$$

where Y_t is the number of daily grid-related news articles in the corresponding accounts, Day_t is the running variable, ranging from -365 to 365 , and OtherArticles_t is the count of non-grid-related articles for each day. By extracting τ and the conventional confidence interval and rescaling them by dividing the average number of daily articles for each test, we illustrate the instant mobilization effects of each outbreak at local, regional, and national levels.

As Figure 4 shows, local governments mobilized grids almost instantly upon each outbreak. More specifically, τ is positive across all local-level RDD estimations, and 12 out of 16 are statistically significant. Regional-level mobilization was overall less frequent than the local level, especially for smaller-scale outbreaks or those that did not spread wide. The results also suggest changes in mobilization dynamics as China shifted to the “Dynamic Zero-COVID” policy in August 2021. Before that, even small-scale outbreaks like Guangzhou (May 2021) and Nanjing (July 2021) triggered regional mobilization. Guangzhou had only 153 infections without spreading; In Nanjing, though the virus spread a bit, recorded less than 1000 infections, but caused a major regional mobilization.

Under “Dynamic Zero-COVID,” small-scale non-spreading outbreaks often caused only local mobilization as in Putian, Tianjin, Beijing, Suzhou2 (Anhui), Yili, and Sanya. We could observe regional mobilization during large-scale spreading outbreaks such as Xi'an, Yanbian, and Shanghai as well as relatively small scale or non-spreading outbreaks such as Quanzhou, Beihai, and Ali District. These latter cases followed other large-scale outbreaks, thus were likely due to cluster effects. That is why in addition to the major outbreak in Xi'an, where the virus spread rapidly both in and out of Shaanxi

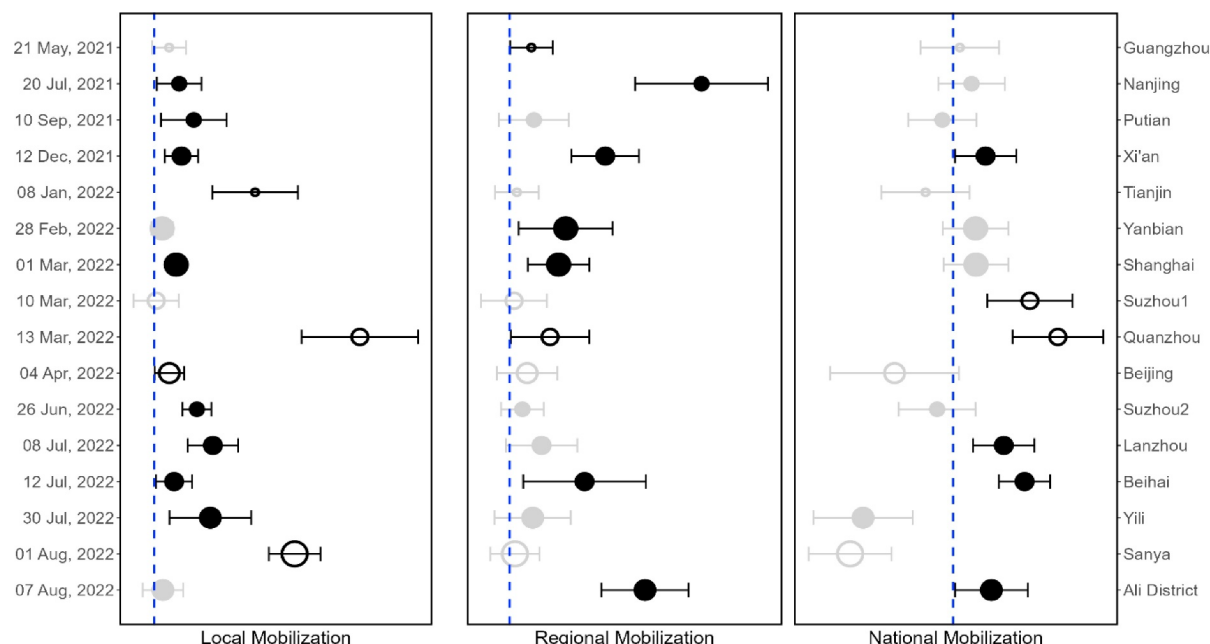


FIGURE 4 | Instant mobilization effects at local, regional, and national levels. The size of each point indicates the scale of the outbreak. Solid points represent spread outbreaks. The right side indicates the city where the outbreak occurred, and the left side shows the date on which the first infection was detected in the specific case.

Province, national mobilization happened in outbreaks of Suzhou1 (Jiangsu), Quanzhou, Lanzhou, Beihai, and Ali District.

