Accountability without rule of law: how judicial centralization shapes local governance in China

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Abstract: This paper studies how government control of the judiciary affects political accountability under an authoritarian political system. I propose a model where local governments choose the amount of action taken against citizens, which are litigable in courts controlled either by local governments themselves or higher-level governments. The model predicts that, as a result of centralizing judicial control, courts become stricter towards local governments, but only when the interests of local and higher-level governments diverge. Instability decreases and local fiscal revenue falls when courts are stricter, but the amount of governmental action increases because local governments double down to make up for the lost revenue. Empirically, using a judicial centralization reform in China, I validate the predictions of the model by showing that centralization made local governments more likely to lose in administrative lawsuits, but the effect becomes negligible for cases with high political sensitivity where the interests of local and provincial governments align. The number of labor protests fell, local governments' discretionary fiscal revenue decreased, but the amount of land requisition increased. These results illustrate the limits of centralization as a source of top-down accountability without the rule of law.

I. Introduction

Local governments are responsible for most citizens' everyday interactions with the government, and local government accountability is important for the health of a political system. One way to envision local government accountability is to hold them accountable to independent or outside entities, such as independent watchdogs, the press, or the electorate. Another is to centralize power to hold local government accountable to higher levels of government. This paper focuses on the latter form of accountability: what are the consequences of centralization for accountability and local governance in autocracy? This question is particularly salient in China's system of regionally decentralized authoritarianism (Xu 2011), in which local governments have substantial autonomy over economic and administrative affairs while remaining politically subordinate to higher-level authorities.

This paper studies the consequences of increasing centralization for government accountability in the context of administrative litigation. China's judiciary is a revealing setting for the study of centralization and accountability, because it is not independent and is instead a part of the bureaucracy. Apart from the political control of the Chinese Communist Party (CCP), to which every Chinese bureaucrat must adhere, local courts in China have also been subject to the personnel and budgetary control of local governments, resulting in substantial local political influence over judicial outcomes. Starting in 2014, China implemented a major judicial reform that transferred control over the budget and personnel of local courts from the same level of local governments to higher-level provincial governments. This reform plausibly weakened the ability of local governments to interfere in judicial proceedings involving themselves, while leaving intact the broader political subordination of the courts to the CCP. As such, it offers a rare opportunity to causally study the effect of centralization in an authoritarian regime.

I first propose a theoretical model of government and citizen behavior under different levels of judicial control. The local government conducts actions against citizens, such as law

enforcement or appropriations. These governmental actions bring revenue to the local government, but also produce grievances among affected citizens, which generate protests that are disliked by the government because of social instability. Governmental actions are subject to the scrutiny of the judiciary, which increases the cost of governmental actions either by imposing additional direct costs or by overturning governmental actions deemed illegal. The judiciary is controlled by either the local government itself or the provincial government above it. Local and provincial governments care to varying degrees about both the revenue gained from the governmental actions in question and the instability generated by these actions: the local government, which is more directly involved in the day-to-day governance of the society, tends to care relatively more about increasing revenue, whereas the provincial government cares more about reducing instability.

The model yields a few key results. The judiciary becomes more likely to rule against the local government when judicial control is transferred from the hands of the local government itself to the provincial government. However, the magnitude of this effect decreases with the degree to which the interests of the two levels of government align. In cases where the local and provincial governments have similar preferences, judicial centralization has little effect on the behavior of the judiciary. Beyond the judicial outcomes, the model shows that the change in the locus of control of courts has several implications for the behavior of governments and citizens. The amount of instability decreases as a result of judicial centralization for the natural reason that the provincial government that now controls the courts cares more about reducing instability. The revenue of the local government also decreases, because stricter courts increase the cost of local government actions or rule against the local government's revenue-raising actions. Notably, I show that centralization may backfire by increasing the *amount* of governmental action taken against citizens, especially when local government revenue falls well short of a predetermined target. The local government responds to the fiscal pressure from stricter courts by increasing the amount of actions in order to make up for the additional fiscal loss. Because this backlash is a result of fiscal pressure, it is expected

to be higher for local governments facing a larger revenue gap to fill. This last result on the amount of governmental actions is noteworthy because, intuitively, we would expect that when the courts frown upon a certain kind of action, the government would do less of it. But the model shows that the opposite might actually happen.

Using data from the universe of administrative lawsuit verdicts in China, I exploit the staggered implementation of the judicial centralization reform to test the model's predictions using a difference-in-differences strategy. I first find that the reform led to an overall improvement of local government accountability: local governments became 2.8 percentage points more likely to lose in administrative lawsuits[1]. Centralization indeed reduced local capture by removing a channel through which local governments could pressure or interfere in the judiciary. I address issues of selection bias by checking that there is no significant change in the composition or the number of lawsuits. I also find that the reform improved the quality of judicial rulings by administrative judges, using various proxies for ruling quality such as the length of judicial reasoning in the verdict, the appeal rate, and the cross-examination of evidence in court.

However, consistent with the model's prediction, the effect of centralization exhibits heterogeneity that is revealing with regard to the limits of this form of improvement in accountability: the effect is decreasing with the degree to which local and provincial governments' interests align. I capture the level of alignment between levels of government by classifying cases according to their political sensitivity. Alignment is arguably greater in politically sensitive cases because both levels of government are subject to the political control of the CCP, which puts paramount importance over such issues[2]. In fact, for cases with the highest political sensitivity, concerning civil liberties and political rights such as free speech and

[1]This paper does not make normative judgment on local governments' litigated actions. "Accountability" can be thought of as the responsiveness of the government to citizens' concerns.

[2]I define political sensitivity in terms of the degree to which the underlying issue touches the core political interests of the CCP. High-sensitivity cases often involve political action by citizens, which the CCP sees as the foremost threat to its survival and makes every effort to suppress. See Section V.3 for details.

protests, the reform had essentially zero effect. On the other end of the alignment spectrum, I consider high-visibility cases such as forced demolitions of homes or the violent eviction of street vendors by urban management squads, in which local governments often resort to heavy-handed measures for the sake of expediency but higher levels of government would actually prefer more lawful enforcement. I find that the effect of centralization in these cases is especially large, up to twice the average effect.

Importantly, I then go beyond court cases to study the effect of the centralization reform on the behavior of citizens and local governments. Using data for labor protests in China, I show that the reform resulted in a reduction of labor protests, suggesting that citizens indeed substitute away from protesting when the judiciary becomes more responsive to their concerns. For local governments, the reform decreased the discretionary non-tax fiscal revenue that local governments receive, again in line with the model's predictions.

On the other hand, I also find evidence of the backlash effect predicted by the model: local governments increase the volume of an especially important revenue-raising action, namely land requisitions. Local governments in the past three decades have requisitioned land from its existing occupiers at a paltry compensation in order to sell its development rights to the real estate sector, generating considerable fiscal revenue and also fueling societal discontent (Gyourko et al. 2022). I find that the judicial centralization reform made local governments more likely to lose in administrative lawsuits regarding forced demolitions for land requisition, but local governments increased the amount of land requisition by as much as 18% in response. This effect is larger for places with high pre-existing fiscal deficit because, as the model predicts, these places are under greater pressure to make up for the fiscal shortfall.

Together, these results quantitatively illustrate the difference between rule *of* law and rule *by* law. The former emphasizes the constraints of the law on the government; the latter envisions a government perceiving itself as being above the law and wielding the law to govern the

population. The judicial centralization reform studied by this paper is a clear example of the latter, making the judiciary more independent of local interference but maintaining central political control. Therefore, it improves local government accountability only to the extent that the CCP permits; little changed is observed regarding local impunity that is precisely the result of the CCP's intent. In fact, this reform fits the pattern under more than a decade of Xi Jinping's rule in which power is increasingly centralized (Luo et al. 2025). Moreover, in a judicial system where court rulings do not carry the power of precedent, court losses merely increase the "cost of doing business" for local governments. This means that a stricter judiciary may actually backfire, with the government doing more of the disapproved actions, offsetting the improvement in local government accountability.

This paper contributes to three strands of literature. First, it builds on well-established research about centralization, decentralization and local capture. Under China's governance model of "regionally decentralized authoritarianism" (Xu 2011), local governments engage in competitions with each other and exercise a great degree of control and influence over local affairs, including the judiciary. There is conceptual and theoretical research that attempts to explain China's "growth puzzle" with the system of regionally decentralized authoritarianism (Qian and Weingast 1997; Maskin et al. 2000) and compares the differing degrees of (de)centralization of China and Russia under communism (Xu 2025). Empirical work, most notably on the "political tournament" of local political competition (Li and Zhou 2005), investigates how the central government achieves its objectives in an environment of relative decentralization. However, there has been little causal analysis of the costs and benefits of (de)centralization, most of which focuses on the introduction or abolition of local elections in autocracies (Malesky et al. 2014; Beazer 2015; Martinez-Bravo et al. 2022) or the problem of state capacity in weak states (Balán et al. 2022). This paper builds upon the literature to investigate the causal effect of a centralization reform that, unlike changes to elections, is an internal change in the bureaucracy instead of an introduction of "outside-of-government" sources of accountability such as the electorate.

Second, this paper contributes to the research of the judiciary and judicial independence. Cross-country studies have shown that judicial origins make a meaningful difference for subsequent economic performance, arguing that political systems that accord more independence to the judiciary tend to create more favorable conditions for development (Glaeser and Shleifer 2002; Feld and Voigt 2003; La Porta et al. 2004; Voigt et al. 2015). On the other hand, within-country research that rigorously pins down the causal effect of judicial independence is still nascent. Notable research in this regard includes Mehmood (2022), which shows that a reform removing presidential discretion in judicial appointments in Pakistan made the government lose more and improved the quality of rulings. The wave of judicial reforms and the short-lived mass publication of judicial verdicts in the late 2010s in China creates a unique opportunity to exploit vast quantities of data and plausible treatment events to study the causal effect of judicial changes on political and economic outcomes, finding that the judicial centralization reforms had the intended effect of reducing local capture. Existing research focuses mostly on the economic side, such as Liu et al. (2022) using civil lawsuits to show that the reform made courts less likely to rule in favor of local firms against outside firms, which in turn is beneficial for economic integration and investment. Much less is known about cases where local governments themselves are defendants and have direct incentives to interfere[3].

Finally, this paper advances the understanding of local government accountability in autocracies (see Egorov and Sonin (2024) for a review). Whereas democratic governments are accountable to voters via elections, local governments in autocracies are ultimately accountable to the top (Pei 2025). The literature has studied many channels of local government accountability. For example, autocrats strategically employ tools of bottom-up accountability to control and select subordinates, such as protests or threats of protests (Lorentzen 2013; Chen et al. 2016), allowing a limited degree of free press (Egorov et al. 2009; Lorentzen 2014),

[3]Zhang and Liu (2025) provides a descriptive analysis of administrative lawsuits in the 2010s.

and authoritarian elections (Miller 2015; Martinez-Bravo et al. 2022). The takeaway is that, instead of allowing these freedoms for their own sake, the autocrat leverages these tools to gather information to better monitor and control public attitudes towards the regime. There have also been studies on top-down forms of accountability such as mass purges (Montagnes and Wolton 2019; Wang et al. 2025). This paper builds upon the above research on authoritarian accountability by studying administrative lawsuits, an under-explored channel of government accountability in China. Like the above studies, the judicial reform I study in this paper is limited in nature: it actually centralizes control of the judiciary to a higher level of government while bolstering accountability at the local level.

This paper is organized as follows. Section II provides the institutional background for the questions studied by this paper. Section III presents the theoretical model of government behavior under judicial centralization. Section IV describes the data and the empirical strategy. Section V presents results regarding the effect on administrative litigation. Section VI presents results on downstream outcomes. Section VII concludes.

II. Institutional Background

II.1. China's judiciary

China's judiciary is a civil law system with German-Japanese, Soviet, and imperial Chinese influences, relying on judges instead of juries to decide cases, and relying on legal codes instead of precedents as the primary source of law. The court system consists of four levels: the Supreme People's Court is China's top court at the national level, High People's Courts at the provincial level, Intermediate People's Courts at the prefecture level, and Basic People's Courts at the county/district level. A higher-level court has professional power over lower-level courts under its jurisdiction. First, higher courts issue legal guidance and interpretations for lower courts to follow, with the judicial interpretations issued by the Supreme People's Court carrying the force of law. Second, higher courts have the power to overturn the rulings

of lower courts on appeal. However, the budget and personnel of courts are controlled by the government instead of by higher courts. This gives local governments a lever to influence local court decisions, since the income and career prospects of judges are in the hands of local governments.

This paper studies administrative lawsuits, which are lawsuits where a private party (such as an individual or a firm) sues the government. In the Mao Zedong era (1949-1976), China had no administrative law as we know it. The country began to establish a modern legal system after Deng Xiaoping started reforms in the late 1970s. In 1989, The Administrative Procedure Law of the People's Republic of China went into effect, which established the country's administrative litigation system to hold the government accountable when it acts in violation of the law. This accountability is limited in nature because of the following two factors. First, administrative lawsuits can only be brought to challenge specific and explicit government actions, and courts lack the power of judicial review — that is to say, private parties cannot use administrative litigation to strike down a law. Second, the Administrative Procedure Law stipulates that cases shall be under the jurisdiction of the court where the concerned government action took place. For example, an individual wronged by actions of the government of county A should bring a lawsuit to the Basic People's Court of county A. Since China's judiciary is neither independent nor free, and local governments exercise budgetary and personnel control of the courts, plaintiffs are not guaranteed a fair hearing before the administrative court.

II.2. The judicial independence reform

The prevalent local capture of the judiciary prompted the Chinese Communist Party (CCP) to act. In 2014, the Supreme People's Court issued a document titled "Opinions of the Supreme People's Court on Comprehensively Deepening the Reform of People's Courts", which launched the judicial independence reform in question that unified personnel and budgetary control of local courts to the provincial level (*fayuan rencaiwu shengji tongguan*).

Figure 1 illustrates the power structure of China's court system before and after the reform. Before the reform, the budget and personnel of a court is controlled by the same level of government (e.g. the government of county A exercises these controls over the Basic People's Court of county A). After the reform, budgetary and personnel control of county-level and prefecture-level courts is centralized at the hands of the provincial government. Notice that the reform in no way makes China's courts free from any political influence; it merely removes one source of leverage through which prefectural and county governments exert influence over the same level of courts. In this sense, the reform fits into the broader pattern in post-1978 China of "rule by law" instead of "rule of law", where the Communist Party wields the law as a tool to control subordinate officials and the general population, but not to hold the party itself to account[4] (Orts 2001; Ginsburg and Moustafa 2008; Minzner 2011; Creemers and Trevaskes 2021).

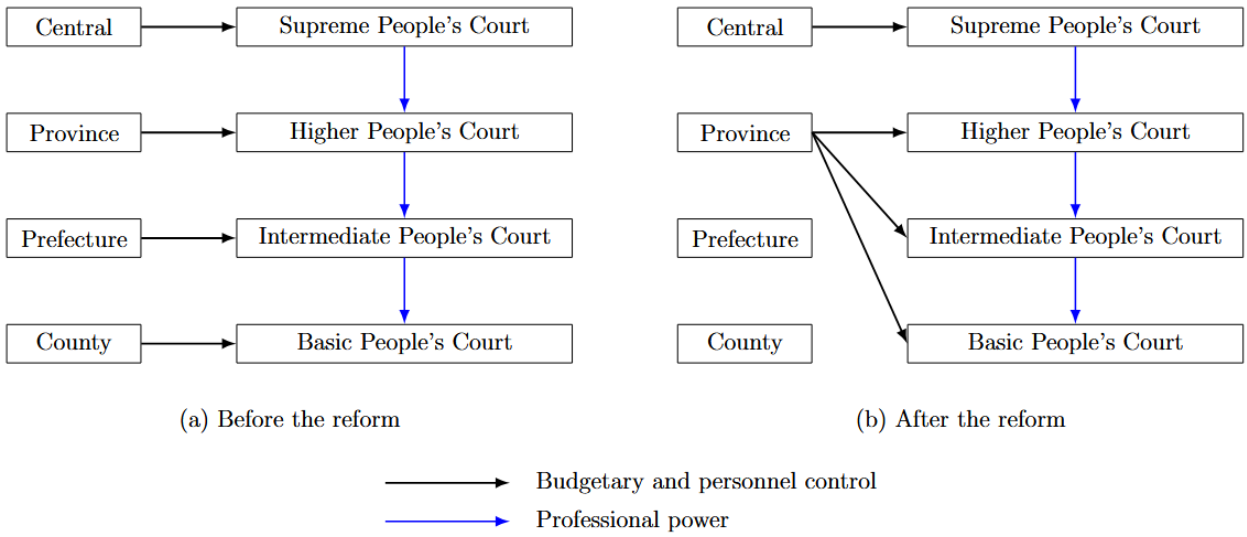


Figure 1: China's judicial system before and after the reform

The judicial centralization reform was rolled out at the prefecture level. As of 2020, the last

[4]Communist Party officials have gone to great lengths in trying to explain whether the party is above the law. Xu Xianming, the Vice Procurator-General of the Supreme People's Procuratorate in 2017, resorted to saying that "The Communist Party is simultaneously in the middle of, below, and above the law". See https://chinadigitaltimes.net/chinese/556663.html (in Chinese). Xi Jinping himself chooses to quash the debate, saying that "The question of whether the Party or the law is supreme is a political trap, a false dichotomy."

year covered by our data, 240 of the 366 prefecture-level jurisdictions[5] had implemented the reform. The long schedule of the roll-out is typical of the policy experimentations that China uses for significant nationwide reforms, with a selected few places as pilots and then trial and error as the process goes on (Wang and Yang 2025). It is true that the sequence of roll-out is not random, and that the timing of reform in each jurisdiction might have been affected by the local political and economic situation. But there are no signs indicating that these pre-existing factors are correlated with the severity of political influence on the judiciary or the level of government accountability in the locality[6]. In any case, these concerns do not invalidate the difference-in-differences design. In Table B.1, I regress reform timing on a variety of pre-reform economic and judicial characteristics in each prefecture, including GDP per capita, population, fiscal revenue per capita, fiscal self-sufficiency rate, government losing rate in administrative lawsuits, and the number of administrative lawsuits. None of these variables are correlated with whether a prefecture has implemented the reform by 2020. Nor are they correlated with the year of reform among reformed prefectures. Furthermore, in Section V, I will conduct event studies that further validate the assumption of my empirical approach.

