Top-down Monitoring or Top-down Encroachment? How Centralization Undermined Fiscal Capacity in China[*]

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Abstract

A common feature of low-capacity states is informal and fragmented local fiscal systems outside budgetary oversight. Centralized fiscal administration is considered important for building an effective fiscal state. However, fiscal centralization may create scope for top-down encroachment between vertical levels of government and lead to negative unintended consequences. This paper studies how a centralization policy aimed at monitoring local taxation affected fiscal capacity in imperial China. We exploit predetermined variation across counties in exposure to centralization that replaced local governments' unsupervised autonomy in local revenues with transfers from provincial governments. Using newly collected administrative data on tax collection records, we find that centralization undermined fiscal capacity, measured by a large increase in central revenue deficits. Evidence suggests that counties bypassed regulation by manipulating disaster reporting and requesting tax exemption. We provide evidence consistent with the mechanism that centralization promoted provincial expropriation of local revenues, undermining counties' fiscal condition and forcing counties to embezzle central tax and extract extra-legal levies to maintain local expenditure. Finally, we show that centralization caused an increase in protests against taxation.

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1. Introduction

State capacity, the ability to tax and provide public goods, is essential for economic and political development (Besley and Persson, 2013; Dincecco and Katz, 2016; Acemoglu and Robinson, 2019). Fiscal capacity involves not only how to raise taxes, but also how to organize revenues and spending among different layers of government (*fiscal federalism*). Besides low tax revenues, throughout history and up to the present, another typical feature of weak-capacity counties is the informal and fragmented fiscal system (Olken and Singhal, 2011; Balan et al., 2022). Taxations and spending are managed locally by state agents but outside the formal budget.[2] Lack of monitoring and transparency exacerbate agency problems and lead to revenue leakage, deficits, and corruption (Bardhan and Mookherjee 2000; Bardhan 2002). Moreover, a fragmented system may impede resource mobilization and hamper the building of fiscal capacity.

While the impacts of (de)centralization remain a topic of debate (Gadenne and Singhal, 2014; Mookherjee, 2015; Boffa et al., 2016), a growing literature shows the importance of centralized fiscal administration for the transition from fragile states to effective fiscal states.[3] Centralized administration and oversight by the higher level of government may improve fiscal monitoring (Olken, 2007; Vannutelli, 2022), the efficiency of revenue management, and fiscal capacity (Tilly, 1990; Dincecco, 2009; Cantoni et al., 2019). However, centralizing fiscal authority may create a new problem for the higher levels of government. When local taxations become under the oversight of higher levels, those higher levels have a greater opportunity to encroach on the revenues of those lower levels (Weingast 2009). If the higher levels cannot commit to refraining from such encroachment, this may in turn negatively alter the behavior of the lower levels, rendering the centralization ineffective or even detrimental. This problem is particularly relevant in developing countries where weak institutions hinder the enforcement of fiscal discipline.

This paper examines how fiscal centralization for enhancing monitoring may lead to a risk of top-down encroachment between different levels of government, and how this problem can distort the behaviors of local governments and have unintended negative consequences on fiscal capacity and governance. This mirrors the classic problem in fiscal federalism that local governments over-spend due to the inability of central governments

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[2] See, e.g., Olken and Singhal (2011) for informal taxation in which residents pay taxes outside the legal tax system, and Aman-Rana et al. (2023) for informal fiscal systems in South Asia that rely on local bureaucrats to personally fund public services from collecting bribes. In extreme forms, tax collection is delegated to local elites (Balan et al., 2021) and private tax farmers (Johnson and Koyama, 2013).

[3] For empirical work, see Dincecco (2009), Cantoni et al. (2019), Chambru et al. (2022), and Garfias and Sellars (2022). Kiser and Karceski (2017) highlight centralized bureaucratic administration as a key feature of modern tax states. Also see Brewer (1989), Yun-Casalilla et al. (2012) for qualitative account.

to commit to not bailout (Kornai, Maskin, and Roland 2003; Pettersson-Lidbom, 2010; Yared 2019). While a rich work has examined the moral hazard behaviors of lower levels, less is known about the incentive problem of those high levels.

We study the consequences of a nationwide fiscal centralization policy with an explicit aim of strengthening the monitoring of local taxations in imperial China between the 18th and 19th centuries. Prior to the centralizing policy, county governments collected local land tax (LLT) surcharge (called *haoxian* or *huohao*) as their main source of revenues[4], which were levied and spent locally at the discretion of county officers but with little supervision and outside formal budget. In such informal system, deficits, extra-legal extraction, and corruption could be rampant. Starting in 1785, a new statute centralized the administration of the LLT to the provincial governments. The new system sought to enhance top-down supervision and bring the LLT under the formal oversight of provinces. Under the new system, LLT revenues were *directly remitted* to the provincial treasuries, which then provided *transfers* from these revenues to counties. As a result, counties were deprived of their full autonomy in decentralized tax collection.

Several features make this setting attractive. First, the centralization replaced the self-collect-self-spend LIT with transfers one to one, which did not change the size of local revenues, but only its funding method. Second, the policy did not modify the pre-existing division of spending responsibilities between vertical levels of government, and counties kept discretion in how to spend their revenues. Lastly, and critically for our empirical strategy, the amount of LIT earmarked for each county was historically predetermined by the central government. Exploiting the pre-reform variation in LIT across counties as the measure of exposure to the centralization, we implement a difference-in-differences design, comparing counties with higher LIT against those with lower LIT. To validate this design, we show the absence of pre-trends of outcomes regarding counties with varying LIT before the centralization policy. Moreover, we leverage the fact that the initial assignment of LIT was based on the classification of regional governance complexity and further control for the exposure determinant variable in a time-varying way.

We first examine the fiscal impacts of centralization using newly collected administrative data on public finance. As the tax agents of the state, county governments were responsible for raising revenues for the central government. We extract records for tax deficits (i.e., failure to meet the revenue target) from the Ministry of Finance Archives and construct a dataset of fiscal performance at the county-year level between 1750 and 1835. Our results show a large *increase* in tax deficits in counties with higher exposure to

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[4] Counties were also in charge of collecting and remitting a fixed annual amount of central land tax and grain tribute tax to the central government, which was under strict and formal monitoring. Counties also shared a small proportion of revenues from central land tax administrated by central budgetary management.

fiscal centralization. Doubling county LLT increased the likelihood of central tax deficits by 9.4 percentage points after the centralization (a 261% increase with respect to the mean). Breaking down the effect by tax margins, we find similar patterns of surge in deficit probability for both central land tax and grain tribute tax, the two major revenue sources of the central government. This result indicates that, in contrast to its intended purpose, the new centralized fiscal system *undermined* fiscal capacity.

We explore local governments' strategic response that could induce the observed increase in tax deficits. Using the text data from the official correspondence with the crown, we find that counties reported more natural disasters, while meteorological data show no increase in actual disaster occurrence or extreme weather. Accordingly, counties requested more tax exemptions due to increased disaster reporting. These results jointly suggest that counties leveraged the information asymmetry to manipulate disaster reporting and underreport tax payments.

Why a fiscal centralization policy aiming at strengthening monitoring led to a surge in tax deficits? We then explore the mechanism underlying this unintended consequence. The new system made LLT subject to a more centralized oversight by provincial governments and replaced the county's autonomy on LLT with transfers from provincial treasuries, which also created incentive problems for the monitors (i.e., provinces) (Bandiera et al., 2021) by making it easier for monitors to encroach on these local revenues. Such vertical encroachment would squeeze counties' public finance and hence force them to embezzle central tax revenues to finance local expenditures. We present evidence in support of this mechanism. First, we examine the impact on deficits of LLT revenues. Intuitively, the anticipation of expropriation should reduce counties' incentives to collect and remit LLT revenues. Indeed, we find that the centralization led to a substantial increase in the likelihood of LLT deficit. This result is consistent with the increasing pattern in provincial government reports on diverting LLT revenues and withholding transfer payments after the introduction of centralization. Second, we provide evidence of the increase in local governments charging extra-legal levies, suggesting that the centralization indeed aggravated counties' fiscal pressure and counties struggling with that had to extract more from local people. Third, we implement heterogeneity tests to explore how the impact of centralization varies with the likelihood of encroachment. We find that the fiscal effects are stronger in places with a higher frequency of provincial extraction on LLT in the post-reform period.