Could there be a lagging effect of regional and national mobilization since it might take time for the virus to spread? We tested the reasoning by lagging the cutoff point in regional and national level RDD estimations by 7, 14, and 21 days, respectively. Figure 5 below presents the results. As the upper part of the figure reveals, when lagged 7-day, we observe regional mobilization in Nanjing, Putian, Xi'an, Yanbian, Shanghai, Suzhou2 (Anhui), Beihai, Sanya, and Ali District, most of which were relatively large-scale and widespread. Regional mobilization de-escalated quickly in quite some of those cases; only large-scale outbreaks like Xi'an, Yanbian, Shanghai, and Sanya lasted 14 days. Ali District of Tibet shows a consistent regional mobilization effect when lagged 7, 14 and 21 days. This might be because there was another outbreak in Lhasa, the capital of Tibet, in late August 2022. The 21-day lagged small-scale regional mobilization of Suzhou2 (Anhui) is hard to explain. It might be a coincidence or because the outbreaks in Lanzhou and Beihai that occurred 12 and 16 days later respectively had affected our observation. The lower part of Figure 5 shows evidence for several cases of national level mobilization when lagged 7 and 14 days. In accordance with our expectation, these were either large-scale outbreaks (e.g., Yanbian and Shanghai) or followed by other outbreaks (e.g., Lanzhou and Yili). Again, the Suzhou2 case shows statistical significance when lagged 21 days, likely due to later outbreaks in Lanzhou and Beihai.

The results overall confirm the Chinese state's temporal and spatial elasticity, especially in the Dynamic Zero-COVID period. The state mobilized more extensively in response to large-scale and/or more widespread outbreaks and much less so when the outbreaks were relatively contained. As the anti-pandemic campaign became prolonged, such elasticity allowed the state

to effectively achieve the Zero-COVID goal without exhausting its resources and capacity too quickly. This explains why despite its ultimate failure, China achieved zero-COVID, even when the virus's new variants became more contagious, for such an extended period.

4 | Conclusion

Autocracies are constantly challenged by internal and external crises. It is essential to investigate how they survive such critical moments. In this paper, by leveraging the empirical case of the grid system during the COVID-19 pandemic in China, we demonstrate and theorize how high-capacity autocracies may display temporal and spatial elasticity in response to acute crises. Such a “authoritarian elasticity” framework captures not just how autocracies can promptly mobilize upon critical crises as current literature on “authoritarian advantage” or campaign-style governance suggests, but a smarter, more agile and cost-efficient deployment of state capacity and resources to cope with even a prolonged crisis.

Building on studies of how institutional adaptability matters for authoritarian resilience (Dimitrov 2013; Gandhi and Przeworski 2007; Nathan 2003), we find that in addition to more permanent adaptations to long-term structural challenges such as succession, economic development, and social instability, autocracies can “elastically” adjust its institutions temporarily and spatially to manage crises more effectively without draining its resources and capacity too quickly. Is what we observe another case of “institutional amphibiousness” that was identified in China's transition away from communism? We believe not because the latter shows how institutions “formally remained as part of the state system” started gaining “functions and purposes contradictory to those of the state” (Ding 1994, 313). However,