II.3. Labor protests in China

Despite having "Communist" in its name, the CCP in the 21st century has given labor a hard time. The country's fiscal system instills a pro-firm (and hence anti-labor) bias in the behavior of local governments. Unlike the United States, China does not levy a retail sales tax. Instead, it uses a value-added tax (VAT) of up to 13% which is applied across the

[5]Including some counties directly administered by provincial governments.

[6]Apart from the fact that I could not find any documentary evidence of such correlation, this claim is further corroborated by multiple internal documents from the judiciary hinting that the centralization of budgetary control tends to encounter more obstacles than the centralization of personnel control. If the timing of reform roll-out is somehow affected by local governments' differing willingness to influence the courts, there should not be a marked difference between the resistance to budgetary reforms and personnel reforms — if anything, personnel reforms should have been more difficult. Any possible delays of the roll-out are most likely due to mundane reasons such as logistics and local economic conditions.

supply chain and is collected by the place of production. A corporate tax of up to 25% is levied by the place of registration of the firm. A back-of-the-envelope calculation suggests that, for every dollar of sales by a firm, the prefecture or county government gets at least 1.5 cents in tax revenue. The tax on labor income, on the contrary, is narrow-based. In 2023, of all people who earned any income, more than 70% had a personal income tax rate of 0%. Indeed, the median disposable income in that year was ¥33,036 ($4,670), well below the income tax threshold of ¥60,000. This is worth stressing: for every dollar of labor income earned by the median worker, the prefecture or county government gets 0 cents in income tax revenue. The contrast of the fiscal importance of corporate versus labor income provides a strong incentive for local governments to make every effort to attract and retain corporate investment, often at the expense of labor rights. This gives rise to the much-discussed "China model" of state-led, pro-investment economic development (Huang 2026). The fact that the promotion of local officials depends crucially on the economic growth rate provides additional political incentive for local governments to prioritize firms and investment (Li and Zhou 2005).

The fiscal system also explains why provincial governments are likely to have less pro-firm bias than prefecture and county governments. Since 1994, the central government has stipulated the share of tax revenue that goes to the central versus local governments. But it left to the provinces to decide how to divide the locally bound tax revenue between province, prefecture, and county governments. In practice, the bulk of the locally bound tax revenue goes to prefecture and county governments. The most pro-province arrangement, in the southern Guangdong province, allocates 50% of VAT and income tax revenue to the provincial government and 50% to prefecture and county governments. All other provinces allocate more to prefecture and county governments. It is these local governments that are the most eager to put their thumbs on the scale in favor of firms and against workers. This is corroborated by the observation that, in practice, it is these local governments that do the bulk of the work to attract investment from firms (*zhaoshang yinzi*).

In labor relations, this means that enforcement of labor laws is weak, uneven and selective, with local governments often favoring firms at the expense of workers. Wage arrears and labor abuses are common, and workers do not have recourse through organized labor: independent trade unions do not exist in China, and organized strikes no longer enjoyed constitutional protection after 1982. Nevertheless, localized labor protests and strikes are surprisingly common in China, often tied to specific grievances at individual firms, such as wage arrears or bad working conditions (Lee 2007). Labor protests are sometimes an effective way to address these grievances precisely because of their localized and apolitical nature. Ever since the CCP violently suppressed student protests in the 1989 Tiananmen massacre, the party has put "maintaining stability" (*weiwen*) at the center of governance in China. Labor protests, by threatening the very stability that local governments have made so much effort to maintain, can be a powerful tool for workers to pressure local governments into attenuating the pro-firm bias. As long as these labor protests stay localized and do not morph into a coordinated and well-organized movement, local governments will often strategically tolerate the protests and attempt to defuse them in a way that leaves workers less aggrieved, instead of invariably repressing them (Lorentzen 2013).

II.4. Land requisition in China

There has been no private land ownership in China since the CCP emerged victorious in the country's communist revolution in 1949. Land reform was such a central pillar of the party's agenda that state ownership of land did not change even after Deng Xiaoping launched economic reform and liberalization in 1978. Instead, in order to establish a system of *de facto* private ownership of land without breaking communist orthodoxy, Deng's government devised "land use rights", nominally distinct from ownership rights, that can be transferred between private entities. For rural farmland, farmers have the "rights to land contractual management" for a period of 30 years, which is then largely automatically renewed without

a fee[7]. For urban homes, residents have the use rights of the land beneath their homes for a maximum of 70 years, which is then automatically renewed[8]. The law is unclear on whether the renewal for urban homes will be free of charge.

For nearly three decades, from the late 1990s to the 2010s, real estate was a major engine of China's economic growth and a major source of fiscal revenue for China's local governments. In 1994, China implemented the tax-sharing reform, which is a fiscal centralization reform that deprived local governments of a substantial portion of tax revenue. In search of new sources of fiscal revenue, prefecture and county governments turned to "land finance", using their monopoly power in the land market to seize undeveloped or underdeveloped land from its existing users and sell the land use rights to real estate developers for a hefty fee. The 2008 financial crisis led the Chinese government to unveil a massive stimulus program worth ¥4 trillion, further fueling the real estate boom. By the 2010s, land finance had become a crucial source of local government revenue. In 2019, just before China's real estate bubble burst, the gross revenue from land sales accounted for around 40% of local government fiscal revenue in China[9]. (For a detailed introduction of land finance, see Gyourko et al. 2022)

To sell land use rights to real estate developers, local governments must first requisition the land from its existing users. Since land is owned by local governments, existing users have little means to resist requisition when faced with a sufficiently determined local government. Disputes frequently arise because existing users are offered insufficient monetary compensation, are offered replacement housing that is far away from their lives and livelihoods, or suffer violence from forced demolitions of their homes or other structures (Ong 2022).

[7]This is stipulated by Article 13 of the Land Administration Law of the People's Republic of China: https://www.pkulaw.com/en_law/4e5a046905fd9240bdfb.html

[8]This is stipulated by Article 12 of the Interim Regulations of the People's Republic of China Concerning the Assignment and Transfer of the Right to the Use of the State-owned Land in the Urban Areas (https://www.pkulaw.com/en_law/66cde758ad66f43bbdfb.html) and Article 359 of the Civil Code of the People's Republic of China (https://www.pkulaw.com/en_law/aa00daaeb5a4fe4ebdfb.html).

[9]This figure is calculated with data from China's Ministry of Finance: https://yss.mof.gov.cn/2019qgczjs/index.htm (in Chinese).

III. Model

This section presents a theoretical model of government and citizen behavior under decentralized or centralized judicial authority. The setup of the model is as follows. There are two levels of government: local (L) and provincial (P). Let $x \geq 0$ be the amount of a governmental action that the local government takes against citizens. This can be the number of traffic tickets issued, the number of people detained for "inappropriate" speech online, or the amount of land requisitioned, to give but a few examples. Let $c \geq 0$ be the court-imposed cost borne by the local government. The cost comes from remedial actions ordered by the court when the local government loses a lawsuit: rescinding a fine, releasing a detainee, increasing the compensation for land requisitions, etc. We can think of c as a parameter that captures the strictness of the judiciary against the local government: the higher this c, the more likely the local government loses in administrative lawsuits.

Local and provincial governments care about both the revenue from the governmental action and the social instability generated by it. Let $R(c, x)$ be the net fiscal revenue generated by the governmental action, such as the net revenue from fines or the net revenue from selling the requisitioned land. This can be generalized to incorporate non-monetary benefits going to the local government, such as the increased cleanliness of the streets resulting from the eviction of street vendors. Hereinafter I still refer to $R(c, x)$ in fiscal terms for the sake of expositional convenience. Assume that $R_x > 0,\ R_{xx} < 0,\ R_c < 0,\ R_{xc} < 0$. Taking more of the governmental action increases the net revenue, but at a diminishing rate, which is natural for typical actions taken by local governments in real life. For example, law enforcement tends to pick low-hanging fruit before tackling complex or hidden violations. Stricter courts, by imposing a higher expected cost, reduce both total revenue and marginal revenue of the governmental action.

The governments have a target level of revenue of $F > 0$, and suffers a penalty of $-H(F - R(c, x))$ with $H(\cdot) \geq 0,\ H'(\cdot) > 0$, and $H''(\cdot) > 0$ when revenue falls short of that target.

Assume that $\frac{H''(F-R)}{H'(F-R)}$ is increasing with $(F-R)$. In a utility function, this expression is the Arrow-Pratt coefficient of absolute risk aversion. Here, in a penalty for fiscal shortfall, this can be thought of as a measure of the government's aversion to a further fall in the revenue from the governmental action. The assumption essentially says that this aversion increases with the fiscal deficit, which is a plausible representation of local government behavior.

The governmental action x generates grievance among citizens. Courts can (partially) redress grievance in their rulings against the local government that rescind the governmental action or order compensations. Let $g(c,x) = \theta(c)A(x)$ be citizens' residual grievance after their attempts at judicial redress are exhausted, with $\theta(c) > 0,\ \theta'(c) < 0,\ A(x) > 0,\ A'(x) > 0,\ A''(x) > 0$. In this multiplicative form of grievance, $A(x)$ can be thought of as the amount of raw grievance generated by the governmental action, and $\theta(c)$ the share of grievance that remains unresolved even after going through the judicial process. $\theta'(c) < 0$ means that, when courts become stricter with a higher c, the judicial system becomes better at redressing grievances, and residual grievance falls.

A continuum of citizens $i \in [0,1]$ decide whether to protest. Let $D(c,x) \in [0,1]$ be the share of citizens who protest ($p_i = 1$), and the rest $(1 - D(c,x))$ proportion of citizens do not protest ($p_i = 0$). The payoff of citizen i from protesting is:

$$U_i(p_i = 1) = g(c,x) + \beta D(c,x) - \epsilon_i \tag{1}$$

$$U_i(p_i = 0) = 0 \tag{2}$$

Where $\beta > 0$ captures the strategic complementarity of collective action: a citizen is more likely to protest if a lot of others are protesting as well. The final term $\epsilon_i \sim U[0, \bar{\epsilon}]$ is an idiosyncratic utility shock. Think of $U_i(p_i = 1)$ as the relative payoff from protesting compared to not protesting, and $U_i(p_i = 0)$ as normalized to 0. This justifies the fact that grievance $g(c,x)$ appears as a positive term in the payoff function. This term does not mean that citizens receive a positive utility from suffering grievance. Instead, it implies that the

larger the grievance, the more the citizen has to gain from protesting. Notice that, in this setup, the decision to protest can be generalized to include any kind of response by citizens that generates what the government perceives as instability, such as posting about their grievances online.

It can be shown that $D_x > 0,\ D_c < 0,\ D_{xx} > 0,\ D_{xc} < 0$ (see Appendix C for details). $D(c, x)$ can be thought of as the amount of social instability generated by governmental actions, which both levels of government dislike because social stability is an important factor in the evaluation and promotion of officials.

If local governments control local courts, provincial governments play no role in the model, and the local government chooses both x and c to solve the following problem:

$$\max_{c,x} U_L(c, x) = -H(F - R(c, x)) - D(c, x) \tag{3}$$

If provincial governments control local courts, the provincial government chooses c first, and then the local government chooses $x(c)$ taking c as given. Formally, the local government, after observing c, solves the following problem:

$$x(c) = \arg\max_{x} U_L(c, x) \tag{4}$$

Anticipating the local government's best response $x(c)$, the provincial government chooses c to solve the following problem:

$$\max_{c} U_P(c, x(c)) = -\lambda_P H(F - R(c, x)) - D(c, x(c)) \tag{5}$$

Where $\lambda_P \in [0, 1)$ captures the degree to which the provincial government cares about the revenue of the governmental action relative to the instability generated by it. We can then think of the local government's utility function as generalizing λ_L to 1. With $\lambda_P < \lambda_L$, this is equivalent to stipulating that the provincial government cares relatively less about

revenue and more about instability. This is realistic because the local government is directly responsible for the everyday governance of local life, whereas the provincial government is one more layer removed from it. Another reason is that local governments, instead of provincial governments, tend to receive the bulk of non-central fiscal revenue in China.[10] Then, the parameter λ_P captures the degree to which the interests of local and provincial governments align.

I impose an additional assumption that, for any c and x, $0 < -\frac{D_{xc}(c,x)}{D_x(c,x)} \leq -\frac{R_{xc}(c,x)}{R_x(c,x)}$. Stricter courts reduce the marginal instability from governmental action, but they do not reduce it proportionally more than they reduce the marginal revenue. In other words, stricter courts are overall a bad thing for governments, helping stability less than hurting revenue. This assumption makes the threat of instability binding enough that the local government's equilibrium net revenue $R(c, x)$ falls with court strictness c, which is economically intuitive because the net benefit of an action is expected to fall when its cost rises. Otherwise, stricter courts may become so beneficial in the eyes of governments that the local government will choose to massively increase x enough to increase both revenue and instability. By imposing this assumption, I focus on cases where there is really a trade-off between revenue and stability for the local government.

Because the provincial government cares relatively more about stability than the local government, we expect that the provincial government will choose a stricter court than the local government. Indeed, we have the following result:

Proposition 1. *Let the provincial government's choice of court strictness be c_P, and the local government's choice be c_L. Then, $c_P > c_L$. The change in court strictness, $c_P - c_L$, is decreasing with λ_P.*

[10]For example, in most provinces, local governments receive more than 90% of fiscal revenue from land requisition, and provincial governments receive the rest. A representative distribution can be found in the western province of Gansu, where local governments receive 95% and the provincial government receives 5%: https://www.zhangye.gov.cn/zyszfxxgk/fdzdgknr_5657/qtfdzdgknr/zfgb/zfgb2008/2008_10/2008_02/202408/t20240828_1281780_ghb.html.

Proof: All proofs are in Appendix C.

The first part of this theorem shows that, as a result of judicial centralization, courts are getting stricter in their scrutiny of governmental actions, and local governments become more likely to lose in administrative lawsuits. In the second part of this theorem, $c_P - c_L$ is the magnitude of the effect of judicial centralization, and λ_P captures the degree to which the interests of local and provincial governments align. So this channels the canonical result from principal-agent theory that the effect of judicial centralization is larger when the interests of the two levels of government diverge, and is smaller when their interests align. In the extreme case of $\lambda_P = 1$, local and provincial governments have the exact same utility function, and centralization would have no effect.

c_L and c_P are meaningful in and of themselves: if the objectively fair level of court strictness c_F is known, then it becomes possible to measure whether the judiciary has become fairer as a result of centralization, or has merely replaced one form of bias with another. But beyond court behavior, we are also interested in government behavior: how does judicial centralization change government behavior through the change of court behavior? What are the downstream consequences? The next results concern the effect of centralization on the net revenue and instability generated by the governmental action. It turns out that net revenue and instability both decrease following judicial centralization:

Proposition 2. *The net revenue of governmental actions falls when courts are transferred from local control to provincial control:* $R(c_P, x_P) < R(c_L, x_L)$. *Instability also falls:* $D(c_P, x_P) < D(c_L, x_L)$.

The intuition for this proposition is straightforward. We already know that (1) the provincial government cares less about revenue and more about instability, and (2) the provincial government chooses a different c from the local government. Revealed preference tells us that instability $D(c, x)$ must have fallen under provincial control. Then, revenue must have fallen as well; otherwise, provincial control would have resulted in a higher $R(c, x)$, a lower

$D(c, x)$, and a higher utility for the local government. But then the local government should choose this c_P rather than its original c_L under local control. So, as c increases from c_L, the net revenue $R(c, x)$ of the governmental action must fall. This also tells us that the local government becomes worse off as a result of centralization.

The next natural variable of interest is x. One would expect that, when courts frown upon a governmental action, the local government would do less of it. But it turns out that this is not necessarily the case. When the fiscal shortfall $F - R$ is large, a stricter judiciary may backfire, inducing the local government to do more of the governmental action in question in order to make up for the additional fiscal deficit resulting from a stricter judiciary:

Proposition 3. *Let x_P and x_L be the local government's optimal choice of x under provincial and local control of the courts, respectively. If the revenue shortfall $F - R(c, x)$ is sufficiently large, then $x_P > x_L$.*

This result is counter-intuitive. Normally, we would expect that when courts frown upon a certain governmental action, the government would respond by doing less of it. It is even more surprising given that instability actually falls in Proposition 2. The reason why stricter courts backfire through the increasing amount of governmental actions is that stricter courts have two effects in opposite directions. First, an increase in c reduces the marginal revenue from the governmental action, exacerbating the fiscal shortfall and inducing the local government to do more of this action to make up for the lost revenue. Second, since $R_{xc} < 0$, an increase in c means that the marginal governmental action is now worth less fiscally, reducing the incentive for the local government to do it. Under the model's assumption that $H(F - R)$ has enough curvature such that $\frac{H''(F-R)}{H'(F-R)}$ is increasing with $(F - R)$, the first effect increases with the amount of fiscal shortfall. That is to say, when the fiscal shortfall is large, the first effect will dominate the second effect, resulting in an overall increase in the governmental action in question.

Overall, the equilibrium amount of instability $D(c, x)$ is still lower under provincial control

than under local control; otherwise, the provincial government would not choose a different c. But the fall in instability is weaker than the mere change from c_L to c_P suggests, due to the general equilibrium effect that the local government increases its x as a response. And even this mild fall in instability is predicated on the model assumption that the two levels of governments can manipulate c with surgical precision. In practice, whoever controls the budget and personnel of the courts does not issue thousands of directives per year to the courts to give precise instructions for as many individual cases. The political influence on the judiciary is often implicit and imprecise, meaning that the overall effect on good governance may well be negative.

