

Rural Tax Reform and the Extractive Capacity of Local State in China*

Mingxing Liu

China Institute for Educational Finance Research,
Peking University,
Beijing, China

Zhigang Xu Ran Tao

Center for Chinese Agricultural Policy
Chinese Academy of Science

Fubing Su

Department of Political Science
Vassar College
Poughkeepsie, NY

* Corresponding author. Tel: 0018454377617 E-mail address: FuSu@vassar.edu. The authors want to thank Sun Xin and Liu Yongdong for excellent research assistance. We would like also to recognize the China National Science Foundation (project 70703032), the Chinese Academy of Science Innovation project (KSCX2-YW-N-039) and the Ford Foundation, for financial support. All faults are solely ours.

Abstract

As a central component of statecraft, taxation must be understood within a complicated institutional environment. Economic, social, and political institutions exert powerful influence over taxing authorities' ability to extract revenues. We use rural tax burdens in contemporary China to highlight the power of this insight. We argue that three types of political and social institutions have checked the taxing power of local governments in rural China. The first is the power of the central state. The fiscal arrangement between the central and local governments matters. The other two institutions concerns local governments' relationship with the local society. Local governments' ability to solicit cooperation with peasants as well as villagers' self-governing organizations also plays a major role. Based on a national survey of village governance in China, our empirical analysis confirms the impact of these institutions. This is the first systematic analysis of local taxation in China from an institutional perspective. The findings help to establish a baseline for the ongoing interest in peasants' burdens and shed some light on one continuing debate among Chinese political economists. It also demonstrates the utility of the institutional approach in explaining taxation.

Keywords: Rural Tax Reform, Tax Resistance, Local Governance in China

Tax is the lifeblood of a state. Without sufficient revenues, the state can not finance its various functions, such as maintaining a well-equipped military, recruiting a well-trained and disciplined police force, upholding the rule of law, and providing basic education and health care to its citizens. These services underlie the legitimacy of a modern state. A more proactive state may need more resources to invest in infrastructures, subsidize scientific research, or launch ambitious industrial policies. Excessive taxation, however, dissipates regime legitimacy and results in state failure. Therefore, a state's extractive capacity constitutes the core of the statecraft. For this reason, political economists have long advocated an institutional approach to studying taxation. In addition to conventional economic factors, a state's political system, its discount rate, bargaining power, and availability of non-state revenues all influence the state's ability to tax (Cheibub 1998; Levi 1988; Olson 1991; Przeworski 1990). These factors require a better understanding of various institutions within the state as well as various rules regulating the state-society relations.

Rural taxation in China offers an opportunity to apply this institutional approach. Oppressive taxation and peasants' uprisings have punctuated the Chinese dynastic rule and many empires crumbled as a result of popular rebellions (Bernhardt 1997; Des Forges 2003; Perry 2001; Qin 2001; Wong 1997; Zhao 2005). In the 1990s and early 2000s, excessive taxation reemerged in China's countryside. In addition to formal taxes, local governments charged exorbitant levies and fees on rural households. In some cases, farmers' financial burdens reached as high as 20-30 percent of their already low incomes (Chen 2003). Many agricultural regions have developed a vicious cycle: to secure tax collection, local governments recruited more staff members; an enlarged local bureaucracy in turn required more revenues and collections (Chen 2003; Lu 1997; Yep 2004). Excessive taxation and farmers' burdens have become a major source of grievance in

China's vast rural areas. Farmers brought their complaints against their local governments to higher levels of the administration, including the central government, the court, and also the public media. In many incidences, frustration with these formal channels pushed desperate farmers into direct confrontation with local authorities. Demonstrations and protests sometimes escalated into violent clashes, which threatened social stability (Bernstein and Lu 2000; Chen 2003; O'Brien and Li 2005, 2006). The central government, fearful of the damage to its legitimacy, responded with a series of tax reform policies. The first step, known as the "tax-for-fee" reform, converted some legitimate local fees into one unified agricultural tax. The new tax rate was raised but local governments were prohibited from levying new fees. In 2004, the central government took a bolder move and started to phase out the century-old agricultural tax on farmers. In the long sweep of Chinese history, this was a rare, if not unprecedented, instance of rescinding any obligation of the farmers to the state. Ultimately, the central leadership aimed to restore its political legitimacy and to reign in local state's excessive extraction on farmers (Michelson 2005).

Like many policy changes in China, implementation can be a major challenge. Have farmers' burdens fallen as a result? Did tax reforms achieve their intended targets? To answer these questions, we examine the more general question of local state's extractive capacity. Drawing on insights from transaction cost economics, we argue that local taxation must be understood from an institutional perspective. Our analysis places local state in a complex institutional environment and highlights the impacts of various constraints they have to face. This allows us to develop more nuanced hypotheses. In 2005, we conducted a national survey of rural governance with particular attention to the financial aspect of it. As a result, we have collected systemic data about farmers' monetary burdens. The empirical test confirms various

hypotheses derived from our institutional analysis. Rural tax reforms initiated by the central government have indeed alleviated farmers' overall financial burdens - on average, the burdens were cut by more than half - but the pattern becomes more fascinating when we break them down into two components. In accordance with the central directives, local state did scale down agricultural taxes (i.e. the first component) very significantly. The other component was various informal extractions, such as irregular fundraisings and fines, which local governments were able to maintain as a source of revenue, despite efforts made by the central government to eliminate them. Local governments' extractive capacity in this area, however, was checked by two factors: the ability of farmers to resist and the development of informal organizations in villages.

This paper makes a few contributions to the burgeoning field of Chinese political economy as well as the general literature on taxation. First, this is the first systematic assessment of China's tax reforms in the rural area. Given the significance of this policy, many scholars and policy analysts have tried to evaluate its effectiveness (Bernstein and Lu 2000; Yep 2004), but all studies are based on anecdotal evidence or small samples. Our national survey covers financial information of a large sample of villages both before and after the tax reform. These cross-sectional and time-series data offer a unique opportunity for policy evaluation.

Second, our findings can shed some new light on the ongoing debate about central-local relations among political economists (Blanchard and Shleifer 2000; Huang 1996; Naughton and Yang 2004). While scholars are sharply divided with regard to the central government's ability to control its lower agents, rural tax reform suggests a middle ground: the central government remains powerful but only to certain degree. Local governments keep some autonomy and constantly bargain with the center.

Third, though the central-local dimension has informed most political economists' work on China's local taxation (Oksenberg and Tong 1991; Wong 2000), in this research we put equal emphasis on local communities by analyzing the impacts of farmers' tax resistance and rural informal organizations on the extractive capacity of the state. State and society are in a symbiotic relationship and a state's extractive capacity depends on the extent to which the society collaborates or resists.

Finally, our analysis has broader implications beyond the study of Chinese political economy. We examine the extractive capacity of local governments. These are only sub-national political entities. As a result, we study different sets of institutional rules and regulations. But our results lend strong support to the insights of the institutional approach pioneered by North (1981), Levi (1988), and Cheibub (1998). As a central piece of state building, taxation touches on many political and social institutions in a society. Our analysis provides a comparative perspective for scholars studying other countries or other levels of government in the world.

The rest of the paper proceeds as follows. The second section analyzes the governance structure in rural China. As a crucial element of rural governance, taxation structure is discussed in great detail to highlight the rationale and existence of two tiers in the system. The third section provides a few hypotheses to explain local governments' extractive capacity. The fourth section introduces the data from our national survey and empirically tests the hypotheses. The conclusion addresses some implications of this study for rural financial challenges and the overall rural governance.