In the last part, we investigate the consequences of fiscal centralization on local governance outcomes. Using the records of disaster relief delivery, one of the most important local public goods, we find no change in the provision of relief. However, further examination of the consequences of disaster shows that the centralization resulted in more incidences of famine. We find that doubling the LLT is associated with a 5.5

percentage point increase in the probability of famine during disaster years, equivalent to a 28.8% increase from the mean probability. These results indicate that while fiscally stressed counties managed to maintain the provision of relief, the quality of local public goods worsened, indicating a decline in local government's ability to cope with emergencies. Moreover, the centralization policy also led to political backlash among the local people. We find that counties with higher exposure to centralization experienced more incidence of protests against taxation. Consistent with the increased extra-legal levies charged by local governments we documented before, this result suggests a greater tax burden imposed on the commoners.

Related literature. This paper contributes to several strands of literature. First, we contribute to the literature on fiscal federalism and decentralization.[5] In the context of public finance between different layers of governments, a classic moral hazard problem in federalism is the debt accumulation and overspending of local governments due to the inability of the higher levels to commit to not bailout—so-called soft budget constraints (Kornai, Maskin, and Roland, 2003). While much of the existing literature has focused on the agency problem of *lower levels* (Rodden, 2002; Pettersson-Lidbom, 2010) and how to enforce local fiscal discipline using top-down monitoring and fiscal rule (Grembi et al., 2016; Christofzik and Kessing, 2018; Carreri and Martinez 2023; Vannutelli 2022; Fremerey et al., 2023)[6], there is little empirical studies regarding the incentive problems and indiscipline of those *high levels*. We contribute to this literature by empirically studying another type of intergovernmental credibility problem of higher-level governments. We show that centralizing fiscal administration intended to correct *lower levels'* agency problems can meanwhile generate a scope of top-down encroachment by the *higher levels*. If the higher levels did not adhere to the given rules and cannot commit not to grabbing the lower levels (as we observed), centralization distorted local governments' behaviors and harmed government performance. Our results highlight the importance of institutional arrangement and the rule of law governing the relationship between vertical levels of government (Weingast, 2009; 2014). Such tension and encroachment between different levels of government could also exist in other contexts when there is uncertainty about the division of spending responsibility or revenues (Kresch, 2020).[7] Our results also relate to research on how different sources of revenue

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[5] While decentralization increases accountability and has informational advantage (Seabright, 1996; Fisman and Gatti, 2002; Besley and Coate, 2003; Narasimhan and Weaver, 2022; Bianchi et al., 2023), decentralized systems can lead to local collusion and aggravate agency problems (Bardhan and Mookherjee 2000; Bardhan 2002; Jia and Nie, 2017).

[6] For theoretic work on fiscal rule, see Yared (2019), Dovis and Kirpalani (2020), Piguillem and Riboni (2021), and Halac and Yared (2022).

[7] In Brazil, Kresch (2020) shows that the uncertainty in the shared mandate of public goods provision leads to a threat of takeover between municipal and state governments and deters public investment in

affect governance (Brollo et al., 2013; Gadenne, 2017; Martinez, 2023).

Second, our paper contributes to the growing literature on state capacity across social sciences. There is a rich literature on the link between war and military competition, the rise of state capacity, and long-run economic and political development (Tilly, 1990; Sng and Moriguchi, 2014; Gennaioli and Voth, 2015; Besley and Persson, 2009, 2010; Dincecco and Katz, 2016; Queralt, 2019; Bai et al., 2022; Fernández-Villaverde et al., 2023). We contribute to a group of recent work on the origin and development of fiscal capacity. Existing work has emphasized the role of political representation (North and Weingast, 1989; Cox and Dincecco, 2021; Becker et al., 2022), administrative reform and bureaucracy (Chambru et al., 2022; Chiovelli et al., 2023), and centralized fiscal institutions (Dincecco, 2009; Cantoni et al., 2019), with a regional focus of Europe. [8] While existing work documents how successful fiscal centralization promoted fiscal capacity, less is known about why similar reform attempts failed in other countries. We add to this literature by documenting the *negative* impacts of a policy centralizing tax administration in a multi-layer bureaucratic state, and providing a new explanation for why it turned out to harm state capacity due to the commitment problem of top-down extraction between vertical levels of government (Ma and Rubin, 2019). [9] Our findings imply that policy reforms aimed at building up state capacity may result in unintended negative consequences and backfire if the reform involves new incentive issues.

Third, our paper also speaks to recent literature on the organizational economics of the state (Finan et al., 2017; Besley et al., 2022). Existing studies mainly focus on personnel policies, including incentives, recruitment, and allocation of bureaucrats (e.g., Dal Bo et al., 2013; Bertrand et al., 2020; Colonnelli et al., 2020; Moreira and Pérez, 2021; Aneja and Xu, 2023), while holding fixed the allocation of decision-making powers between different layers of the organization's hierarchy. We show that shifting fiscal authority to higher levels can undermine a key dimension of state performance, tax capacity. Our findings are in line with Bandiera et al. (2021), who show experimental evidence that shifting authority from frontline officers to monitors harms performance if the monitors are also extractive or corrupt. We complement their findings by studying the effects of shifting

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water and sanitation.

[8] For instance, Dincecco (2009) shows that administrative reforms of centralized tax institutions in European countries over the 15th-19th centuries were associated with higher revenues. Cantoni et al. (2019) show the impacts of centralized fiscal administration on state consolidation in the Holy Roman Empire. Becker et al. (2022) show territories with superior tax capacity were more likely to conquer cities.

[9] Different from the commitment problem between rulers and merchant elites (North and Weingast, 1989; Stasavage, 2011), we focus on the commitment problem *within* the state bureaucracy. In related work, Ma and Rubin (2019) theoretically show that weak fiscal capacity-weak monitoring can be a suboptimal equilibrium because the ruler with perfect information cannot commit to refraining from confiscation from agents. Our findings are in line with this work in the sense that the centralization increased fiscal transparency, which involves the commitment problem of top-down "confiscation" of revenues.

authority to higher levels of government (monitors) in the context of tax administration, where centralization also creates agency issues for the monitors.

2. Historical background

2.1 China's fiscal system in the Qing Dynasty

Imperial China in the Qing dynasty (1644-1911) was a unified bureaucratic state with multiple layers of administration, which shared a very similar structure with nowadays China. In the middle 18th century, the empire had established a quasi-fiscal federalism system with a division of revenue sources and expenditure responsibilities among the central, provincial, and county governments.

Central government. The most important source of central government revenues was central land tax (*didinyin*). They were collected according to revenue quotas assigned to each county (around 30 million taels of silver in total). Central land tax constituted three-quarters of the formal revenues of the crown. While local governments shared a small proportion (less than 20%) of revenues from central land tax, expenditures from these revenues were subject to strict budgetary control by the Ministry of Finance. With 80% of it being delivered to Beijing, all these revenues were spent on central expenses, such as military expenses, officials' salaries, major waterworks, imperial posts and roads, and other miscellanies (Zelin, 1984). In addition, the central government collected grain tribute tax (*caoliang*), with a total of 4 million *shi* (roughly equivalent to 6 million silver taels) from the grain-producing provinces, partially transported to Beijing to feed its population and partially stored in grain granaries in the event of central-sponsored famine relief (Will, 1991). Moreover, the central government outsourced the collection of salt tax (and sale) and commercial taxes to several groups of chartered agents, amounting to a total of 12-15 million taels to the crown (Wang, 1973, Ni, 2013).

Provincial governments. Besides the 20% shared revenues from central land tax, local governments levied local land tax (LLT) surcharge (called *haoxian* or *huohao*) to fulfill the operation of local government at different levels. These revenues amounted to 4.5 million taels of silver in total annually, shared between provincial and other lower-level governments.[10] Provincial governments shared approximately 50% of local land tax. Provincial revenues were further divided into two categories: 0.4 million taels as the provincial government fees (*Dufu yanglainying*) to cover provincial regular expenses (such as the salaries of clerks and runners of provincial governments) and 1.8 million taels as provincial public funds (*gongfeiyin*) to cover province-wide irregular expenses, such as funds for famine relief, local waterworks, and other public projects (Zelin, 1984; Hao and

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[10] Data from *The Charter of Land Tax Surcharge* (*Haoxian Zhangcheng*).

Liu, 2020). Provinces initially had full autonomy on the expenditures of these public funds. After the announcement of *The Charter of Land Tax Surcharge* in 1750, public funds were also subject to direct budgetary management by the central government (Zhou, 2012).

    County governments. As the basic administrative unit and the lowest level of government in imperial China, county governments were responsible for various aspects of state functions, including local public goods provision, tax collection, policing, promoting education, and judicial matters. As the tax agents of the state, raising revenues for the central government was one of the key tasks of county governments. Both central land tax and grain tribute tax were collected by counties, subject to strict performance evaluation. A typical county government hired 100 employees (Ch'u, 1962). Counties relied on LLT surcharge as their major revenue source to pay for operations. The statutory amount of LIT earmarked for each county was determined by the central government in *The Charter of Land Tax Surcharge*, ranging from 400 to 1,800 silver taels. If there was still balance after regular expenses, counties might spend the rest on local public goods, such as schools, charities, and local granaries.