To summarize, the model generates the following predictions. First, court strictness towards local governments increases as a result of judicial centralization, which can be empirically tested by investigating whether local governments' losing rate in administrative lawsuits increased following a judicial centralization reform. Second, the magnitude of the effect on court strictness decreases with the degree to which the interests of local and provincial governments align. This can be tested by categorizing administrative cases according to their political sensitivity or public visibility, which are good proxies in China for the degree of alignment. Third, social instability decreases as a result of centralization, which can be tested by looking at the effect of centralization on the number of protests. Fourth, local governments' net fiscal revenue from governmental actions decreases, which can be tested by looking at the effect on local governments' discretionary fiscal revenue. Fifth, the amount of local governments' actions that harm citizens increases, which can be tested by examining the area of land requisition at the city level. In the following, I use Chinese data to verify all of the above predictions of the model.

IV. Data and Estimation

IV.1. Data

Verdicts of administrative lawsuits

I use data from the universe of administrative lawsuits from China Judgment Online (CJO). This is an official database established by the Supreme People's Court in an effort to improve the transparency of China's judicial system. From 2014 to 2020, the years of interest of this paper, almost all verdicts of civil, criminal, and administrative lawsuits were published on CJO, except a minority of cases involving state or commercial secrets, the rights of minors, and other circumstances making the verdict unsuitable for publication. The authorities eventually grew wary of the disclosures, and the publication rate of verdicts began to decline in 2021; it has now slowed down to a trickle. The data contains a total of more than 100 million cases, of which around 500,000 are first-trial administrative cases that this paper studies. I further exclude the sparsely populated Xinjiang and Tibet provinces, as well as the four "directly-administered municipalities" (Beijing, Shanghai, Tianjin, Chongqing) that are prefectures but are considered as provincial-level entities for administrative purposes. This gives us a remaining sample of 354,755 administrative cases, which constitute the baseline sample for subsequent regressions.

For each case, the CJO data contains the full text of the court verdict; it does not directly identify which party won the lawsuit. The very definition of "winning" a lawsuit can sometimes be nebulous, as courts often side partially with both parties. Existing studies of civil lawsuits in China, such as Liu et al. (2022), define the losing party as the party that is required by the court to pay the court fees, since the burden of court fees is generally thought to fall on the party deemed to have "lost" the case. This is because civil case outcomes effectively rest on a continuum from "plaintiff wins thoroughly" to "defendant wins thoroughly" with no meaningful discontinuities in between. In administrative cases, however, a disconti-

nuity appears right next to "defendant wins thoroughly". If the court sides completely with the defendant (i.e. local government), it is not providing any accountability for the local government. However, if the court sides with the plaintiff even a little bit, accountability is provided. The commonplace proxy of court fee burden often has a threshold that rests nearer the middle of the spectrum, where the difference is between a bit less and a bit more of accountability instead of no accountability versus any accountability. Therefore, in this paper, the government is considered to have lost an administrative lawsuit as long as the court sided with at least one of the claims of the plaintiff. In other words, I am measuring whether the court provides *any* accountability.

Timing of the judicial centralization reform

The judicial independence reform was rolled out in phases at the prefecture level since 2014. Data for the roll-out timing is manually collected from each year's *Yearbook of Judicial Reform of Chinese Courts* and cross-checked with local news and government reports. The yearbooks were compiled annually by the Supreme People's Court that contain government documents and official speeches that map out the details and progress of various judicial reforms in China each year. The final chapters of each yearbook are organized by province, from which the timetable of the judicial independence reform in each prefecture can be observed or inferred.

Labor protests

Data for labor protests come from China Labor Bulletin (CLB), a now-defunct NGO based in Hong Kong that tracks China's labor movement. CLB collected incidents of labor-related collective action in China from social media and the web, and published them in the CLB Strike Map. For each labor protest, CLB recorded the time, place, sector, firm, number of protesters involved, reason for protest, as well as a description of the incident. A total of 11,953 labor protests across China were recorded for our period of interest, 2014-20. Like

all other data on politically sensitive incidents in China, the CLB labor protest data is by its nature incomplete. However, the literature has shown that the CLB data is an adequate representation of the geographical and temporal variation of labor protests in China, and this data is commonly used in research to study China's labor relations (Campante et al. 2023; Lai and Qiu 2025; Chen 2026).

Fiscal data of local governments

Data for the non-tax fiscal revenue of local governments are published by the Municipal Bureaus of Finance of each prefecture in an annual frequency, under the "general public budget" (*yiban gonggong yusuan*) section of the prefectural budget. China's general public budget is the regular fiscal account for ordinary and routine fiscal revenue and expenditure. Revenue in the general public budget includes taxes, administrative fees, fines, and other miscellaneous fees. The item of "non-tax revenue" (*feishui shouru*) in the general public budget, as its name suggests, consists mainly of fees and fines[11] that are not part of the formal tax system. Since taxes are strictly stipulated by national law, local governments have greater discretion over the collection of non-tax revenue through enforcement intensity, targeting, and timing. Therefore, the "non-tax revenue" item can be thought of as a part of the discretionary fiscal revenue of local governments.

Land requisition

Grievances in court about land requisition mainly concern forced demolitions or inadequate compensation. We do not have reliable data on the incidents of forced demolitions. Instead, we have data from *China Urban Construction Statistical Yearbook* on the area of land requisitions per city and year. This can be thought of as the x, the amount of governmental action taken, in the theoretical model. Data in the Yearbooks is at the city level instead of

[11] These fees and fines do not include land sales revenue, which belongs to a different part of the budget called government-managed funds (*zhengfuxing jijin*).

the prefecture level. Although these two levels have the same name in Chinese (*shi*), they are not the same, and one is not a subset of the other. A prefecture contains the following three types of units: (1) the prefecture seat, which counts as a city in the Yearbooks and can be thought of as the prefecture proper; (2) county-level cities, which count as cities in the Yearbooks; (3) counties, which do not count as cities. Therefore, there are many more cities than prefectures. Figure B.1 shows an administrative map of the prefecture of Chengdu, in the western Sichuan province, with the Chengdu city proper, five county-level cities, and three counties. There are six cities in total for the purpose of land requisition data in the Yearbooks.

IV.2. Empirical strategy

To estimate the effect of the judicial centralization reform on the outcome of administrative lawsuits, I use staggered difference-in-differences and estimate the following:

$$Y_{cpt} = \alpha \times Reform_{pt} + u_c + v_t + \epsilon_{cpt} \tag{6}$$

Where Y_{cpt} is the outcome variable for court c in prefecture p at year t. For example, if we want to estimate the effect on local governments' loss rate, then the left-hand-side variable would be $Gov_Lose_Rate_{cpt}$, the rate (ranging from 0 to 1) at which the government lost administrative cases in court c in prefecture p at year t. $Reform_{pt}$ is a dummy that equals 1 if prefecture p has implemented the judicial reform by time t. Since this is a two-way fixed effect regression of data at the court-year level, I include u_c and v_t, the court and year fixed effects. Standard errors are clustered at the prefecture level, which is the level of treatment. To address econometric complications from staggered treatment, I will also estimate the effects using new techniques of staggered difference-in-differences such as those proposed by Sun and Abraham (2021).

Alternatively, the effect can be estimated at the individual case level instead of the court

level, using the following difference-in-differences equation:

$$Y_{icpt} = \alpha \times Reform_{pt} + u_c + v_t + \epsilon_{icpt} \tag{7}$$

Where Y_{icpt} is the outcome variable in lawsuit i in court c in prefecture p at year t. For local governments' losses in court, the outcome variable would be Gov_Lose_{icpt}, a dummy variable that equals 1 if the government lost case i in court c in prefecture p at year t. Both equations are valid for estimating the causal effect of the reform; the difference is that, in the case-level equation, courts with a higher caseload are weighted more, because each individual case has equal weight.

For downstream outcomes, including labor protests and land requisitions, the following equation is used:

$$Y_{lt} = \alpha \times Reform_{pt} + u_l + v_t + \epsilon_{lt} \tag{8}$$

Where Y_{lt} is the outcome variable for locality l in year t. Here, "localities" can be either prefectures or cities, depending on the level on which data for each outcome is available.

In all of the above equations, the coefficient α captures the causal effect of the judicial centralization reform. The identifying assumption is that, absent the reform, treated and untreated courts would have continued evolving similarly over time. Rollout timing was plausibly exogenous with regard to local judicial biases: each year, the reform was rolled out in prefectures of varying socio-economic conditions. To provide evidence for this parallel trends assumption and estimate the dynamic treatment effect over time, I use event studies such as the following equation for court-level administrative lawsuit outcomes:

$$Gov_Lose_Rate_{cpt} = \sum_{k \neq -1} \alpha_k \mathbb{1}\{t - T_c = k\} + u_c + v_t + \epsilon_{ct} \tag{9}$$

Where T_c is the year when court c got treated. Each α_k represents the effect on the government's losing rate k periods after the treatment, with a negative k meaning $-k$ periods

before the treatment.

V. Results: effects on the judiciary

V.1. Judicial centralization and court outcomes

The first part of Proposition 1 in the model shows that, after centralization, the provincial government will choose a higher c compared to the pre-centralization choice by the local government. Translated into real-world terms, it predicts that courts will be stricter towards local governments, making local governments more likely to lose in administrative cases: the coefficient α on reform is expected to be positive when Equations (6) and (7) are estimated.

Table 1 presents the baseline results from the estimation of these two equations, using local governments' loss as the outcome variable. The results validate the prediction of the model: the centralization reform made local governments more likely to lose administrative lawsuits, suggesting that the reform achieved its stated objective of "de-localization", improving local government accountability. Columns (1)-(2) run the regression with the full sample of administrative cases. Columns (3)-(4) use only cases that were decided via a substantive judgment (*panjue*), as opposed to, say, dismissing the case procedurally because the plaintiff does not have standing. The coefficient on the reform is positive, meaningful, and significant: the reform made local governments 2.8 percentage points more likely to lose administrative lawsuits. Regressions using case-level data produce results that are not meaningfully different from court-level data, except that the coefficient for reform in Column (2) is somewhat bigger than that in Column (1). This could be because the effect of the reform is bigger in places with higher administrative caseloads.

With the average government loss rate at around 30%, this effect translates into a 8.2% (unweighted by caseload) or 12.2% (weighted by caseload) relative increase in the loss rate of local governments in administrative lawsuits. This is a sizable effect: the reform meaningfully made local courts more pro-citizen by reducing political interference in the judiciary. It is

worth noting how political interference actually works. Local governments do not send thousands of intervention requests per year with regard to each individual case. Instead, the threat of interference is organizational, implicit, and ever-present: the fact that local governments controlled judicial budget and personnel was enough to tip the scale of the judiciary in favor of the government. Therefore, the reform did not make the courts 12.2% more likely to turn down government requests. Instead, it rendered judges generally freer to rule against local governments in administrative cases. The reform also did not remove all channels through which local governments can interfere in the local judiciary. If the local government had enough will to intervene in a particular case, it would find ways to persuade or pressure the court. And if the court itself finds it necessary to bias in favor of the local government even without specific local political pressure, there is no reason for the court not to do so.

Table 1: Effect of reform on governments' loss rate

	All		Substantive	
	(1) Court-level	(2) Case-level	(3) Court-level	(4) Case-level
Reform	0.028***	0.036***	0.027**	0.027**
	(0.010)	(0.010)	(0.011)	(0.012)
Observations	13,836	354,755	12,945	223,521
R-squared	0.348	0.110	0.347	0.152
Mean of outcome	0.343	0.296	0.510	0.471

Note: This table presents the results of baseline estimations. Columns (1)-(2) estimate Equation (6) and (7) using local government's loss rate as the outcome variable. Column (3)-(4) use the subsample of substantive judgments (*panjue*) only. For each sample, the first column runs the DiD regression at the court level, and the second column is at the case level. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Figure 2 uses the event study coefficients obtained from the staggered difference-in-differences regression according to Equation (9) to show the dynamic treatment effect. A pre-trend that hovers around zero can be observed before the start of the reform, followed by a sizable,

persistent, and mostly significant increase in local governments' loss rate immediately after the reform. This provides evidence that the parallel trends assumption holds and suggests that centralization has a causal effect.

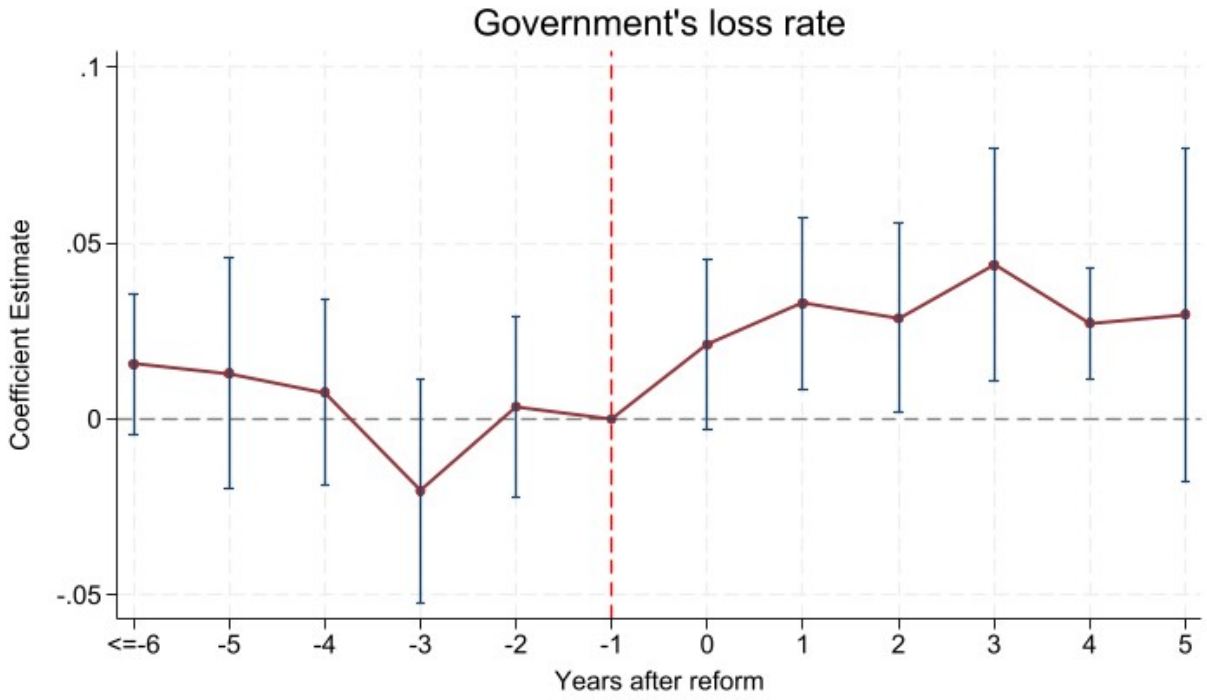


Figure 2: Event study for local governments' loss rate

Robustness checks

First, I conduct robustness checks for the event-study using new staggered difference-in-differences methods. Studies have shown that econometric complications may arise from staggered difference-in-differences designs due to negative weights emanating from heterogeneous treatment effects or the comparison between the early-treated and the late-treated (Sun and Abraham 2021; Callaway and Sant'Anna 2021; Goodman-Bacon 2021; Borusyak et al. 2024). Figure B.2 presents event studies produced according to these alternative estimators. The results remain essentially the same as the raw event study graph shown in Figure 2, suggesting that methodological issues from staggered treatment do not complicate the estimations in the setting of this paper.

Another concern of the estimation strategy is selection: local governments and citizens might have strategically adjusted their behavior following the reform, affecting what disputes went into litigation. On the one hand, local governments, anticipating their loss of leverage over local courts, might adhere more closely to the law. On the other hand, citizens, anticipating a fairer court, might file more administrative lawsuits. But these two possibilities both tend to bias the coefficients downwards: increased government adherence to the law means that courts are less likely to rule against the government, and citizens' increased willingness to file lawsuits would dilute the case pool, increase the number of less well-founded cases, and decrease governments' loss rate. If anything, selection indicates that our coefficients are a conservative estimate of the effect of the reform on local government accountability.

These selection issues also have clear implications for the number of administrative cases — the former would result in a decrease, whereas the latter would result in an increase. Therefore, we run a regression according to Equation 6 using the number of cases as the outcome variable. We also aggregate the data to the prefecture level and run a regression to see whether there is an effect on the number of cases per capita in a prefecture. Results are shown in Table B.2: the reform had essentially zero effect on the number of administrative cases per capita. Of course, it could be that the strategic reactions of local governments and citizens cancel each other out — but that would mean that our coefficients on government loss rate are biased even further downwards.

Another potential issue is that the composition of administrative lawsuits might have changed over time, which means that the increase in the government's loss rate might be due to a different mix of cases that the courts decided, instead of a change in the strictness of the courts themselves. This concern is resolved by results in Section V.3, where select categories of lawsuits are considered separately. Figure B.3 shows the composition of cases by the government agency sued each year. As time progressed and the centralization reform covered two thirds of prefectures, there were no abrupt changes or sharp discontinuities in

the composition of cases over time, and the same broad categories account for the majority of vast majority of lawsuits throughout the sample period.

The reform might have also changed what lawsuits reach the stage of a verdict. Data for out-of-court settlements at the prefecture or county level is not available, but data is available for lawsuits that are filed but withdrawn before the court issues a verdict. Reasons for plaintiffs to withdraw a lawsuit may vary: it could be that the government had subsequently satisfied the plaintiff's demands and there was no rationale to continue the lawsuit, or that the government had pressured the plaintiff out of court to withdraw the lawsuit, or that the two parties had reached a settlement out of court. The "verdict" of a withdrawn case says curtly that the case was withdrawn, in most cases without giving a reason. Table B.3 present the results of regressions estimating the effect of the reform on the withdrawal rate, showing that there is no statistically significant effect.