Governance and Revenue Extraction in Rural China

Any understanding of extractive capacity of the local state must start with a discussion of the larger institutional environment in the countryside¹. Of particular relevance to the current

analysis is the major structural change that has occurred since China launched its economic reform in 1978.

Transformation in rural governance structure

In terms of governance, two major features have come to define this reform process in the rural area: de-collectivization and decentralization (Figure 1). Under Mao, the Chinese countryside was collectivized and private farming was abandoned (Yang 1996). The local state apparatus emerged as a dominant force in the rural society and no economic and social organizations could exist independent of them. Deng reversed the course in the late 1970s. People's Communes were disbanded and replaced by township governments. Land was contracted directly to individual households.

(Figure 1 about here)

The state's retreat from agricultural production had reconfigured power relations in the countryside. First, farmers gained more autonomy. Under the planned system, farmers were tightly controlled by the state. The reform restored farmers' positions as independent farmers and rural residents. Local governments must treat them as legitimate players and negotiate for their explicit or implicit consent. Second, de-collectivization empowered individual households but it also left a vacuum in village governance. Production brigades used to play this role. When these brigades were demolished, Villagers' Committees (VCs) and villagers' organizations sprang up to fill in the gap. Villagers' Committees were recognized as self-autonomous organizations in the 1982 constitution (O'Brien and Li 1995). In practice, however, township governments had acquired a de facto leadership role over VCs. Since the introduction of direct elections in selection of VC members in 1987, VCs in some regions have become less subservient. But this is unusual and most VCs are no more than township governments' administrative arms. Therefore,

in Figure 1, VCs belong to the local state apparatus. Villagers' organizations, on the other hand, enjoy more freedom. Many villagers have participated in Wedding and Funeral Councils, Village Elders Associations, and various religious organizations. Their financial contributions enabled these organizations to take up more active roles in village governance. In short, de-collectivization reconstituted the rural governance structure. The rural society (farmers and their organizations) gained more breathing room and provided more balance against the local state power.

Along with the adjustment between state and society, the 1978 reform also ushered in a new relationship between the central state and local governments. In order to promote development, the central government decided to decentralize the highly bureaucratized system and gave local governments more power. Taxation illustrates this new central-local relation the best.

Rural taxation and the rise of farmers' burdens

Taxation mirrored these larger changes in governance structure. To build a modern economy, China needed to transfer resources from agriculture to industry (Lin 1992). Before the reform, rural taxation was simple but very effective. The state relied mostly on three instruments. The *first* was the agricultural tax. As a tax in kind, the real tax rate was about 10% of grain output in China's first five-year-plan period (1953-1957). But partly in reaction to the Great Leap Forward disaster, the rate dropped to 5% in the 1960s and 70s (Yan 1988). The *second* taxation tool was implicit but turned out to be more powerful. Farmers were mandated to sell their grain products to the state at below-market prices. This enabled the state to provide cheap food to feed industrial workers in cities. On the other hand, the state artificially raised prices of industrial goods. Through "price scissors", the state was able to extract more resources from the farmers (Dixit 1973; Sah and Stiglitz 1987). According to one estimate, this implicit taxation

amounted to as high as RMB 280 billion between 1953 and 1978, which was about 17% of the total agricultural outputs. This figure was in fact much higher than the extractions from formal agricultural tax (RMB 89.8 billion) (Cui 2002). These two sources of taxation were mostly controlled by the central state. Communes and production brigades relied largely on the *third* instrument to collect revenues for their own use. These collectives were allowed to levy a collective accumulation fund, a welfare fund, and a cadres' compensation fund. Heavy taxation in the rural areas was made feasible only through coercion. The communes and production brigades had to sell their grains to the state at low prices. As a tax in kind, the agricultural tax was automatically deducted, and then communes and production brigades withheld the accumulation, welfare, and compensation funds. Only afterwards could farmers receive their share of grain and cash based on their work-points (Lin 1992). The mandatory grain procurement system and collectivization minimized social resistance for the state.

When reform was launched in the early 1980s, the central leaders adjusted the taxation system to facilitate the larger goal of economic development. A two-tier fiscal system was put into place. In addition to budgetary revenues, local governments were allowed to manage their extra-budgetary accounts (Oi 1999; World Bank 2002). Unlike the budgetary revenues, local governments enjoyed more autonomy in dispensing money in these accounts. The central state might have rationally turned a blind eye to these incomes to give local governments extra incentive for local economic growth. Township governments, for example, were authorized to collect five pooling funds (Wu Tong) for local public services such as education, militia training, road construction and maintenance, welfare for veterans, and birth control. Villages were authorized to collect three deductions (San Ti) for collective capital accumulation, welfare funds, and cadres' salaries. These extractions were classified as extra-budgetary.

Despite this fiscal incentive, rampant fees did not get out of control until the second half of the 1990s. Several factors may explain local governments' changing behavior. First, submitted profits from Township and Village Enterprises (TVEs) constituted a major source of township governments' extra-budgetary revenues in the 1980s. When the Chinese economy became more marketized in the early 1990s, many TVEs went bankrupt or were simply privatized (Naughton 2007). Once this cushion eroded, local governments had to turn to farmers for revenues. Second, the central government recentralized fiscal revenues in 1994. Under the two-tier fiscal arrangement, local officials devoted more energy to extra-budgetary accounts and the central state revenues dropped quickly in the 1980s (Wong 2000; World Bank 2002). In 1994, the central government introduced a separate-tax reform with the ultimate goal of recentralizing revenues to the center. It was overall a success for the central government. But local governments found their shares of the fiscal pie shrinking (World Bank 2002). Moreover, the central leadership in the 1990s intensified cadre evaluation. It set up various goals, such as school enrollment rate, telephone coverage, running water, road connection, etc. Local officials must fulfill their targets; otherwise the leading cadres would be punished or removed. The central government did not finance many such mandates and local governments had to tap into their own revenues (Yep 2004).

As a result of these changes in the 1990s, local governments felt the financial squeeze from both sides of revenue collection and public spending. Agricultural regions were particularly hard hit. To make their ends meet, local governments started to issue regulations and raise extra funds from farmers. These extractions usually took the form of fees and levies for things like school renovations, environmental protection, cooperative health service, animal immunization, family planning, irrigation, etc. Local governments fabricated all kinds of excuses to extract resources.

In some areas, peasant households had to pay for more than a hundred types of such fees! Financial rules and regulations with regard to these revenues were generally quite weak. Because of this financially lax situation, local officials could use the collections to finance some centrally unfunded mandates, but it was also a hotbed for corruption because neither the central government nor the farmers could hold local officials accountable for their behaviors. Many farmers fought back and in some cases the resistance escalated into violent clashes involving police, local cadres, and the masses, seriously undermining social stability and the Party's legitimacy in the countryside (Li 2004; Thornton 2004; Park et al 1996; Chen 2003).

Explaining Local Taxation: Three Institutional Hypotheses

Local governments faced a more challenging environment in the second half of the 1990s. The central state became more fiscally and administratively demanding. To survive as a viable part of the state, local governments must perform and meet central expectations. The more aggressive taxation, however, was met with a rural society that was less inclined to be controlled. This institutional analysis allows us to develop several specific hypotheses to explain local governments' taxation in the early 2000s.