    County governments enjoyed almost complete discretion over the management of LLT. Both the collection and use of LLT revenues are managed locally, outside the formal budget, and without any formal monitoring. Due to the high cost of verifying local information, higher levels of government had little information about how much they were actually collected, let alone how they were spent. In this decentralized system, county officers had incentives to over-extract for private gains. It was widely observed that county governments extracted extra-legal levies (Zhou, 2020). Tax collectors secretly altered tax rolls, falsified tax receipts, and manipulated weights and measures to extract payments in excess of the formal tax obligation (Zelin, 1984).

2.2 The centralized fiscal administration after 1785

    In 1785, the central government introduced a new policy aimed at enhancing the management and monitoring of local land tax, leading to a more centralized administration of LLT by the provincial governments. The imperial ordinance stated that

> "*Local land tax surcharge is levied to fund the operations of local governments. However, the current practice of county officers collecting and spending these revenues on their own leads to malpractice of corruption and embezzlement. Going forward, this practice should be completely prohibited. To eliminate these drawbacks, all LLT revenues should be collected and remitted directly to the provincial government's treasury. Disbursements to counties should then be made from the provincial treasuries. Provincial governors should report to the Ministry of Revenue for verification annually.*"

(quoted in the *Qingshilu*, 1785)[11]

The new system enhanced top-down supervision and brought the LLT under the formal oversight of provincial treasuries. Under the new systems, counties were deprived of their full autonomy in LLT collection. Farmers delivered taxes directly into wooden boxes that would be sealed and shipped to provincial treasuries, where the boxes were opened and checked (Ch'u, 1962). Since counties would rely on fixed-amount fiscal transfers, centralization was expected to eradicate their incentives to over extract. Importantly, the change to a centralized funding method (transfer disbursement) significantly strengthened the authority of the provincial government in local public finance relative to counties (Zhou, 2012).

Several features are worth mentioning. First, the centralization replaced the self-collect-self-spend LIT with transfers one to one according to the statutory amount of LIT earmarked for each county. Therefore, the new system did not change the legal size of local revenues, but only its funding method. Second, it did not change the current assignments of expenditure responsibilities between provincial and county governments. In addition, counties kept discretion in how to use their revenues.

An implicit commitment in the new system was that provinces should fully provide the transfer payments to the counties. However, historians document many anecdotal cases that provincial governments encroached on LLT revenues (Zhou, 2012). Before the reform, provincial governors occasionally shifted their fiscal burden to their subordinates by requiring counties to divert LLT to provincial expenditures. The centralization made it much easier for the provinces to do so because LLT revenues were under their formal administration and were physically shipped to the provincial treasuries (Zhou, 2020). The provinces could simply withhold transfer payments and divert them.

3. Data

3.1 Public finance data

Local land tax. The main explanatory variable is the total amount of LLT earmarked for each county. Our empirical analysis uses its variation to measure the exposure of each county to the centralization policy. We collect the data on LLT from the *Handbook of Statutes and Precedents of the Qing* (*Da-Qing Huidian Shili*). We complement this source with the *Roster of Government Personnel* (*Jinshenlu*) in 1766. Figure 1 shows the regional

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[11] "再闻各省州县官于耗羡内有自行动支抵算养廉者。耗羡归公, 原为各官养廉之费, 但官员自收自支, 其中恐滋影射冒混情弊。此后应一并禁止, 令尽数解司后, 再行由司库动支给发, 以杜弊混。并令该督抚。于年终分晰报部查核。"

distribution of county LLT. There was substantial variation at the county level: 85% of counties' revenues fell in the range between 600 and 1,200 taels.

Figure 1. Spatial distribution of county local land tax
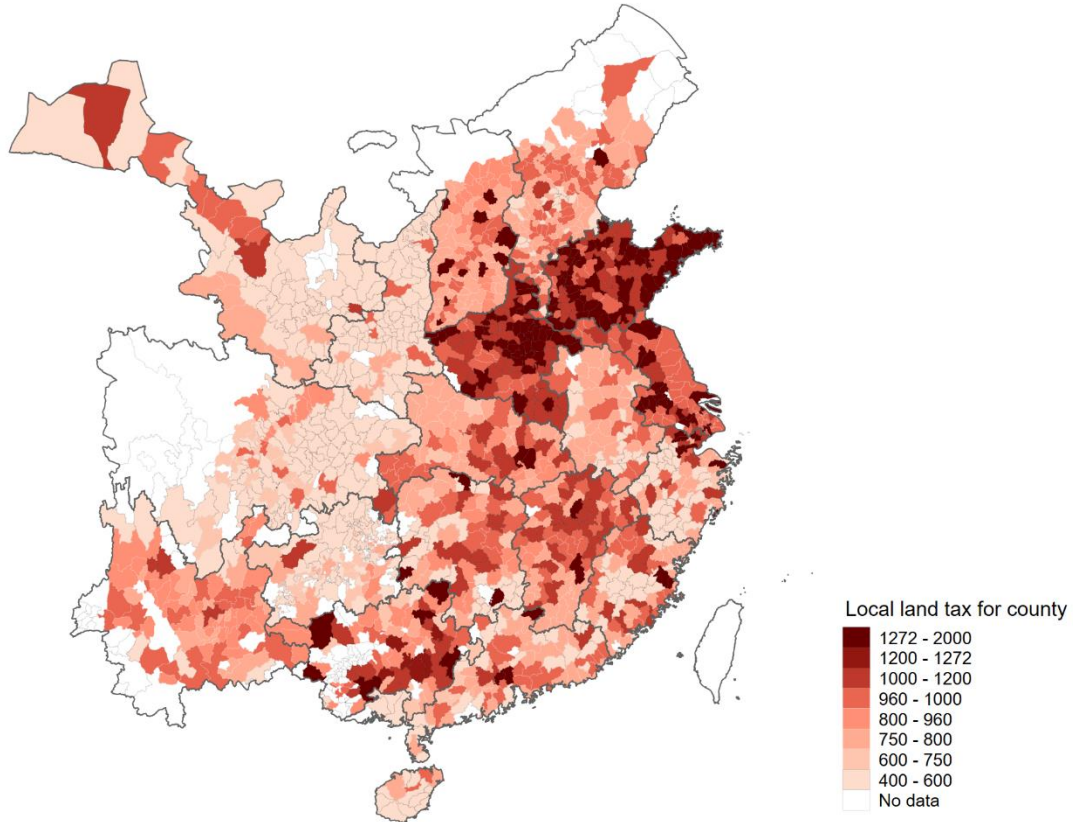
Tax collection records. We assemble unique county-year level data on tax collection between 1750 and 1835. We derive the universe of the *Ministry of Finance Archives* (*Huketiben*) from the First Historical Archives of China, with a total of 225,519 pieces. The raw data is at a highly granular level corresponding to reports on the collection of a specific tax margin in a given year, a given county, and the names of corresponding local officers who were accountable. See Appendix Table A1 for examples of these records. We identify reports on tax collection based on the text in the title using keywords. Appendix Table A2 provides details on the coding process. While systemic information on the amount of revenues is not available from the title text, this data allows us to construct an indicator variable for deficits in tax collection (i.e., shortage from the revenue target) by different tax margins: central land tax, grain tribute tax, and local land tax surcharge. We use these records to construct a county-year level variable for tax deficit as a measure of fiscal performance.

Diverting LLT to provincial expenditures. To measure the top-down encroachment

activities by the provincial government, we collect cases in which provinces diverted LLT revenues to provincial expenditures. According to the regulation of local public finance, provincial governments were required to send a report to the emperor to request permission for any irregular fiscal arrangement. Normally, such cases usually would involve the withholding of LLT of many counties within the province (Zhou, 2012). We search for keywords (*tan/kou/juan + yanglian/lianyin*) from the title of palace memorials to identify the reports that mentioned diverting or withholding LLT. Since the amount of diversion is unobservable, we use an indicator variable at the provincial level that equals one if the provincial government extracted LLT in a year and 0 otherwise. We obtained 255 reports in total during our sample period (1750-1835).

Extraction of extra-legal levies. We use the extra-legal extraction cases reported by senior provincial officials as a proxy for extra-legal extraction behavior. We collect information on the reports that local officials were investigated and punished due to extracting extra-legal levies. These reports are stored at the First Historical Archives of China. We search for the keywords describing government extra-legal taxation and coded the timing and location of cases.