To further confirm that the baseline regressions are capturing the effect of the judicial centralization reform instead of a mechanical or coincidental increase of court strictness towards the government, I conduct placebo tests by randomly generating placebo reform timing for each prefecture, and then run the difference-in-differences regression according to Equation (7) using the resulting pseudo treatment variable. This is repeated 1,000 times, and Figure B.4 shows the kernel density graph of these 1,000 placebo coefficients. The distribution has a well-behaved bell shape roughly symmetric around zero, and the actual coefficient of 0.036 (from Column (2) of Table 1) sits at the far-right end of the distribution. This helps preclude that the actual coefficient arises by chance instead of resulting from the reform.

As an additional diagnostic, in Table B.5, I run regressions according to Equation (8) to estimate the treatment effect on placebo outcomes that should not plausibly respond to changes in the administrative control of courts. These placebos include prefectural characteristics related to demographics (e.g. population), international trade and investment (e.g. number of foreign firms), and local public goods (e.g. teacher-pupil ratio, hospital beds and doctors

per capita). The results suggest that there is no statistically significant treatment effect on these outcomes. This provides further evidence that the estimated effects in the main analysis in Table 1 are unlikely to have been driven by differential trends across reform cohorts or contemporaneous policy shocks.

V.2. The quality of rulings

The objectively fair level of court strictness, c_F, is unknown both in the model and in the real world: a perfectly fair judiciary most likely does not exist and is not achievable. However, it is possible to indirectly infer whether the pre-reform c_L or the post-reform c_P is closer to the objectively fair c_F, provided that we can observe the quality of judicial rulings. If the quality improved as a result of the judicial centralization reform, then the judiciary likely became fairer, not just more pro-citizen, because otherwise it is hard to imagine a judiciary producing rulings that are both less fair and of a higher quality.

Whereas precise measurements of the quality of rulings do not exist, there are still some commonly used proxies for quality. First, the word count of verdicts is associated with ruling quality (Liu 2018): longer verdicts are generally associated with higher quality of ruling, since high-quality rulings often involve careful (and long) legal reasoning. Second, a lower rate of appeal indicates fairer and higher-quality rulings[12], for the natural reason that the parties are less likely to appeal if they do not feel egregiously wronged by the court (Shavell 1995; Baye and Wright 2011). Third, a ruling is more likely to be of high quality if the court has allowed the cross-examination of evidence during trial (Wigmore 1940; Edmond and Roberts 2011).

All three measures of quality are available in the CJO data. The word count and the cross-examination of evidence are straightforward to obtain. Whether a case was appealed can be

[12] Appeals may have complications for the headline estimates in Table 1: if first-trial rulings are overturned on appeal, then local governments' eventual losing rate will be affected. With an average appeal rate of one third, the headline estimates in Table 1 would be scaled downwards by no more than one third.

determined by the fact that verdicts of appellate cases in Chinese courts explicitly mention the case number of the corresponding original case. Then, Equations (6) and (7) can be estimated using these measures of quality as the outcome variable on the left-hand side. Table 2 presents the results of these estimations. There was a salient increase in the quality of rulings as a result of the reform: the length of verdicts increased by 3.3%, the appeal rate declined by 1.6%, and the court became 2% more likely to allow the cross-examination of evidence during trial. These results suggest that the reduction of undue political interference in the local judiciary has brought about a better administrative judiciary, instead of merely replacing a pro-government bias with a pro-citizen bias. This also hints at the way in which pre-reform judicial bias was manifested in the verdicts: judges might have tended to curtly reject plaintiffs' claims on dubious legal grounds, instead of going to great lengths to justify the erroneous application of the law and project a pretense of logic and fairness.

Table 2: Effect of reform on the quality of rulings

	Length of verdicts		Appeal rate		Examination of evidence	
	(1) Court-level	(2) Case-level	(3) Court-level	(4) Case-level	(5) Court-level	(6) Case-level
Reform	387.433**	473.569***	-0.016*	-0.025**	0.020**	0.052***
	(158.322)	(154.681)	(0.009)	(0.011)	(0.009)	(0.011)
Observations	13,836	354,755	14,028	363,399	13,836	354,755
R-squared	0.489	0.229	0.356	0.113	0.413	0.189
Mean of outcome	11824.42	11921.06	0.375	0.420	0.624	0.569

Note: This table presents the results of the estimations of the effect on the quality of rulings. Columns (1)-(2) use the length of verdicts as outcome variable. Columns (3)-(4) use the appeal rate as outcome variable. Columns (5)-(6) use a dummy variable for whether the trial involved cross-examination of evidence as the outcome variable. For each measurement of quality, the first column runs the regression at the court level, and the second column does so at the case level. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

V.3. The limits of centralization

So far, the results have pointed to a generally positive view of judicial centralization that it made administrative justice more favorable towards citizens and improved judicial quality.

Results like these may offer a clue as to why the law and economics literature has referred to China's judicial centralization of the 2010s as a "judicial independence reform" (Zhang and Ginsburg 2019; Liu et al. 2022). However, this characterization misses the fact that the reform did not remove governmental influence from the judiciary; it merely transferred governmental influence from one level of government to another level above. With local governments responsible for the litigated governmental actions both before and after the reform, the effect of the reform then depends on the degree to which the interests of local and provincial governments align, as captured by the parameter λ_P in the model and proven in the second part of Proposition 1. When both levels of government have an incentive to exert undue influence on the local judiciary, the reform will not lead to an improvement in local government accountability. In the following, I show that this happens for a substantive portion of administrative cases.

The political sensitivity of cases is a suitable proxy for the alignment between the two levels of government. Here, the political sensitivity of an administrative case is measured according to the degree to which the topic of the case touches the core political interests of the CCP. Since all levels of the Chinese government are equally subject to the political control of the CCP, cases with high political sensitivity are expected to invite the same or similar level of interference from both local and provincial governments.[13] In other words, courts rule against citizens in high-sensitivity cases not because of local governments' pursuit of their own parochial interests, but because of the common political pressure permeating the entire political system. The opposite is true for low-sensitivity cases, where higher levels of government tend to disapprove of unlawful actions by local governments. The universe of administrative cases can be divided into three categories according to their differing political sensitivity, using the following criteria from Zhang and Liu (2025)[14]:

[13]It could even be that the judges, who are also subject to the political control of the CCP, would rule in favor of the government even without local interference.

[14]See Appendix A for a detailed discussion and examples of these categories.

1. Low-sensitivity cases: routine cases such as traffic penalties, market regulation, real estate registration, urban management

2. Medium-sensitivity cases: cases involving local governments' core interests, such as land appropriation and police detention

3. High-sensitivity cases: cases of a political nature involving the core political interests of the CCP, often concerning stability maintenance (*weiwen*), civil liberties and political rights

The second part of Proposition 1 in the model predicts that the change in court strictness as a result of centralization, $c_P - c_L$, decreases with the degree of alignment of interests between the two levels of government, λ_P. Administrative lawsuits with lower political sensitivity often concern everyday enforcement that is very localized, with the benefit of governmental actions accruing to lower levels of government such as the prefecture or the county. Provincial governments, however, care less about these. In some cases, especially regarding street-level enforcement, local governments are even competing for awards from higher-ups[15]. Therefore, low-sensitivity cases tend to have a lower λ_P, exhibiting a large divergence between the interests of local and provincial governments. The opposite is true for cases with high political sensitivity. These cases have a political and rights-based nature. Not only do they have a higher λ_P, but the benefit $R(c, x)$ from government enforcement in high-sensitivity incidents often is the reduction of instability itself. In a sense, $R(c, x)$ and $D(c, x)$ tend to have a significant overlap in high-sensitivity cases, further attenuating the difference between local and provincial governments' utility functions.

Panel A of Table 3 empirically tests these predictions with regressions for the heterogeneous effect of the reform on cases with varying political sensitivity. The results show clearly that the increase in local governments' loss rate is decreasing with the political sensitivity of cases.

[15]The most notable example is the National Health City campaign (*chuangwei*) that awards cities with outstanding urban sanitation, food safety, neighborhood-level cleanness, etc.

For cases of the highest political sensitivity, involving citizens' political rights, the effect of the reform is essentially zero. This confirms our earlier hypothesis that removing levers of local political influence mainly affects routine administrative cases where judicial bias comes from local governments' own parochial interests and courts would like to rule fairly without local interference.

It is worth noting that the degree of political sensitivity is here categorized according to the level of core interests that the cases touch. As a result, cases of a derived, implied, or indirect political nature will appear lower on the ladder of political sensitivity than their popular perception suggests. For example, cases involving the notorious "urban management" (*chengguan*) squads, the part of (often auxiliary) law enforcement that is responsible for regulating street-level public order, are classified as low-sensitivity. This is because China's central and local governments are not particularly interested in forcibly ridding the streets of food carts and small vendors *per se*; the political uproar involving *chengguan* atrocities is often a result of rogue enforcement that the government also frowns upon.

The political sensitivity of a case, therefore, does not have a positive correlation with the public visibility or even outrage that a case receives. Many low-or medium-sensitivity cases concern high-visibility topics; many high-sensitivity cases involving political rights are little known and receive scant attention. It might even be argued that high-sensitivity cases are endogenously less visible, and low-sensitivity cases endogenously more so: the authorities strive to suppress awareness of and attention to high-sensitivity cases involving political rights precisely because of their high-sensitivity nature. High-visibility cases, then, tend to be those in which the interests of local and provincial governments diverge, with a lower λ_P in the model. To illustrate this point, I explore the effect of the reform on two selected types of high-visibility cases. First is those involving the forced demolition (*chaiqian*) of homes. Local governments often resort to forced demolitions to clear land to make way for real estate development. Although local governments have a strong interest in the land revenue

resulting from real estate development, it is not in forced demolition *per se* that officials have a direct political interest. As resentment of *chaiqian* grows, local governments strive to find other non-violent ways to acquire land, and higher-level governments also frown upon forced demolition and the implications for social stability that the thuggish methods bring (Ong 2022). The second type of high-visibility cases that we look at is those involving the urban management squads (*chengguan*), as is mentioned in the previous paragraph.

Panel B of Table 3 shows the results of the regressions using the two types of high-visibility cases. The effect of the reform on these types of cases is much larger than the average effect seen in Table 1. Indeed, the alignment or divergence of the interests of the two levels of government predicts the effectiveness of the centralization reform. These results illustrate the limits of centralization as a way to induce top-down accountability: the supposed improvement of accountability disappears when the source of unfairness is at the top. The contrast of sensitivity versus visibility also helps us better understand government incentives and behavior in an autocracy: whereas many confuse sensitivity with visibility, the government actually views high-visibility and high-sensitivity cases very differently. In high-visibility cases, higher levels of government have the same objective as public discontent: to hold local governments accountable and prevent them from going rogue. In high-sensitivity cases, however, governments and courts are biased despite the discontent, or even *because of* the discontent: it is exactly the need to stare down citizens' defiance that led officials and judges to view cases involving political rights as highly politically sensitive.

Table B.7 conducts robustness checks using alternative definitions of high political sensitivity. Columns (1)-(2) use a more stringent definition of high sensitivity by removing cases decided according to articles of law that cover both political and non-political cases. Columns (3)-(4) use a more lenient definition that includes all police detention cases in addition to the baseline definition. As is seen from the coefficients hovering around zero, the results in Table 3 regarding the diminished effect among high-sensitivity cases are robust to alterna-

Table 3: Heterogeneity of the effect

Panel A: Political sensitivity of cases

	Low sensitivity		Medium sensitivity		High sensitivity	
	(1) Court-level	(2) Case-level	(3) Court-level	(4) Case-level	(5) Court-level	(6) Case-level
Reform	0.032**	0.038***	0.014	0.029*	-0.003	0.016
	(0.014)	(0.012)	(0.011)	(0.016)	(0.014)	(0.012)
Observations	12,429	161,902	10,323	131,595	9,263	60,852
R-squared	0.349	0.159	0.310	0.149	0.313	0.165
Mean of outcome	0.361	0.296	0.356	0.324	0.272	0.239

Panel B: Selected high-visibility cases

	Forced demolitions		Urban management	
	(1) Court-level	(2) Case-level	(3) Court-level	(4) Case-level
Reform	0.058**	0.061**	0.065**	0.077**
	(0.026)	(0.025)	(0.033)	(0.036)
Observations	4,391	49,765	1,949	18,874
R-squared	0.363	0.195	0.463	0.284
Mean of outcome	0.464	0.445	0.434	0.443

Note: This table presents the results of the estimations of heterogeneity of the effect of the reform on different types of cases. Panel A shows the results of heterogeneity according to the political sensitivity of cases: Columns (1)-(2) are low-sensitivity cases, Columns (3)-(4) are medium-sensitivity cases, and Columns (5)-(6) are high-sensitivity cases. Panel B shows selected high-visibility types of cases: Columns (1)-(2) are about forced demolition (*chaiqian*); Columns (3)-(4) are about urban management (*chengguan*). For each type of cases, the first column runs the regression at the court level, and the second column does so at the case level. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

tive definitions of political sensitivity. Table B.8 runs alternative regressions on demolition cases by using different Chinese wordings for forced demolitions to identify cases of interest, showing that the results are robust to alternative identifiers of forced demolition cases. Unsurprisingly, the coefficient is somewhat smaller when I simply use the word "demolition" (*chaiqian*) as the filter, since this encompasses both forced and non-forced demolitions. Table B.9 shows that there is no significant effect of the reform on the number of cases in each category of sensitivity and visibility.

VI. Downstream consequences

After establishing that the reform led to a judiciary less favorable towards local governments, the natural next question is: how does this change behavior further downstream? In the language of the model, how does the increase in c affect $D(c,x), R(c,x)$, and x itself? This section investigates the effect of the judicial reform on the behavior of both citizens and local governments. For citizens, a less pro-government judiciary could reduce instability by inducing citizens away from extralegal alternatives such as collective action, as is shown below in the reduction of labor protests. For local governments, stricter courts reduce the revenue generated by governmental actions. As a result, judicial centralization may backfire by increasing the amount of government actions that the courts frown upon, as is shown below in the increase of land requisition.

VI.1. Instability: the decline of labor protests

As is shown in the model, the amount of social instability $D(c,x)$ falls when control of the courts is centralized in the hands of provincial governments, for the natural reason that an increase in court strictness c reduces instability, either directly by awarding more redress to citizens in court rulings, or indirectly by improving citizens' perception of the fairness of the system. In the following, I test this prediction empirically by investigating how judicial centralization reduced labor protests.

Studying labor protests has several advantages in the context of this paper. First, labor protests are one of the most well-documented types of protests in China, an authoritarian country where data on protests is otherwise sparse and incomplete. Incidents of labor protests in the 2010s and early 2020s were meticulously recorded by China Labor Bulletin. Second, protests are a better proxy for $D(c, x)$ in labor disputes than in other issues. When citizens have grievances about other issues, they tend to be geographically dispersed, and surveillance makes protest coordination difficult. In labor disputes, however, if a firm owes wages to its workers, these workers are likely to be physically in the same establishment and interact with the firm on a daily basis, which makes protesting relatively easy and effective compared with other unobservable ways of generating instability. Third, Section V.3 shows that the judicial system is just as unlikely to scrutinize government repression of protests as before. Citizens could not have expected lighter consequences of protesting and become more likely to protest, removing a potential confounding factor.

I run a staggered difference-in-differences regression according to Equation (8) using labor protest data at the prefecture level to estimate the effect of the judicial centralization reform on labor protests. To account for the fact that larger prefectures may mechanically have more protests, I use the number of protests per 1 million people as the outcome variable. Table 4 presents the results: labor protests declined by 0.162 per million people as a result of the reform. Translated into relative terms, this is a 15.1% relative decrease. Column (2) restricts attention to labor protests related to wage arrears, the type that is both the most common and the most straightforwardly substitutable with litigation. The effect of the reform on wage arrears protests is similar in magnitude and statistically even more significant than the baseline effect. Figure 3 presents the event study showing parallel trends before the reform and a persistent negative effect after the reform. The graph shows that the magnitude of treatment effect is increasing over time. One reason for this could be that it takes time for citizens to notice and internalize the change in court behavior. (Figure B.5 runs the event study according to staggered difference-in-differences techniques by Callaway and Sant'Anna

(2021), Sun and Abraham (2021), and Borusyak et al. (2024) respectively.)

As a robustness check, Table B.10 presents the same results using the raw number of protests in each prefecture, instead of protests per capita. The results have slightly less statistical significance — expected because the raw number of protests is correlated with the size of prefecture population, which gives bigger prefectures a larger weight — but are negative and similar in relative magnitude to those in Table 4.

One concern of using labor protests to study instability in the context of this paper is that grievances in labor disputes are not directly against the government. It is not any observable governmental action that harmed citizens — after all, it is firms that owe wages to workers, not the government. Labor disputes are usually played out as civil cases in court between workers and employers, not administrative cases where the local government is the defendant. This concern can be addressed when we notice that it is the pro-firm bias of local governments that made wage arrears and labor abuse so prevalent, as is explained in Section II where China's labor relations and economic model is explained. The connection of labor protests to the theory of this paper can be further justified if an increase in court strictness c is empirically observed after the judicial centralization reform. Indeed, Table B.11 runs regressions according to Equations (6) and (7) using the universe of labor-related civil cases, showing that the judicial centralization reform made workers more likely to win civil cases where they sue their employer in labor disputes.