Central-local state institutional control

Rampant corruption and onerous local extractions should not be read as a total loss of control by the central state. As explained above, excessive extractions were partly caused by the central government's ability to recentralize fiscal revenues and punish underperforming local officials. Since the early 2000s, the central state has enacted a series of policies, generally known as the rural tax reform. In March 2000, the Central Committee of the CCP and the State Council issued the "Circular on Implementing Pilot Project of Rural Taxation Reform." Like many previous major breakthroughs in rural policy changes, Anhui was chosen as the pilot province

and a few counties and cities in other provinces were also included. The next year, Jiangsu became the second province to experiment with this reform policy. In 2002, twenty provinces joined and promoted the tax reform in selected localities under their jurisdictions.

(Table 1 about here)

At this stage, the policy objectives were not ambitious. As Table 1 shows, the central state tried to regularize farmers' tax burdens and control the excess. Five pooling funds (Wu Tong), three levies (San Ti), and compulsory labor had existed for decades and had become a crucial component of local finance. The real problem lay in the rules regulating these funds. Classifying these collections as extra-budgetary allowed local officials to operate under the radar screen. The tax-for-fee reform incorporated them into the formal budgetary system and intended to bring more transparency to the management. To make up for the shortfall, the agricultural tax rate rose from 5% to 7%, plus a 20% surcharge. These tax revenues must follow general budgetary rules (State Council 2000, 2002, 2003). All other fees and levies were labeled as "unauthorized" and were to be eradicated. Administrative fees deserve a special note. As a service charge, these fees (vehicle fee, marriage license fee, etc.) may have legitimate reasons. In reality, local officials utilized this legitimacy for excessive collections. For example, instead of 5 Yuan, a marriage license might cost 15 Yuan. Farmers simply could not resist or did not really have enough information about it. Therefore, administrative fees had evolved into a convenient collection vehicle for local cadres. The central government did not terminate these fees immediately but warned against any "unreasonable" charges.

In 2004, the central state adopted a more progressive policy and decided to completely terminate agricultural tax on farmers. Peasant discontent had alarmed the central leaders, and because of the rapid economic growth, the central budgetary income had expanded at such a fast

pace that the central leaders were confident of affording subsidies to most local governments which had budgetary shortfalls. Like the tax-for-fee reform, a gradualist approach was adopted. Two provinces in the northeast, Heilongjiang and Jilin, were asked to exempt farmers from agricultural tax in 2004. The same year, eleven other provinces where agriculture was still a large part of their economies had to cut their agricultural tax rate by 3% and the rest of the country by 1%. This tax was to be terminated nationwide in five years (Sun 2004; State Council 2004).

Because of the power of the central state and its strong commitment to alleviating farmers' burdens, local governments' ability to tax farmers must be curbed by this policy. We expect that areas where tax-for-fee reform was implemented should have lower level of taxation burdens. Moreover, the central state had only regularized parts of local taxation (bold items in Table 1). With more transparency and clear reduction goals, local governments should react to this part more promptly. The central state also targeted irregular fundraisings and unreasonable fees, although its effectiveness might be compromised because of the inability of the central state to verify information. In the case of administrative fees, even the central government had left some room for local manipulation.

State-society relations I: farmers' resistance

In addition to the central-local relation, local governments must also deal with challenges from the state-society dimension. One of these challenges was a more assertive peasantry. As the liberalization continued in the 1990s, grain market started to replace the state procurement system. For many decades in the past, the latter system had enabled local officials to withhold taxes and fees with relative ease. In a market economy, farmers regained control over grain productions and sales. Instead of selling their grains to the state granary bureaucracies, farmers

had the option to bring their products to the market directly. As a result, cadres had to collect taxes and fees from individual peasant families, usually in cash payments. More importantly, marketization to some degree leveled the highly skewed state-society relations and enhanced farmers' bargaining power vis-à-vis the local state. They could resist if some extractions were too onerous or outrageous. Scholars have documented various strategies employed by these seemingly docile farmers (O'Brien and Li 2006; Michelson 2007). Some farmers filed complaints and petitions to higher authorities, while others brought administrative law suits against their local governments. In other cases, farmers simply refused to pay and confronted tax collectors. We expect that, in areas with higher degrees of resistance, local governments would have trouble taxing farmers. In addition, farmers' perception of legitimacy should also play a role. Extractions with the central state's approval were regarded as more legitimate. Fees beyond the central state's permission, on the other hand, usually carried little legitimacy. In order to collect taxes from each household, local governments had hired extra hands, which were financed by these illicit fees, which further undermined the legitimacy of their collections.

State-society relations II: villagers' organizations

Villagers' organizations constitute the other major component of the local society. After the state's retreat, the rural society gradually regained its vitality. Many villagers' organizations started to populate the social space (Shen et al 2005; Shue 1994). Some of these "self-governing" organizations, such as public security groups and dispute arbitration associations, were largely incorporated into local state apparatuses, performing various functions for the state. Some more autonomous ones were based on voluntarism and have managed to establish their presence, including lineage groups, religious groups, the Village Elders Associations, and Wedding and Funeral Councils. We define these groups as villagers' organizations and analyze their impacts.²

These groups may affect local governments' extractive capacity for two reasons. First, civic organizations might help build social capital. Through networks and solidarity, villagers could overcome the collective action problem and rise up against illegitimate taxation. The farmers' resistance that we just analyzed should capture part of this effect.³ The other possible causal mechanism is substitution. Historically, social forces have played important roles in village life, such as the provision of basic services for the local communities. Tsai (2002) reported that some village organizations have engaged in religious, social, and philanthropic activities. They raised funds and provided valuable public goods for their villages. Our own field work in Fujian and Jilin provinces also confirmed these findings. Many Village Elders Associations, lineage groups, and religious groups collected funds not only for their own activities but also for paving village roads, installing tap water, and building local schools. In some cases, even the Villagers' Committees had to come to these groups to raise funds for public projects. Therefore, due to this substitution effect, local cadres in areas with dense and active villagers' organizations may not need to tax too much on their own.

Empirical Evidence and Discussions

We conducted a large national survey in 2005 to test these hypotheses. We first divided the country into six large regions and randomly picked one province in each: Shaanxi (Northwest), Sichuan (Southwest), Hebei (North), Jilin (Northeast), Jiangsu (East), and Fujian (Southeast). All counties in each province were ranked and categorized into five quintiles in order of their per capita gross value of industrial output. In each quintile one county was randomly selected. Two townships in each county and two villages in each township were chosen respectively on a random basis. We surveyed 16-18 rural households in each village. Due to natural disasters and miscommunications, our survey teams could not reach some target villages. As a result, our data

covered 1,928 villagers in 116 villages, from 29 counties. We had detailed information about farmers' tax burdens as well as village level economic and social indicators. Moreover, the above information was collected for both 2000 and 2004, two years when the central state introduced the tax reform policy in the countryside.

As Table 1 shows, farmers' tax burdens can be broken down to two groups. The first group consists of agricultural tax, five pooling funds, three levies, and compulsory labor, and has been incorporated into the budgetary control and targeted for reduction and gradual termination. But by doing so, the central state also provided a seal of approval. On the other hand, the second group of extractions, which includes various fees, fundraisings, and inflated administrative fees, were deemed as irregular and illegal. To simplify presentation and analysis, we label them "taxation with central permission" and "taxation beyond central permission" respectively in this paper.