3.2 Other data

Local public goods. We collect data on governmental disaster relief and school construction to explore the impacts on local public goods. Data on government disaster relief come from Chen et al. (2012). The underlying source is the Veritable Records of Qing. We use the information on the timing of each relief record and pin down the location delivering relief at the county level. We draw the data on the construction of local schools from Ji's (1996) *A Compendium on the Chinese Academies*.

Disaster and weather data. For the occurrence of the disaster, we rely on the record of natural disasters from Zhang (2004). This data provides a record of various types of natural disasters in historical China, including drought, floods, plagues, locust infestations, hurricanes, earthquakes, and snowstorms. Drought and flood make up the majority of disasters. Moreover, this data includes information on the consequences of each disaster, including the occurrence of famine.

We complement this data by another source on extreme weather from the meteorological data from the Chinese Academy of Meteorological Sciences (1981). This data provides annual precipitation data for 120 "observation stations," each covering one to three prefectures. The raw data include a five-level index measuring the extent to which the rainfall deviates from long-average normal levels in the harvest season (i.e., from May to September): extreme rain (1), moderate rain (2), normal (3), moderate drought (4), and

extreme drought (5).[12]

Protests. To look at the political consequences of the centralization, we collect the data on protests against tax from the *Veritable Records of Qing* (*Qingshilu*), an archival source documenting important events occurring in the territory on a day-to-day basis. We focus on protests and rebellions triggered by the excessive tax burden or against local government tax agents. There was a total of 411 reported tax revolt incidents.

4. Centralization and fiscal capacity

4.1 Empirical strategy

To investigate how the centralized fiscal administration affected fiscal capacity, we exploit the regional variation in LLT as the measure of exposure to centralization in a differences-in-differences (DID) strategy. Our research design compares the change in our outcomes of interest before and after the introduction of fiscal centralization in 1875, between counties with high LLT and those with low LLT. Our sample covers 1,546 counties. For county i in year t, we estimate the following specification:

$$Y_{it} = \beta \log LLT_i \times Post_t + \theta_t + \lambda_i + X'_{it}\gamma + \epsilon_{it} \tag{1}$$

where the treatment variable, $\log LLT_i$, is the logged amount of county LLT. $Post_t$ is a dummy variable indicating the year after the reform, which equals 1 for the years after 1785. We include county fixed effects λ_i to capture all time-invariant confounding factors. θ_t are year fixed effects capturing the common shocks over time that affect all counties. Finally, X_{it} denotes a set of control variables. standard errors ϵ_{it} are clustered at the prefecture level. The coefficient β estimate captures the average differential change of outcomes before and after the centralization in counties with high LLT relative to counties with low LLT.

The main identification concern is that county's exposure is not randomly determined. Although the inclusion of county fixed effects helps control for time-invariant differences across counties, some of these differences may still affect the outcome in a time-varying way. Table 1 shows results from cross-sectional regressions showing the correlation between LLT and a range of predetermined characteristics. Column 3 shows that counties with higher LLT appear to have higher populations, larger areas, more river access, and are located nearer to the provincial capital.

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[12] Levels 1 and 5: above or below the normal rainfall by 1.17 standard deviations; levels 2 and 4: above or below the normal rainfall by 0.33 s.d.; level 3: within 0.33 s.d. from the normal rainfall.

Table 1. Balance in county characteristics and exposure to centralization

	Mean	N	Coef. of LIT	
			Rating FE: N	Rating FE: Y
	(1)	(2)	(3)	(4)
Population (1,000)	197.880	1,522	97.676***	22.221
			(15.649)	(17.169)
Log wheat suitability	5.310	1,522	-0.072	0.105
			(0.223)	(0.252)
Log rice suitability	6.019	1,522	0.765***	0.523**
			(0.202)	(0.227)
Log maize suitability	5.085	1,522	0.034	0.235
			(0.248)	(0.280)
Log sweet potato suitability	1.524	1,522	-0.092	0.174
			(0.255)	(0.288)
Area	0.217	1,522	0.079***	0.019
			(0.029)	(0.032)
Ruggedness	451.447	1,522	-66.214***	-16.043
			(16.516)	(18.485)
Length of navigable river (km)	20.168	1,522	17.967***	6.995
			(4.608)	(5.141)
Distance to coastline (km)	457.740	1,522	-7.454	10.035
			(14.854)	(16.956)
Distance to capital (km)	1,108.160	1,522	-30.696*	-24.252
			(16.996)	(19.108)
Distance to prov. capital (km)	196.158	1,522	-62.419***	-39.741**
			(13.821)	(15.459)
Strength of clan (# genealogies)	0.550	1,546	0.851*	0.742
			(0.451)	(0.506)
Number of officers	5.182	1,439	2.723***	1.394***
			(0.287)	(0.321)
Average grain price (1780-85)	149.834	1,546	2.952	-0.678
			(1.960)	(2.187)
Occurrence rate of disaster (1750-85)	0.096	1,546	0.056***	0.020
			(0.011)	(0.013)

Notes: This table reports the coefficients from balance tests estimating the correlation between county characteristics and amount of county local land tax (LIT). Column 1 shows the sample mean of each variable. Column 3 shows point estimates and standard errors from univariate cross-sectional regressions of each variable on the log LIT, including province fixed effects. Column 4 show the same results additionally controlling for regional complexity rating fixed effects. ***, **, * denote significance at 1%, 5%, 10% level.

To further address the potential time-varying confounding factors due to cross-sectional differences across counties with varying LLT. We leverage the fact that the initial

assignment of county LLT was largely based on the classification of regional complexity rating (Chen, 2009), and we can explicitly control for the exposure determinant by including the complexity rating interacted with year fixed effects in X'_{it}.[13] In favor of this approach, column 4 of Table 1 shows that, conditional on the inclusion of complexity rating fixed effects, county characteristics are much more balanced across counties with higher or lower LLT. Only three variables (rice suitability, distance to provincial capital, and number of officers) significantly correlated with LLT. As robustness, we also flexibly control for these characteristics interacted with time.

A key identification assumption for causal identification is that outcomes in counties with varying exposure would have evolved similarly in the absence of the reform. If this assumption holds, we should observe no systematic difference in trends in counties with higher or lower exposure before the reform. To assess the common trends assumption, we will also estimate an event-study specification to track the dynamic effect relative to the period just before the reform:

$$Y_{it} = \sum \beta_d \times log\ LLT_i \times \delta_d + X'_{it}\gamma + \theta_t + \lambda_i + \epsilon_{it} \tag{2}$$

Where δ_d is an indicator for each 5 years bin. If the coefficients β_d corresponding to pre-reform periods are close to zero, this suggests that the parallel trends assumption is satisfied.

4.2 Main results

How did centralized fiscal administration affect the fiscal performance of local governments? Before we go the formal empirical examination, we provide preliminary descriptive evidence using the raw data on tax deficits. In Figure 2, we plot the average deficit ratio for any central taxes (i.e., central land tax or grain tribute tax) by two groups of counties in 5-year periods: counties above the median of LLT vs. counties below the median of LLT. Before 1785, the two groups did not show a large difference in the likelihood of tax deficit, with an average ratio of less than 3%. However, after the introduction of centralization, both groups experienced an increase in tax deficit ratio. More importantly, the tax deficit ratio surged more sharply to a higher level (around 10%) for counties with higher LLT. The gap between the two groups remains large throughout the post-reform period. This diverging pattern from the raw data suggests that after the centralization of local taxation, county governments performed worse in raising revenues for the central state, indicating a decline in fiscal capacity.

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[13] The classification of regional complexity rating (ranging from 0 to 4) was based on an overall assessment of governance features in each jurisdiction regarding to transportation, administrative burden, difficulty in taxing, and crime (*chong, fan, pi, nan*) (Liu, 1993; Hu,2022).