VI.2. Revenue: the fall of local government non-tax revenue

I now turn to the consequences of judicial centralization for local governments. Proposition 2 in the model shows that, as a result of stricter courts brought about by judicial centralization, the net revenue $R(c, x)$ collected by local governments through the litigable governmental actions should fall. This paper uses the "non-tax revenue" (*feishui shouru*) in the general public budget of China's local governments, which consists mainly of administrative fees and fines, as the measure of the net revenue of discretionary revenue-raising actions by local

Table 4: The decline of labor protests

	(1) All	(2) Wage arrears protests
Reform	-0.162**	-0.170***
	(0.078)	(0.065)
Observations	2,096	2,096
R-squared	0.490	0.462
Mean of outcome	1.072	0.813

Note: This table presents the results of the effect on labor protests, estimated according to Equation (8). The outcome variables are the number of protests per 1 million people. Column (1) uses all labor protests, and Column (2) uses labor protests related to wage arrears. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

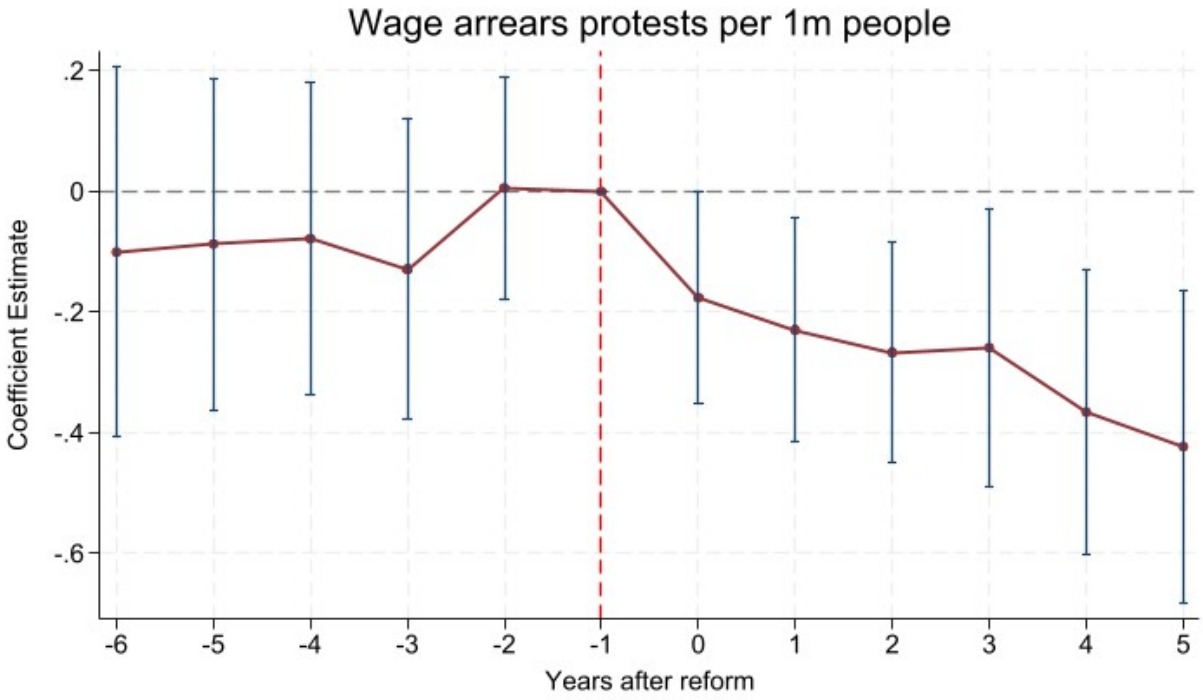


Figure 3: Event study for wage arrears protests

governments.

The use of non-tax revenue as a proxy of the net revenue of discretionary governmental actions has several advantages. First, local governments have great discretion in collecting non-tax revenue, unlike taxes that are strictly stipulated by national law. It is reasonable to expect that non-tax revenue would be affected by stricter courts that increase their scrutiny over local governments' abuse of discretionary power. Second, the collection of non-tax revenue has a cost curve that, even if not entirely flat, is much flatter than that of the collection of other types of discretionary revenue. We can think of the cost of non-tax revenue collection as consisting of administrative cost and court-imposed cost. Administrative cost does not increase proportionally with revenue collection: for example, law enforcement personnel are paid a fixed monthly wage, not according to the number of raids they conduct. Court-imposed cost takes the form of wholly or partially invalidating the fees or fines, which shows up in fiscal accounting as a reduction of revenue, not an increase of expenditure. This is different from, say, land requisition, where a significant cost is incurred in terms of compensation, whether paid by the local government *ex ante* or mandated by a court ruling *ex post*, for each incidence of land requisition, and is recorded as an item of fiscal expenditure. Third, data for non-tax revenue at the prefecture level is almost fully available, unlike its sub-item of fines whose disclosure is often selective and sporadic.

I run difference-in-differences regressions on non-tax revenue according to Equation (8), and present the results in Table 5. The regressions show that non-tax revenue fell as a result of judicial centralization across a variety of measures: (1) the raw level of non-tax revenue, which fell by 0.44 billion Chinese *yuan* ($70.68 million); (2) the log of the raw level of non-tax revenuel; (3) non-tax revenue as a share of total revenue in the general public budget, which can be thought of as a measure of the importance of non-tax revenue relative to taxation; (4) non-tax revenue as a share of total expenditure in the general public budget (i.e. the routine expenditures by local government). Figure 4 presents the event study of non-tax revenue as

a percentage of budget expenditure. Treatment effect is increasing over time. One reason for this could be that there are adjustment costs for changes in local government behavior, and local governments would like smooth changes instead of abrupt ones. (Figure B.6 runs the event study according to staggered difference-in-differences techniques by Callaway and Sant'Anna (2021), Sun and Abraham (2021), and Borusyak et al. (2024) respectively.) These results together suggest that, as expected in Proposition 2, local governments had less free rein to collect discretionary fiscal revenue as a result of stricter courts, causing this revenue to fall.

As a comparison, Table B.12 shows the effect of the reform on tax revenue. The absolute level of tax revenue fell as well, but its relative importance increased vis-à-vis non-tax revenue, and tax revenue as a share of expenditure is essentially unchanged.

Table 5: The fall of non-tax revenue

	(1) Level (in ¥bn)	(2) Log of level	(3) % of revenue	(4) % of expense
Reform	-0.444**	-0.106***	-1.839***	-0.721**
	(0.217)	(0.030)	(0.659)	(0.356)
Observations	2,157	2,157	2,157	2,157
R-squared	0.940	0.953	0.708	0.767
Mean of outcome	4.712	0.993	30.927	11.045

Note: This table presents the results of the effect on non-tax revenue in the general public budget of local governments, estimated according to Equation (8) at the prefecture level. Column (1) uses the raw amount of non-tax revenue as the outcome variable; Column (2) uses the log of non-tax revenue; Column (3) uses non-tax revenue as a percentage of total general public budget revenue; Column (4) uses non-tax revenue as a percentage of total general public budget expenditures. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

VI.3. Governmental action: the increase in land requisition

What do local governments do in response to the falling fiscal revenue resulting from stricter courts? Proposition 3 suggests that, if local governments' fiscal shortfall is acute enough, as is almost always the case in China, judicial centralization will backfire and result in local

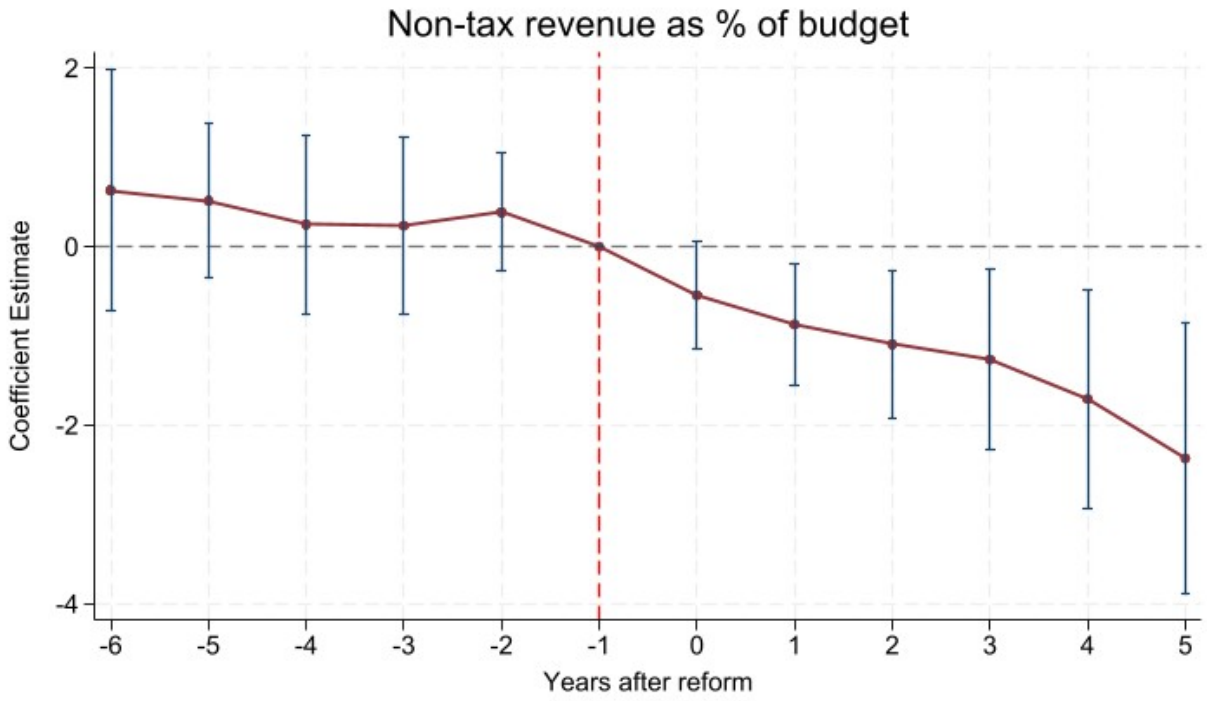


Figure 4: Event study for non-tax revenue

governments doubling down on the governmental action x that the courts are scrutinizing more strictly. In this way, local governments can make up for some of the lost revenue, mitigating the fiscal damage wrought by judicial centralization. In the following, I use land requisitions in China to show this mechanism at work.

China's local governments have a monopoly over land, which they requisition from its existing users to sell to real estate developers at a significant markup (see Section II for details). I run a regression according to Equation (8) to investigate the effect of the judicial centralization reform on the amount of land requisitioned by city governments. To account for the varying size of cities, I construct a variable of the area of land requisitions as a percentage of the city's existing built-up area, and use this as the outcome variable on the left-hand side of the equation. Table 6 presents the results. The judicial centralization reform resulted in an increase of land requisition by almost 1 percentage point (Column 1). Figure 5 presents the event study. (Figure B.7 runs the event study according to staggered difference-in-differences

techniques by Callaway and Sant'Anna (2021), Sun and Abraham (2021), and Borusyak et al. (2024) respectively.) Of course, local governments might have employed more lawful and non-violent methods to requisition this land, but the counter-intuitive increase in the amount of land requisition suggests that the degree of the reform's improvement of local government accountability was most likely less than the headline figure in Table 1 suggests.

Recall that the result in Proposition 3 depends on the magnitude of the fiscal shortfall: for cities under high fiscal pressure, we expect land requisition to increase as a result of stricter courts; for cities under low fiscal pressure, the effect on land requisition may be ambiguous or muted. In the following, I use two measures of fiscal pressure to test this prediction. First is what I call "fiscal capacity", measured as a city's general public budget revenue as a share of GDP. The revenue in the "general public budget" (*yiban gonggong yusuan*) consists of taxes, fees, and fines but does not include land revenue, and thus can be used as a measure of a city's pre-land fiscal capacity. The second measure is the general public budget deficit, which is calculated using the revenue and expenditure in the general public budget. (Expenditures are mainly public goods provision.) The full sample is divided using the median of either measure in 2010 as the threshold; the year 2010 is chosen in order to gauge the pre-existing fiscal capacity each city had before the reforms. Columns (2)-(3) of Table 6 divide the sample according to fiscal capacity, and the results show that cities with low fiscal capacity (i.e. high fiscal pressure) saw a large and significant increase in land requisition. Columns (4)-(5) divide the sample according to the general public budget deficit, and high-deficit cities saw a large and significant effect. These results provide suggestive evidence that cities under greater fiscal pressure saw a larger increase in land requisition.

For some cities, data is also available on the area of requisitions of non-arable land and arable land. Table B.13 presents the results of regressions on arable versus non-arable land, and provides suggestive evidence that the effect is different for the two kinds of land. The effect of the reform is statistically significant and larger for arable land, on which there

Table 6: Effect on land requisitions

	Full sample	Fiscal capacity		General budget deficit	
	(1)	(2)	(3)	(4)	(5)
	All	Low	High	High	Low
Reform	0.952**	1.172**	0.456	1.498**	0.135
	(0.425)	(0.593)	(0.597)	(0.627)	(0.585)
Observations	5,666	2,874	2,792	2,814	2,801
R-squared	0.417	0.428	0.416	0.395	0.501
Mean of outcome	5.468	5.571	5.39	5.952	5.016

Note: This table presents the results of the effect on land requisitions, estimated according to Equation (8). Column (1) uses as outcome variable the total area of land requisition as a percentage of urban built-up area, and uses the full sample. Columns (2) and (3) divide the sample into cities with low or high fiscal capacity (measured as general public budget revenue as a share of GDP, divided at the threshold of the median). Columns (4) and (5) divide the sample into cities with high or low general public budget deficit (measured as the shortfall in the general public budget as a share of general public budget expenditures, divided at the threshold of the median). Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

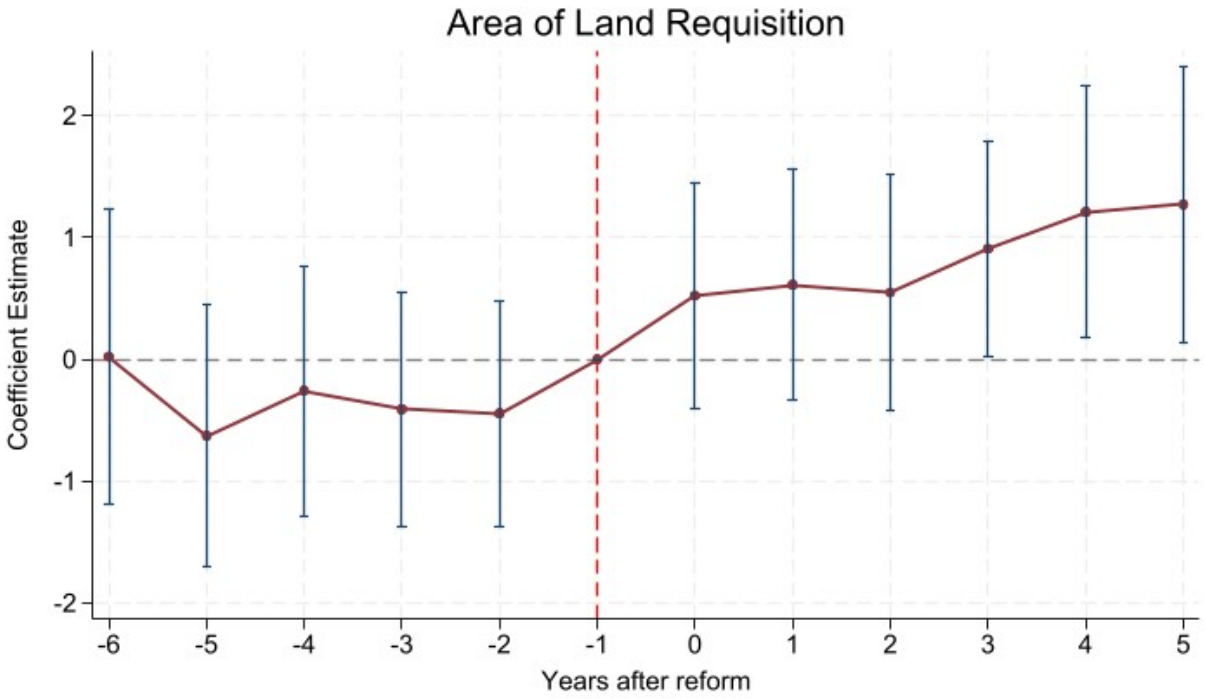


Figure 5: Event study for land requisition

are less structures to demolish, but not for non-arable land. These results show that local governments are indeed doubling down on land requisitions to make up for the lost revenue as a result of elevated judicial scrutiny. At the same time, the reform might have changed which types of land local governments are more likely to seize: since the courts began to disapprove more of forced demolitions, local governments shifted action towards rural arable land, the requisition of which usually does not involve forced demolitions. The overall effect on good governance is less than what the headline figure of local governments' increased court loss rate suggests. Local governments may have become less heavy-handed, but more people are affected by increased land seizures. And despite the fact that seizing rural land elicits less public attention and outrage than forced demolitions, it still hurts rural people.

VII. Conclusion

This paper exploits a phased judicial reform to causally study the political and economic effect of centralization in a political system. I first propose a theoretical model of local government behavior under judicial centralization. Data from China's judiciary shows that the centralization of judicial control resulted in a more pro-citizen and higher-quality administrative justice system, improving local government accountability by ruling more often against local governments in administrative lawsuits. However, without the establishment of rule of law and real judicial independence, the improvement in accountability is limited in two crucial aspects. First, the reform had negligible effect for cases with high political sensitivity involving citizens' political actions such as free speech and protests, where different levels of China's government have highly aligned interests and face common incentives dictated by the Chinese Communist Party. Second, general equilibrium effects mean that a fairer judiciary may backfire downstream through governmental responses to falling fiscal revenue. In land requisition, a revenue-raising activity important for local governments, they responded to a more adversarial judiciary by doubling down on land requisition to make up for the lost revenue. These results provide quantitative empirical evidence of the limits of

centralization as a source of top-down accountability without the rule of law.