Farmers' burdens at a glance

Table 2 reports farmers' tax burdens in 2000 and 2004. The value of compulsory labor is calculated by multiplying a farmer's required working days by the daily compensation for such labor defined by the state. The product is the cash value a farmer needs to pay if he or she chooses not to contribute his or her labor. In most areas it was set at 6 Yuan per labor day in 2000 and 10 Yuan per labor day in 2004.⁴ After the rural tax reform, local governments should, in principle, not levy illegal fees on farmers. The only exception applied to public projects in the villages requiring farmers' funds, in which case communal discussion on the specific item should be used to raise funds (or "yishiyiyi" in Chinese). However, in practice local governments in some regions still charged farmers by way of various fund-raisings and administrative fees (Zhu and Jia, 2005, Xiang, 2003).⁵ For example, in some locations farmers needed to pay an extra soil

and sand use fee (for housing construction), a water conservancy and use fee, land administrative fees in order to obtain permits for building residential houses. In Table 2, these illegitimate charges and fees are put together under taxation beyond central permission. Table 2 also presents these taxes and fees as a share of farmers' incomes (tax rate).⁶

(Table 2 about here)

Farmers' tax burdens fell significantly from 2000 to 2004 after the introduction of the rural tax reform. For all the farmers surveyed, total tax burdens per capita dropped by more than half from 145 Yuan in 2000 to 67 Yuan in 2004. The reduction was almost fully attributable to changes in taxation with central permission, which dropped by over 73 percent from 103 Yuan per capita in 2000 to 27 Yuan in 2004. For taxation beyond central permission, the per capita levy was reduced only by 3 Yuan (from 42 Yuan to 39 Yuan) between 2000 and 2004. Under taxation with central permission, the township pooling funds and village deductions were reduced by 86 percent while the agriculture tax (and the agricultural tax supplement) also dropped by 73 percent.

Table 2 also shows that the rural tax reform has significantly changed the structure of farmers' tax burdens. Before the tax reform, taxation with central permission comprised around 71 percent of total tax burdens, but by 2004 the figure came close to around 41 percent. In terms of tax rates, farmers' tax burdens as a share of their net incomes dropped from 6.9 percent to 2.5 percent between 2000 and 2004, a reduction of 64 percent. Only around 60 percent of such rate reduction (2.5 percent) came from the decrease in tax burden level and the other 40 percent (1.8 percent) came from growth of farmers' income during the same period. In the villages we surveyed, farmers' per capita income grew from 2,093 Yuan to 2,675 Yuan during this period.

(Table 3 about here)

Table 3 summarizes farmers' tax burdens by province. There are significant regional variations both before and after the rural tax reform. The two large categories of taxation, i.e. taxes with and beyond central permission, also exhibit different patterns. While many factors tend to affect taxation levels, such as the level of industrialization, Township and Village enterprises, and agricultural productivity, specific provincial tax reform policies are also responsible for these regional variations. For example, Jilin was among the first provinces to exempt its farmers from the agricultural tax in 2004. The relatively developed province of Fujian had a comparatively low tax even back in 2000, and in 2004 it took a step further by exempting farmers from almost all taxation with central permission. On the other hand, the regional pattern of taxation beyond central permission could not be accounted for by specific provincial rural tax reform policies. Both Jiangsu and Hebei had introduced modest reforms and their taxation with central permission had dropped. Somewhat surprisingly, farmers' tax burdens beyond central permission actually increased! In addition, the level of economic development does not seem to play a major role either. For example, in the relatively developed province of Jiangsu (with a per capita farmers' income at 2,984 Yuan and 4,455 Yuan in 2000 and 2004, respectively), its per capita taxation beyond central permission grew from 44 Yuan to 59 Yuan between 2000 and 2004. However, the relatively under-developed agricultural province of Jilin (with a per capita farmers' income at 1,769 Yuan and 2,764 Yuan in 2000 and 2004, respectively), the per capita taxation beyond central permission dropped from 57 Yuan to 46 Yuan between 2000 and 2004. In short, there are significant variations in farmers' tax burdens across China. To account for local state's extractive capacity, we bring political and social institutions as well as some common economic variables into the analysis next.

Regression analysis and discussions

We employ an empirical framework with the following specification:

$$Taxburden_{ijt} = \beta_0 + \beta_1 T + \beta_2 Taxresist_{ij} + \beta_3 Inforg_{ij} + \beta_4 X_{ijt} + u_j + \varepsilon_{ijt} \quad (1)$$

In equation (1), $Taxburden_{ijt}$ is a set of dependent variables that represent per capita farmers' tax burdens in the i^{th} village of the j^{th} province in year t . These include the per capita total tax burden, the per capita taxation with central permission and the per capita taxation beyond central permission. There are three key independent variables on the right hand side of the equation. The first is $Taxreform_t$, a dummy variable which takes 0 for year 2000 and 1 for year 2004. This variable can be considered as exogenous since it is a dummy for the rural tax reform initiated by the central government. The second key independent variable, $Taxresist$ is an index of village tax resistance proxied by the share of households that had not fulfilled their tax obligations in a village by year 2000, or in other words, it is an index that reflects the stock of rural households who incurred tax arrears by then. The third key independent variable, $Inforg$ is a variable that represents the participation rate in rural self-governing community organizations. This variable is constructed by dividing the total population of village community organizations by the total village population. This variable measures the village's informal organization participation rate at the time of our survey (2004). We were not able to obtain the data for earlier years. Both $Taxresist$ and $Inforg$ are time invariant but they can capture the cross regional impact of these institutions on local taxation. Still, there is the possibility of endogeneity for both the $Taxresist$ and $Inforg$ variables. We use instrumental variables to detect and correct for the endogeneity problem.

X_{ijt} is a set of control variables at the village level, including village per capita arable land, village labor force (the number of laborers as a share of village population), village size (or village

population), per capita income of the village, village flat land (flat arable land as a share of total village arable land), village's distance to the seat of the township government, per capita village public enterprise profits, and per capita GDP of the county. Village per capita arable land, labor force, and flat land share are controlled because rural taxes and fees are either levied according to the amount of arable land or the number of laborers in the villages. Villages with more flat (and fertile) land are usually taxed more heavily than those with more hilly land. Village total population is controlled to identify possible economy (or diseconomy) of scale in rural taxation. Per capita village public enterprise profits are also controlled since villages sometimes pay farmers' tax burdens by drawing from these profits (Oi and Rozelle, 2000). Village's distance to their township government is included to control for village's geographical location. More remote villages may require more administrative resources to extract revenues and therefore end up with higher taxation. We further control the county level per capita GDP because higher GDP usually implies higher degree of industrialization. This means that the county as well as the township governments may rely more heavily on industrial taxes rather than individual farmers' households for revenues. u_j s are the province dummies and ε_{it} is the error term.