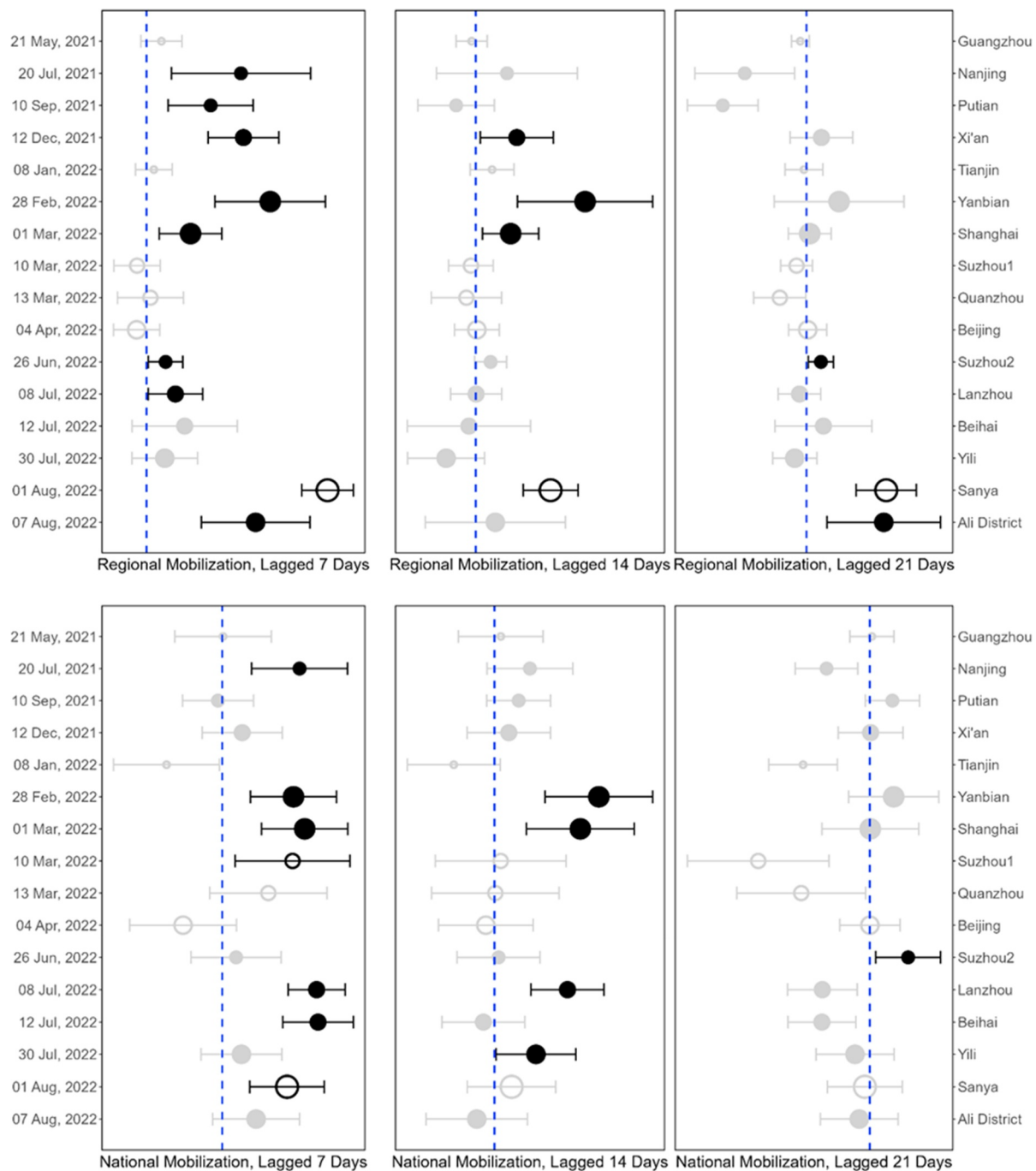


FIGURE 5 | Lagged mobilization effects at the regional and national levels. The size of each point indicates the scale of the outbreak. Solid points represent spread outbreaks. The right side indicates the city where the outbreak occurred, and the left side shows the date on which the first infection was detected in the specific case.

during COVID, it was the Party-state that activated and repurposed the grid system for crisis management and such functional transformations were clearly reversible. Our findings also highlight that beyond the capabilities and resources that are covered by existing literature, the study of state capacity may benefit from taking into consideration how the state can optimize and deploy its capabilities and sources more efficiently. Using the computer system as a metaphor, the same set of hardware may demonstrate different computing power with different software programs.

China's response to COVID-19 can be understood from the perspective of "campaign-style governance." However, it is different from typical campaigns, which though are often launched to cope with government failures, tensions, and challenges, are inherently planned, thus under state control. Crises often take the state by surprise, with their scale and pace beyond state control. These two styles of campaign-style governance therefore imply different mechanisms of decision making and mobilization (crisis vs. normalcy) (Kahneman 2011; B. W. Ritchie 2004; 't Hart and Boin 2001). This is worth noting

though it is not our primary focus, future research may explore the potential implications of the different modes of decision making.

This research is exploratory in nature, aiming more at building a theory than testing it. We admittedly face some practical limitations, which we hope future studies may address. In particular, one may criticize the study for lacking a counterfactual and ask whether other countries, especially democracies, have elasticity. We do not have sufficient empirical data to address the concerns. Moreover, the nature of the concept, which is about *how* a state uses its resources and capacity, makes it inherently more challenging to test elasticity than many other dimensions of state capacity. However, studying “elasticity” as a dimension of state capacity is meaningful. As our analysis shows, China had *empirically* demonstrated considerable elasticity (in addition to other efforts) when fighting COVID, which logically had helped the regime quickly gain the necessary functions to enforce pandemic control and sustain its costly crisis-management policy. It was impressive and puzzling—controlling a highly transmissible virus in a country with a population of 1.4 billion would never be easy, let alone for nearly 3 years. This is arguably a world record compared to all other countries, especially considering that the Zero-COVID policy could have persisted even longer but for the “White Paper” movement which signaled intensified public discontent—this means that the Party was defeated not by the virus, but by the people.

We use China's COVID-19 response to illustrate authoritarian elasticity. But this is not the only case that the Chinese regime (and potentially other autocracies) demonstrates elasticity. For instance, China has frequently mobilized its military force, the pillar of the regime's coercive force, to fight floods, wildfires, earthquakes and so forth. The state, by repurposing the coercive apparatus, rapidly and quite cost-effectively responds to such disasters, to boost its legitimacy. Most recently after the earthquake in Tibet on January 7, 2025, hundreds of People's Liberation Army soldiers and armed police, militia members, as well as military aircrafts and machinery were deployed for rescue missions on the ground within several hours. Such rapid response was widely covered in the state and social media to boost the regime's legitimacy.⁹ In fact, the regime boasts its elasticity, often in contrast with the United States, which is depicted as lacking such elasticity, as the following commentary shows:¹⁰

As we can see, whether it is an earthquake, a flood, or even wildfire, the PLA is always at the forefront. In contrast, the US military exists for war and has no obligation to provide rescue services and disaster relief.... Even when they are [deployed in natural disasters], they are primarily to enforce social order.