Two future avenues of research can be imagined. First, the judicial centralization reform that this paper studies was one of the rare opportunities to quantitatively and causally pin down the effect of centralization on behavioral and governance outcomes. Further research could identify similar shocks that allow us to better understand the hierarchical dynamics within large complex organizations such as the Chinese Communist Party. Second, the reign of Xi Jinping has seen a substantial centralization of policymaking and decision-making in the Chinese government (Luo et al. 2025). The fact that this has made China more authoritarian, even totalitarian, is well known. Further research is needed in order to know more about the symptoms and consequences of this centralization in China.

References

Balán, Pablo, Augustin Bergeron, Gabriel Tourek, and Jonathan L Weigel (2022). "Local elites as state capacity: How city chiefs use local information to increase tax compliance in the Democratic Republic of the Congo". *American Economic Review* 112.3, pp. 762–797.

Baye, Michael R and Joshua D Wright (2011). "Is antitrust too complicated for generalist judges? The impact of economic complexity and judicial training on appeals". *The Journal of Law and Economics* 54.1, pp. 1–24. ISSN: 0022-2186.

Beazer, Quintin H (2015). "Political centralization and economic performance: Evidence from Russia". *The Journal of Politics* 77.1, pp. 128–145.

Borusyak, Kirill, Xavier Jaravel, and Jann Spiess (2024). "Revisiting event-study designs: robust and efficient estimation". *Review of Economic Studies* 91.6, pp. 3253–3285.

Callaway, Brantly and Pedro HC Sant'Anna (2021). "Difference-in-differences with multiple time periods". *Journal of econometrics* 225.2, pp. 200–230.

Campante, Filipe R, Davin Chor, and Bingjing Li (2023). "The political economy consequences of China's export slowdown". *Journal of the European Economic Association* 21.5, pp. 1721–1771.

Chen, Huiyi (2026). "Raising grievances to the state: The political economic effects of anti-corruption crackdowns on labor activism in China". *Journal of Development Economics*, p. 103758.

Chen, Jidong, Jennifer Pan, and Yiqing Xu (2016). "Sources of authoritarian responsiveness: A field experiment in China". *American Journal of Political Science* 60.2, pp. 383–400.

Creemers, Rogier and Susan Trevaskes (2021). *Law and the Party in Xi Jinping's China: Ideology and Organization*. Cambridge: Cambridge University Press.

Edmond, Gary and Andrew Roberts (2011). "Procedural fairness, the criminal trial and forensic science and medicine". *The Sydney Law Review* 33.3, pp. 359–394.

Egorov, Georgy, Sergei Guriev, and Konstantin Sonin (2009). "Why resource-poor dictators allow freer media: A theory and evidence from panel data". *American Political Science Review* 103.4, pp. 645–668.

Egorov, Georgy and Konstantin Sonin (2024). "The political economics of non-democracy". *Journal of Economic Literature* 62.2, pp. 594–636.

Feld, Lars P and Stefan Voigt (2003). "Economic growth and judicial independence: cross-country evidence using a new set of indicators". *European Journal of Political Economy* 19.3, pp. 497–527.

Ginsburg, Tom and Tamir Moustafa (2008). *Rule by law: the politics of courts in authoritarian regimes*. Publisher: Simon Fraser University. Cambridge: Cambridge University Press.

Glaeser, Edward L and Andrei Shleifer (2002). "Legal origins". *The Quarterly Journal of Economics* 117.4, pp. 1193–1229.

Goodman-Bacon, Andrew (2021). "Difference-in-differences with variation in treatment timing". *Journal of Econometrics* 225.2, pp. 254–277.

Gyourko, Joseph, Yang Shen, Jing Wu, and Rongjie Zhang (2022). "Land finance in China: Analysis and review". *China Economic Review* 76, p. 101868.

Huang, Yasheng (2026). *Statism with Chinese Characteristics: A History of China's Reforms and Reversals*. Cambridge: Cambridge University Press.

La Porta, Rafael, Florencio Lopez-de-Silanes, Cristian Pop-Eleches, and Andrei Shleifer (2004). "Judicial checks and balances". *Journal of Political Economy* 112.2, pp. 445–470.

Lai, Weizheng and Yu Qiu (2025). "Migrant Integration and Social Stability: Evidence from China". Working Paper. URL: https://laiwz.github.io/assets/pdfs/unrest_draft.pdf.

Lee, Ching Kwan (2007). *Against the Law: Labor Protests in China's Rustbelt and Sunbelt*. University of California Press.

Li, Hongbin and Li-An Zhou (2005). "Political turnover and economic performance: the incentive role of personnel control in China". *Journal of Public Economics* 89.9, pp. 1743–1762.

Liu, Ernest, Yi Lu, Wenwei Peng, and Shaoda Wang (2022). "Judicial independence, local protectionism, and economic integration: Evidence from China". NBER Working Paper No. w30432.

Liu, Zhuang (2018). "Does reason writing reduce decision bias? Experimental evidence from judges in China". *The Journal of Legal Studies* 47.1, pp. 83–118.

Lorentzen, Peter (2013). "Regularizing rioting: Permitting public protest in an authoritarian regime". *Quarterly Journal of Political Science* 8.2, pp. 127–158.

Lorentzen, Peter (2014). "China's strategic censorship". *American Journal of political science* 58.2, pp. 402–414.

Luo, Kaicheng, Shaoda Wang, and David Y Yang (2025). "Laboratories of Autocracy: Landscape of Central–Local Dynamics in China's Policy Universe". NBER Working Paper No. w34219.

Malesky, Edmund J, Cuong Viet Nguyen, and Anh Tran (2014). "The impact of recentralization on public services: A difference-in-differences analysis of the abolition of elected councils in Vietnam". *American Political Science Review* 108.1, pp. 144–168.

Martinez-Bravo, Monica, Gerard Padró i Miquel, Nancy Qian, and Yang Yao (2022). "The rise and fall of local elections in China". *American Economic Review* 112.9, pp. 2921–2958.

Maskin, Eric, Yingyi Qian, and Chenggang Xu (2000). "Incentives, information, and organizational form". *Review of Economic Studies* 67.2.

Mehmood, Sultan (2022). "The impact of Presidential appointment of judges: Montesquieu or the Federalists?" *American Economic Journal: Applied Economics* 14.4, pp. 411–445.

Miller, Michael K (2015). "Elections, information, and policy responsiveness in autocratic regimes". *Comparative Political Studies* 48.6, pp. 691–727.

Minzner, Carl F (2011). "China's turn against law". *The American Journal of Comparative Law* 59.4, pp. 935–984.

Montagnes, B Pablo and Stephane Wolton (2019). "Mass purges: Top-down accountability in autocracy". *American Political Science Review* 113.4, pp. 1045–1059.

Ong, Lynette H (2022). *Outsourcing Repression: Everyday State Power in Contemporary China*. Oxford University Press.

Orts, Eric W (2001). "The rule of law in China". *Vanderbilt Journal of Transnational Law* 34.1, p. 43.

Pei, Minxin (2025). *The Broken China Dream: How Reform Revived Totalitarianism*. Princeton: Princeton University Press.

Qian, Yingyi and Barry R Weingast (1997). "Federalism as a commitment to preserving market incentives". *Journal of Economic Perspectives* 11.4, pp. 83–92.

Shavell, Steven (1995). "The appeals process as a means of error correction". *The Journal of Legal Studies* 24.2, pp. 379–426. ISSN: 0047-2530.

Sun, Liyang and Sarah Abraham (2021). "Estimating dynamic treatment effects in event studies with heterogeneous treatment effects". *Journal of Econometrics* 225.2, pp. 175–199.

Voigt, Stefan, Jerg Gutmann, and Lars P Feld (2015). "Economic growth and judicial independence, a dozen years on: Cross-country evidence using an updated set of indicators". *European Journal of Political Economy* 38, pp. 197–211. ISSN: 0176-2680.

Wang, Pinda, Johannes Lützenrath, and Stephane Wolton (2025). "Can Mass Purges Root Out Corruption?" *Available at SSRN 4196073*. URL: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4196073.

Wang, Shaoda and David Y Yang (2025). "Policy experimentation in China: The political economy of policy learning". *Journal of Political Economy* 133.7, pp. 2180–2228.

Wigmore, John Henry (1940). *A Treatise on the Anglo-American System of Evidence in Trials at Common Law*. Vol. 3. Little, Brown.

Xu, Chenggang (2011). "The fundamental institutions of China's reforms and development". *Journal of Economic Literature* 49.4, pp. 1076–1151.

Xu, Chenggang (2025). *Institutional Genes: Origins of China's Institutions and Totalitarianism*. Cambridge: Cambridge University Press.

Zhang, Taisu and Tom Ginsburg (2019). "China's turn toward law". *Va. J. Int'l L.* 59.2, pp. 306–389.

Zhang, Yuxia and John Zhuang Liu (2025). "The rise of the Chinese judiciary and its limits: administrative litigation in the reform period". *The China Quarterly* 262, pp. 330–351.

Appendix

A. Political sensitivity of administrative cases

The following is a more detailed categorization of the three types of cases according to their political sensitivity:

1. Low-sensitivity cases: traffic penalties, real estate registration disputes, urban management, market regulation, taxation, labor disputes, environmental regulation, education, health (not including the Covid-19 pandemic), civil affairs (e.g. welfare, marriage registration), freedom of information requests

2. Medium-sensitivity cases: land appropriation, police detention

3. High-sensitivity cases: freedom of speech, freedom of assembly, freedom of association, freedom of religion, petitioning the government (*shangfang*), noncompliance of government orders (e.g. zero-Covid lockdowns), "picking quarrels and stirring trouble" (*xunxin zishi*, an umbrella term for behavior perceived as threatening social or political stability)

I identify medium-sensitivity cases via a keyword dictionary that corresponds to the types of cases, and I identify high-sensitivity cases primarily through keywords of an unambiguously political nature (petitioning (*shangfang*), assembly, protest, demonstration, religion, deletion of posts (*shantie*), closing of online accounts (*fengjin*)) as well as the application of relevant articles of the Public Security Administration Punishments Law (*zhian guanli chufa fa*, hereinafter referred to as PSAPL), which governs administrative, non-criminal penalties imposed by the police. This means that two familiar types of cases are left out: (1) criminal cases involving political rights, which fall outside of the jurisdiction of administrative litigation; (2) police actions outside of the enumeration of formal penalties in the law, such as the well-known case of Li Wenliang, the whistle-blower of the earliest COVID-19 outbreak

in Wuhan, who was given a "reprimand" by the police for speaking out about the outbreak. China's Supreme People's Court had previously held that, since the reprimand is not listed as a formal penalty in the PSAPL and does not have any substantive effect, the reprimanded does not have standing to sue in administrative courts.

Another noteworthy feature of this classification, which the main body of the paper also talks about, is that the political sensitivity of cases is determined by their relevance to the core political interests of the government. Therefore, a case involving the detention of a petitioner (*fangmin*) is categorized as having the highest political sensitivity, because suppressing petitioners is directly relevant to maintaining social and political stability, the paramount concern of the CCP. A case involving food safety, on the other hand, is categorized as low-sensitivity, despite the fact that food safety scandals have attained the highest of political prominence in China (as was the case in the Sanlu scandal of 2008 involving contaminated milk and baby formula). This is because the Chinese government, whether at the local or central level, does not have a direct interest in suppressing public concerns about food safety (as opposed to its express interest in suppressing petitioners). Any political ramifications of food safety scandals are derivative, indirect, or incidental.