Finding valid instruments for *Taxresist* and *Inforg* variables can be difficult. The instruments should be exogenous and have real effects on the suspected explanatory variables. Moreover, they influence the explained variable only through their impact on the potentially endogenous variables (Woodridge 2001). If the instrumental variables are valid and endogeneity exists, two-stage regressions offer more consistent estimates. In our regressions, we employ three instruments, i.e. the number of ancestral temples in a village, the number of cadres who work at township and county level government agencies but originally come from the village, and the number of villagers who participated in PLA toward the founding of the People's Republic (such

as the Anti-Japanese War, the Liberation War, and the Korean War). Presumably, the existence of ancestral temples in a village helps to enhance farmers' mutual trust and promote the development of rural self-governing organizations. The higher the number of native cadres who work in the township and county governments gets, the stronger the village's political network is in the local state. A stronger political network implies that villagers may feel empowered to resist taxation, especially illegal fundraisings by village or township cadres. At the same time, villagers in such villages, in protecting their rights, tend to appeal to the local state directly through their political networks instead of forming non-state informal organizations. We also use the number of villagers who participated in PLA as soldiers to instrument the *Taxresist* variable. Because of their prestige and influence, these veterans may help to enhance the local state's legitimacy and reduce local tax resistance. The first stage IV regression results are presented in Table 5. Overall our instruments have significant impacts on the instrumented variables and the coefficients have the expected signs. The endogeneity tests in Table 4 show that for the overall taxation and the taxation beyond central permission, *Taxresist* and *Inforg* are endogenous while our over-identification tests indicate that our instruments are exogenous. Therefore, we focus on the IV estimates for these two variables and discuss the OLS estimates when the dependent variable is taxation with central permission. Despite the technical differences, both OLS and IV estimates show remarkable consistency for all variables concerned in the regressions.

(Table 4 about here)

(Table 5 about here)

Table 4 summarizes all major findings. First of all, the policy variable, i.e. tax reform dummy, shows strong effects on the overall taxation level. As a result of the central state's rural tax reform policy, farmers' burdens were reduced by 76 Yuan between 2000 and 2004, which is quite a

sizable drop. More importantly, taxations with and without central permission have exhibited different patterns. For taxation with central permission, central policy has cut farmers' burdens by 71 Yuan. The estimate for taxation beyond central permission has the right sign but is very small. Statistically speaking, even this small effect does not exist. These findings largely corroborate our earlier stories from Table 2 and strongly support the first hypothesis. Local governments' capacity to extract resources was indeed constrained by the central state. In the 1980s and 90s, the central leaders tolerated local discretion to incentivize local officials for faster economic growth. When local taxation became excessive in the late 1990s, the central state tightened control and tried to rein them in. The power of the central government was limited, and so local governments still possessed some discretion to extract resources in spite of the illegality.

The other two hypotheses also receive strong support. Estimates from the overall taxation regression suggest that farmers' resistance reduced their taxation burdens while villagers' organizations were not as effective. The aggregation, however, has covered up more interesting patterns. When we separate taxation with central permission and disapproval, the predicted patterns become clear. For taxation with central permission (column 3), neither farmers' resistance nor villagers' organizations play any visible role in alleviating farmers' burdens. This part of local taxation was viewed as more legitimate and the state-society dimension was less prominent. For taxation beyond central permission (column 6), both have statistically significant impacts. A one percent increase in *Taxresist* reduced the per capita illegitimate taxes by 3.8 Yuan. Villages with more active resistance constrained the local state's extractive capacity. Every one percent increase in *Inforg* likewise decreased illegitimate tax burdens by 2.1 Yuan.⁷ Since we have controlled for tax resistance in our regressions, it is reasonable to conclude that the causal mechanism for community organizations is substitution. These organizations mobilized their members to raise

funds locally as well as donate free labor for public goods provision, and it was these activities that relieved local governments of onerous taxation on farmers. Therefore, as predicted earlier, the state-society relation starts to kick in when the legitimacy of local resource extraction is being questioned. These social factors, i.e. farmers' resistance and community organizations, affected mostly taxation beyond central permission.

In addition to these institutional variables, the control variables also reveal some notable patterns about local taxation in China. Interestingly, taxation beyond central permission (column 6) did not respond to any economic variables. This makes a lot of sense because after all, these extractions were regarded as illegitimate and local governments did not follow any systematic rules. Fees and levies, in particular, were quite arbitrary. On the other hand, taxation with central permission did respond to many, though not all, economic variables (column 3). First, these taxes were mostly based on the size and productivity of land. Villages with more land (per capita arable land) and more productive land (share of level land) had higher per capita taxation. Geography also played a positive role. Villages farther away from township government seats paid more, partly to offset higher administrative costs. Finally, village enterprises did provide an extra cushion for farmers. Local governments used enterprise profits to make up for the shortfalls in local revenues, which allowed these governments to stop collecting from farmers. On the other hand, these taxes were only weakly associated with labor. Some villages in our samples did use labor as a basis for taxation. Though on a national level, this was not the general pattern. Similarly, taxation did not correspond to the level of economic development or industrialization. Overall, the various taxes that had central permission were land-based.

We also controlled the provincial dummies for Shichuan, Shannxi, Jilin, Hebei, Fujian. Hence the coefficients for the dummies indicate the per capita tax burden in these provinces relative to that

of the benchmark province of Jiangsu. For example, in terms of total tax burdens per capita, all other provinces seemed to pay less taxes on average compared to those who lived in Jiangsu, the most developed province in our sample.

Conclusion

Scholars have been debating China's central-local relations during the reform era. Our study suggests that the central state is certainly capable of controlling local governments. The rise of excessive taxation can be seen as a direct consequence of fiscal recentralization and imposition of unfunded mandates in the 1990s. The successful reduction of farmers' overall burdens further indicates the control of the central state. After all, China is a unitary state and the central state still holds a lot of power in deciding fiscal matters of the country. However, the continuing existence of illegitimate fundraising activities also reveals the limit of the seemingly powerful state. Any analysis of Chinese political economy must acknowledge this dialectical nature of the central-local relations in transitional China. For students of taxation, our findings demonstrate the utility of the institutional approach. All taxing authorities, national or local, are rational revenue-maximizing actors. But they must work within a complicated economic, social, and political environment. Political and social institutions, in particular, can exert powerful influence over these taxing authorities' ability to extract revenues. This should encourage comparative political economists to examine specific institutional arrangements in different countries. While scholars have focused on national level institutions, sub-national level studies may offer a new angle for comparative analysis.

Theoretical implications aside, our discussions also have more direct implications for improving governance in China's countryside. According to our analysis, encouraging community organizational development should be an important component of further rural

governance reform in China, but this does not mean that fundamental reform of the local state itself is not important. As Tsai (2002) has argued, the role of community organizations in providing within-village public goods was usually limited. Their efforts sometimes substituted rather than complemented formal governance, leading to an overall undersupply of local public goods, the effect of which became more pronounced in the aftermath of the rural tax reform. Many villages have reported cutting back teachers' salaries and consolidating primary schools in rural areas. This will likely offset the political gains from the abolishment of rural taxation (Qu 2005; Yep 2004). For the time being, the central state has been channeling financial resources from the central as well as higher level local governments' budgets to compensate for the revenue shortfall. However, merely increasing the transfer of funds is not sufficient enough to create an incentive for local government to provide the needed public services. In another word, the fundamental problem with local taxation is not that local governments extract resources, but how it is done. In the long run, a better functioning local governance in China necessitates much wider and more meaningful participation by both expanding the local democracy and promoting the developments of grassroots informal organizations. From this perspective, strengthening democratic institutions at grassroots level – that is, village and township elections – may have the greatest potential to bring accountability into the revenue collection and public spending. With electoral pressure, local leaders should also have incentive to listen to rural residents and provide adequate public goods in their jurisdictions.