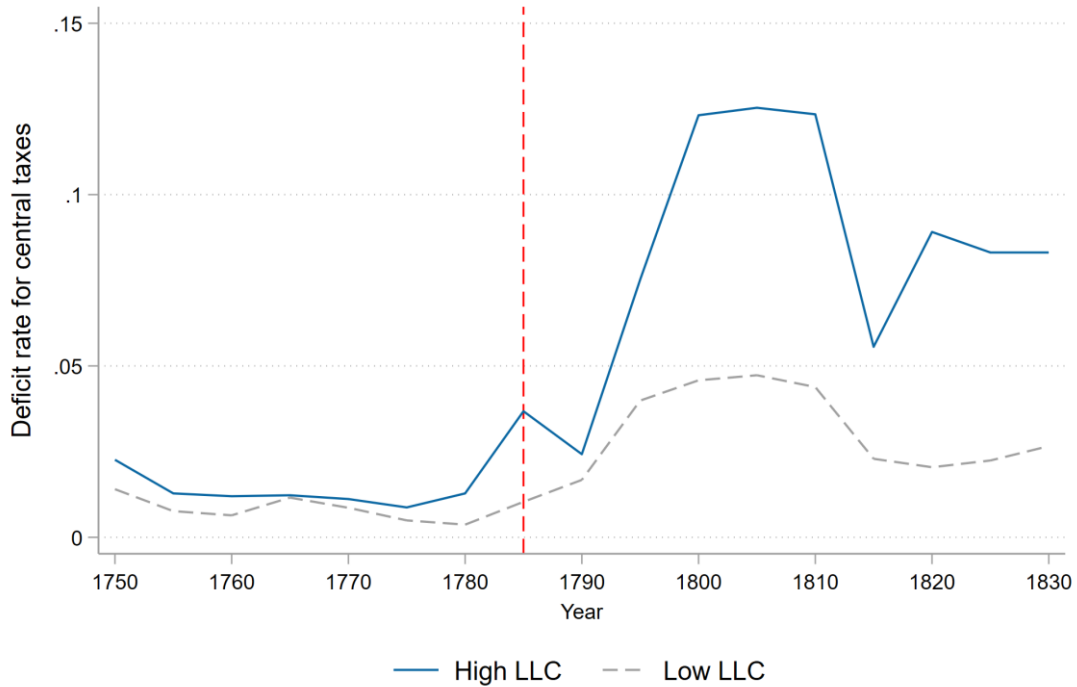Figure 2. Average deficit ratio of central tax by exposure to the centralization

Figure 3 displays the event study results on estimates of β_d along with the 95% confidence interval from equation 2. The outcome is an indicator variable equal to one if the county experienced deficits in tax collection for any central tax (panel A). The results show that all pre-reform coefficients are close to zero prior to the introduction of fiscal centralization. The absence of differential pre-trends provides supporting evidence for the validity of our identification assumption. Right after centralization, there is a significant increase in the likelihood of central tax deficits in counties with high exposure to the reform. Moreover, the effects of LLT grow over time and remain positive. These results are consistent with the raw data pattern in Figure 2. The graph shows that a 100% increase in county LLT is associated with a persistent increase in the likelihood of central tax deficits of more than 10 percentage points. Decomposing the combined measure of central tax deficit into central land tax and grain tribute tax, we find similar dynamic patterns in the likelihood of deficit for both tax margins.

Figure 3. Fiscal centralization and fiscal capacity: event study results

(A) Tax deficit (0/1): central tax

(B) Tax deficit (0/1): central land tax
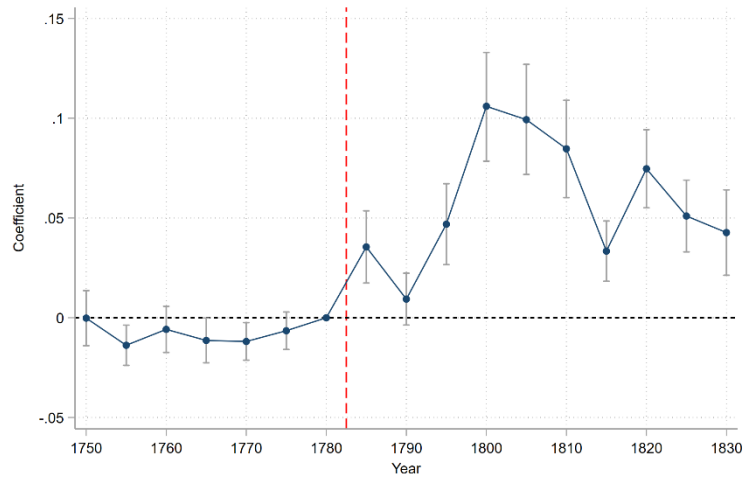
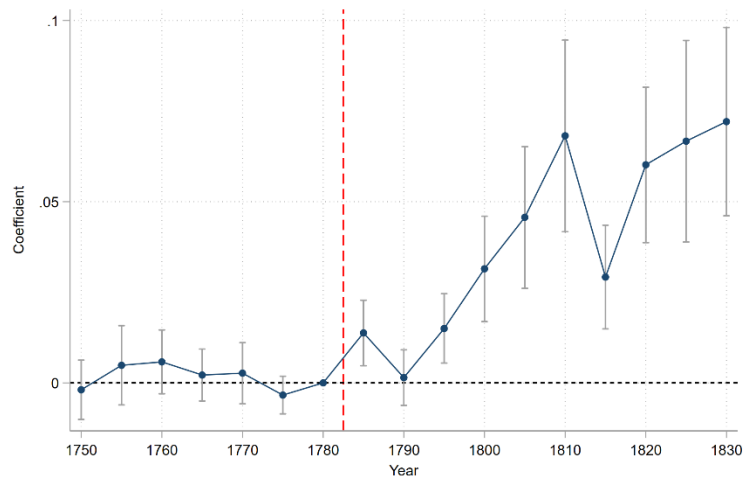## (C) Tax deficit (0/1): grain tribute tax

Table 2 reports the corresponding point estimate resulting from estimating equation 1. The dependent variable is an indicator of tax deficits for central tax (columns 1--2), central land tax (columns 3--4), and grain tribute tax (columns 5--6). Column 1 shows that doubling county LLT increased the likelihood of central tax deficits by 9.4 percentage points (pp) after the centralization. The effect is equivalent to a 261% increase with respect to the sample mean. Column 2 includes the regional complexity rating fixed effect interacted with year dummies. The coefficient of estimate remains virtually unchanged. This suggests that our results are unlikely to be driven by differences across county characteristics relevant to the exposure to reform. Columns $3-5$ show that a 100% increase in county LLT is associated with a 6.5 pp higher probability of central land tax deficit and a 3.9 pp higher probability of grain tribute tax deficit.

Table 2. Fiscal centralization and fiscal capacity

	Tax deficit					
	All central tax		Central land tax		Grain tribute tax	
VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
log LLT × Post	0.094***	0.087***	0.065***	0.065***	0.039***	0.030***
	(0.007)	(0.007)	(0.005)	(0.006)	(0.006)	(0.005)
County FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Year × Regional rating FE		Y		Y		Y
Mean of D.V.	0.036	0.036	0.029	0.029	0.012	0.012
Observations	131,410	131,410	131,410	131,410	131,410	131,410

Notes: The unit of observation is the county-year. The dependent variable is an indicator equal to one if the county experienced deficits in tax collection for any central tax (columns 1--2), central land tax (columns 3--4), and grain tribute tax (columns 5--6). log LLT is the log amount of local land tax earmarked for each county. All specifications include county and year fixed effects. In columns 2, 4, and 6, we also include year fixed effects interacted with regional complexity rating fixed effects. Robust standard errors in parentheses are clustered at the county level. ***, **, * denote significance at 1%, 5%, 10% level.

4.3 Strategic responses of county governments

The previous results show that county governments had more deficits in the revenues they collected and remitted to the crown, reflecting a decline in the state's fiscal capacity. Since the collection of central tax revenues was under stringent performance evaluation of local officials, the following natural question is to explore their strategic behaviors that could give rise to the observed surge in tax deficits.

Deficits in revenue collection were bound to affect the performance evaluation of local officials. To circumvent the regulation, a routine practice was falsely reporting natural

disasters or exaggerating the severity of disaster shock in order to justify the low tax payments and request more tax exemptions (Zhou, 2020). In the Qing Dynasty, regions encountering natural disasters could usually receive tax exemption as a national policy to cope with disaster shock. County administrators frequently exploited this loophole to avoid punishment for their poor performance or cover up the embezzlement of central revenues.

To empirically explore this hypothesis, we extract the information on disaster reporting from the official correspondence that senior local officials sent to the crown (palace memorials) from the catalogue of the *First Historical Archives of China*. We identify correspondences on disaster reports based on a list of keywords (see Appendix Table A2). Appendix Figure A1 shows a sample page of disaster report. We code the timing and location of disaster reports and aggregate them to the county-year level.