B. Additional figures and tables

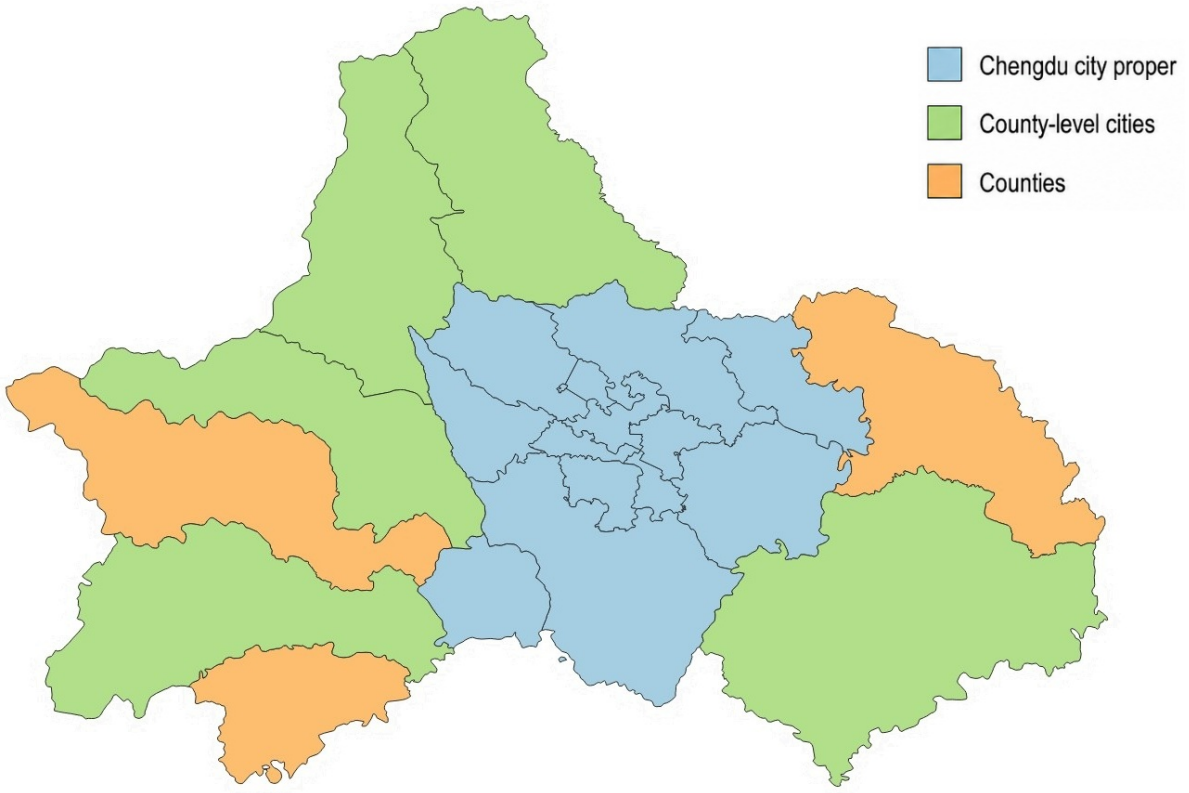


Figure B.1: Administrative map of the Chengdu prefecture

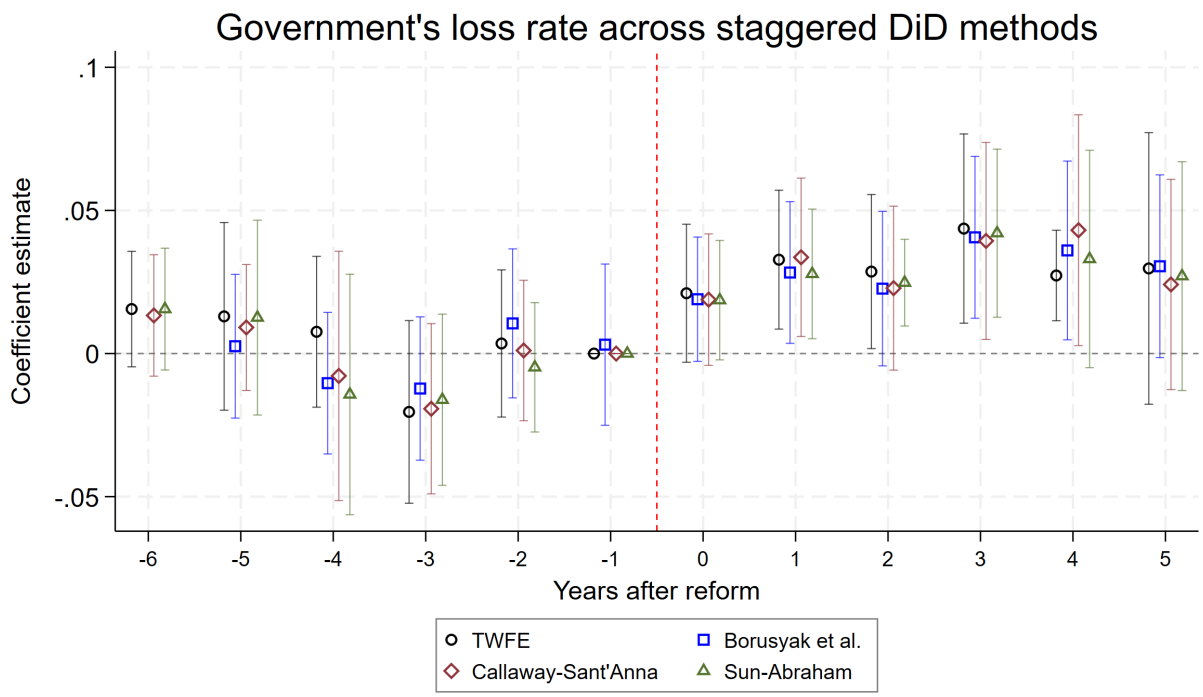


Figure B.2: Event study for government loss rate

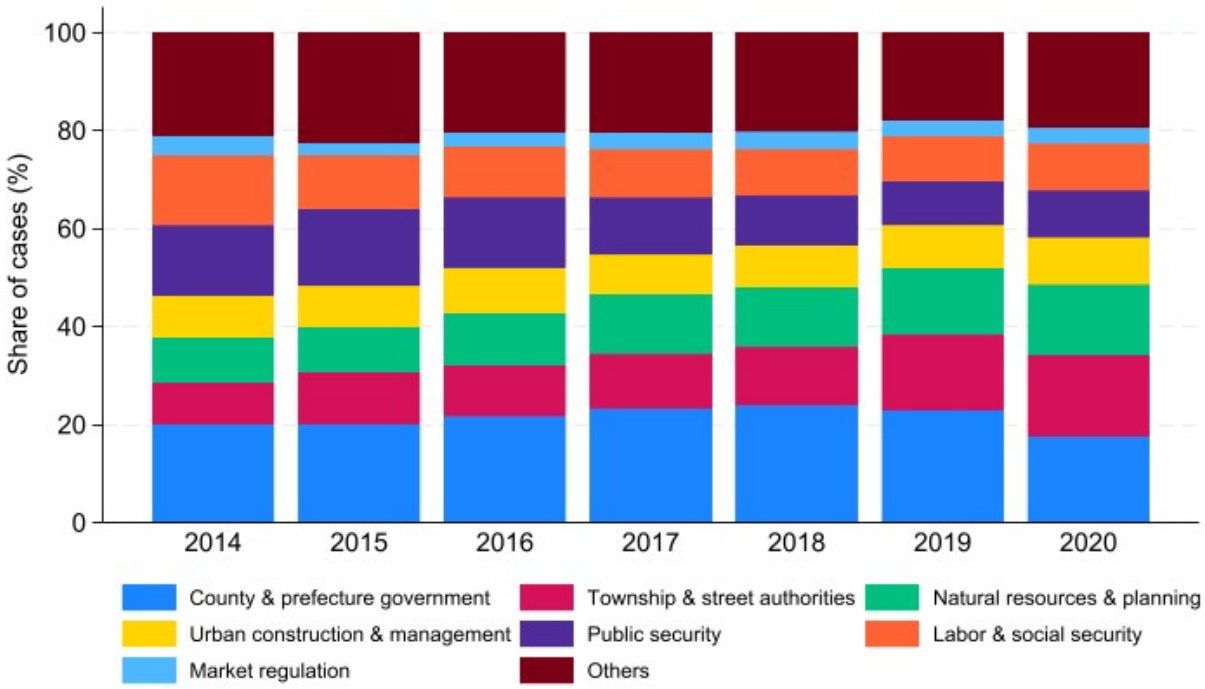


Figure B.3: Composition of cases by the government agency sued

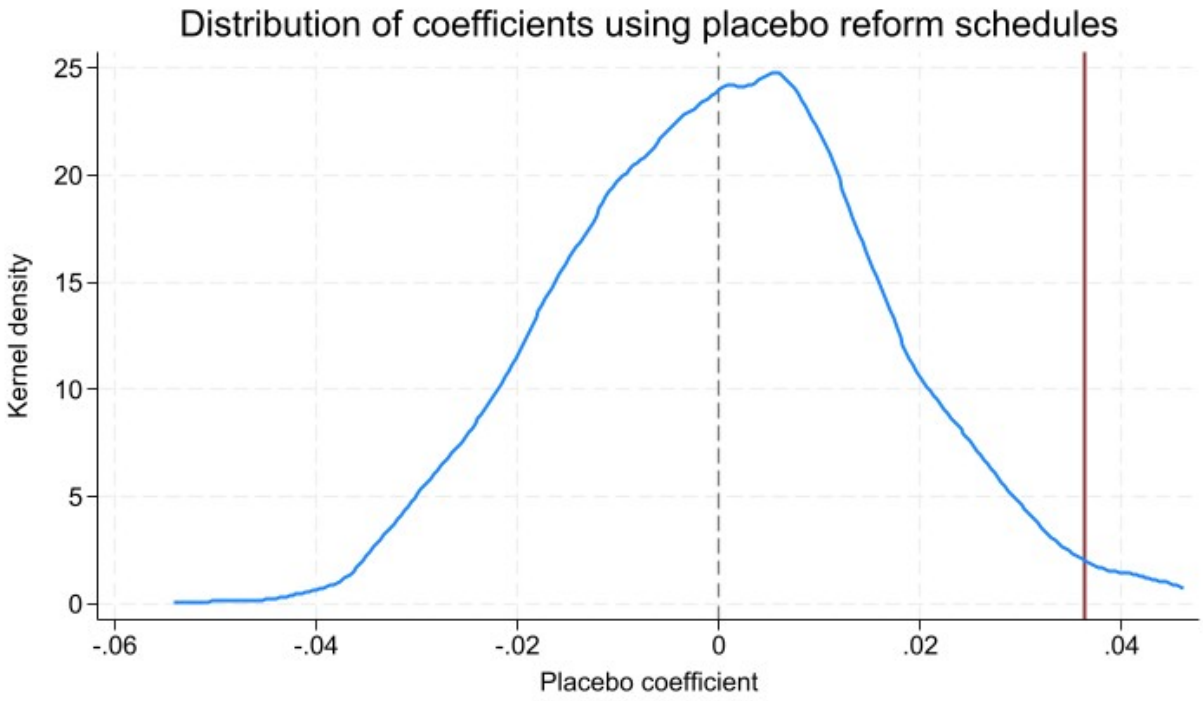


Figure B.4: Kernel density distribution of regression coefficients using placebo reform schedules (vertical line at 0.036 is the true coefficient)

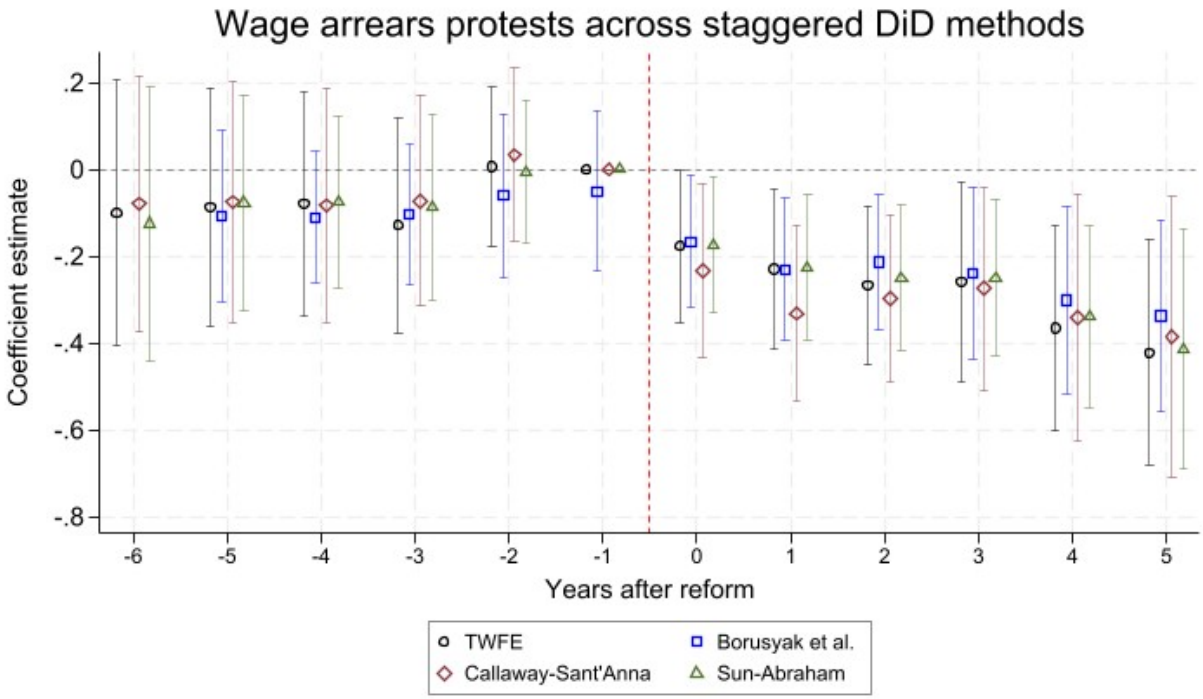


Figure B.5: Event study for wage arrears protests

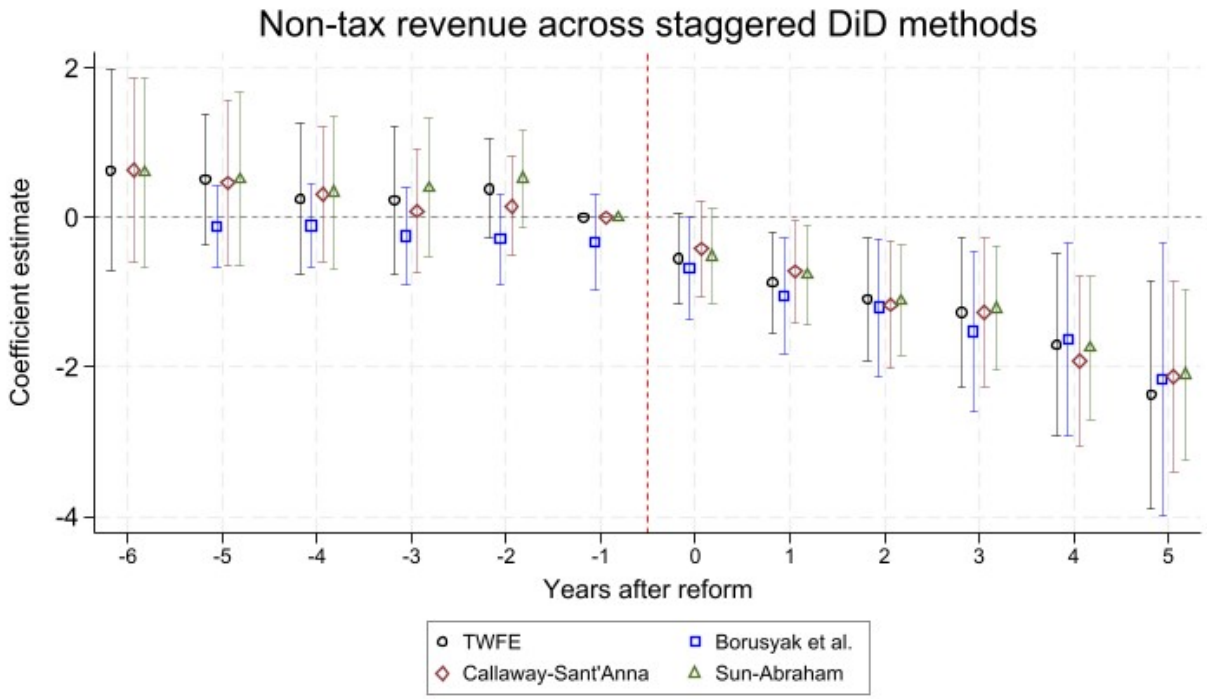


Figure B.6: Event study for non-tax revenue

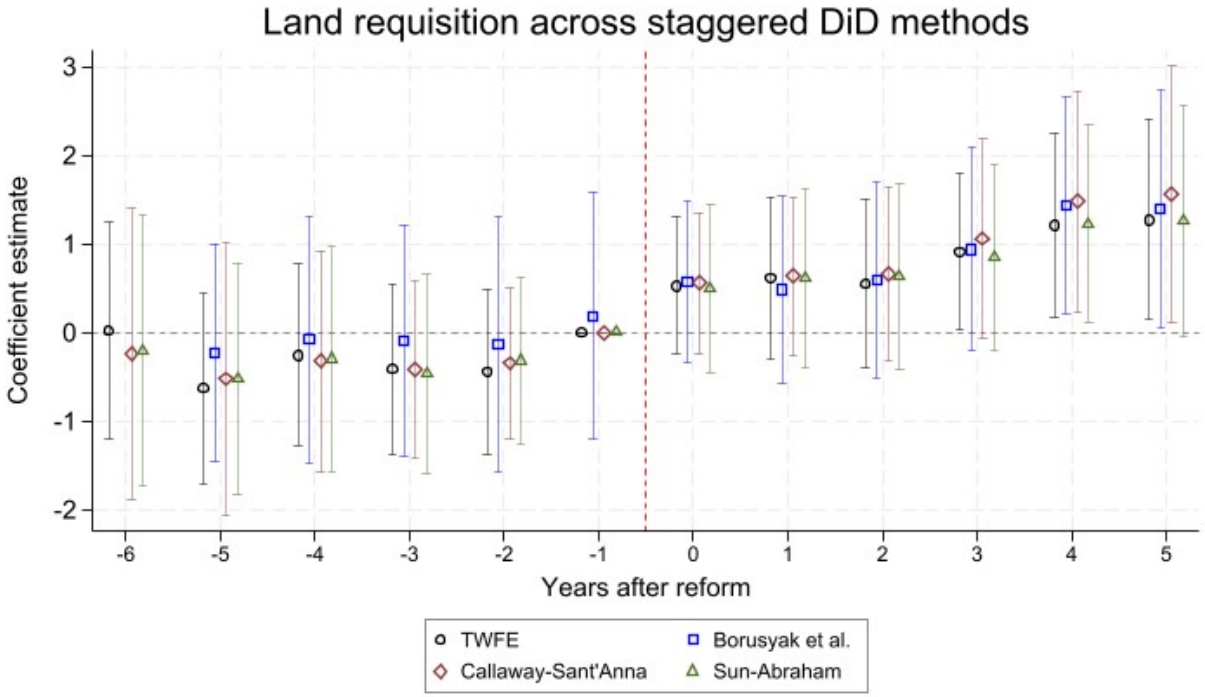


Figure B.7: Event study for land requisition

Table B.1: Pre-reform characteristics and reform timing

	(1) Whether reformed	(2) Year of reform
GDP per capita (1,000 *yuan*)	0.001	-0.006
	(0.003)	(0.008)
Population (m)	-0.006	0.009
	(0.013)	(0.043)
Fiscal revenue per capita (1,000 *yuan*)	0.003	0.073
	(0.032)	(0.099)
Fiscal self-sufficiency rate	-0.154	0.051
	(0.179)	(0.606)
Government's losing rate	-0.159	0.506
	(0.131)	(0.462)
Number of cases	0.000	-0.000
	(0.000)	(0.001)
Constant	0.809***	2016.704***
	(0.088)	(0.282)
Observations	324	225
R-squared	0.008	0.009

Note: This table estimates the correlation between reform timing and pre-reform economic and judicial characteristics.. Column (1) uses the dummy for whether the prefecture implemented the reform by 2020 as the outcome variable. Column (2) uses the subsample of reformed prefectures, and uses the year of reform as the outcome variable. GDP per capita, population, fiscal revenue per capita, and fiscal self-sufficiency rate are for 2010; government losing rate and number of administrative lawsuits are for 2014. Standard errors are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.2: Effect of reform on the number of cases

	(1) Court-level	(2) Prefecture-level (per capita)
Reform	1.840	-0.016
	(1.465)	(0.040)
Observations	13,836	2,160
R-squared	0.654	0.604
Mean of outcome	30.445	0.643

Note: This table presents the estimations on the effect on the number of cases. Column (1) uses the number of cases in each court as the outcome variable. Column (2) uses the number of administrative cases per 10,000 population as the outcome variable, after aggregating the data to the prefecture-year level. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.3: Effect of reform on withdrawal rate

	(1) Court-level	(2) Case-level
Reform	0.008	-0.007
	(0.012)	(0.015)
Observations	14,817	498,673
R-squared	0.322	0.106
Mean of outcome	0.277	0.288

Note: This table presents the estimations on the effect on lawsuit withdrawal rate. Column (1) runs the regression at the court-year level; Column (2) does so at the case level. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.4: Clustering standard errors at the province level

	All		Substantive	
	(1) Court-level	(2) Case-level	(3) Court-level	(4) Case-level
Reform	0.028**	0.036**	0.027*	0.027
	(0.012)	(0.016)	(0.014)	(0.022)
Observations	13,836	354,755	12,945	223,521
R-squared	0.348	0.110	0.347	0.152
Mean of outcome	0.343	0.296	0.510	0.471

Note: This table presents the results of baseline estimations according to Equations (6) and (7), clustering standard errors at the province level instead of the prefecture level. Columns (1)-(2) estimate Equation (6) using local government's loss rate as the outcome variable. Column (3)-(4) use the subsample of substantive judgments (*panjue*) only. For each sample, the first column runs the DiD regression at the court level, and the second column is at the case level using the dummy for the government losing the case as the outcome variable. Standard errors, clustered at the province level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.5: Treatment effect of placebo outcomes

	(1) Population (10k)	(2) Number of foreign firms	(3) Teachers per 10k pupils
Reform	-2.199	2.663	-2.210
	(2.627)	(3.301)	(5.255)
Observations	2,012	1,890	2,009
R-squared	0.996	0.992	0.883
Mean of outcome	428.69	78.139	619.23
	(4) Number of primary schools	(5) Hospital beds per 10k people	(6) Doctors per 10k people
Reform	31.588*	0.064	0.286
	(16.645)	(0.479)	(0.358)
Observations	2,012	2,000	2,003
R-squared	0.951	0.943	0.908
Mean of outcome	544.16	48.396	24.825

Note: This table presents the results of estimations of treatment effects using placebo outcomes, according to Equation (8). Columns (1)-(6) use population (in 10,000), number of foreign firms, teachers per 10,000 primary school pupils, number of primary schools, hospital beds per 10,000 population, and doctors per 10,000 population as outcome variable respectively. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.6: Heterogeneous effect according to the type of plaintiff

	Individual plaintiff		Corporate plaintiff	
	(1) Court-level	(2) Case-level	(3) Court-level	(4) Case-level
Reform	0.024**	0.037***	0.020	0.024*
	(0.010)	(0.011)	(0.019)	(0.014)
Observations	13,452	288,526	8,584	65,975
R-squared	0.349	0.119	0.333	0.196
Mean of outcome	0.349	0.296	0.36	0.301

Note: This table presents the results of estimations according to the types of plaintiffs in the administrative cases: Columns (1)-(2) use the subsample of individual plaintiffs; Columns (3)-(4) use the subsample of firm plaintiffs. Columns (1) and (3) use data at the court level according to Equation (6); Columns (2) and (4) use data at the case level according to Equation (7). Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.7: Alternative definitions of high political sensitivity

	Stringent definition		Lenient definition	
	(1) Court-level	(2) Case-level	(3) Court-level	(4) Case-level
Reform	-0.012	0.018	0.005	0.016
	(0.017)	(0.016)	(0.016)	(0.014)
Observations	8,889	56,512	10,191	75,143
R-squared	0.311	0.170	0.326	0.149

Note: This table presents the results of estimations in the spirit of Table 3, Panel A, Columns (5)-(6), using alternative definitions of high political sensitivity. Columns (1)-(2) exclude keywords and articles of law that cover non-political as well as political activities. Columns (3)-(4) include all police detention cases in addition to the baseline definition of high sensitivity. For each sample, the first column runs the DiD regression at the court level, and the second column is at the case level using the dummy for the government losing the case as the outcome variable. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.8: Using different wording for demolitions

	(1) *qiangchai*	(2) *qiangzhi* and *chaiqian*	(3) *chaiqian*
Reform	0.109***	0.064**	0.052***
	(0.030)	(0.027)	(0.018)
Observations	29,300	35,779	82,379
R-squared	0.242	0.215	0.171
Mean of outcome	0.502	0.456	0.347

Note: This table presents the results of estimations in the same spirit as Table 3, Panel B, Column 2, but using different Chinese wordings for forced demolitions. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Note for Chinese wordings for demolitions: In Table B.8, Column (1) identifies forced demolition cases using the Chinese word *qiangchai*, shorthand for "forced demolition". Column (2) uses the intersection of "forced" (*qiangzhi*) and "demolition" (*chaiqian*). Column (3) simply uses the word "demolition" (*chaiqian*). Table 3, Panel B, Column (2) in the main body of the paper uses the union of Columns (1) and (2) in Table B.8.