References

- Bernstein, Thomas B. and Xiaobo Lü. (2003). *Taxation without Representation in Contemporary Rural China*. Cambridge and New York: Cambridge University Press.
- Blanchard, Olivier and Andrei Shleifer. (2000). "Federalism with and without Political Centralization: China vs. Russia." *NBER working paper* 7617.
- Cheibub, Jose. (1998). "Political Regimes And The Extractive Capacity Of Governments: Taxation in Democracies and Dictatorships." *World Politics* 50 (3): 349-376.
- Cui Xiaoli. (2002). "Rural Tax Reform: Transition from Production to Market Transaction." *Chinese Rural Economy* Vol.9.
- Dixit, Avinash. (1973). "Models of Dual Economies." In: J.A. Mirrlees and N.H. Stem, eds., *Models of Economic Growth*. New York: Macmillan.
- Huang, Yasheng. (1996). *Inflation and Investment Control in China*. Cambridge University Press.
- He, Kaiyin, and Sun Li. (2000). *Zhongguo nongcun shuifei gaige chutan* (The Early Exploration of the Rural Tax-For-Fee Reform in China). Beijing: Zi Gong chubanshe.
- Kelliher, Daniel. (1992). *Peasant Power in China: The Era of Rural Reform, 1979-1989*. New Haven: Yale University Press.
- Kennedy John James. (2005). "Death of a Township: Impact of the 2002 Tax-For-Fee Reform in Northwest China." University of Kansas Presented at the Association of Political Science Annual Conference in Washington D.C. September 1st - 4th 2005
- Levi, Margaret. (1988). *Of Rule and Revenue*. Berkeley: University of California Press.
- Li, Lianjiang. (2004). "Political Trust in Rural China." *Modern China* 30: 228-58.
- Lü, Xiaobo. (1997). "The Politics of Peasant Burden in Reform China." *The Journal of Peasant Studies* 25: 113-38.
- Lin, J. Y. (1992). "Rural Reform and Agricultural Growth." *American Economic Review*, Vol. 82, No. 1 (1992), pp. 34-52.
- Michelson Ethan. (2007). "Justice from Above or Justice from Below? Popular Strategies for Resolving Grievances in Rural China." *The China Quarterly* 192.2
- Naughton, Barry. (2007). *The Chinese Miracle: Transitions and Growth*. MIT Press.
- Naughton, Barry and Dali Yang. 2004. *Holding China Together*. Cambridge University Press.
- North, Douglass. (1981). *Structure and Change in Economic History*. Norton.
- O'Brien, Kevin J. and Lianjiang Li. (1995). "The Politics of Lodging Complaints in Rural China." *The China Quarterly* 143: 756-83.
- O'Brien, Kevin J. and Lianjiang Li. (2005). "Popular Contention and its Impact in Rural China." *Comparative Political Studies* 38: 235-59.
- O'Brien, Kevin J. and Lianjiang Li. (2006). *Rightful Resistance: Contentious Politics in Rural China*. Cambridge and New York: Cambridge University Press.
- Oi, Jean. (1999). *Rural China Takes Off: Institutional Foundations of Economic Reform*. University of California Press
- Oi, Jean and Scott Rozelle. (2000). "Elections and Power: The Locus of Decision-Making in Chinese Villages." *The China Quarterly* , No.162 , June, 513-539.
- Oksenberg, Michel and James Tong. (1991). "The Evolution of Central-Provincial Fiscal Relations in China: 1971-1984." *The China Quarterly* 1991.
- Olson, Mancur. (1991). "Autocracy, Democracy, and Prosperity." in Richard J. Zeckhauser, ed., *Strategy and Choice* (Cambridge: MIT Press).
- Park, Albert, Scott Rozelle, Christine Wong, and Changqing Ren. (1996). "Distributional

- Consequences. of Reforming Local Public Finance in China.” *The China Quarterly* 147: 751-778.
- Przeworski, Adam. (1990). *The State and the Economy under Capitalism* (Chur, Switzerland: Harwood Academic Publishers).
- Qin, Hui. (2001). “What is the fundamental reason for the ‘Huang Zongxi Law’? Can China break out of this ‘Huang Zongxi Law’ A Note on Rural Taxation.” Working Paper, Tsinghua University.
- Qu Changrong. (2005). “Mianzheng Nongyeshui, Xianzhen Zenme Ban?” (Agricultural Taxes Rescinded, What Will Township Governments Do?) *People’s Daily*, March 24, p.6.
- Sah, Raaj. and Stightz Josef. (1987). “The taxation and pricing of agricultural and industrial goods in developing countries.” In D.M.G. Newbery and N.H. Stem, eds., *The theory of taxation for developing countries*. New York: Oxford University Press and World Bank.
- Shen, Minggao, Scott Rozelle and Linxiu Zhang. (2005). “Farmer’s Professional Associations in Rural China: State Dominated or New State-Society Partnerships,” *Forum for Economic Development, Working Paper series*, No. FE20050013. Available on the website: <http://www.fed.org.cn/paperdownload.asp?paperid=13>.
- Shue, Vivienne. (1994). “State Power and Social Organization.” In Joel Migdal, Atul Kohli and Vivienne Shue (eds.), *State Power and Social Forces: Domination and Transformation*. Cambridge: Cambridge University Press, pp. 65-88.
- State Council. (2000). “State Council’s Notice on Implementing Pilot Programs of Rural Tax Reform.” Policy Document No. 7 State Council’s Office 2000.
- State Council. (2002). “State Council’s Notice on Improving the Rural Tax Reform Policies in 2002.” Policy Document No. 25 State Council’s Office 2002.
- State Council. (2003). “State Council’s Notice on Extending Rural Tax Reform.” Policy Document No. 12 State Council’s Office 2003.
- State Council. (2004). “State Council’s Notice on Deeping the Rural Tax Reform Policies in 2004.” Policy Document No. 21 State Council’s Office 2004.
- Sun Yingwei. (2004). “Zhongguo Zui Da ‘Liang Cang’ Heilongjiang Jinnian Qi Mianzheng Nongye Shui” (Heilongjiang, China’s Largest Grain Storehouse, Will Remove Agricultural Tax Starting This Year). *People’s Daily*, March 27.
- Thornton, Patricia M. (2004). “Comrades and Collectives in Arms: Tax Resistance, Evasion, and Avoidance Strategies in Post-Mao China.” Pp. 87-104 in *State and Society in 21st-century China: Crisis, Contention, and Legitimation*, edited by Peter Hays Gries and Stanley Rosen, New York and London: Routledge Curzon.
- Tsai, L.L. (2002). “Cadres, Temple and Lineage Institutions, and Governance in Rural China”. *The China Journal*, 48, 1-27.
- Tsai, L.L. (2007). “Solidarity Groups, Informal Accountability, and Local Public Goods Provision in Rural China”. *The American Political Science Review*, 101 (2), 355-372.
- Wong, Christine. (2000). "Central-local Relations Revisited: The 1994 Tax Sharing Reform and Public Expenditure Management in China." *China Perspective*, Number 31, September – October.
- World Bank. (2002). *China National Development and Sub-national Finance: A Review of Provincial Expenditures*. The World Bank, Washington.
- Xiang Jiquan. (2003).“Rural Tax Reform and Institutional Changes in China’s Local Governance.” *Chinese Social Science Review* Vol2.
- Xinhua News Agency. (2005). “Scrapping of Agricultural Tax Relieves Farmers of Big Burden.”

January 19. Retrieved October 1, 2005 (http://www.chinadaily.com.cn/english/doc/2005-01/19/content_410314.htm).