Table 3. Strategic response of local government: misreporting disaster and tax exemption

	Disaster reporting		Disaster occurrence	Extreme weather	Tax exemption	
	(1)	(2)	(3)	(4)	(5)	(6)
log LLT × Post	0.011***	0.008***	0.011	-0.010*	0.034***	0.044***
	(0.003)	(0.003)	(0.008)	(0.005)	(0.006)	(0.007)
County FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Year-Regional rating FE		Y	Y	Y		Y
Mean of D.V.	0.012	0.012	0.107	0.123	0.081	0.081
Observations	131,410	131,410	131,410	131,410	131,200	131,200

Notes: The unit of observation is the county-year. In columns 1--2, the dependent variable is an indicator equal to one if the county reported any disaster occurrence to the central government. the dependent variables are an indicator for the actual occurrence of disaster (column 3), a dummy equal to one if the precipitation index is extreme rain or extreme drought (column 4), a dummy equal to one if the county experienced tax exemptions (columns 5--6). log LLT is the log amount of local land tax earmarked for each county. All specifications include county and year fixed effects. Columns 2, 3, 4, and 6 include year fixed effects interacted with regional complexity rating fixed effects. Robust standard errors in parentheses are clustered at the county level. ***, **, * denote significance at 1\%, 5\%, 10\% level.

We present the results in Table 3. In columns $1-2$, we look at an indicator equal to one if the county reported any disaster occurrence in a given year. Consistent with our prediction, we find that centralization reform increased disaster reporting. The estimate suggests a sizable effect: doubling county LLT increased the likelihood of reported

disaster by 1.1 pp, amounting to a nearly 100% increase from the average level. However, the increase in *reported* disasters is in contrast with the null effect on real disasters from meteorological data. We find no increase in actual disaster occurrence (column 3) or extreme precipitation (column 4). Finally, consistent with the increased disaster reporting, we find a positive effect on the introduction of tax exemptions (columns 5 and 6). These results jointly suggest that counties leveraged the information asymmetry to manipulate disaster reporting and underreport tax payments.

5. Mechanism: top-down encroachment

How did a policy of fiscal centralization, designed to strengthen the top-down monitoring of local taxation, result in a significant increase in deficits in central tax revenues? In this section, we discuss the mechanisms underlying this unintended outcome. The new system subjected county LLT to more centralized oversight by provincial governments, and replaced counties' autonomy over LLT with transfers from provincial treasuries. By doing so, the new system also created incentive problems for the provincial monitors, making it easier for them to encroach on local revenues. As the administrative superior of county governments, provinces had a temptation to violate the fiscal rule on transfer payments and expropriate county revenues for their own purposes. This top-down encroachment would undermine counties' fiscal status, ultimately forcing them to embezzle central tax revenues to finance local expenditures.

We provide several pieces of evidence consistent with the top-down encroachment. First, examine the impact on deficits of LLT revenues. In the view of county governments, if they found that provinces' commitment to abide by the given rule was not credible, the anticipation of future expropriation should reduce their incentives to collect and remit LLT revenues. To test this prediction, we investigate the impact on the likelihood of LLT deficit. Table 4, columns 1-2 displays the results. In line with our prediction, we find that counties with higher LLT experienced significant increase in the likelihood of LLT deficit. Figure 4, panel A displays result from event-study specifications for the likelihood of LLT deficit. We find a persistent increase in the likelihood of LLT deficit after the centralization and detect no significant pre-trends.

We complement this result with suggestive evidence on provincial governments' behaviors concerning the management of LLT. Figure 5 plots the number of reports about diverting LLT revenues by 5-year intervals, based on the data from correspondence that senior local officials sent to the crown. The figure displays a substantial increasing pattern in the provincial government reports on diverting LLT revenues, suggesting that provinces were indeed more likely to encroach on LLT revenues after the centralization. Our quantitative evidence is also consistent with historical accounts that diverting and

extracting LLT revenues had become the common practice of provincial governments in the early 19th century (Zhou, 2020). In the 1850s, Chenglie Tang, a county administrator in Zhejiang province, described that "the robbery by the provincial treasury is even more ruthless than bandits."[14]

Table 4. Effects on deficit in local land tax and extra-legal levy

	Deficit in local land tax		Extra-legal levy (×100)	
	(1)	(2)	(3)	(4)
log LLT × Post	0.045***	0.042***	0.862***	0.685***
	(0.004)	(0.004)	(0.129)	(0.128)
County FE	Y	Y	Y	Y
Year FE	Y	Y	Y	Y
Year-Regional rating FE		Y		Y
Mean of D.V.	0.015	0.015	0.348	0.348
Observations	131,410	131,410	131,410	131,410

Notes: The unit of observation is the county-year. In columns 1-2, the dependent variable is an indicator equal to one if the county experienced deficits in local land tax. In columns 3-4, the dependent variable is a dummy equal to one if there were any cases of charging extra-legal levies, rescaled by 100 for legibility. log LLT is the log amount of local land tax earmarked for each county. Columns 2 and 4 include year fixed effects interacted with regional complexity rating fixed effects. Robust standard errors in parentheses are clustered at the county level. ***, **, * denote significance at 1%, 5%, 10% level.

Figure 4. Effects on deficit in local land tax and extra-legal levy: event study results
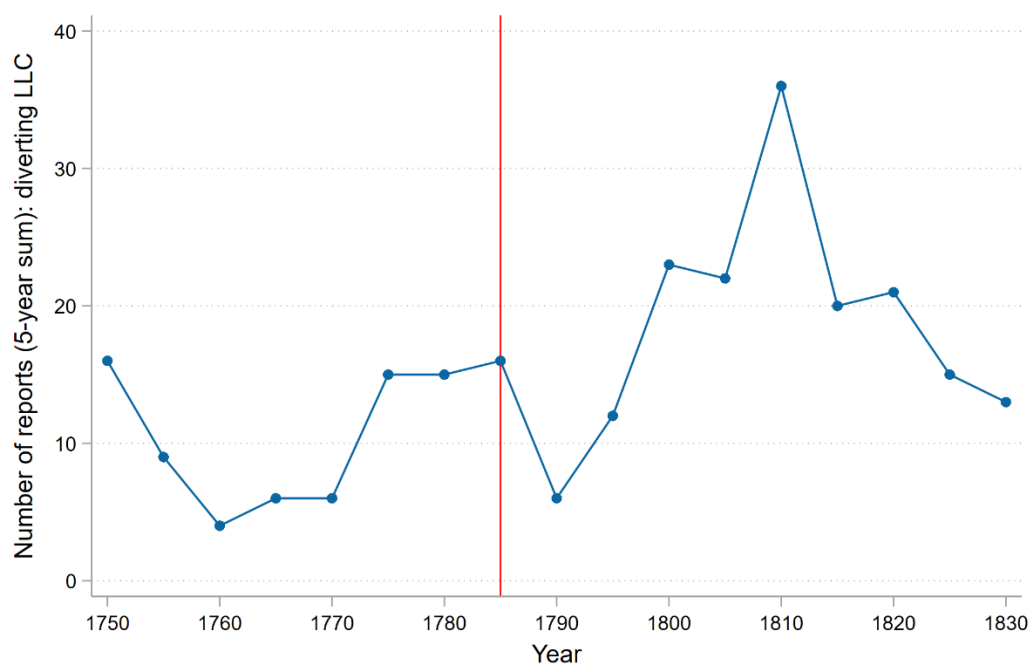
(A) Tax deficit (0/1): local land tax   (B) Extra-legal extraction (0/1), rescaled by 100
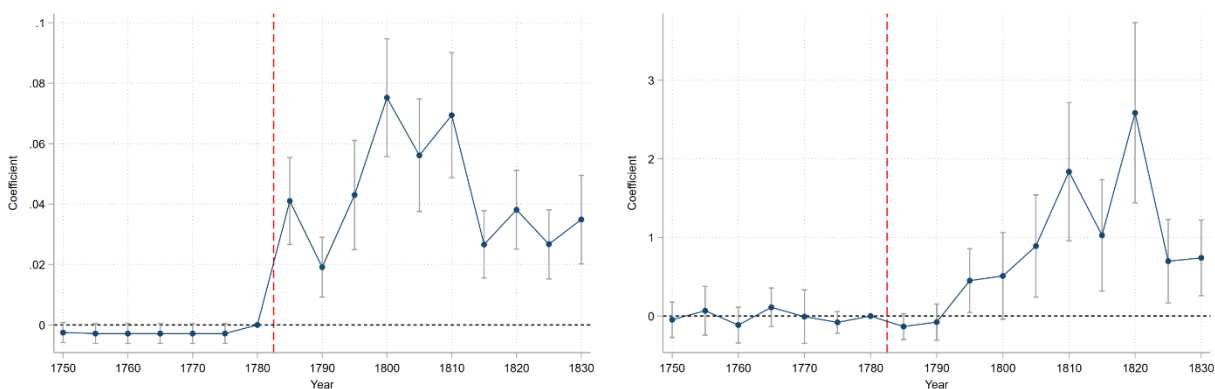
Figure 5: Number of provincial government reports on diverting LLT revenues

Second, if top-down encroachment did squeeze county governments' public finance, they might also make up by extracting more extra-legal levies from local people to finance local expenditures. While systemic data on charging extra-legal levies is unavailable due to its informal nature, we turn to the cases where local officials were investigated and punished due to extracting extra-legal levies. To proxy extra-legal extraction, we construct an indicator variable equal to one if there was at least one investigation for extra-legal levies at the county-year level. Table 4, columns 3-4 report the result. We find that centralization had a significant positive effect on the incidence of extra-legal extraction. Doubling county LLT increased the likelihood of investigation for extra-legal levies by 0.86 pp, a twofold increase of the sample mean. Figure 4, panel B presents the corresponding event-study result. The increase in cases of extra-legal levies suggests that county governments experienced higher fiscal pressure after the centralization reform. This, in turn, was likely to induce them to embezzle central tax revenues to pay for their necessary expenditures.