Crises such as earthquakes and other natural disasters (even the 2003 SARS crisis), typically only last briefly and affect a given region thus reveal authoritarian elasticity only partially in terms of how it enables prompt and effective responses to crises. The COVID-19 pandemic, which not only lasted much longer but also had a nationwide (accurately global) impact, has put

authoritarian elasticity to a far more extreme test. As we discussed, it turned out to be a success-debacle story. This very success-debacle story of China's enforcement of Zero-COVID betrays the paradoxical relationship between regime rigidity and elasticity, which somewhat serves as a counterfactual. China could have avoided the debacle by switching away from Zero-COVID timelier, just like other countries that had adopted the policy earlier (e.g., Australia, New Zealand, Singapore), should it be less rigid (reflected primarily in decision making rather than implementation; it is evident in both the lack of phase-out strategy and the very fact that the grid system was only activated when the central government decided to lock Wuhan down), or should it lack elasticity to sustain the policy (elasticity is demonstrated more in the implementation of a given policy). In this latter case, more optimized mobilization of resources and capacity achieved with “authoritarian elasticity” helped maintain a policy that was far from optimal in the long run.

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Ethics Statement

The authors have nothing to report.

Consent

The authors have nothing to report.

Conflicts of Interest

The authors declare no conflicts of interest.

Data Availability Statement

Replication code and data are available in the Harvard Dataverse (Wang and Han, 2025).

Permission to Reproduce Material From Other Sources

The authors have nothing to report.

Endnotes

¹ This echoes studies on variation or flexibility in policy implantation in China (e.g., Göbel 2011; O'Brien and Li 1999; Zhou 2010) that discuss how policy outcomes often depend on central-local dynamics. Our research does not focus on the central-local dynamics, though they may be still at play.

² See “Grid+” services explore new paths for grassroots governance [“Wangge+” fuwu tansuo shehui jiceng zhili xin lujing], *Xinhua News*, November 1, 2023. http://www.xinhuanet.com/local/2023-11/01/c_1212296005.htm.

³ The decision-making and other dynamics within the bureaucratic systems (the key actors, the incentive structures, bureaucratic mechanisms, and political logics) are interesting, but not the focus of this research because they are beyond our capacity due to data availability. We hope future research may investigate these questions.

As an explorative project, we intend to measure and conceptualize the displayed elasticity of the state and the grid system (whether it was activated in response to the COVID-19 pandemic, and whether there were functional transformations, and whether the level and scope of mobilization vary across time and space).

⁴ Guangdong, Hebei, Guizhou, and Shaanxi are not included because their accounts were either created after January 2019 or ceased publication during the lockdown.

⁵ GDP data are from the National Economic and Social Development Bulletin of the respective locality, government websites, or the China County Statistical Yearbook, primarily from 2020. County-level population data are from reports of the Seventh National Population Census of China in November 2020, and the street or community population data from local government websites, with one data point from Baidu Baike when the government source was inaccessible.

⁶ For VIIRS data, please visit <https://eogdata.mines.edu/products/vnl/>. We set each locality's government office building via Google Maps as the central point and then calculated the average annual night-light brightness of the localities with varying ranges. For localities under 10 km², the range is set to ± 0.01 from the central point, covering 4.93 km². For areas between 10 and 100 km², the range is ± 0.03 , covering 44.36 km². For regions between 100 and 1000 km², the range is ± 0.1 , covering 492.84 km². For localities over 1000 km², the range is ± 0.2 , encompassing 1971.36 km².

⁷ One limitation of this model stems from the DirichletReg R package's lack of support for panel data (Maier 2014), preventing us from calculating clustered standard errors and incorporating random effects associated with each WeChat account. We conducted a series of diagnoses and robustness checks to address this concern. See Supporting Information S1: Appendices I and J for details.

⁸ Robustness tests for Model 3 by re-running three separate multilevel models for each function confirm the findings. See Supporting Information S1: Appendix J.

⁹ Xinhua News Agency, PLA and armed police forces arrive in earthquake zone for rescue operations [Jiefangjun he wujing budui duozhi lilian dida zhengqu zhankai jiuyuan], *The Central People's Government of the People's Republic of China*, January 7, 2025. https://www.gov.cn/yaowen/liebiao/202501/content_6996746.htm.

¹⁰ Li Renhao, The disaster relief performance of the Chinese and American armies is worlds apart! [Zhongmei jundui jiuzhai biaoqian, jianzhi tianrangzhibie!], *Sohu News*, January 13, 2025. https://www.sohu.com/a/848374653_121737026; Who are the most lovable? Comparing disaster relief efforts of the military across nations [Shui shi zui keai de ren? Duibi geguo jundui tufa zhainan jiuzhai biaoqian], *Huanqiu Military*, 2025. <https://mil.huanqiu.com/special/longlifepla/index.html>.

References

Ahram, A. I., and J. P. Goode. 2016. "Researching Authoritarianism in the Discipline of Democracy." *Social Science Quarterly* 97, no. 4: 834–849. <https://doi.org/10.1111/ssqu.12340>.

Ban, P., A. Fouirnaies, A. B. Hall, and J. M. Snyder. 2019. "How Newspapers Reveal Political Power." *Political Science Research and Methods* 7, no. 4: 661–678. <https://doi.org/10.1017/psrm.2017.43>.

Bandurski, D. 2018. "China Under the Grid." (December). Retrieved November 8th, 2023, from <https://chinamediaproject.org/2018/12/07/china-under-the-grid/>.