- Yang , Dali. (1996). *Calamity and Reform in China: Rural Society and Institutional Change since the Great Leap Famine*. Stanford: Stanford University Press.
- Yan Ruizhen et al (1988) A Study on China's Industrial-agricultural Price Scissors (Zhongguo Gongnong chanpin jiage jiandaocha) People's University Press, Beijing China.
- Yep, Ray. (2004). "Can 'Tax-for-Fee' Reform Reduce Rural Tension in China? The Process, Progress and Limitations." *The China Quarterly* 177: 42-70.
- Zhang Xiaoshan. (2005). "An Preliminary Analysis of China's Rural Governance Reform" (Jianxi zhongguo xiangcun zhili jiegou de gaige) *Management World* Vol.5 2005
- Zhao Shukai, (2005) "Township Reform: Reflections and Perspectives—A Survey on twenty townships across 20 Provinces in China". (Xiangzhen Gaige: Jiantao yu Zhanwang—Shisheng Ershi Xiangzhen Diaocha), Research Report, Development Research Centre, State Council
- Zhu Gang and Jia Kang. (2006). *Theoretical Analysis and Practices in China's Rural Public Finance*. Shanxi Economic Press.

Figure 1. Changes in China's Rural Governance Structure

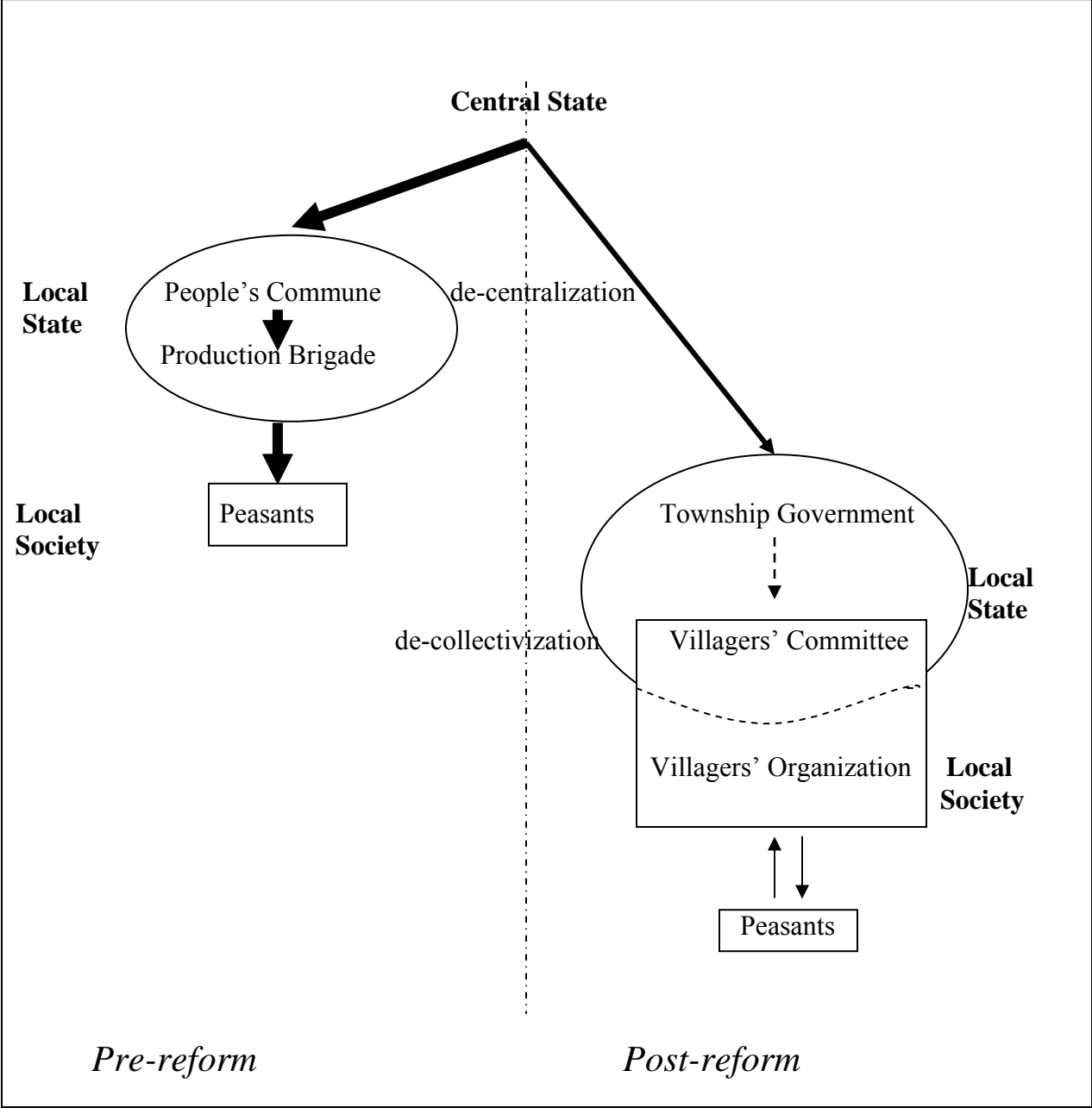


Table 1. Rural Tax Reform in China, 2000-

Tax burdens by farmers before the reform	Tax burdens by farmers since the reform	
	Phase I: 2000-2004 <i>Tax-for-Fee</i>	Phase II: 2004- <i>AT Termination</i>
Agricultural tax (AT) (5%)	7%	0
Five pooling funds	Termination	0
Three levies	Supplement (20% of AT)	0
Compulsory labor	Termination	0
Fees and fundraisings	Termination	0
Administrative fees	No “unreasonable” fees	No “unreasonable” fees

Note: 1. These are policy objectives not reality.

2. Yishi Yiyi funds are not included in this table.

Table 2. Per Capita Tax Burdens before and after the Rural Tax Reform

	Per capita tax			Tax structure			Tax rate		
	2000	2004	Changes	2000	2004	change	2000	2004	Change
	Yuan		%	%		%	%		%
Total tax burdens	145	67	-54	100	100		6.9	2.5	-64
Taxation with central permission	103	27	-73	71	41	-30	4.9	1.0	-79
Agricultural tax and supplement	63	17	-73	61	63	2			
Township and village levies	32	4	-86	31	16	-15			
Compulsory labor	8	6	-30	8	21	13			
Taxation beyond central permission	42	39	-7	29	59	30	2.0	1.5	-27
Various fundraising	15	15	-2	36	38	2			
Administrative fees	27	24	-9	64	62	-2			

Note: 1. Tax rates are calculated by dividing the farmers' tax burdens per capita by farmers' incomes per capita.
2. Provincial CPIs from 2000 to 2004 are used to control for price changes.

Data source: authors' 2005 survey.

Table 3. Farmers' Tax Burdens by Province: 2000 and 2004

	Tax per capita					
	Total tax burdens		Taxation with central permission		Taxation beyond central permission	
	Level	Share of income	Level	Share of income	Level	Share of income
	Yuan	%	Yuan	%	Yuan	%
	2000					
Jiangsu	191	6.4	147	4.9	44	1.5
Sichuan	138	7.3	96	5.1	42	2.2
Shannxi	74	8.7	56	6.5	18	2.1
Jilin	214	12.1	157	8.8	57	3.2
Hebei	161	9.8	121	7.4	40	2.5
Fujian	78	2.4	32	1.0	45	1.4
	2004					
Jiangsu	136	3.3	82	2.0	54	1.3
Sichuan	59	2.7	29	1.3	30	1.4
Shannxi	22	2.3	9	0.9	13	1.4
Jilin	44	1.7	1	0.1	43	1.6
Hebei	88	4.1	43	2.0	45	2.1
Fujian	47	1.5	1	0.0	46	1.5

Note: provincial CPIs from 2000 to 2004 are used to control for price changes.