Third, to further examine the role of top-down encroachment of local revenues as the mechanism driving our results, we explore the heterogeneity in the likelihood of provincial encroachment. We calculate the total number of provincial government reports about diverting LLT revenues at the province level and repeat the analysis of Table 2 but include a triple interaction with the number of these reports. Table 5 reports the results and shows that the effects on fiscal capacity are significantly larger in places with a higher

risk of top-down expropriation.

Taken together, we show that the fiscal squeeze due to top-down encroachment was a prominent channel through which the centralization of LLT undermined state fiscal capacity.

Table 5. Heterogeneous effects by the probability of provincial encroachment

	Tax deficit		
	All central tax	Central land tax	Grain tribute tax
	(1)	(2)	(3)
log LLT × Post	0.065***	0.054***	0.016***
	(0.008)	(0.006)	(0.006)
log LLT × Post	0.022***	0.011***	0.014***
× Encroachment	(0.004)	(0.002)	(0.004)
County FE	Y	Y	Y
Year FE	Y	Y	Y
Year-Regional rating FE	Y	Y	Y
Mean of D.V.	0.036	0.029	0.012
Observations	131,410	131,410	131,410

Notes: The unit of observation is the county-year. The dependent variable is an indicator equal to one if the county experienced deficits in tax collection for any central tax (column 1), central land tax (column 2), and grain tribute tax (column 3). log LLT is the log amount of local land tax earmarked for each county. Encroachment is measured by the average probability of province diverting LLT in the post-reform period. All specifications include county fixed effects and year fixed effects interacted with regional complexity rating fixed effects. Robust standard errors in parentheses are clustered at the county level. ***, **, * denote significance at 1%, 5%, 10% level.

6. Consequences on governance outcomes

So far, we have documented that the centralization of local tax led to a decline in state fiscal capacity, as well as more extra-legal levies extracted by local governments. In the last part of this paper, we explore the governance consequences of the centralization reform, focusing on the impacts on public goods and protests.

We first investigate the impact on public goods provision. We focus on disaster relief, one of the most important local public goods, as the key outcome. Like other agricultural economies, livelihoods were tightly linked with the weather in the 18th-century China. Frequent natural disasters endangered people's lives and triggered social unrest. The government played an active role in relief actions (Will, 1990). Local governments managed "ever-normal granaries" for food distribution in every county and supervised

charity granaries in major towns and rural community granaries (Will and Wong, 1991). Monitoring and reporting disasters, assessing economic losses, and delivering relief were core tasks of local governments

Table 6 reports the result on the provision of disaster relief. In addition, we also control for the occurrence of disaster. We find no significant effect on relief provision (column 1). Restricting the sample to the county-year observation with the presence of disaster in column 2, we continue to find a null effect. Then, we investigate the further consequences of disaster. The disaster data from Zhang (2004) also includes rich information describing the consequences of each disaster. We use this information to construct an indicator for the incidence of famine as the outcome variable. Column 3 shows that centralization exhibits a significantly positive effect on the likelihood of famine. Focusing on the disaster sample in column 4, we find that doubling the LLT is associated with a 5.5 pp increase in the probability of famine, conditional on disaster occurrence. This is equivalent to a 28.8% increase from the average famine probability during disasters. These results indicate that while fiscally stressed counties managed to maintain the provision of relief delivery, the quality of local public goods worsened, indicating a decline in local government's ability to cope with emergencies.

Table 6. Effects on governance outcomes

VARIABLES	Relief provision		Famine		Tax protest (×100)	
	(1)	(2)	(3)	(4)	(5)	(6)
log LLT × Post	0.004	0.014	0.007***	0.055*	0.474***	0.299***
	(0.005)	(0.027)	(0.003)	(0.030)	(0.111)	(0.088)
Disaster	0.102***		0.192***			
	(0.004)		(0.005)			
County FE	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y
Year-Regional rating FE		Y		Y		Y
Sample	Full	Disaster=1	Full	Disaster=1	Full	Full
Observations	131,200	13,847	131,410	13,864	131,410	131,410
Mean of D.V.	0.044	0.155	0.020	0.191	0.274	0.274

Notes: The unit of observation is the county-year. In columns 1--2, the dependent variable is an indicator for relief provision. In columns 3--4, it is an indicator equal to one if a famine took place. In columns 5−6, it is an indicator equal to one if there was any protest against taxations, rescaled by 100 for legibility. Disaster is a dummy for the occurrence of disaster in the county. log LLT is the log amount of local land tax earmarked for each county. All specifications include county fixed effects and year fixed effects. Columns 2, 4, and 6 include year fixed effects interacted with regional complexity rating fixed effects. Robust standard errors in parentheses are clustered at the county level. ***, **, * denote significance at 1\%, 5\%, 10\% level.

Moreover, we show that the centralization policy also led to a political backlash among the local people. We particularly focus on the protest against taxation. In columns 5-6, we use an indicator equal to one if there was any protest against taxation as the dependent variable. Figure 6 shows the corresponding event study result. We find that counties with higher exposure to centralization experienced more incidence of protests against taxation. This finding aligns with our finding of local governments imposing extra-legal levies on the commoners, suggesting that the exacerbated tax burden also triggered revolts and protests.

Figure 6. Effects on protests against taxations: event study results
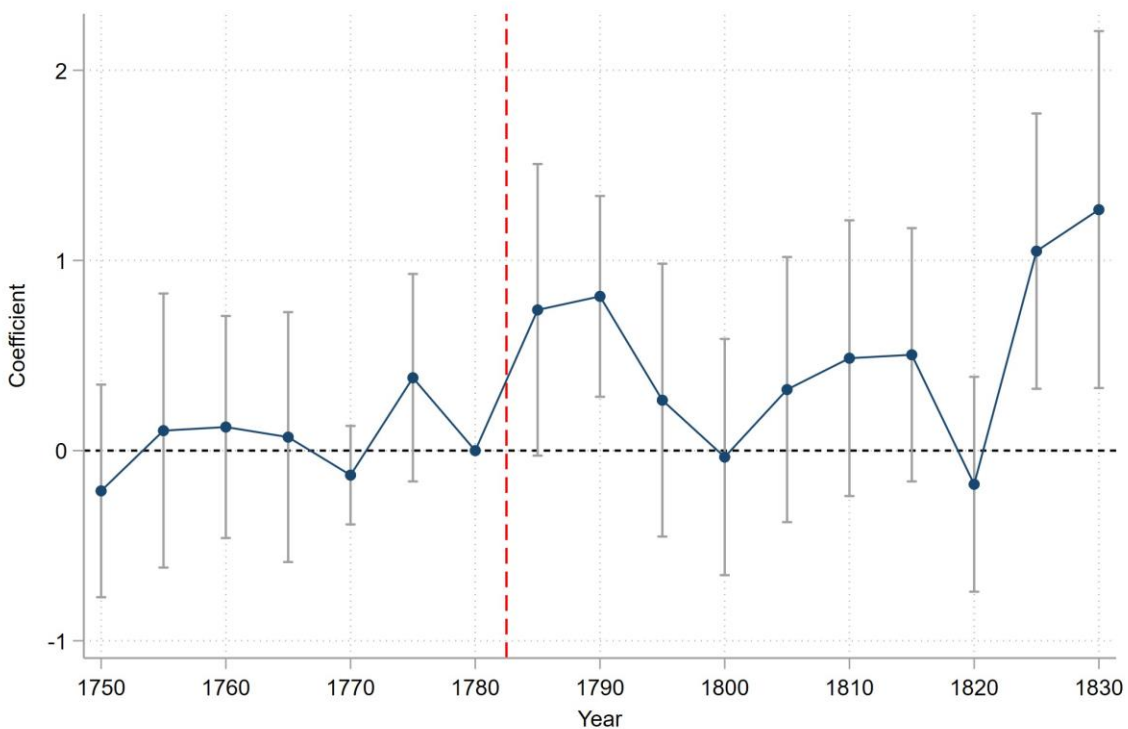
7. Conclusion

The centralized fiscal administration by professional bureaucracy played a crucial role in the transition from fragile states to effective fiscal states (Tilly, 1990; Dincecco, 2009; Kiser and Karceski, 2017; Cantoni et al., 2019). This paper studies how centralized fiscal administration aimed at monitoring local taxation affected fiscal capacity in imperial China. Using newly collected administrative data on tax collection records, we find that the centralization led to a negative unintended consequence—lower fiscal capacity. Our results suggest that the top-down encroachment between different levels of government was the underlying explanation. Our results indicate that, in multi-layer organizations

like governments, shifting authority to a higher level intended to correct *lower levels'* agency problems can meanwhile generate incentive problems for the *higher levels*. In the context of public finance and fiscal federalism, when local taxations become under the oversight of higher levels, those higher levels would be tempted to encroach on local levels' revenues (Weingast 2014). If the higher levels cannot commit to refraining from such encroachment, centralization may in turn lead to the strategic response of local governments and negative unintended consequences.