Table B.9: Number of cases according to sensitivity and visibility

	(1) Low-sensitivity	(2) Medium-sensitivity	(3) High-sensitivity	(4) Forced Demolitions	(5) Urban Management
Reform	1.508	-0.058	0.248	1.239	0.757
	(1.100)	(1.370)	(0.531)	(0.828)	(1.499)
Observations	12,429	10,321	9,263	4,430	3,603
R-squared	0.609	0.606	0.541	0.492	0.477
Mean of outcome	12.681	13.436	6.327	11.975	4.644

Note: This table presents the results of estimations of the effect on the number of cases in each category of sensitivity and visibility, using the same definitions as in Panels A and B of Table 3. Columns (1)-(3) use cases of low, medium, and high political sensitivity, respectively. Columns (4)-(5) use two types of high-visibility cases of forced demolitions and urban management, respectively. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.10: The decline of labor protests: using raw number of protests

	(1) All	(2) Wage arrears protests
Reform	-0.879*	-0.641**
	(0.459)	(0.319)
Observations	2,864	2,864
R-squared	0.760	0.754
Mean of outcome	4.186	3.225

Note: This table presents the results of the effect on labor protests. The outcome variables are the number of protests in a prefecture. Column (1) uses all labor protests, and Column (2) uses labor protests related to wage arrears. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.11: Plaintiff's winning rate in civil cases of labor disputes

	(1) Court-level	(2) Case-level
Reform	0.022**	0.033***
	(0.009)	(0.012)
Observations	14,393	645,332
R-squared	0.398	0.138
Mean of outcome	0.332	0.329

Note: This table presents the results of the effect on plaintiff's winning rate in civil cases of labor disputes. The estimation strategy is identical to that in Table 1. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.12: The effect on tax revenue

	(1) Level (in ¥bn)	(2) Log of level	(3) % of revenue	(4) % of expense
Reform	-1.804**	-0.025	1.839***	0.200
	(0.756)	(0.016)	(0.659)	(0.408)
Observations	2,157	2,157	2,157	2,157
R-squared	0.971	0.989	0.708	0.969
Mean of outcome	14.421	1.841	69.073	28.433

Note: This table presents the results of the effect on tax revenue in the general public budget of local governments, estimated according to Equation (8) at the prefecture level. Column (1) uses the raw amount of non-tax revenue as the outcome variable; Column (2) uses the log of tax revenue; Column (3) uses non-tax revenue as a percentage of total general public budget revenue; Column (4) uses non-tax revenue as a percentage of total general public budget expenditures. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table B.13: Requisition of non-arable and arable land

	(1) Non-arable land	(2) Arable land
Reform	0.211	0.383**
	(0.241)	(0.171)
Observations	4,747	4,747
R-squared	0.431	0.460
Mean of outcomes	2.713	2.748

Note: This table presents the results of the effect on land requisitions, according to the type of land seized. Columns (1) and (2) use non-arable and arable land requisition respectively. Standard errors, clustered at the prefecture level, are in parentheses.
*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

C. Model appendix

C.1. Proof of propositions

Lemma C.1. *The equilibrium share of citizens protesting, $D(c,x)$, satisfies the following properties: $D_x > 0,\ D_c < 0,\ D_{xx} > 0,\ D_{xc} < 0$.*

Proof. Given that

$$U_i(p_i = 1) = g(c,x) + \beta D(c,x) - \epsilon_i \tag{10}$$

$$U_i(p_i = 0) = 0 \tag{11}$$

A citizen chooses to protest if

$$g(c,x) + \beta D(c,x) > \epsilon_i \tag{12}$$

In the following, for the simplicity of analysis, I focus on the case where there is a unique interior equilibrium. This is because, in practice, even in an autocracy such as China that is descending towards totalitarianism, protests still exist. Certain types of localized protests, such as labor protests, are fairly common; see Section II for background information.

In an interior equilibrium, we have:

$$D(c,x) = \frac{g(c,x) + \beta D(c,x)}{\bar{\epsilon}} \tag{13}$$

Rearranging, we get the equilibrium share of citizens protesting:

$$D(c,x) = \frac{g(c,x)}{\bar{\epsilon} - \beta} = \frac{\theta(c)A(x)}{\bar{\epsilon} - \beta} \tag{14}$$

With $\bar{\epsilon}$ large enough such that $\bar{\epsilon} \geq \beta + \theta(c)A(x)$ for any (c,x) in the relevant policy domain,

an interior equilibrium with $D \in (0,1)$ is realized.

With $\theta(c) > 0,\ \theta'(c) < 0,\ A(x) > 0,\ A'(x) > 0,\ A''(x) > 0$, it follows immediately that $D_x > 0,\ D_c < 0,\ D_{xx} > 0,\ D_{xc} < 0$.

Lemma C.2. *Suppose $x(c)$ is the optimal x that the local government chooses for a given c. Then, $\frac{d}{dc}R(c, x(c)) < 0$.*

Proof. First, notice that $R_x > 0,\ D_x > 0,\ R_{xc} < 0,\ D_{xc} < 0$, then $|\frac{D_{xc}(c,x)}{D_x(c,x)}| \leq |\frac{R_{xc}(c,x)}{R_x(c,x)}|$ means $0 < -\frac{D_{xc}(c,x)}{D_x(c,x)} \leq -\frac{R_{xc}(c,x)}{R_x(c,x)}$.

The local government's problem can be thought of as first choosing an x to maximize its utility for any given c, and then choosing a utility-maximizing c. So $x(c)$ is a function of c:

$$\frac{d}{dc}R(c, x(c)) = R_c + R_x x'(c) \tag{15}$$

To derive the expression of $x'(c)$, we use the implicit function theorem. For any c, the local government solves the following problem:

$$\max_x -H(F - R(c,x)) - D(c,x) \tag{16}$$

The first-order condition is:

$$H'(F - R(c,x))R_x(c,x) - D_x(c,x) = 0 \tag{17}$$

Define

$$G(c,x) \coloneqq H'(F - R(c,x))R_x(c,x) - D_x(c,x) \tag{18}$$

Then the local government's best response $x(c)$ is characterized by:

$$G(c, x(c)) = 0 \tag{19}$$

Differentiating with regard to c:

$$\frac{d}{dc}G(c, x(c)) = G_c(c, x(c)) + G_x(c, x(c))x'(c) = 0 \tag{20}$$

$$x'(c) = -\frac{G_c(c, x(c))}{G_x(c, x(c))} \tag{21}$$

Now write out $G_x(c, x(c))$ using Equation 18:

$$G_x = H'(F - R)(-\frac{H''(F - R)}{H'(F - R)}R_x^2 + R_{xx}) - D_{xx} \tag{22}$$

With $H'(F - R) > 0,\ H''(F - R) > 0,\ R_x > 0,\ R_{xx} < 0$, and $D_{xx} > 0$, we have $G_x < 0$.

Then, we write out G_c using Equation 18:

$$G_c = H'(F - R)(-\frac{H''(F - R)}{H'(F - R)}R_cR_x + R_{xc}) - D_{xc} \tag{23}$$

Now we can derive the expression of $x'(c)$ and, in turn, $\frac{d}{dc}R(c, x(c))$. Plugging Equation 21 into Equation 15:

$$\frac{d}{dc}R(c, x(c)) = R_c + R_x x'(c) \tag{24}$$

$$= \frac{R_cG_x - R_xG_c}{G_x} \tag{25}$$

For this to be negative, with $G_x < 0$, we need $R_cG_x - R_xG_c > 0$. Plugging in the expressions of G_x and G_c:

$$R_cG_x - R_xG_c = R_cH'(F - R)(-\frac{H''(F - R)}{H'(F - R)}R_x^2 + R_{xx}) - R_cD_{xx} \tag{26}$$

$$- R_x H'(F-R)(-\frac{H''(F-R)}{H'(F-R)}R_c R_x + R_{xc}) + R_x D_{xc} \tag{27}$$

$$= H'(F-R)(R_c R_{xx} - R_x R_{xc}) - R_c D_{xx} + R_x D_{xc} \tag{28}$$

$$= \frac{D_x}{R_x}(R_c R_{xx} - R_x R_{xc}) - R_c D_{xx} + R_x D_{xc} \tag{29}$$

$$= D_x(\frac{R_c R_{xx}}{R_x} - R_{xc}) - R_c D_{xx} + R_x D_{xc} > 0 \tag{30}$$

Where the third equality follows from Equations (18) and (19). Now, with $D_x > 0$, we divide the expression by D_x and get:

$$\frac{R_c G_x - R_x G_c}{D_x} = \frac{R_c R_{xx}}{R_x} - R_{xc} - \frac{R_c D_{xx}}{D_x} + \frac{R_x D_{xc}}{D_x} \tag{31}$$

$$= R_x \left[-\frac{R_{xc}}{R_x} - (-\frac{D_{xc}}{D_x}) \right] + \frac{R_c R_{xx}}{R_x} - \frac{R_c D_{xx}}{D_x} > 0 \tag{32}$$

In Equation 32, the second term $\frac{R_c R_{xx}}{R_x} > 0$ because of the assumptions $R_c < 0,\ R_{xx} < 0,\ R_x > 0$. The third term $-\frac{R_c D_{xx}}{D_x} > 0$ because of the assumptions $R_c < 0,\ D_{xx} > 0,\ D_x > 0$. As for the first term, with our assumptions $R_x > 0$ and $-\frac{R_{xc}}{R_x} \geq -\frac{D_{xc}}{D_x}$, it is also non-negative. So, Equation 32 holds, and the lemma is proved. □

In the following, I prove the propositions in the model. The order of formal proofs is different from the logical order of presentation of the propositions. In the following, proofs will be given in the order of Propositions 2, 1, and 3, because the derivations for Proposition 2 are needed for the proof of the other two propositions.

Proof of Proposition 2

Let (c_L, x_L) be the equilibrium under local control of judiciary, and (c_P, x_P) be the different equilibrium under provincial control. Because the local government chooses (c_L, x_L) over

(c_P, x_P), it must prefer the former under its own objective function:

$$-H(F - R(c_L, x_L)) - D(c_L, x_L) > -H(F - R(c_P, x_P)) - D(c_P, x_P) \tag{33}$$

Similarly, because the provincial government chooses (c_P, x_P) over (c_L, x_L), it must prefer the former under the provincial objective function:

$$-\lambda_P H(F - R(c_P, x_P)) - D(c_P, x_P) > -\lambda_P H(F - R(c_L, x_L)) - D(c_L, x_L) \tag{34}$$

Define $\Delta H = H(F - R(c_P, x_P)) - H(F - R(c_L, x_L))$, and $\Delta D = D(c_P, x_P) - D(c_L, x_L)$. Rearranging Equations (33) and (34), we get:

$$\Delta H > -\Delta D \tag{35}$$

$$\lambda_P \Delta H < -\Delta D \tag{36}$$

Combining these two equations, we get $\Delta H > -\Delta D > \lambda_P \Delta H$. Since $\lambda_P \in [0, 1)$, it must be that $\Delta H > 0$. We know from model assumptions that $H'(\cdot) > 0$, so $H(F - R(c, x))$ is decreasing with $R(c, x)$. If $\Delta H = H(F - R(c_P, x_P)) - H(F - R(c_L, x_L)) > 0$, then it must be that $R(c_P, x_P) < R(c_L, x_L)$. The first part of the proposition is thus proved.

To prove the second part, return to $\Delta H > -\Delta D > \lambda_P \Delta H$. Since $\Delta H > 0$, it must be that $\Delta D < 0$. Then, we have $D(c_P, x_P) < D(c_L, x_L)$. □

Proof of Proposition 1

To prove the first part of the proposition, notice that, from Proposition 2, $R(c_P, x_P) < R(c_L, x_L)$. Since x_P is the local government's best response given c_P, and x_L is its best response given c_L, this can be written as $R(c_P, x(c_P)) < R(c_L, x(c_L))$. From Lemma C.2, we also know that $\frac{d}{dc} R(c, x(c)) < 0$. It follows immediately that $c_P > c_L$.

To prove the second part, notice first that the local-control equilibrium (c_L, x_L) does not change with λ_P. It suffices to show that c_P is decreasing with λ_P.

For notational simplicity, define $h(c) = H(F - R(c, x(c)))$ and $d(c) = D(c, x(c))$. The provincial government solves the following utility maximization problem:

$$\max_c -\lambda_P h(c) - d(c) \tag{37}$$

First-order condition:

$$-\lambda_P h'(c_P) - d'(c_P) = 0 \tag{38}$$

Think of c_P as a function of λ_P, and then differentiate Equation (38) with regard to λ_P:

$$-h'(c_P) - [\lambda_P h''(c_P) + d''(c_P)] \frac{dc_P}{d\lambda_P} = 0 \tag{39}$$

Rearranging, we get:

$$\frac{dc_P}{d\lambda_P} = -\frac{h'(c_P)}{\lambda_P h''(c_P) + d''(c_P)} \tag{40}$$

Assuming that the provincial government's objective function is well-behaved in that it is locally concave at the provincially chosen optimum c_P, then the denominator of Equation (40) is positive: $\lambda_P h''(c_P) + d''(c_P) > 0$. Since $H'(\cdot) > 0$ and $\frac{d}{dc}R(c, x(c)) < 0$ (from Proposition 2), we also have $h'(c_P) > 0$. Then, $\frac{dc_P}{d\lambda_P} < 0$, and the second part of the proposition is proved. □

Proof of Proposition 3

With c fixed by the provincial government, the local government solves the following problem:

$$\max_x -H(F - R(c,x)) - D(c,x) \tag{41}$$

$x'(c)$ can be derived by taking the first-order condition of Equation 41 and applying the implicit function theorem, which we have already done in the proof of Lemma C.2. The relevant results are reproduced here:

$$G(c,x) \coloneqq H'(F - R(c,x))R_x(c,x) - D_x(c,x) \tag{42}$$

$$x'(c) = -\frac{G_c(c,x(c))}{G_x(c,x(c))} \tag{43}$$

$$G_x = H'(F-R)(-\frac{H''(F-R)}{H'(F-R)}R_x^2 + R_{xx}) - D_{xx} \tag{44}$$

$$G_c = H'(F-R)(-\frac{H''(F-R)}{H'(F-R)}R_cR_x + R_{xc}) - D_{xc} \tag{45}$$

$G_x < 0$ follows immediately from model assumptions. As for G_c, with $H'(F-R) > 0$, $H''(F-R) > 0$, $R_c < 0$, $R_x > 0$, and $D_{xc} < 0$, the sufficient condition for $G_c > 0$ is that $\frac{H''(F-R)}{H'(F-R)}$ is large enough such that $-\frac{H''(F-R)}{H'(F-R)}R_cR_x + R_{xc} \geq 0$ in equilibrium. This is true as long as $(F-R)$ is sufficiently large, since it is assumed that $\frac{H''(F-R)}{H'(F-R)}$ is increasing with $(F-R)$. Then, with $G_x < 0$ and $G_c > 0$, we have $x'(c) = -\frac{G_c}{G_x} > 0$. □

It immediately follows from Proposition 1 that, with $c_P > c_L$ and $x'(c) > 0$, we have $x_P > x_L$ as claimed. □

C.2. Numerical example

The following is a numerical example of this model. Let

$$R(c,x) = \frac{2.2\ln(1+x)}{1+0.5c} \tag{46}$$

$$D(c,x) = \frac{1+x+x^2}{1+0.4c} \tag{47}$$

$$H(F - R(c,x)) = 3.2 \times 10^{-5} \exp(1.1(F - R(c,x)) + 0.4(F - R(c,x))^2) \tag{48}$$

And $\lambda_P = 0.15,\ F = 4.5$, so the utility functions are:

$$U_L(c,x) = -D(c,x) - 3.2 \times 10^{-5} \exp(1.1(4.5 - R(c,x)) + 0.4(4.5 - R(c,x))^2) \tag{49}$$

$$U_P(c,x) = -D(c,x) - 0.15 \times 3.2 \times 10^{-5} \exp(1.1(4.5 - R(c,x)) + 0.4(4.5 - R(c,x))^2) \tag{50}$$

It is straightforward to check that the assumptions on the derivatives of R and D are satisfied. This problem does not have a closed-form solution, but can be solved numerically. The equilibrium outcomes are:

$$\text{Under local control:} \quad c_L = 0.485,\ x_L = 0.592 \tag{51}$$

$$\text{Under provincial control:} \quad c_P = 2.061,\ x_P = 0.915 \tag{52}$$

Indeed, provincial control of the courts yields higher c and x.