Data source: authors' 2005 survey.

	per capita overall taxation		taxation with central permission		taxation beyond central permission	
	OLS	IV	OLS	IV	OLS	IV
Key independent variables						
Tax reform dummy	-79.965	-75.928	-73.385	-71.139	-6.577	-4.787
1=after 0=before	(10.16)***	(6.18)***	(11.39)***	(9.62)***	(1.56)	(0.65)
Tax resist	-0.385	-5.506	0.181	-1.775	-0.566	-3.731
%	(1.51)	(2.01)**	(0.82)	(1.01)	(3.47)***	(1.91)*
In forg	-0.322	-2.296	-0.043	-0.267	-0.279	-2.028
%	(1.47)	(1.64)	(0.24)	(0.32)	(2.27)**	(2.01)**
Control variables						
Per capita arable land	97.589	119.199	141.658	143.368	-44.126	-24.229
	(1.30)	(1.25)	(2.42)**	(2.36)**	(1.28)	(0.47)
Village size	0.002	0.012	0.006	0.008	-0.004	0.004
	(0.39)	(1.41)	(1.48)	(1.43)	(1.46)	(0.66)
Village labor share	0.385	-0.640	0.529	0.138	-0.144	-0.777
	(1.03)	(0.80)	(1.63)	(0.27)	(0.73)	(1.54)
Share of level land	0.326	0.527	0.257	0.323	0.069	0.204
%	(2.32)**	(2.38)**	(2.37)**	(2.44)**	(0.98)	(1.41)
Distance to township	3.226	1.296	2.112	1.482	1.115	-0.185
yuan)	(3.04)***	(0.77)	(2.65)***	(1.35)	(1.76)*	(0.17)
Village per capita income	0.001	-0.001	-0.003	-0.005	0.005	0.004
yuan)	(0.26)	(0.12)	(0.83)	(1.03)	(1.94)*	(1.01)
Village enterprise profit per	-0.127	-0.117	-0.138	-0.133	0.011	0.015
yuan)	(1.87)*	(1.49)	(3.18)***	(2.91)***	(0.24)	(0.28)
County GDP per capita	0.000	-0.001	-0.000	-0.001	0.001	0.000
yuan)	(0.18)	(0.57)	(0.32)	(0.84)	(0.92)	(0.02)
Provincial dummies						
Shichuan	-38.682	56.832	-47.427	-14.003	8.777	70.851
	(1.99)**	(1.06)	(3.16)***	(0.41)	(0.84)	(1.95)*
Shannxi	-95.089	-51.083	-78.500	-68.846	-16.562	17.784
	(4.81)***	(1.49)	(5.24)***	(3.15)***	(1.79)*	(0.83)
Jilin	-31.167	-0.946	-50.272	-40.964	19.126	40.035
	(1.70)*	(0.03)	(3.23)***	(1.99)**	(1.91)*	(2.73)***
Hebei	-45.794	-20.433	-49.468	-42.141	3.689	21.719
	(2.85)***	(0.85)	(3.62)***	(2.40)**	(0.47)	(1.63)
Fujian	-73.015	-2.658	-81.253	-61.468	8.250	58.811
	(4.11)***	(0.07)	(5.96)***	(2.29)**	(0.92)	(2.21)**
Constant	125.186	188.979	85.430	117.521	39.743	71.431
	(3.40)***	(2.91)***	(2.90)***	(2.83)***	(2.46)**	(1.81)*
Observations	232	232	232	232	232	232
R^2	0.53		0.58		0.22	
endogeneity test(DWH χ^2 Test)		(7.55)***		(1.94)		(12.61)***
0veridentification test		(2.34)		(3.57)		(2.23)

Note : 1, robust t statistics in parentheses

2. * significant at 10%; ** significant at 5%; *** significant at 1%

Table 6 First stage IV estimation

	taxresist	infororg
No. of village political network (person)	0.255 (2.38)**	-0.268 (2.81)***
No of ancestral temple	-0.416 (0.88)	2.210 (5.25)***
Number of veterans (person)	-0.143 (1.74)*	-0.049 (0.67)
Tax reform dummy (1=after; 0=before)	0.739 (0.48)	-0.416 (0.30)
Per capita arable land (ha)	-1.262 (0.11)	5.184 (0.52)
Village size (person)	0.000 (0.40)	0.003 (3.74)***
Village labor share (%)	-0.199 (2.95)***	0.002 (0.03)
Share of level land (%)	0.032 (1.18)	0.025 (1.05)
Distance to township (km)	-0.236 (1.20)	-0.231 (1.32)
Village per capita income (yuan)	-0.001 (0.65)	0.001 (0.96)
Village enterprise profit per (yuan)	0.000 (0.01)	-0.003 (0.29)
County GDP per capita (yuan)	-0.000 (1.88)*	0.000 (1.10)
Shichuan	16.019 (4.51)***	2.096 (0.66)
Shannxi	1.852 (0.48)	10.753 (3.13)***
Jilin	5.288 (1.72)*	2.256 (0.82)
Hebei	2.281 (0.76)	2.744 (1.03)
Fujian	8.581 (2.32)**	4.475 (1.36)
Constant	18.265 (3.04)***	-9.150 (1.71)*
Observations	232	232
R²	0.29	0.39

Note :1, robust t statistics in parentheses

2. * significant at 10%; ** significant at 5%; *** significant at 1%

¹ In this paper, the local state refers to township governments and villages. For most time under this study, villages were largely part of the local state apparatus. They still are in many places.

² We use the following criteria to select village organizations that are regarded as more autonomous. 1. They are not initiated by the local party-state; 2. Local party or government officials do not participate in their decision-making processes; 3. Their leading members do not concurrently hold posts in the local party and state apparatus. In most regions, Wedding and Funeral council, Village Elders Association, and religious organizations are commonly among this list.

³ In our sample, these two variables, farmers' resistance and villagers' organization membership, are not correlated. Therefore, our results capture mostly the second effect below.

⁴ In practice, many farmers in rich areas chose to pay cash instead of compulsory labor since their opportunity costs are higher.

⁵ Before the tax reform, in many agriculture-based regions taxation under central legislation was the major revenue basis for the local state such as the village community organizations, township and county level governments. However, the rural tax reform significantly reduced local state revenue while at the same time there was a lack of upper level transfers to compensate such revenue shortfall (Zhang,2005). Some even claim that there would be "the death of townships" in many agricultural regions due to lack of local revenue after the rural tax reform (Kennedy, 2007). Apparently, township heads have an interest in maintaining a system that allows them to offer employment and associated benefits to people who have supported the party-state in the past. Under such a circumstance, local governments have incentives to levy "taxation beyond central legislation" to compensate the revenue shortfalls from the rural tax reform.

⁶ Due to the difficulties in collecting information of individual household income, our income data is the village average income. Given that our sampling of households in a village is random, the tax rate here can be viewed as the average tax burden per capita divided by corresponding average income per capita.

⁷ In another specification, we included all village organizations, both autonomous and controlled. Only self-governing organizations mattered.