While this paper focuses on China, such tension and conflict between different levels of government could also exist in other settings when there is uncertainty about the division of spending responsibility or revenues. From a policy perspective, the findings imply that centralization reform requires careful consideration of the strategic response of both the lower and higher levels in the organization and the enforcement mechanism for the higher levels. We also highlight the importance of the rule of law governing the relationship between vertical levels of government.

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Appendix

Data appendix

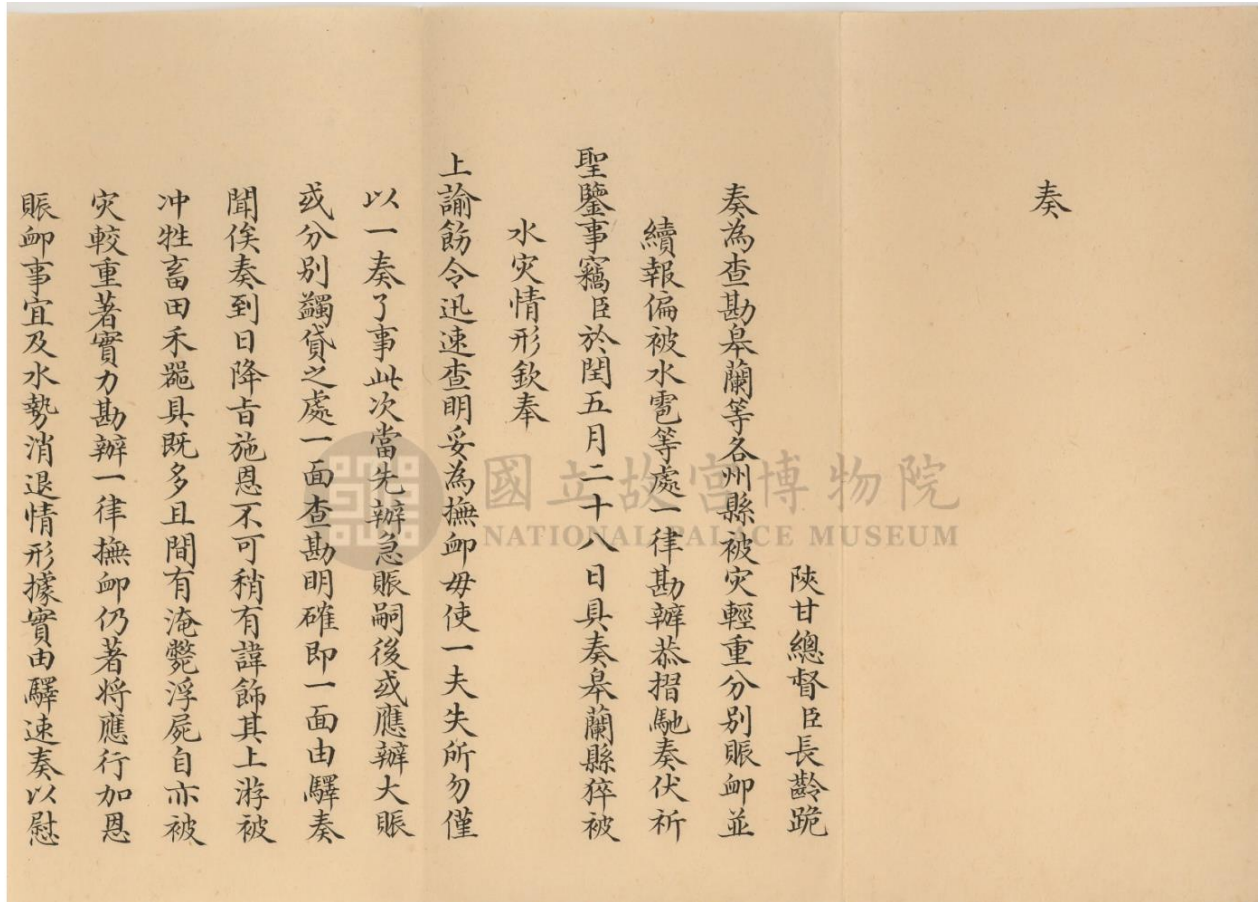Table A1. Examples of tax deficit records from archive of Ministry of Finance

Archive id	article
02-01-04-15901-011	题为察议<u>江苏元和县知县周凤歧</u>限满未完乾隆二十八年份漕项银两照例处分事
02-01-04-13957-004	题为会议<u>皖省歙县知县刘育杰</u>未完乾隆六七两年地丁钱粮例应处分事
02-01-04-14284-011	题为核议<u>甘肃高台县知县朱式毅</u>未完乾隆十年地丁钱粮处分事
02-01-04-14297-003	题为会议<u>广东番禺县知县万承式</u>等员未完乾隆十一年钱粮处分请旨事

Source: The First Historical Archives of China

Table A2. Lists of key wordings

Variable	Source	Key wordings
Deficit in central land tax	*Ministry of Finance Archives*	正赋 | 正项 | 正银 | 地银 | 地丁 | 丁地 | 地丁银 | 丁银 | 钱粮 | 地粮
Deficit in grain tribute tax	*Ministry of Finance Archives*	钱漕 | 漕项 | 漕粮 | 漕米 | 漕银 | 漕截 | 南粮 | 南米 | 粮石 | 本折行粮 | 粮米 | 漕耗 | 本色米石 | 米豆 | 征米 | 米石 | 白粮 | 漕折银 | 漕改折银
Deficit in local lant tax surcharge	*Ministry of Finance Archives*	地耗 | 正耗 | 耗银 | 羡银 | 羡余 | 耗羡 | 丁耗 | 公耗
Disaster reporting	*Palace Memorials*	被灾 | 遭灾 | 成灾 | 报灾 | 查灾 | 遇灾 | 城灾 | 偏灾 | 水灾 | 雨灾 | 涝灾 | 旱灾 | 潮灾 | 风灾 | 雹灾 | 霜灾 | 震灾 | 虫灾 | 蝗灾 | 冰灾 | 雪灾 | 荒灾 | 受灾 | 勘灾 | 灾情 | 灾分 | 灾务 | 灾荒 | 灾区 | 灾地 | 灾属 | 被水 | 被旱 | 被雹 | 被潮 | 被风 | 被淹 | 被虫 | 被霜 | 被冰 | 被雨 | 被雪 | 被震 | 被蝗 | 因灾 | 灾民 | 灾田 | 灾赈 | 灾蠲 | 灾递 | 灾缓 | 灾歉 | 灾欠 | 灾借
Protest against taxation	*Veritable Records of Qing (Qingshilu*	浮收 | 勒折 | 私派 | 科派 | 加征 | 苛索

Figure A1. Sample page of disaster report

奏

陝甘總督臣長齡跪

奏為查勘皋蘭等各州縣被災輕重分別賑卹並

續報偏被水雹等處一律勘辦恭摺馳奏伏祈

聖鑒事竊臣於閏五月二十八日具奏皋蘭縣猝被

水災情形欽奉

上諭飭令迅速查明妥為撫卹毋使一夫失所勿僅

以一奏了事此次當先辦急賑嗣後或應辦大賑

或分別蠲貸之處一面查勘明確即一面由驛奏

聞俟奏到日降旨施恩不可稍有諱飾其上游被

沖牲畜田禾斃具既多且間有淹斃浮屍自宜被

災較重著實力勘辦一律撫卹仍著將應行加恩

賑卹事宜及水勢消退情形據實由驛速奏以慰

档号 03-2121-061（台湾故宫编号 404011545），1808，嘉庆十三年七月十九日，陕甘总督长龄，奏报查明皋兰等州被灾轻重分别赈恤等情事