Boin, A., E. Stern, and B. Sundelius. 2016. *The Politics of Crisis Management: Public Leadership Under Pressure*. Cambridge University Press.

Boin, A., and P. 't Hart. 2003. "Public Leadership in Times of Crisis: Mission Impossible?" *Public Administration Review* 63, no. 5: 544–553. <https://doi.org/10.1111/1540-6210.00318>.

Bozdogan, H. 1987. "Model Selection and Akaike's Information Criterion (AIC): The General Theory and Its Analytical Extensions." *Psychometrika* 52, no. 3: 345–370. <https://doi.org/10.1007/bf02294361>.

Brady, A. 2009. *Marketing Dictatorship: Propaganda and Thought Work in Contemporary China*. 1st ed. Rowman & Littlefield Publishing Group.

Camargo, A. P., J. M. Stern, and M. S. Lauretto. 2012. "Estimation and Model Selection in Dirichlet Regression." In *AIP Conference Proceedings* 1443, no. 1: 206–213. <https://doi.org/10.1063/1.3703637>.

Carter, E. B., and B. L. Carter. 2023. *Propaganda in Autocracies: Institutions, Information, and the Politics of Belief*. Cambridge University Press.

Chan, H. 2013. "Crisis Politics in Authoritarian Regimes: How Crises Catalyse Changes Under the State–Society Interactive Framework." *Journal of Contingencies and Crisis Management* 21, no. 4: 200–210. <https://doi.org/10.1111/1468-5973.12024>.

Chang, C., and Y. Wang. 2024. "The Reach of the State." *Comparative Political Studies* 57, no. 8: 1243–1275. <https://doi.org/10.1177/0010414023119>.

Chen, H., and S. C. Greitens. 2022. "Information Capacity and Social Order: The Local Politics of Information Integration in China." *Governance* 35, no. 2: 497–523. <https://doi.org/10.1111/gove.12592>.

Chen, J., J. Pan, and Y. Xu. 2016. "Sources of Authoritarian Responsiveness: A Field Experiment in China." *American Journal of Political Science* 60, no. 2: 383–400. <https://doi.org/10.1111/ajps.12207>.

Chen, X. 2012. *Social Protest and Contentious Authoritarianism in China*. Cambridge University Press.

Cingolani, L. 2013. "The State of State Capacity: A Review of Concepts, Evidence and Measures." MERIT Working Papers. <https://unu-merit.nl/publications/wppdf/2013/wp2013-053.pdf>.

Coombs, W. T. 2020. "Conceptualizing Crisis Communication." In *Handbook of Risk and Crisis Communication*, 99–118. Routledge.

Dimitrov, M. K. 2013. *Why Communism Did Not Collapse: Understanding Authoritarian Regime Resilience in Asia and Europe*. Cambridge University Press.

Dimitrov, M. K. 2022. *Dictatorship and Information: Authoritarian Regime Resilience in Communist Europe and China*. Oxford University Press.

Dimitrov, M. K. 2025. *The Adaptability of the Chinese Communist Party*. Cambridge University Press.

Ding, X. L. 1994. "Institutional Amphibiousness and the Transition From Communism: The Case of China." *British Journal of Political Science* 24, no. 3: 293–318. <https://doi.org/10.1017/s0007123400006876>.

Douma, J. C., and J. T. Weedon. 2019. "Analysing Continuous Proportions in Ecology and Evolution: A Practical Introduction to Beta and Dirichlet Regression." *Methods in Ecology and Evolution* 10, no. 9: 1412–1430. <https://doi.org/10.1111/2041-210X.13234>.

Drury, A. C., and R. S. Olson. 1998. "Disasters and Political Unrest: An Empirical Investigation." *Journal of Contingencies and Crisis Management* 6, no. 3: 153–161. <https://doi.org/10.1111/1468-5973.00084>.

Esarey, A., and R. Han. 2024. *The Xi Jinping Effect*. University of Washington Press.

Gandhi, J., and A. Przeworski. 2007. "Authoritarian Institutions and the Survival of Autocrats." *Comparative Political Studies* 40, no. 11: 1279–1301. <https://doi.org/10.1177/0010414007305817>.

Geddes, B., J. G. Wright, and E. Frantz. 2018. *How Dictatorships Work: Power, Personalization, and Collapse*. Cambridge University Press.

- Gerschewski, J. 2013. "The Three Pillars of Stability: Legitimation, Repression, and Co-Optation in Autocratic Regimes." *Democratization* 20, no. 1: 13–38. <https://doi.org/10.1080/13510347.2013.738860>.
- Gingerich, D. W., and J. P. Vogler. 2021. "Pandemics and Political Development: The Electoral Legacy of the Black Death in Germany." *World Politics* 73, no. 3: 393–440. <https://doi.org/10.1017/s0043887121000034>.
- Göbel, C. 2011. "Uneven Policy Implementation in Rural China." *China Journal* 65: 53–76. <https://doi.org/10.1086/tcj.65.25790557>.
- Habich-Sobiegalla, S., and F. Plümmer. 2023. "Topologies of Power in China's Grid-Style Social Management During the COVID-19 Pandemic." *Security Dialogue* 54, no. 2: 192–210. <https://doi.org/10.1177/09670106221134968>.
- Hanson, J. K., and R. Sigman. 2021. "Leviathan's Latent Dimensions: Measuring State Capacity for Comparative Political Research." *Journal of Politics* 83, no. 4: 1495–1510. <https://doi.org/10.1086/715066>.
- Heilmann, S. 2008. "From Local Experiments to National Policy: The Origins of China's Distinctive Policy Process." *China Journal* 59, no. 59: 1–30. <https://doi.org/10.1086/tcj.59.20066378>.
- Heydemann, S., and R. Leenders. 2011. "Authoritarian Learning and Authoritarian Resilience: Regime Responses to the 'Arab Awakening.'" *Globalizations* 8, no. 5: 647–653. <https://doi.org/10.1080/14747731.2011.621274>.
- Hong, J. Y., and L. Y. Yang. 2024. "Do Winners Spread More Words? Factional Competition and Local Media Reports on Corruption Investigation in China." *Political Science Research and Methods* 12, no. 2: 372–389. <https://doi.org/10.1017/psrm.2022.35>.
- Huang, H., S. Boranbay-Akan, and L. Huang. 2019. "Media, Protest Diffusion, and Authoritarian Resilience." *Political Science Research and Methods* 7, no. 1: 23–42. <https://doi.org/10.1017/psrm.2016.25>.
- Hui, D. L. H. 2009. "Politics of Sichuan Earthquake, 2008." *Journal of Contingencies and Crisis Management* 17, no. 2: 137–140. <https://doi.org/10.1111/j.1468-5973.2009.00571.x>.
- Jaros, K., and J. Pan. 2018. "China's Newsmakers: Official Media Coverage and Political Shifts in the Xi Jinping Era." *China Quarterly* 233, no. 233: 111–136. <https://doi.org/10.1017/S0305741017001679>.
- Jiang, J., T. Meng, and Q. Zhang. 2019. "From Internet to Social Safety Net: The Policy Consequences of Online Participation in China." *Governance* 32, no. 3: 531–546. <https://doi.org/10.1111/gove.12391>.
- Jiang, J., and Y. Zeng. 2020. "Countering Capture: Elite Networks and Government Responsiveness in China's Land Market Reform." *Journal of Politics* 82, no. 1: 13–28. <https://doi.org/10.1086/705595>.
- Kahneman, D. 2011. *Thinking, Fast and Slow*. 1st ed. Penguin Books Ltd.
- Lai, H. 2016. *China's Governance Model: Flexibility and Durability of Pragmatic Authoritarianism*. 1st ed. Routledge.
- Lipsy, P. Y. 2020. "COVID-19 and the Politics of Crisis." Supplement, *International Organization* 74, no. S1: E98–E127. <https://doi.org/10.1017/S0020818320000375>.
- Liu, J., M. Liu, and W. Liang. 2022. "The Dynamic COVID-Zero Strategy in China." *China CDC Weekly* 4, no. 4: 74–75. <https://doi.org/10.46234/ccdcw2022.015>.
- Liu, N. N., C. W. Lo, X. Zhan, and W. Wang. 2015. "Campaign-Style Enforcement and Regulatory Compliance." *Public Administration Review* 75, no. 1: 85–95. <https://doi.org/10.1111/puar.12285>.
- Liu, Y., and T. Christensen. 2022. "The Long-Term Development of Crisis Management in China—Continuity, Institutional Punctuations and Reforms." *Review of Policy Research* 39, no. 3: 282–302. <https://doi.org/10.1111/ropr.12455>.
- Magaloni, B., and R. Kricheli. 2010. "Political Order and One-Party Rule." *Annual Review of Political Science* 13, no. 1: 123–143. <https://doi.org/10.1146/annurev.polisci.031908.220529>.
- Maier, M. 2014. *DirichletReg: Dirichlet Regression for Compositional Data in R*. Vienna University of Economics and Business. <https://doi.org/10.57938/ad3142d3-2fcd-4c37-aec6-8e0bd7d077e1>.
- Mankiw, N. G. 2018. *Principle of Microeconomics*. 8th ed. Cengage Learning.
- Mann, M. 1984. "The Autonomous Power of the State: Its Origins, Mechanisms and Results." *European Journal of Sociology* 25, no. 2: 185–213. <https://doi.org/10.1017/S0003975600004239>.
- Mattingly, D. 2020. *The Art of Political Control in China*. 1st ed. Cambridge University Press.
- Metinsoy, M. 2011. "Fragile Hegemony, Flexible Authoritarianism, and Governing From Below: Politicians' Reports in Early Republican Turkey." *International Journal of Middle East Studies* 43, no. 4: 699–719. <https://doi.org/10.1017/S0020743811000912>.
- Mittelstaedt, J. C. 2022. "The Grid Management System in Contemporary China: Grass-Roots Governance in Social Surveillance and Service Provision." *China Information* 36, no. 1: 3–22. <https://doi.org/10.1177/0920203X211011565>.
- Nathan, A. J. 2003. "China's Changing of the Guard: Authoritarian Resilience." *Journal of Democracy* 14, no. 1: 6–17. <https://doi.org/10.1353/jod.2003.0019>.
- Naughton, B. 2007. *The Chinese Economy: Transitions and Growth*. 1st ed. MIT Press.
- Nel, P., and M. Righarts. 2008. "Natural Disasters and the Risk of Violent Civil Conflict." *International Studies Quarterly* 52, no. 1: 159–185. <https://doi.org/10.1111/j.1468-2478.2007.00495.x>.
- Ngoun, K. 2022. "Adaptive Authoritarian Resilience: Cambodian Strongman's Quest for Legitimacy." *Journal of Contemporary Asia* 52, no. 1: 23–44. <https://doi.org/10.1080/00472336.2020.1832241>.
- O'Brien, K. J., and L. Li. 1999. "Selective Policy Implementation in Rural China." *Comparative Politics* 31, no. 2: 167–186. <https://doi.org/10.2307/422143>.
- Pei, M. 2020. "China's Coming Upheaval." *Foreign Affairs* 99, (May): 82–95. <https://www.jstor.org/stable/26985611>.
- Pepinsky, T. B. 2009. *Economic Crises and the Breakdown of Authoritarian Regimes: Indonesia and Malaysia in Comparative Perspective*. Cambridge University Press.
- Perry, E. J. 2011. "From Mass Campaigns to Managed Campaigns: Constructing a New Socialist Countryside." In *Mao's Invisible Hand*, edited by E. J. Perry and S. Heilmann. 1st ed., 30–61. Harvard University Asia Center.
- Perry, E. J. 2020. "Educated Acquiescence: How Academia Sustains Authoritarianism in China." *Theory and Society* 49, no. 1: 1–22. <https://doi.org/10.1007/s11186-019-09373-1>.
- Perry, E. J. 2024. "Public Health, National Strength, and Regime Legitimacy: China's Patriotic Health Campaign." *China Journal* 91: 1–22. <https://doi.org/10.1086/729498>.
- Qiang, X. 2019. "The Road to Digital Unfreedom: President Xi's Surveillance State." *Journal of Democracy* 30, no. 1: 53–67. <https://doi.org/10.1353/jod.2019.0004>.
- Qin, X., and C. Owen. 2023. "The CCP, Campaign Governance and COVID-19: Evidence From Shanghai." *Chinese Journal of Political Science* 28, no. 4: 619–644. <https://doi.org/10.1007/s11366-022-09838-8>.
- Repnikova, M., and K. Fang. 2019. "Digital Media Experiments in China: 'Revolutionizing' Persuasion Under Xi Jinping." *China Quarterly* 239, no. 239: 679–701. <https://doi.org/10.1017/S0305741019000316>.

- Reuschl, A. J., M. K. Deist, and A. Maalaoui. 2022. "Digital Transformation During a Pandemic: Stretching the Organizational Elasticity." *Journal of Business Research* 144: 1320–1332. <https://doi.org/10.1016/j.jbusres.2022.01.088>.
- Ritchie, B. W. 2004. "Chaos, Crises and Disasters: A Strategic Approach to Crisis Management in the Tourism Industry." *Tourism Management* 25, no. 6: 669–683. <https://doi.org/10.1016/j.tourman.2003.09.004>.
- Ritchie, N., and P. Rogers. 2007. *The Political Road to War With Iraq: Bush, 9/11 and the Drive to Overthrow Saddam*. Routledge.
- Roberts, M. E. 2018. *Censored: Distraction and Diversion Inside China's Great Firewall*. Princeton University Press.
- Rosenthal, U., and A. Kouzmin. 1997. "Crises and Crisis Management: Toward Comprehensive Government Decision Making." *Journal of Public Administration Research and Theory* 7, no. 2: 277–304. <https://doi.org/10.1093/oxfordjournals.jpart.a024349>.
- Schreier, M. 2012. *Qualitative Content Analysis in Practice*. Sage.
- Schwartz, J. 2012. "Compensating for the 'Authoritarian Advantage' in Crisis Response: A Comparative Case Study of SARS Pandemic Responses in China and Taiwan." *Journal of Chinese Political Science* 17, no. 3: 313–331. <https://doi.org/10.1007/s11366-012-9204-4>.
- Schwenck, A. 2024. *Flexible Authoritarianism: Cultivating Ambition and Loyalty in Russia*. Oxford University Press.
- Scoggins, S. E. 2021. "Rethinking Authoritarian Resilience and the Coercive Apparatus." *Comparative Politics* 53, no. 2: 309–330. <https://doi.org/10.5129/001041521x15895755803929>.
- Sellnow, T. L., and M. W. Seeger. 2021. *Theorizing Crisis Communication*. John Wiley & Sons.
- Shambaugh, D. 2007. "China's Propaganda System: Institutions, Processes and Efficacy." *China Journal* 57: 25–58. <https://doi.org/10.1086/tcj.57.20066240>.
- Shih, V. C. 2008. "'Nauseating' Displays of Loyalty: Monitoring the Factional Bargain Through Ideological Campaigns in China." *Journal of Politics* 70, no. 4: 1177–1192. <https://doi.org/10.1017/S0022381608081139>.
- Stockmann, D., and M. E. Gallagher. 2011. "Remote Control: How the Media Sustain Authoritarian Rule in China." *Comparative Political Studies* 44, no. 4: 436–467. <https://doi.org/10.1177/0010414010394773>.
- Sun, X. 2020. "Campaign-Style Implementation and Affordable Housing Provision in China." *China Journal* 84: 76–101. <https://doi.org/10.1086/706790>.
- Tang, B. 2020. "Grid Governance in China's Urban Middle-Class Neighbourhoods." *China Quarterly* 241, no. 241: 43–61. <https://doi.org/10.1017/S0305741019000821>.
- Taylor, M., and J. Garlick. 2025. "Flexible' Versus 'Fragmented' Authoritarianism: Evidence From Chinese Foreign Policy During the Xi Jinping Era." *Australian Journal of International Affairs* 79, no. 2: 189–208. <https://doi.org/10.1080/10357718.2024.2437035>.
- Teh, Y. W. 2010. "Dirichlet Process." *Encyclopedia of Machine Learning* 1063: 280–287. https://doi.org/10.1007/978-0-387-30164-8_219.
- 't Hart, P., and A. Boin. 2001. "Between Crisis and Normalcy: The Long Shadow of Post-Crisis Politics." In *Managing Crises: Threats, Dilemmas, Opportunities*, edited by U. Rosenthal, R. A. Boin, and L. K. Comfort, 28–46. Charles C Thomas Publisher.
- 't Hart, P., U. Rosenthal, and A. Kouzmin. 1993. "Crisis Decision Making: The Centralization Thesis Revisited." *Administration & Society* 25, no. 1: 12–45. <https://doi.org/10.1177/009539979302500102>.
- Thornton, P. M. 2009. "Crisis and Governance: SARS and the Resilience of the Chinese Body Politic." *China Journal* 61, no. 61: 23–48. <https://doi.org/10.1086/tcj.61.20648044>.
- Thornton, P. M. 2023. "When Grid Meets Web: How COVID-19 Extended the Party-State's Capacity for Social Control at the Grass-roots." *China Leadership Monitor*, no. 76: 1. <https://www.prcleader.org/post/grid-meets-web-how-covid-19-extended-the-party-state-s-social-control-capacity-at-the-grassroots>.
- Wang, Y., and R. Han. 2023. "Cosmetic Responsiveness: Why and How Local Authorities Respond to Mundane Online Complaints in China." *Chinese Journal of Political Science* 28, no. 2: 187–207. <https://doi.org/10.1007/s11366-022-09798-z>.
- Wang, Y., and R. Han. 2025. "Replication Data for 'Authoritarian Elasticity: How Autocracies May Effectively Mobilize for Crisis Management'." Harvard Dataverse, V1. <https://doi.org/10.7910/DVN/H0NRXO>.
- Werlin, H. H. 1988. "The Theory of Political Elasticity: Clarifying Concepts in Micro/Macro Administration." *Administration & Society* 20, no. 1: 46–70. <https://doi.org/10.1177/009539978802000103>.
- Wu, G. 1994. "Command Communication: The Politics of Editorial Formulation in the People's Daily." *China Quarterly* 137, no. 137: 194–211. <https://doi.org/10.1017/S0305741000034111>.
- Xu, J., and S. He. 2022. "Can Grid Governance Fix the Party-State's Broken Windows? A Study of Stability Maintenance in Grassroots China." *China Quarterly* 251, no. 251: 843–865. <https://doi.org/10.1017/S0305741022000509>.
- Yan, B., X. Zhang, L. Wu, H. Zhu, and B. Chen. 2020. "Why Do Countries Respond Differently to COVID-19? A Comparative Study of Sweden, China, France, and Japan." *American Review of Public Administration* 50, no. 6: 762–769. <https://doi.org/10.1177/0275074020942445>.
- Yang, D. 2024. *Wuhan: How the Covid-19 Outbreak in China Spiraled out of Control*. Oxford University Press.
- Yin, B., and Y. Mou. 2023. "Centralized Law Enforcement in Contemporary China: The Campaign to 'Sweep Away Black Societies and Eradicate Evil Forces'." *China Quarterly* 254, no. 254: 366–380. <https://doi.org/10.1017/S0305741022001795>.
- Zeng, Y. 2023. "Political Marketing in a Hierarchy: Media's Score-keeping Role in China." SSRN 4974115. <https://ssrn.com/abstract=4974115>.
- Zhou, X. 2010. "The Institutional Logic of Collusion Among Local Governments in China." *Modern China* 36, no. 1: 47–78. <https://doi.org/10.1177/0097700409347970>.
- Zhou, X. 2022. *The Logic of Governance in China: An Organizational Approach*. Cambridge University Press.

Supporting Information

Additional supporting information can be found online in the Supporting Information section.

Supporting Information S1: gove70074-sup-0001-suppl-data.docx.